革新的がん医療実用化研究事業

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がんの本態解明から革新的な医療実用化に向けた一貫したマネジメントスキームの確立研究

2024 年度

がん研究の国際動向マクロ分析報告書

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本報告書は、国立研究開発法人日本医療研究開発機構（AMED）・革新的がん医療実用化研究事業『がんの本態解明から革新的な医療実用化に向けた一貫したマネジメントスキームの確立研究』（研究代表者：濱田哲暢・国立がん研究センター）の一環として実施した解析結果を取りまとめたものである。本報告書にかかる解析と執筆は、小川俊夫（摂南大学／国立がん研究センター）と吉田輝彦（国立がん研究センター）が担当した。

本報告書に関するお問い合わせは、国立がん研究センター革新的がん研究支援室のウェブサイト「お問い合わせ」ページ（https://portal.jcrp-primo.jp/contact/）よりお願いします。

要旨

1. 全体概要

本報告書は、令和 6 年度「革新的がん医療実用化研究事業の戦略的サポートを行う機関の構築と運営」の成果の一部としてとりまとめた。本研究事業に求められるデータマイニングのうち、がん研究領域全体を包括的に俯瞰する「マクロ分析」として、統合データベース Dimensions を用いて、がん研究の国際動向を概況として把握し、がん関連の論文、研究費、臨床研究などについてマクロ面から分析し取りまとめを実施した。

２．方法

本報告書のデータ抽出は 2011～2024 年とし、分析対象は 2011～2023 年までの 13 年間とした。本報告書の分析は、分析対象期間のがん研究全般の分析と、革新がんの各領域でのテーマ選定とテーマに基づいた分析の 2 種類を実施した。それぞれの分析にあたり、Dimensions において検索式を作成し、妥当性を検討・確認したうえで該当する論文と研究費を抽出した。

分析対象の論文・研究費については、Dimensions に収載された該当する全ての論文数、引用数の年次推移を把握したうえで、国別（著者別及び研究費配分機関（FA）別）、CSO 分類別、臓器（organ site）別の分析を実施した。なお、国別分析は、論文数の多い米国、中国、英国に注目し、日本を含めた 4 か国の比較分析を実施した。研究費についても同様に実施した

3. 結果：全体分析

がん関連論文数は経年的に大きく増加傾向が見られたが、2020 年以降はその伸びは鈍化傾向が見られた。主要国別では、中国の論文数の伸びが顕著であり、ついで米国の伸びが大きく、わが国と英国については微増と推計された。CSO 分類の論文数は、CSO5 Treatment が最も多く、経年的に増加傾向が顕著であったのは、CSO4 Early Detection, Diagnosis, and Prognosis と推計された。臓器別では、乳がんの論文数が最も多く、ついで肺がん、大腸がんの順に多く、経年的には分析期間で増加が多い臓器としては、脳腫瘍、肝がん、肺がんなどと推計された。

Dimensions に収載されたがん研究費は、2011 年の 3.89 billion US$から 2023 年の 5.46 billion US$へと増加したと推計された。経年的には、がん研究費の総額は 2011 年から 2015 年まではほぼ横ばいで、2016 年から 2022 年にかけて増加傾向が見られた。国別では、分析年を通じて米国ががん研究費の 8 割弱を占めており、ついで英国、日本、中国の順と推計された。CSO 分類別の研究費額は、CSO5 Treatment の研究費が最も多く、金額・割合とも増加傾向が見られた。ついで CSO1 Biology、CSO4 Early Detection, Diagnosis, and Prognosis の順と推計された。

4. 結果：テーマ分析

（１）領域１

領域１のテーマごとの論文数・引用数はいずれも経年的に増加傾向にあり、うち近年大きく増加したと推計されたのが、Ageing、chronic inflammation and selenolytics および Genetic predisposition

to cancer development と推計された。研究費額では、Ageing、chronic inflammation and selenolytics では経年的に顕著な増加が見られた。一方で、近年横ばいと推計されたのは、Epigenetic regulation、Chromatin remodeling、Chromatin organization (or dynamics) and carcinogenesis と推計された。

（２）領域２

領域２のテーマごとの論文数・引用数については、増加傾向が見られたのは Precision prevention と Risk stratification であり、Overdiagnosis と Early diagnosis の論文数は経年的に横ばい傾向と推計された。一方で、研究費額はいずれも増加傾向にあると推計された。

（３）領域３

領域３のテーマごとの論文数･引用数はいずれも増加傾向にあり、中でも Antibody-drug conjugate (ADC)、Theranostics、CAR-T cell therapy の論文数は近年大きく増加していると推計された。研究費額については増加傾向が見られ、特に CAR-T cell therapy の研究費総額は顕著な増加傾向が見られたが、Antibody-drug conjugate (ADC)と Cancer vaccine、Middlemolecular drug discovery 研究費総額は近年横ばい傾向と推計された。

（４）領域４

領域４のテーマごとの論文数・引用数については、全体的に増加傾向が見られた。特に AI、In Vitro Diagnosis、Medical Imaging の論文数は経年的に大幅な増加が見られたが、Minimally Invasive Surgery と Radiation therapy の論文数は、経年的に横ばい傾向と推計された。研究費総額で計年的に増加していると推計されたのは AI、Medical Imaging、Minimally Invasive Surgery であり、In Vitro Diagnosis と Radiation therapy の研究費総額は、近年は横ばい傾向と推計された。

（５）領域５

領域５のテーマごとの論文数・引用数については、全体的に増加傾向が見られた。特に Breast、Managements for irAE の論文数は、近年大きく増加傾向にあると推計された。一方で、Lung と Cancer genetic counselling の論文数は経年的に横ばい傾向と推計された。研究費額では、Cancer cachexia、Cancer genetic counselling、Managements for irAE は、経年的に大きく増加傾向にあると推計された。一方で、Breast、Colon については近年の研究費総額は横ばいと推計された。

（６）領域６

領域５のテーマごとの論文数・引用数については、全体的に増加傾向が見られた。Hodgkin lymphoma、Acute Myeloid Leukemia (AML)、Elderly、Healthy Life Expectancy の論文数は経年的に増加傾向が見られた。一方で、Acute lymphocytic leukemia (ALL)、Organ Dysfunction、GIST の論文数は近年横ばい傾向と推計された。研究費総額では、近年顕著な増加傾向が見られるのが、Hodgkin lymphoma、Healthy Life Expectancy、GIST で、一方で Acute Myeloid Leukemia (AML)、Acute lymphocytic leukemia (ALL)、Elderly、Organ Dysfunction では近年横ばい傾向と推計された。

目次

1. 全体概要:背景と目的

1.1 背景

「がん研究の国際動向のマクロ分析報告書」は、令和 6 年度「革新的がん医療実用化研究事業の戦略的サポートを行う機関の構築と運営」の成果の一部としてとりまとめた。平成 29（2017）年度から 5 年間、さらに令和 4（2022）年度から令和 6 年度までの 3 年間、合計 8 年間に渡って実施した研究の最終年度の報告となる。

本報告書は、令和 6（2024）年度革新的がん医療実用化研究事業（以下、「革新がん」）一次公募採択研究開発課題「がんの本態解明から革新的な医療実用化に向けた一貫したマネジメントスキームの確立研究」の令和 6（2024）年度の成果の一部として取りまとめた。先行研究である平成 29（2017）年度採択の研究事業「革新的がん医療実用化研究事業の戦略的サポートを行う機関の構築と運営」における 2017・2019・2021 年度の報告、さらに 2022 年度のマクロ分析報告書に続き 5 回目の報告となる。

この報告書が対応する研究項目としては、研究開始時（初年度）の平成 29 年度革新的がん医療実用化研究事業公募要領（三次公募）の「④ 求められる成果」の以下の部分に含まれる：

> （イ）データマイニングシステムの開発と運用：がん分野の研究開発費の配分状況・動向や、研究開発を通じて得られた成果について国内の情報を収集、整理するとともに、海外の研究資金配分機関（もしくはそのコンソーシアム）についても同様に情報収集を行い、本事業全体の概況を国際的な視野から解析・評価するためのシステムを構築し、運用することを求めます。

近年、自然科学・人文社会科学を問わず各学術分野において、膨大な数の論文が発表され、特定の分野に絞った場合でさえ、全体像の把握は極めて困難である。また論文の他にも臨床試験、研究費配分情報、知財情報、さらには SNS を含めた様々なメディアでの報道や議論・コメントの交換等、研究に関連する多くの情報が発信されている。

我が国も客観的根拠に基づく政策の推進を目標としている。平成 30 年（2018 年）6 月 15 日閣決定の「統合イノベーション戦略」において、科学技術イノベーション関連データとして、インプット（資金・人材等動向）からアウトプット（論文、特許等)、アウトカム（経済効果、社会等動向）に至る情報を蓄積し、政策立案者及び法人運営者が簡易に分析可能とするエビデンスシステムの構築が目標とされ、令和 3 年（2021 年）6 月 18 日の統合イノベーション戦略 2021 にも継承されている。これらの情報は有効に活用することができれば、研究戦略の意思決定や新しいアイデア・発見の創出、効率的なトランスレーショナル・リサーチの推進、異分野連携など重要な成果につながると期待され、解析手法、利用方法の確立が望まれている。

革新がんサポート機関のデータマイニングチームに与えられたミッションとして、上記公募要領を基本に、より具体化された内容として平成 29（2017）年 10 月 10 日の研究開始直後に、AMED

から示された対象と目的は下記のとおりである。

対象と目的(誰にとってどのような効用を持たせるか)					留意事項
研究者(各課題)	PSPO	AMED事務局	国民	企業	
・AMED支援課題における自らの研究開発課題の位置づけを理解することができる。	・世界の研究開発動向(論文ベース)、海外の配分機関の配分動向(ICRPベース)、AMED内の他事業の配分動向、との比較を行い、事業や公募の方向性を決定するうえでの一助となる ・事業レベルでのニーズを継続的に把握し、調整費内容の最適化につなぐことができる。	・PSPOと協働して、目的を達成する。	・がん研究におけるAMEDの立ち位置を知ることができる(国際的にみてAMEDがどこに注力しているか等)	・がん研究におけるAMEDの立ち位置・支援課題の位置づけを理解し、オープンイノベーションの可能性を最大化することができる。	・AMED基盤研究事業部とのAMSを介した連携が重要

これらの目標に対して、平成 29 年度はまず、国際的に定評のあるシンクタンクによるがん研究の国際動向に関する調査法やその報告書の形式などを把握するため、クラリベイト・アナリティクス社に「データマイニングの手法を活用したがん研究開発動向調査」を委託した。革新がん全 6 領域について、担当 PO が注目するキーワードに対して、同社が主要国の特許分析・論文分析・医薬品分析等の開発動向調査を実施し、その報告書を研究班で一部校正・編集して AMED に提出した。また、海外の研究資金配分機関の情報収集に関しては、AMED が平成 30（2018）年度に ICRP に参加するための支援を行った。加えて、英国 ICRP 事務局や米国 NIH/NCI との大小の協議（訪問調査を含む）を重ね、革新がん研究事業では初めての取組である「データマイニング」なるもののあり方・コンセプトについて、試行的・実証的に検討を進めた。

検討の結果、次項「目的」に記載するように「マクロ分析」と「ミクロ分析」の 2 つの調査の概念を整理した。国際的ながん研究の動向を大づかみに把握する「マクロ分析」については約 2 年に一度の報告となり、2 回目の報告書を令和元年度（2019 年度）、3 回目の報告書を令和 3 年度（2021 年度）に取りまとめた。また、2022 年度には「マクロ分析」の手法を活用し、がん研究推進 10 カ年戦略の成果検証を目的として実施した 4 回目の分析を実施し報告書として取りまとめた。これらの報告書のうち 2 回目以降の報告書の作成においては、調査の内製化を図り、文献・研究費・知財・臨床試験等の統合データベースである Dimensions（UberResearch 社、現 DigitalScience 社）を用いて分析を行った。

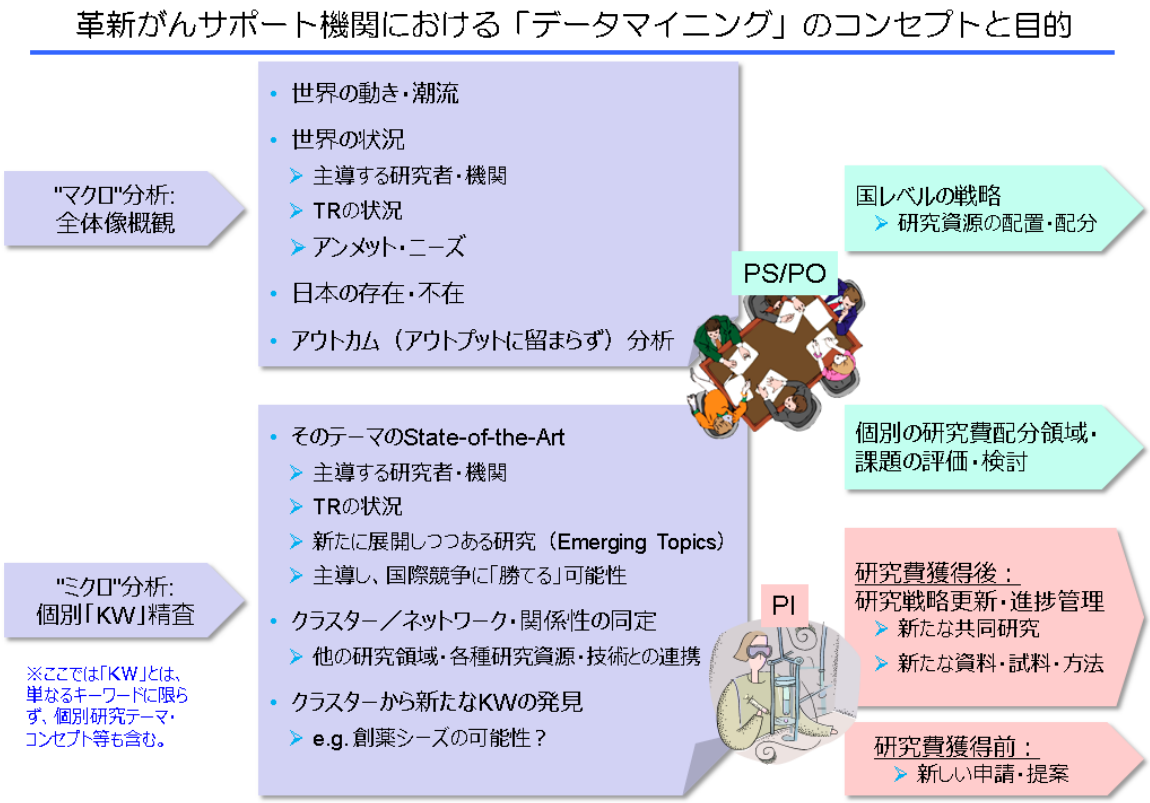
本報告書は PRIMO として 5 回目のマクロ分析報告書となる。

1.2 目的

本研究事業に求められるデータマイニングは、がん研究領域全体を包括的に俯瞰する「マクロ分析」と、PS/PO 等から与えられる個別の「テーマ」（キーワード）に焦点を当てて調査を行う「ミクロ分析」に大別されると整理した。前者は初年度クラリベイト・アナリティクス社に委託した調査に該当し、革新がんの各領域の PO からその領域を捕捉するためのテーマの指定を受け、そのテーマに関して基本的に定点・定時観測的に当該領域を概観する。また、全世界のがん研究費の動向についても、定点・定時観測的に概観することも目的である。

それに対して「ミクロ分析」は、より特定された研究テーマ・領域・技術等に対して調査・解析を行う。ミクロ分析の目的に応じて、そのテーマに関して文献等を深掘りしてミニレビューを提供したり、あるいはそのテーマを足がかりとして、それにつながる、あるは今後つながる可能性

のある周辺領域や技術を見出す場合もある。例えば、「ミクロ分析」の定式化において当初注目した、そのテーマの今後の顕著な展開を見通す「Emerging Topics Analysis」などが挙げられる。



本報告書は、「革新的がん医療実用化研究事業の戦略的サポートを行う機関の構築と運営」の研究において導入した統合データベース Dimensions を用いて、がん関連の論文、研究費、臨床研究などについてマクロ面から分析した 2019、2021 年度報告書と同様の内容とし、2024 年度版に相当する。本報告書の取りまとめにおいては、基本的に 2021 年度版と同様の構成とし、がん研究費の全体分析と、テーマ分析から構成される。テーマ分析の実施にあたり、2024 年度にあらためて領域ごとのテーマ選定を行なったうえで、データ抽出と分析を実施した。

2. 分析概要

2.1. Dimensions とは

2014 年に UberResearch 社（現 Digital Science 社）が開発・発表した Dimensions は、研究費を中心に、文献・特許・臨床試験の情報を統合したデータベースであり、その発表から現在に至るまでに、米国 NIH をはじめ、欧米の研究費配分機関（Funding Agency、FA）を中心に、学術出版社や政府機関、研究機関などへも導入が進み、米国 NIH、NSF、英国 Welcome Trust、ICRP（International Cancer Research Partnership）、Nature 誌、MIT Press、スタンフォード大学、ペンシルベニア大学など、導入が de facto スタンダードと言えるほど普及しているデータベースである。

Dimensions には，2024 年 12 月時点で論文や書籍など約 1.3 億件の出版物の情報，約 1.5 億件の特許情報，約 600 万件の研究助成情報，約 76 万件の臨床試験の情報が収載されている。重要な特長としては、それらの膨大なコンテンツ間の関係性を、Dimensions 独自のアルゴリズムを用いて解析し、それぞれのコンテンツ間にリンクが貼られている「統合データベース」である点が挙げられる。対象となる研究領域は、医学系のみならず、工学系や社会科学系、理学系など全領域となっている。

Dimensions からのデータ抽出と分析にあたっては、以下のようないくつかの重要な留意点が存在する。

（i）Dimensions に収載されている論文は、主として以下の論文 DB より抽出されたものである。

PubMed、UGC Journal List Group I、UGC Journal List Group II、ERA 2018、ERA 2015、Norwegian register level 0、Norwegian register level 1、Norwegian register level 2、VABB-SHW、DOAJ、ERIH PLUS、Nature Index journals、SciELO、China Journal Initiative A、China Journal Initiative B、China Journal Initiative C

（ii）抽出した論文の一部は、Preprint など重複の可能性がある。また、複数の論文 DB が用いられているため、論文 DB 間での重複の可能性もある。

（iii）Dimensions は日々変化しており、その収載開始時期が異なるため、経年比較を行う場合に注意が必要である。そのため、本報告書では断面的な比較や割合の変化に着目した分析を中心に実施し、絶対額や網羅性・悉皆性が鍵となる分析は基本的には避けて実施した。

特に、Dimensions は全世界のがん研究費を最も多く収載しているデータベースであるが、収載されていない研究費もある。わが国の研究費情報としては、現時点では AMED 研究費、JSPS 研究費に加えて近年には厚労科研費なども収載されているが、わが国の公的研究費が全て網羅されている訳ではない点には注意が必要である。この悉皆性の課題については、わが国のみならず多くの国において共通の課題と考えられる。

（iv）Dimensions には DigitalScience 社が収集したデータが収載されている。全世界に存在する様々な論文、知財、研究費データベースの中でも網羅性に優れたデータベースであるものの、分析対

象時点で収載されていない情報も存在する。したがって、本報告書で実施した分析は、あくまでDimensions に収載された情報に基づいたものである点に注意が必要である。特に、網羅性と登録の即時性に優れたデータベースが比較的整備されている文献・臨床試験・知財の情報に比べて、はるかに難易度が高いのが世界の研究費の情報の収集である。

世界の研究費配分機関（FA）により、少なくとも下記のバラツキがある：① 各国は異なる通貨を使っている。② 複数年度にわたる研究費の場合、初年度に総額を提示する FA と、年度毎の額を計上している FA がある。研究費の種類も、ある一日の学会を支援するものから、何年にもわたって研究機関の運営を支援する基盤経費的研究費もある。③ FA の情報公開は基本的に FA の事情や努力に依存しており、様々なラグタイムがある。④ データベースへの FA の新規登録もあれば、FA の統廃合やがん研究からの撤退などもある。

すなわち、文献や臨床研究のみならず、世界の研究費の情報も含めて、それらのデータを互いに関連付け、世界的な動向の全体像を把握することは、そのために必要な情報基盤が整備されていないという点で、現時点では極めて挑戦的な試みと言える。これが「マクロ分析」が置かれている世界の現状であることが、本研究の中で最も強く認識した点の一つである。

しかしながら冒頭の「背景」で述べた我が国の統合イノベーション戦略を持ち出すまでもなく、世界が必要としているデータとそのマイニングであることは疑いがなく、「マクロ分析」は、今後ますます注目されることが予想される発展途上の取り組みである。そのような中でも、Dimensions は現時点で、規模と網羅性において最も優れたデータベースとして多くの FA に使用されているが、Dimensions 自体が持続的に進化・拡大していることから、そのデータも短い期間でダイナミックに変化しつつある。特に研究費や臨床試験については、上述のように、国内外に未収録のデータが多く存在すると考えられ、その割合も年次によっても異なる可能性もある。

マクロ解析の結果とその解釈については、このような現状で入手可能なデータの限界と特性を踏まえた上で、あくまでもがん研究の国際動向を、概況として大づかみに把握することが主眼となることを御理解いただくことが必要と考えている。

2.2 本報告書における Dimensions を用いたデータ抽出と解析

2.2.1 分析対象年

Dimensions からのデータ抽出は、2024 年 10 月及び 11 月に実施した。本報告書のデータ抽出は 2011～2024 年としたが、2024 年データは論文、引用、研究費などの各種情報の収載が完了していないと考えられることから、分析対象は 2011～2023 年までの 13 年間とした。

2.2.2 がん関連データの特定

Dimensions には自然科学関連の論文や研究費情報が収載されているため、がん関連の情報を抽出する必要がある。そのため、過年度報告書において、DigitalScience 社の協力も得て、がん関連情報抽出のための検索式を作成した。本報告書で用いた 2024 年時点で Dimensions において稼働可

能な検索式は以下である。なお、以下の検索式は過去の報告書の検索式とは異なった構文となっているが、これは Dimensions の仕様変更に伴うものであり、基本的なロジックは前回までの報告書と同様である。

(cancer OR neoplasm OR tumor OR tumour OR carcinoma) AND (for_2020_2022:80054 OR hrcs_hc=911 OR rcdc=503)

分析対象となるがん関連の論文数は、2024 年 12月時点で約 183 万篇、Grant 数は約 12 万、臨床試験数は約 7 万件であった。

2.2.3 分析テーマに基づいたデータの特定

本報告書では、革新がんの各領域担当 PO にあらためて各領域で分析対象とするテーマ（いわゆるキーワード）を見直し、必要に応じて入れ替え・追加をしていただいた。2024 年度の分析用テーマは領域ごとの結果の冒頭に一覧として掲示した。なお、分析テーマに該当するデータ抽出にあたり、上記のがん関連データ抽出用の検索式に加え、分析テーマの抽出に用いる検索式を用いることで、より精度の高い検索を試みた。

各領域ごとに提示されたテーマに関する論文や臨床試験情報を Dimensions から抽出する際には、適切な検索式の構築が不可欠である。2019 年度および 2021 年度報告書と同様に、一定の専門性を持つ当研究事業の研究分担者等の協力を得て、各領域の PRIMO プロジェクトマネジャー（PM）が検索式（案）の評価を行った。具体的には、検索式により抽出された論文のタイトル・アブストラクト等の目視確認を行うことにより、陽性的中率を評価し、70%以上の的中率を示すことを合格基準とした。

これらの分析用テーマの抽出および妥当性の検討は、2024 年 10 月及び 11 月に実施した。2017 年度の初回の報告書以来の、PO から提示されたマクロ分析の革新がん領域別テーマ（キーワード）の数は以下の通りである。

・2017 年度報告書（クラリベイト・アナリティクス社に委託）・・・33 件
・2019 年度報告書（Dimensions 使用）・・・42 件
・2021 年度報告書（Dimensions 使用）・・・51 件
・2022 年度報告書（Dimensions 使用）・・・11 件（がん研究推進 10 カ年戦略分析）
・2024 年度報告書（Dimensions 使用）・・・33 件

本報告書におけるテーマ一覧と、該当する論文数、研究費数は以下の通りである。

テーマ		論文数	研究費数
領域1 がんの本態解明に関する研究	0101 Ageing、chronic inflammation and selenolytics	569	165
	0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)	6,745	1,622
	0103 Chromatin remodeling	5,298	1,041
	0104 Genetic predisposition to cancer development	35,853	480
	0105 Precision medicine	215,947	27,290
	0106 Chromatin organization (or dynamics) and carcinogenesis	72,545	8,163
領域2 がんの予防法や早期発見手法に関する研究	0201 Overdiagnosis	1,294	89
	0202 Risk stratification	1,626	112
	0203 Early diagnosis	227	61
	0204 Precision prevention	13,274	3,413
領域3 アンメットメディカルニーズに答える新規薬剤開発に関する	0301 Antibody-drug conjugate (ADC)	12,380	785
	0302 Theranostics	14,467	1,467
	0303 Cancer vaccine	12,263	921
	0304 Middlemolecular drug discovery	24,963	3,695
	0305 CAR-T cell therapy	244,163	24,573
領域4 患者に優しい新規医療技術開発に関する研究	0401 AI	90,909	6,387
	0402 In Vitro Diagnosis	923	238
	0403 Minimally Invasive Surgery	11,422	279
	0404 Radiation therapy	36,653	798
	0405 Medical Imaging	8,035	1,269
領域5 新たな標準治療を創るための研究	0501 Breast	113,411	6,851
	0502 Lung	151,074	10,750
	0503 Colon	114,547	8,195
	0504 Cancer cachexia	6,255	880
	0505 Cancer genetic counseling	904	68
	0506 Managements for irAE	8,175	278
領域6 ライフステージやがんの特定に着目した重点研究	0601 Hodgkin lymphoma	903	52
	0602 Acute Myeloid Leukemia (AML)	60,372	4,691
	0603 Acute lymphocytic leukemia (ALL)	1,943	236
	0604 Eldery	76,385	4,140
	0605 Organ Difunctuion	6,324	407
	0606 Healthy Life Respectancy	120	92
	0607 GIST	14,224	277

2.2.4 データ抽出

上記の手法で Dimensions から分析対象のデータの抽出を行った。過年度の報告書では、データの抽出に加えてデータ分析を Dimensions の豊富な分析機能を用いて実施したが、以下のような課題があることが明らかになった。

- ✓ Dimensions にはデータ分析機能が実装されており、さまざまなクロス集計を用いた分析が可能となっているが、いくつかの注意点がある。
  - ➢ 論文数・引用数を集計する際に共著者も全て 1 人として計上するため、国別や各種分類別の集計を行う場合は一つのデータから複数回計上されるため、集計結果は過大推計となる。
  - ➢ Dimensions に収載された論文や研究費には、対象となる臓器別や後述する CSO 分類情報が付与されているが、論文や研究費に複数のコードが付与されている場合がある。臓器別や CSO 分類別の集計を行う際に、Dimensions ではこれらのコードごとに論文数や研究費額の集計が行われるため、過大推計となる。
  - ➢ 研究費配分が複数年度に渡る場合、初年度に全ての研究費が計上される。

- ✓ Dimensions では、抽出データのダウンロードできるデータ件数が一回あたり上限 5 万件と設定されており、大量データのダウンロードは不可能である。

本報告書では、過年度の報告書での課題を踏まえてデータ抽出手法を見直した。本報告書では、（1）全体分析、（2）テーマ別分析を実施しているが、以下の方針でデータ抽出と分析を実施した。

（1） 全体分析：抽出した分析対象データを Dimensions の分析機能を活用して分析
（2） テーマ別分析：Dimensions から分析対象データをダウンロードして分析

このようにデータ抽出と分析の手法を区分した理由は、(1)全体分析については対象となる論文・研究費の件数が多すぎるため全件ダウンロードが不可能であり、従前どおり Dimensions の分析機能を活用して分析を実施した。そのため、（1）全体分析では集計値における重複などの課題が存在する点には注意が必要である。

一方で、（2）テーマ別分析については、検索式の精度の向上を試みて対象となる論文および研究費データの絞り込みを行ったうえで、対象となるデータをすべてダウンロードして分析を実施した。対象となるデータ全件をダウンロードすることで、筆頭著者別の集計が可能となるため、上述した重複がなくなり過大推計の問題を解消できる。同様に、後述する CSO 分類や臓器別の分析においても、一論文に一つの CSO 分類や臓器を指定することが可能となり、重複がなくなり過大推計の課題を解消できる。しかしながら、主たる CSO 分類や臓器の選択ができないため、本報告書では最初に記載された項目を選んだため、その点は今後の課題である。この点において、例えば臓器別の分析（0607 GIST など）において、該当する臓器以外が部位別分析で選ばれたという例が見受けられる。これは複数の部位を対象とした研究において、抽出段階では全ての部位を対象としたものの、図表作成の段階では筆頭部位を対象としたためであり、本手法の限界である。

2.2.5 データ分析

分析対象の論文については、Dimensions に収載された該当する全ての論文数、引用数の年次推移を把握したうえで、国別（著者別及び研究費配分機関（FA）別）、CSO 分類別、臓器（organ site）別の分析を実施した。国別分析は、論文数の多い米国、中国、英国に注目し、日本を含めた 4 か国の比較分析を実施した。また、FA 別分析及び部位別分析において、本報告書の図表において「上位 5FA」「上位 5 部位」との記載があるが、実際には上位 10FA、上位 10 部位を記載した。

CSO 分類とは、がん研究費の適切な配分を実現するために、2000 年に米国国立がん研究所（NCI）において開発された、がん研究の目的別分類体系である。この CSO 分類は、先進諸国の FA によって組織された国際がん研究パートナーシップ（International Cancer Research Partnership、以下 ICRP）を通じ、米国のみならず英国や仏国等の主要 FA において活用されている。マクロ解析の粒度を考慮し、本解析では CSO 分類のうち 1 桁目及び 2 桁目を利用した（下記）。

＜CSO コード一覧：上位２桁＞

CSO1 Biology	1.1 Normal Functioning	CSO5 Treatment	5.1 Localized Therapies - Discovery and Development
	1.2 Cancer Initiation: Alterations in Chromosomes		5.2 Localized Therapies - Clinical Applications
	1.3 Cancer Initiation: Oncogenes and Tumor Suppressor Genes		5.3 Systemic Therapies - Discovery and Development
	1.4 Cancer Progression and Metastasis		5.4 Systemic Therapies - Clinical Applications
	1.5 Resources and Infrastructure		5.5 Combinations of Localized and Systemic Therapies
CSO2 Etiology	2.1 Exogenous Factors in the Origin and Cause of Cancer		5.6 Complementary and Alternative Treatment Approaches
	2.2 Endogenous Factors in the Origin and Cause of Cancer		5.7 Resources and Infrastructure Related to Treatment and the prevention of recurrence
	2.3 Interactions of Genes and/or Genetic Polymorphisms with Exogenous and/or Endogenous Factors	CSO6 Cancer Control, Survivorship, and Outcomes Research	6.1 Patient Care and Survivorship Issues
	2.4 Resources and Infrastructure Related to Etiology		6.2 Surveillance
CSO3 Prevention	3.1 Interventions to Prevent Cancer: Personal Behaviors That Affect Cancer Risk		6.3 Behavior
	3.2 Nutritional Science in Cancer Prevention		6.4 Cost Analyses and Health Care Delivery
	3.3 Chemoprevention		6.5 Education and Communication
	3.4 Vaccines		6.6 End-of-Life Care
	3.5 Complementary and Alternative Prevention Approaches		6.7 Research on Ethics and Confidentiality
	3.6 Resources and Infrastructure Related to Prevention		6.9 Resources and Infrastructure Related to Cancer Control, Survivorship, and Outcomes Research
CSO4 Early Detection, Diagnosis, and Prognosis	4.1 Technology Development and/or Marker Discovery		
	4.2 Technology and/or Marker Evaluation With Respect to Fundamental Parameters of Method		
	4.3 Technology and/or Marker Testing in a Clinical Setting		
	4.4 Resources and Infrastructure Related to Detection, Diagnosis, or Prognosis		

また、参考として、上位 10 本の論文リストを別添資料として提出した。なお、論文リストの各項目において、Dimensions 上で情報が欠損している場合（例えば、著者名などの情報が欠損している場合)、本報告書の各表では空欄あるいは「0」と表示されることに留意されたい。

本報告書では、論文・引用と同様に、研究費分析を実施した。研究費分析においては、論文と同じ検索式を用いて、2011～2023 年の 13 年間に拠出された研究費について、分析対象年毎の合計値を算出し、CSO 分類別と臓器（organ site）別の分析を行った。なお、分析結果の各項目において、図表の要点を把握するためのコメントを記載しているが、これらはあくまでも研究班内での考察・推察・意見として参考にされることを想定している。

なお、論文分析において、Citation が上位に来やすい総説（review article）を含めるかどうかは議論が分かれるところである。研究班で議論を重ねた結果、総説が盛んに書かれ、引用されるという点もその領域の活性を示すとの考えに基づき、検索式の構築・評価や、データのグラフ化等においては、総説も含めて解析を行った。今年度の分析は、2019 年度及び 2021 年度報告書の方針を踏襲している。

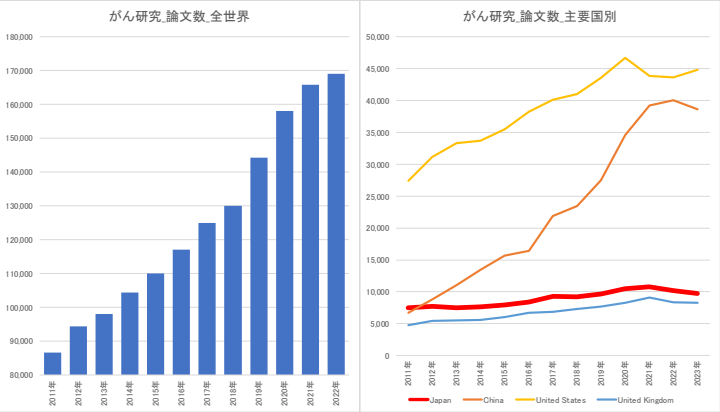
3. 全体分析

3.1. 世界のがん研究の推移

Dimensions から 2024 年 11 月に抽出した分析対象のがん関連の論文・研究費・知財・臨床研究の集計数は以下のとおりである。

	PUBLICATIONS	DATASETS	GRANTS	PATENTS	CLINICAL TRIALS
2011～2023年がん関連	1,831,808	88,104	123,946	305,815	76,892

がん関連論文数は経年的に大きく増加傾向が見られたが、2020 年以降はその伸びが鈍化傾向が見られた。この論文数の伸びの鈍化は、COVID-19 の影響による可能性もあり、今後精査が必要である。主要国別のがん論文数は、中国の論文数の伸びが顕著であり、ついで米国の伸びが大きく、わが国と英国については微増と推計された。なお、2020 年以降のがん論文数は、主要各国において横ばいあるいはやや減少傾向が見られた。

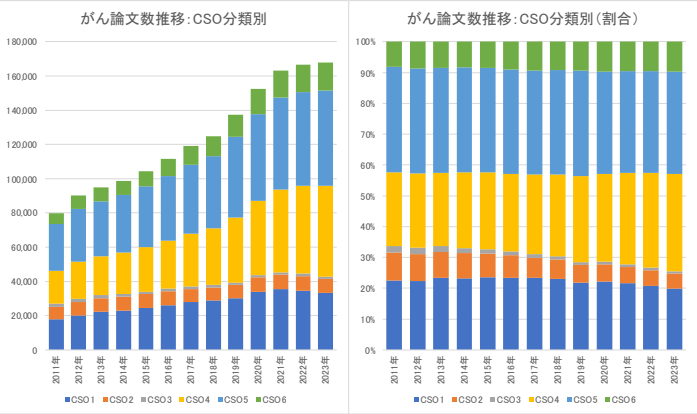


	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	合計	割合
United States	27,384	31,154	33,276	33,654	35,498	38,237	40,129	41,033	43,541	46,653	43,871	43,637	44,824	502,891	30.0%
China	6,686	8,800	11,080	13,406	15,673	16,388	21,880	23,423	27,496	34,547	39,196	40,066	38,577	297,218	17.8%
Japan	7,489	7,688	7,507	7,646	7,970	8,400	9,297	9,198	9,679	10,500	10,810	10,218	9,734	116,136	6.9%
United Kingdom	4,733	5,448	5,546	5,602	6,050	6,727	6,854	7,341	7,716	8,255	9,087	8,369	8,244	89,972	5.4%
Italy	4,160	5,248	5,326	5,745	6,118	6,426	6,493	6,912	7,653	8,753	8,980	8,286	8,176	88,276	5.3%
Publications (total)	86,740	94,429	98,089	104,353	110,089	117,041	124,953	129,978	144,232	157,996	165,848	169,063	171,072	1,673,883	100.0%

3.2. がん論文数の推移

分析期間中でがん論文数が最も多い CSO 分類一桁は、CSO5 Treatment、ついで CSO4 Early Detection, Diagnosis, and Prognosis と推計された。がん論文数の年次推移を CSO 分類別に見ると、CSO3 Prevention は 2011 年から 2023 年にかけて減少傾向であるが、他の CSO 分類は増加傾向にあった。増加傾向が顕著であったのは、CSO4 Early Detection, Diagnosis, and Prognosis で、2011 年から 2023 年にかけて論文数が約 2.8 倍に増加した。ついで CSO6 Cancer Control, Survivorship, and Outcomes Research が 2.5 倍に増加した。また、がん論文に占める各 CSO 分類の割合についても、CSO4 Early Detection, Diagnosis, and Prognosis の増加が顕著であり、本報告書の分析期間においては当該分野に関する研究が多い傾向が示唆された。

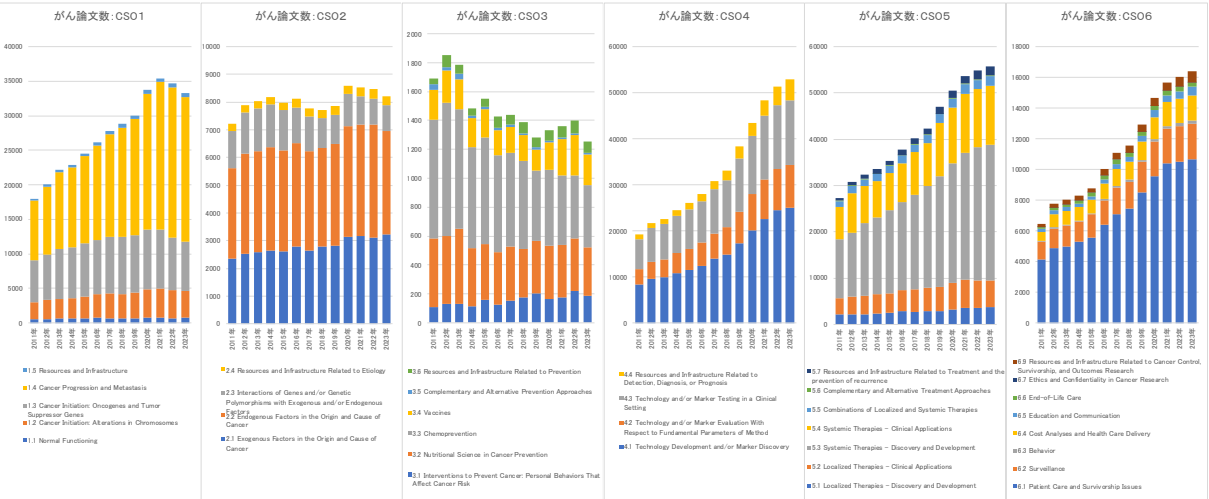
一方で、CSO1 Biology や CSO2 Etiology は前回の報告書でも増加傾向の鈍化を指摘したが、本報告書でも同様の結果となった。ただし、論文数としてはいずれも増加傾向にあるため、これら以外の分類での増加がより顕著であったためと考えられる。



	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	合計
CSO1	18,006	20,093	22,171	22,876	24,538	26,160	27,816	28,796	29,988	33,765	35,424	34,667	33,274	357,574
CSO2	7,230	7,896	8,027	8,178	7,983	8,130	7,770	7,717	7,871	8,597	8,533	8,472	8,220	104,624
CSO3	1,692	1,852	1,786	1,485	1,550	1,428	1,439	1,390	1,281	1,333	1,361	1,399	1,257	19,253
CSO4	19,185	21,712	22,578	24,446	26,020	28,048	30,874	33,112	38,313	43,400	48,432	51,275	52,986	440,381
CSO5	27,375	30,830	32,289	33,531	35,424	37,795	40,229	42,293	46,982	50,549	53,723	54,837	55,800	541,657
CSO6	6,461	7,753	8,016	8,285	8,790	10,037	11,074	11,535	12,942	14,668	15,662	16,010	16,385	147,618

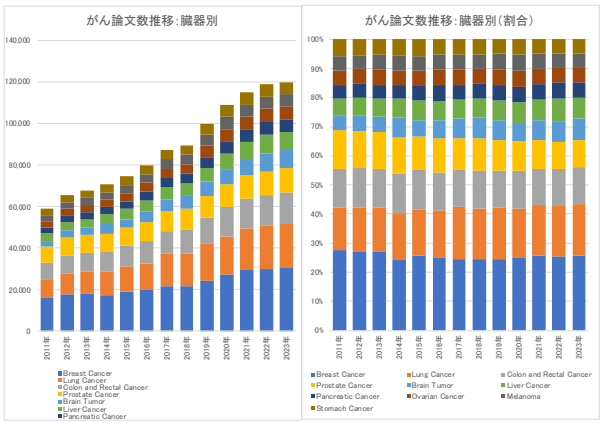
	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	合計
CSO1	22.5%	22.3%	23.4%	23.2%	23.5%	23.4%	23.3%	23.1%	21.8%	22.2%	21.7%	20.8%	19.8%	22.2%
CSO2	9.0%	8.8%	8.5%	8.3%	7.7%	7.3%	6.5%	6.2%	5.7%	5.6%	5.2%	5.1%	4.9%	6.5%
CSO3	2.1%	2.1%	1.9%	1.5%	1.5%	1.3%	1.2%	1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	1.2%
CSO4	24.0%	24.1%	23.8%	24.7%	24.9%	25.1%	25.9%	26.5%	27.9%	28.5%	29.7%	30.8%	31.6%	27.3%
CSO5	34.2%	34.2%	34.0%	33.9%	34.0%	33.9%	33.7%	33.9%	34.2%	33.2%	32.9%	32.9%	33.2%	33.6%
CSO6	8.1%	8.6%	8.4%	8.4%	8.4%	9.0%	9.3%	9.2%	9.4%	9.6%	9.6%	9.6%	9.8%	9.2%

なお、CSO の二桁分類での推移についても、以下のグラフと表を示す。



	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年
1.1 Normal Functioning	568	578	612	636	630	729	683	672	664	761	714	670	725
1.2 Cancer Initiation: Alterations in Chromosomes	2,398	2,797	2,867	2,964	3,204	3,438	3,554	3,534	3,729	4,072	4,297	4,065	3,920
1.3 Cancer Initiation: Oncogenes and Tumor Suppressor Genes	6,059	6,555	7,189	7,340	7,658	7,816	8,217	8,283	8,257	8,639	8,539	7,655	7,114
1.4 Cancer Progression and Metastasis	8,675	9,781	11,139	11,595	12,707	13,751	14,850	15,735	16,857	19,757	21,371	21,695	20,932
1.5 Resources and Infrastructure	306	382	364	341	339	426	512	572	481	536	503	582	583
2.1 Exogenous Factors in the Origin and Cause of Cancer	2,352	2,536	2,576	2,651	2,620	2,779	2,656	2,777	2,825	3,149	3,164	3,105	3,220
2.2 Endogenous Factors in the Origin and Cause of Cancer	3,273	3,602	3,645	3,727	3,638	3,747	3,581	3,571	3,655	3,971	4,019	4,073	3,750
2.3 Interactions of Genes and/or Genetic Polymorphisms with Exogenous and/or Endogenous Factors	1,338	1,483	1,553	1,546	1,452	1,283	1,240	1,085	1,074	1,169	1,034	958	930
2.4 Resources and Infrastructure Related to Etiology	267	275	253	254	275	321	293	284	317	308	316	336	320
3.1 Interventions to Prevent Cancer: Personal Behaviors That Affect Cancer Risk	110	133	131	112	160	127	155	175	201	166	175	223	185
3.2 Nutritional Science in Cancer Prevention	473	467	520	405	382	361	374	338	364	369	363	363	340
3.3 Chemoprevention	820	922	829	699	739	669	645	607	488	525	484	436	425
3.4 Vaccines	207	222	203	198	196	174	181	181	147	188	248	279	215
3.5 Complementary and Alternative Prevention Approaches	39	26	42	19	20	19	15	11	13	14	14	10	12
3.6 Resources and Infrastructure Related to Prevention	43	82	61	52	53	78	69	78	68	71	77	88	80
4.1 Technology Development and/or Marker Discovery	8,378	9,493	9,911	10,882	11,579	12,444	13,950	14,854	17,221	20,115	22,582	24,434	24,988
4.2 Technology and/or Marker Evaluation With Respect to Fundamental Parameters of Method	3,366	3,782	3,935	4,320	4,528	5,056	5,511	5,983	6,920	7,834	8,636	9,075	9,281
4.3 Technology and/or Marker Testing in a Clinical Setting	6,464	7,316	7,604	7,985	8,488	8,968	9,565	10,084	11,522	12,601	13,738	13,787	14,067
4.4 Resources and Infrastructure Related to Detection, Diagnosis, or Prognosis	977	1,121	1,128	1,259	1,425	1,580	1,848	2,191	2,650	2,850	3,476	3,979	4,650
5.1 Localized Therapies – Discovery and Development	2,127	2,151	2,231	2,427	2,476	2,836	2,796	2,968	2,899	3,279	3,577	3,608	3,731
5.2 Localized Therapies – Clinical Applications	3,537	3,798	4,025	4,141	4,219	4,552	4,845	5,044	5,247	5,720	6,155	5,972	5,845
5.3 Systemic Therapies – Discovery and Development	12,698	13,924	15,716	16,500	18,004	19,137	20,411	21,875	23,846	25,893	27,375	28,807	29,287
5.4 Systemic Therapies – Clinical Applications	6,977	8,520	7,967	7,932	8,046	8,271	9,125	9,320	11,539	11,929	12,741	12,454	12,721
5.5 Combinations of Localized and Systemic Therapies	1,310	1,554	1,444	1,518	1,558	1,744	1,708	1,786	1,857	1,982	2,026	2,011	2,054
5.6 Complementary and Alternative Treatment Approaches	85	88	115	84	113	105	117	132	151	161	149	175	190
5.7 Resources and Infrastructure Related to Treatment and the prevention of recurrence	641	795	791	929	1,008	1,150	1,227	1,168	1,443	1,585	1,700	1,810	1,972
6.1 Patient Care and Survivorship Issues	4,116	4,871	4,997	5,273	5,583	6,425	7,102	7,458	8,484	9,559	10,394	10,492	10,649
6.2 Surveillance	1,170	1,280	1,335	1,326	1,479	1,548	1,699	1,744	1,999	2,272	2,273	2,333	2,346
6.3 Behavior	83	96	89	78	84	107	110	124	106	140	134	183	188
6.4 Cost Analyses and Health Care Delivery	560	821	875	872	869	984	1,127	1,167	1,259	1,455	1,623	1,591	1,627
6.5 Education and Communication	197	260	252	198	241	308	315	333	343	472	417	490	570
6.6 End-of-Life Care	111	176	188	231	232	232	287	250	268	231	283	290	288
6.7 Ethics and Confidentiality in Cancer Research	2	2	2	2	3	8	6	7	2	3	6	6	3
6.9 Resources and Infrastructure Related to Cancer Control, Survivorship, and Outcomes Research	222	247	278	305	299	427	428	452	481	536	532	625	714

臓器別のがん論文の推移については、臓器が特定できる論文のうち、論文数で上位の臓器 10 種類について、経年変化について分析を実施した。論文数の総計としては、乳がんが最も多く、ついで肺がん、大腸がんの順に多いと推計された。また、経年的には分析期間で増加が多い臓器としては、脳腫瘍（3,007 編→8,559 編）、肝がん（3,481 編→8,807 編）、肺がん（8,647 編→20,841 編）などと推計された。

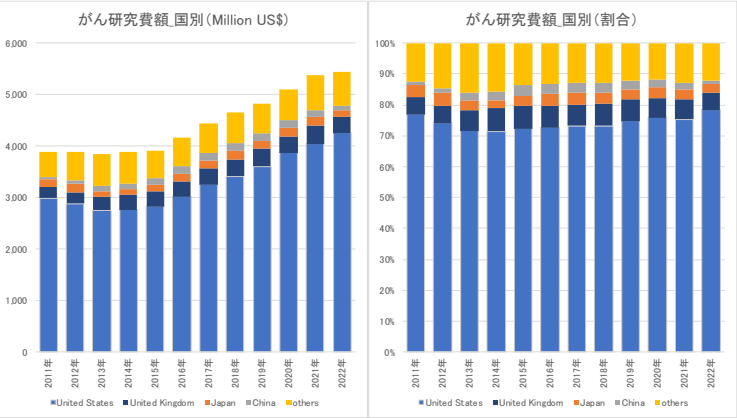


	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	合計
Breast Cancer	16,185	17,648	18,194	17,119	19,093	20,020	21,485	21,867	24,327	27,392	29,368	30,068	30,886	293,652
Lung Cancer	8,647	10,070	10,425	11,295	11,931	12,692	15,622	15,541	17,507	18,316	20,108	20,695	20,841	193,690
Colon and Rectal Cancer	7,925	8,837	9,072	9,646	10,056	10,504	10,927	11,620	12,783	14,010	14,276	14,904	15,219	149,779
Prostate Cancer	7,792	8,402	8,525	8,815	8,633	9,277	9,464	9,958	10,483	11,057	11,083	11,151	11,434	126,074
Brain Tumor	3,007	3,435	3,584	4,708	4,125	4,948	6,002	6,395	6,734	7,031	7,804	8,571	8,559	74,903
Liver Cancer	3,481	4,107	4,161	4,649	4,964	5,301	5,794	5,875	6,725	7,666	8,404	9,148	8,807	79,082
Pancreatic Cancer	2,674	3,114	3,223	3,423	3,813	4,273	4,308	4,608	5,306	5,789	6,102	6,344	6,161	59,138
Ovarian Cancer	2,999	3,287	3,586	3,514	3,909	4,303	4,482	4,415	5,447	6,023	6,025	6,161	6,048	60,199
Melanoma	2,902	3,104	3,434	3,525	3,715	4,238	4,596	4,530	5,377	6,026	5,823	5,902	6,024	59,196
Stomach Cancer	3,388	3,553	3,585	3,983	4,232	4,025	4,581	4,601	4,889	5,689	5,704	5,655	5,658	59,543

	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	合計
Breast Cancer	18.7%	18.7%	18.5%	16.4%	17.3%	17.1%	17.2%	16.8%	16.9%	17.3%	17.7%	17.8%	18.1%	17.5%
Lung Cancer	10.0%	10.7%	10.6%	10.8%	10.8%	10.8%	12.5%	12.0%	12.1%	11.6%	12.1%	12.2%	12.2%	11.6%
Colon and Rectal Cancer	9.1%	9.4%	9.2%	9.2%	9.1%	9.0%	8.7%	8.9%	8.9%	8.9%	8.6%	8.8%	8.9%	8.9%
Prostate Cancer	9.0%	8.9%	8.7%	8.4%	7.8%	7.9%	7.6%	7.7%	7.3%	7.0%	6.7%	6.6%	6.7%	7.5%
Brain Tumor	3.5%	3.6%	3.7%	4.5%	3.7%	4.2%	4.8%	4.9%	4.7%	4.5%	4.7%	5.1%	5.0%	4.5%
Liver Cancer	4.0%	4.3%	4.2%	4.5%	4.5%	4.5%	4.6%	4.5%	4.7%	4.9%	5.1%	5.4%	5.1%	4.7%
Pancreatic Cancer	3.1%	3.3%	3.3%	3.3%	3.5%	3.7%	3.4%	3.5%	3.7%	3.7%	3.7%	3.8%	3.6%	3.5%
Ovarian Cancer	3.5%	3.5%	3.7%	3.4%	3.6%	3.7%	3.6%	3.4%	3.8%	3.8%	3.6%	3.6%	3.5%	3.6%
Melanoma	3.3%	3.3%	3.5%	3.4%	3.4%	3.6%	3.7%	3.5%	3.7%	3.8%	3.5%	3.5%	3.5%	3.5%
Stomach Cancer	3.9%	3.8%	3.7%	3.8%	3.8%	3.4%	3.7%	3.5%	3.4%	3.6%	3.4%	3.3%	3.3%	3.6%

3.3. がん研究費の推移

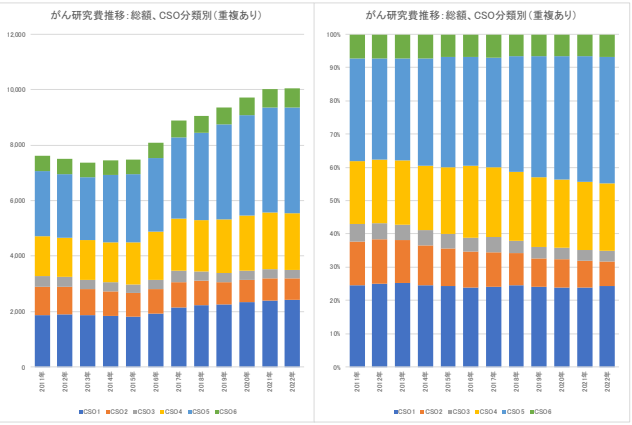
Dimensions に収載されたがん研究費は、2011 年の 3.89 billion US$から 2023 年の 5.46 billion US$へと増加したと推計された。経年的には、がん研究費の総額は 2011 年から 2015 年まではほぼ横ばいで、2016 年から 2022 年にかけて増加傾向が見られた。国別では、分析年を通じて米国ががん研究費の 8 割弱を占めており、ついで英国、日本、中国の順と推計された。



	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	総額
United States	2,990	2,880	2,750	2,770	2,830	3,020	3,250	3,410	3,610	3,870	4,040	4,250	4,340	44,010
United Kingdom	220	215	260	293	284	290	308	336	333	323	357	309	331	3,859
Japan	151	166	121	96	125	160	161	163	163	169	175	142	89	1,882
China	41	64	91	112	137	137	140	145	140	137	113	73	30	1,361
others	487	565	618	609	533	553	581	606	583	600	685	656	670	7,747
Total	3,890	3,890	3,840	3,880	3,910	4,160	4,440	4,660	4,830	5,100	5,370	5,430	5,460	58,860

	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	総額
United States	76.9%	74.0%	71.6%	71.4%	72.4%	72.6%	73.2%	73.2%	74.7%	75.9%	75.2%	78.3%	79.5%	74.8%
United Kingdom	5.7%	5.5%	6.8%	7.6%	7.3%	7.0%	6.9%	7.2%	6.9%	6.3%	6.6%	5.7%	6.1%	6.6%
Japan	3.9%	4.3%	3.1%	2.5%	3.2%	3.8%	3.6%	3.5%	3.4%	3.3%	3.3%	2.6%	1.6%	3.2%
China	1.1%	1.6%	2.4%	2.9%	3.5%	3.3%	3.1%	3.1%	2.9%	2.7%	2.1%	1.3%	0.6%	2.3%
others	12.5%	14.5%	16.1%	15.7%	13.6%	13.3%	13.1%	13.0%	12.1%	11.8%	12.8%	12.1%	12.3%	13.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

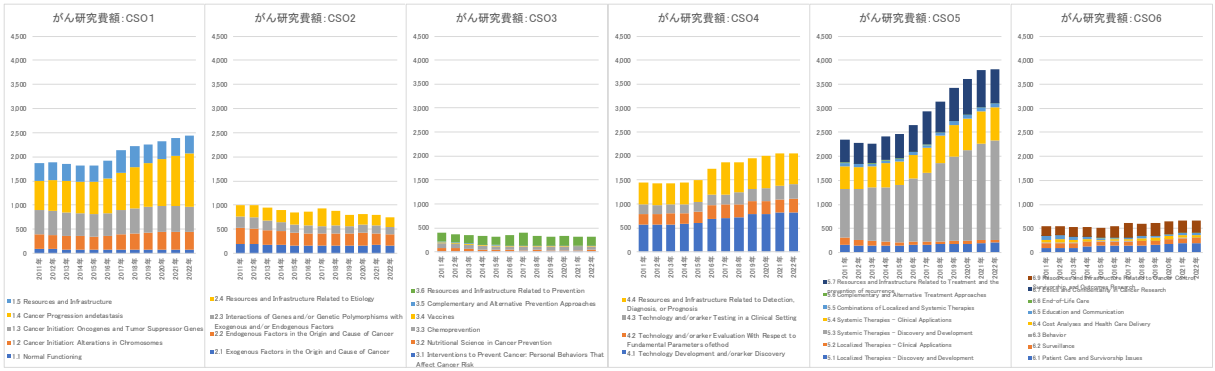
CSO 分類別では、CSO5 Treatment の研究費が最も多く、金額・割合とも増加傾向が見られた。ついで CSO1 Biology、CSO4 Early Detection, Diagnosis, and Prognosis の順に研究費額が多いと推計された。



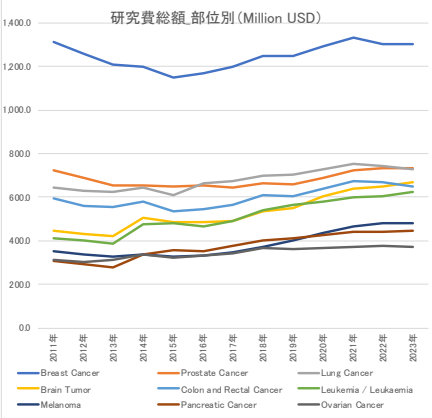
	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	総額
CSO1	1,876	1,884	1,859	1,827	1,824	1,925	2,136	2,221	2,262	2,330	2,396	2,435	2,456	27,432
CSO2	1,003	1,002	942	902	845	872	925	881	805	820	799	752	708	11,255
CSO3	392	365	346	335	312	348	405	336	324	324	320	308	291	4,406
CSO4	1,443	1,422	1,432	1,443	1,503	1,740	1,876	1,865	1,945	1,999	2,055	2,057	2,141	22,922
CSO5	2,345	2,283	2,258	2,411	2,473	2,656	2,932	3,147	3,422	3,606	3,788	3,818	3,794	38,931
CSO6	558	550	527	537	515	546	622	601	615	644	669	671	683	7,735
TOTAL	7,617	7,506	7,363	7,455	7,471	8,087	8,896	9,051	9,372	9,722	10,026	10,040	10,074	112,680

	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	総額
CSO1	24.6%	25.1%	25.2%	24.5%	24.4%	23.8%	24.0%	24.5%	24.1%	24.0%	23.9%	24.2%	24.4%	24.3%
CSO2	13.2%	13.3%	12.8%	12.1%	11.3%	10.8%	10.4%	9.7%	8.6%	8.4%	8.0%	7.5%	7.0%	10.0%
CSO3	5.1%	4.9%	4.7%	4.5%	4.2%	4.3%	4.6%	3.7%	3.5%	3.3%	3.2%	3.1%	2.9%	3.9%
CSO4	18.9%	18.9%	19.4%	19.4%	20.1%	21.5%	21.1%	20.6%	20.8%	20.6%	20.5%	20.5%	21.3%	20.3%
CSO5	30.8%	30.4%	30.7%	32.3%	33.1%	32.8%	33.0%	34.8%	36.5%	37.1%	37.8%	38.0%	37.7%	34.5%
CSO6	7.3%	7.3%	7.2%	7.2%	6.9%	6.7%	7.0%	6.6%	6.6%	6.6%	6.7%	6.7%	6.8%	6.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

がん研究費の CSO 分類二桁別の配分額の年次推移は、以下の通りである。



	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年
1.1 Normal Functioning	100	89	87	79	74	72	76	76	77	81	79	73	73
1.2 Cancer Initiation: Alterations in Chromosomes	295	289	276	277	280	289	315	340	356	370	373	377	372
1.3 Cancer Initiation: Oncogenes and Tumor Suppressor Genes	502	501	485	469	454	475	503	522	529	535	531	514	501
1.4 Cancer Progression andetastasis	604	639	656	664	681	720	780	856	910	972	1,040	1,100	1,150
1.5 Resources and Infrastructure	376	366	355	339	334	370	463	427	390	371	373	370	360
2.1 Exogenous Factors in the Origin and Cause of Cancer	198	195	181	175	168	169	166	169	158	169	172	162	159
2.2 Endogenous Factors in the Origin and Cause of Cancer	337	327	301	291	268	252	246	251	251	255	246	232	211
2.3 Interactions of Genes and/or Genetic Polymorphisms with Exogenous and/or Endogenous Fac	237	223	193	178	166	166	160	162	158	172	161	154	135
2.4 Resources and Infrastructure Related to Etiology	232	256	267	258	243	285	353	299	237	223	220	205	202
3.1 Interventions to Prevent Cancer: Personal Behaviors That Affect Cancer Risk	14	14	13	13	15	11	13	14	13	12	13	13	12
3.2 Nutritional Science in Cancer Prevention	63	57	47	37	30	28	24	24	21	20	21	24	24
3.3 Chemoprevention	97	92	88	79	75	69	69	72	72	76	75	75	61
3.4 Vaccines	25	22	20	20	16	18	19	21	20	16	11	10	9
3.5 Complementary and Alternative Prevention Approaches	13	11	7	4	3	2	1	1	1	1	1	1	1
3.6 Resources and Infrastructure Related to Prevention	180	168	171	181	173	220	279	203	197	199	198	185	185
4.1 Technology Development and/orarker Discovery	568	563	571	579	603	679	704	728	785	789	816	819	855
4.2 Technology and/orarker Evaluation With Respect to Fundamental Parameters ofethod	225	225	236	230	233	286	284	266	267	270	282	286	305
4.3 Technology and/orarker Testing in a Clinical Setting	192	186	180	173	199	225	208	241	259	270	289	303	314
4.4 Resources and Infrastructure Related to Detection, Diagnosis, or Prognosis	458	448	445	461	467	550	680	629	635	670	668	649	667
5.1 Localized Therapies – Discovery and Development	170	154	147	150	150	163	171	174	184	185	197	206	204
5.2 Localized Therapies – Clinical Applications	146	115	98	83	61	66	64	60	59	62	62	60	58
5.3 Systemic Therapies – Discovery and Development	1,010	1,050	1,110	1,130	1,190	1,320	1,430	1,620	1,760	1,880	2,010	2,070	2,130
5.4 Systemic Therapies – Clinical Applications	472	453	432	491	492	483	508	572	655	662	672	689	647
5.5 Combinations of Localized and Systemic Therapies	70	69	63	64	58	63	63	66	73	76	80	82	83
5.6 Complementary and Alternative Treatment Approaches	12	11	9	8	5	4	3	2	2	2	1	1	1
5.7 Resources and Infrastructure Related to Treatment and the prevention of recurrence	465	431	399	485	517	558	693	651	688	738	764	709	672
6.1 Patient Care and Survivorship Issues	91	93	98	132	141	145	146	149	159	183	196	202	213
6.2 Surveillance	102	104	97	97	93	92	89	92	88	95	109	109	94
6.3 Behavior	13	13	12	9	6	7	8	7	8	10	13	12	12
6.4 Cost Analyses and Health Care Delivery	64	73	62	35	32	30	40	54	57	54	48	48	63
6.5 Education and Communication	79	74	66	53	34	30	30	38	42	45	46	49	46
6.6 End-of-Life Care	2	2	2	1	2	2	1	1	1	0	1	1	1
6.7 Ethics and Confidentiality in Cancer Research	3	1	3	1	0	0	0	0	0	0	0	0	0
6.9 Resources and Infrastructure Related to Cancer Control, Survivorship, and Outcomes Researc	203	191	187	209	207	239	308	260	260	256	256	251	254



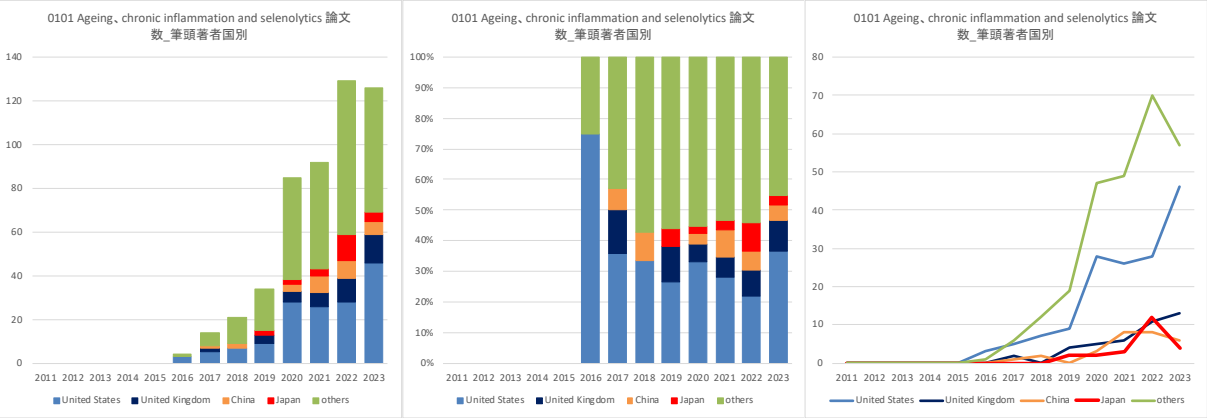
	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	総額
Breast Cancer	1,310.0	1,260.0	1,210.0	1,200.0	1,150.0	1,170.0	1,200.0	1,250.0	1,250.0	1,290.0	1,330.0	1,300.0	1,300.0	16,220
Prostate Cancer	724.0	687.7	653.5	654.9	651.0	654.8	641.8	663.2	657.7	687.7	722.8	731.9	734.9	8,866
Lung Cancer	645.6	628.6	622.1	643.1	611.2	661.4	671.2	700.5	705.8	728.9	751.6	744.3	730.2	8,844
Brain Tumor	446.4	430.9	419.2	504.8	485.6	485.2	491.8	536.5	550.3	604.2	641.3	651.3	669.2	6,916
Colon and Rectal Cancer	596.0	562.3	555.5	577.2	533.5	545.9	563.6	607.3	604.5	639.2	675.4	667.5	650.0	7,778
Leukemia / Leukaemia	413.6	400.3	385.4	476.0	482.6	467.6	488.8	539.3	565.6	579.2	600.7	603.7	623.4	6,626
Melanoma	350.4	334.9	329.5	339.4	325.0	330.0	346.4	371.5	403.5	436.1	466.6	481.4	482.5	4,997
Pancreatic Cancer	308.9	293.1	279.7	337.8	358.7	349.6	375.4	399.3	410.0	427.3	438.6	442.6	445.4	4,866
Ovarian Cancer	311.4	303.8	310.3	338.3	321.6	333.3	340.4	366.8	362.7	366.6	373.4	376.4	372.8	4,478

4. テーマ分析：領域1

4.1. 0101 Ageing、chronic inflammation and selenolytics

4.1.1. 論文数

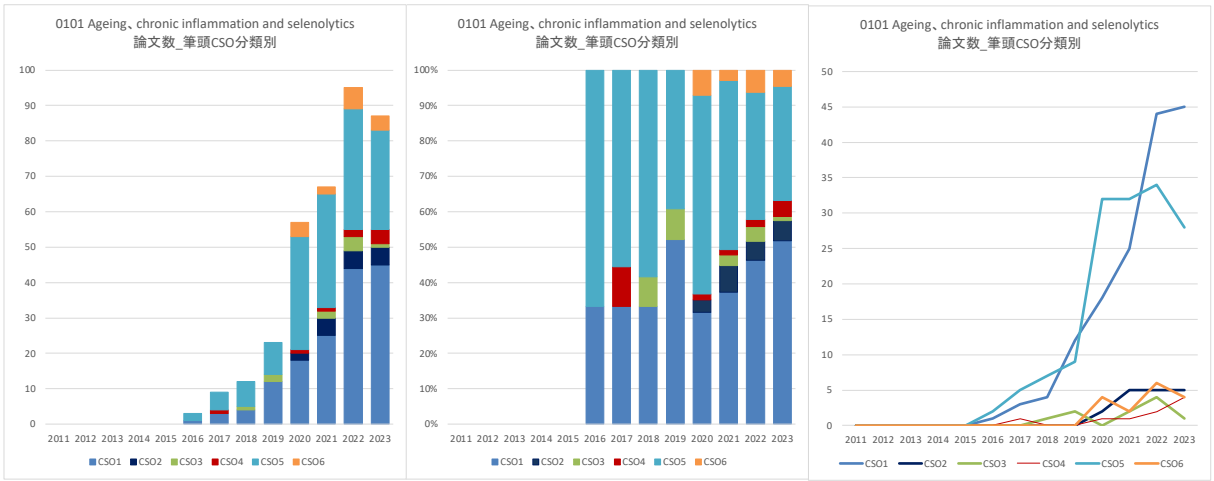
Ageing、chronic inflammation and selenolytics の論文数は 2020 年頃から大幅に増加している。筆頭著者の国別では、米国が最も多くまた論文数の伸びも大きい。ついで英国の近年の伸びが高くなっている。一方で、中国や日本は少ない結果となっている。



0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	0	0	0	0	3	5	7	9	28	26	28	46	22	174
United Kingdom	0	0	0	0	0	0	2	0	4	5	6	11	13	5	46
China	0	0	0	0	0	0	1	2	0	3	8	8	6	12	40
Japan	0	0	0	0	0	0	0	0	2	2	3	12	4	6	29
others	0	0	0	0	0	1	6	12	19	47	49	70	57	19	280
合計	0	0	0	0	0	4	14	21	34	85	92	129	126	64	569

0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States						75.0%	35.7%	33.3%	26.5%	32.9%	28.3%	21.7%	36.5%	34.4%	30.6%
United Kingdom						0.0%	14.3%	0.0%	11.8%	5.9%	6.5%	8.5%	10.3%	7.8%	8.1%
China						0.0%	7.1%	9.5%	0.0%	3.5%	8.7%	6.2%	4.8%	18.8%	7.0%
Japan						0.0%	0.0%	0.0%	5.9%	2.4%	3.3%	9.3%	3.2%	9.4%	5.1%
others						25.0%	42.9%	57.1%	55.9%	55.3%	53.3%	54.3%	45.2%	29.7%	49.2%
合計						100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

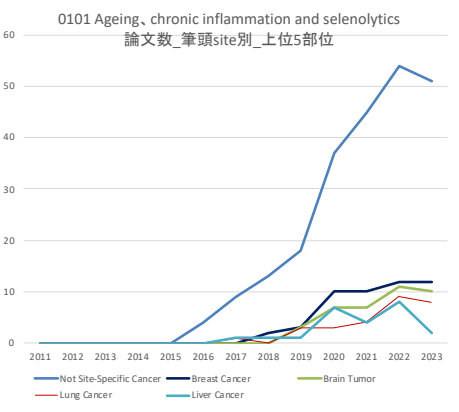
Ageing、chronic inflammation and selenolytics の CSO 分類別の論文数は、1. Biology と 5. Treatment が多く、経年的にもどちらも増加傾向が見られた。



0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	1	3	4	12	18	25	44	45	22	174
2 Etiology	0	0	0	0	0	0	0	0	0	2	5	5	5	1	18
3 Prevention	0	0	0	0	0	0	0	1	2	0	2	4	1	1	11
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	1	0	0	1	1	2	4	1	10
5 Treatment	0	0	0	0	0	2	5	7	9	32	32	34	28	22	171
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	4	2	6	4	2	18
others	0	0	0	0	0	1	5	9	11	28	25	34	39	15	167
合計	0	0	0	0	0	4	14	21	34	85	92	129	126	64	569

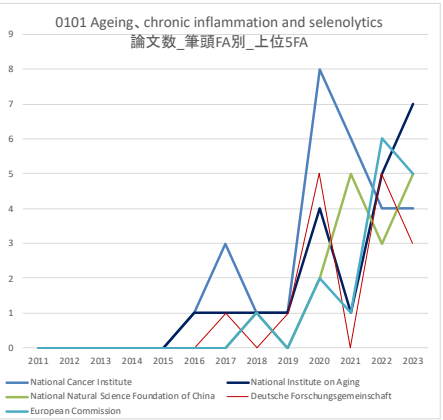
0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology						25.0%	21.4%	19.0%	35.3%	21.2%	27.2%	34.1%	35.7%	34.4%	30.6%
2 Etiology						0.0%	0.0%	0.0%	0.0%	2.4%	5.4%	3.9%	4.0%	1.6%	3.2%
3 Prevention						0.0%	0.0%	4.8%	5.9%	0.0%	2.2%	3.1%	0.8%	1.6%	1.9%
4 Early Detection, Diagnosis, and Prognosis						0.0%	7.1%	0.0%	0.0%	1.2%	1.1%	1.6%	3.2%	1.6%	1.8%
5 Treatment						50.0%	35.7%	33.3%	26.5%	37.6%	34.8%	26.4%	22.2%	34.4%	30.1%
6 Cancer Control, Survivorship, and Outcomes Research						0.0%	0.0%	0.0%	0.0%	4.7%	2.2%	4.7%	3.2%	3.1%	3.2%
others						25.0%	35.7%	42.9%	32.4%	32.9%	27.2%	26.4%	31.0%	23.4%	29.3%
合計						100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ageing、chronic inflammation and selenolytics の臓器別の論文数は、Not Site-specific Cancer を除くと乳がん、脳腫瘍、肺がんの順と推計された。



0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	0	0	0	0	0	4	9	13	18	37	45	54	51	30	261
Breast Cancer	0	0	0	0	0	0	0	2	3	10	10	12	12	12	61
Brain Tumor	0	0	0	0	0	0	0	0	3	7	7	11	10	6	44
Lung Cancer	0	0	0	0	0	0	1	0	3	3	4	9	8	2	30
Liver Cancer	0	0	0	0	0	0	1	1	1	7	4	8	2	5	29
Melanoma	0	0	0	0	0	0	0	0	0	1	4	1	7	0	13
Colon and Rectal Cancer	0	0	0	0	0	0	0	1	0	0	2	4	5	0	12
Prostate Cancer	0	0	0	0	0	0	0	0	1	3	1	0	4	0	9
Leukemia / Leukaemia	0	0	0	0	0	0	0	0	1	0	2	2	2	1	8
Ovarian Cancer	0	0	0	0	0	0	0	1	0	1	0	2	1	1	6

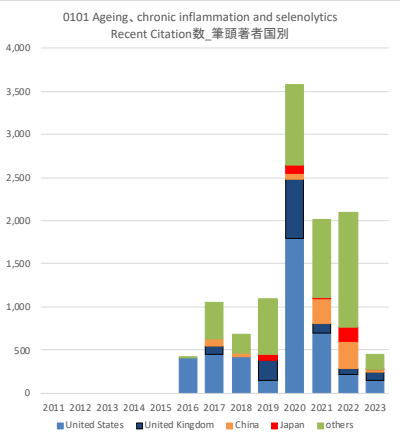
Ageing、chronic inflammation and selenolytics の FA 別の論文数は、米国 NCI、米国 National Institute of Ageing、中国 NSFC が多いと推計された。

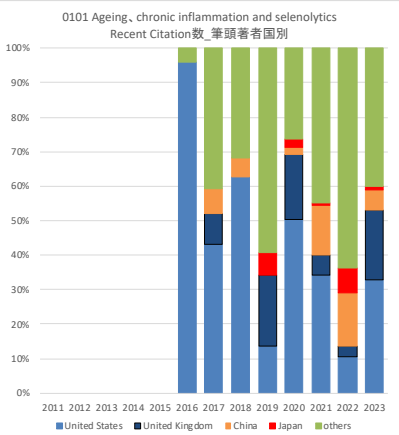


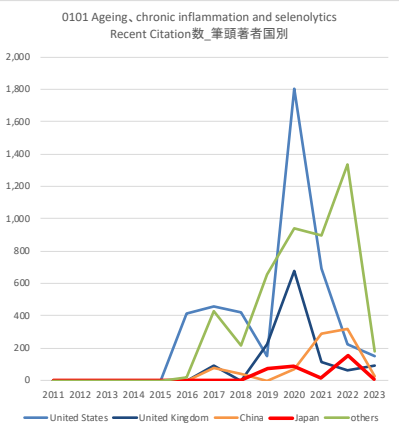
0101 Ageing、chronic inflammation and selenolytics 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	0	0	0	0	0	1	3	1	1	8	6	4	4	4	32
National Institute on Aging	0	0	0	0	0	1	1	1	1	4	1	5	7	3	24
National Natural Science Foundation of China	0	0	0	0	0	0	0	1	0	2	5	3	5	7	23
Deutsche Forschungsgemeinschaft	0	0	0	0	0	0	1	0	1	5	0	5	3	0	15
European Commission	0	0	0	0	0	0	0	1	0	2	1	6	5	0	15
Japan Society for the Promotion of Science	0	0	0	0	0	0	0	0	1	1	2	6	2	2	14
Cancer Research UK	0	0	0	0	0	0	0	0	2	1	1	1	4	1	10
Medical Research Council	0	0	0	0	0	0	0	0	1	3	0	2	3	1	10
National Institute of General Medical Sciences	0	0	0	0	0	0	0	1	0	2	0	0	3	4	10
National Research Foundation of Korea	0	0	0	0	0	0	0	0	1	1	2	1	1	0	6

4.1.2. Recent Citation 数

Ageing、chronic inflammation and selenolytics の引用数は 2020 年にピークが見られた。国別の引用数は、米国が最も多く、次いで英国と推計された。



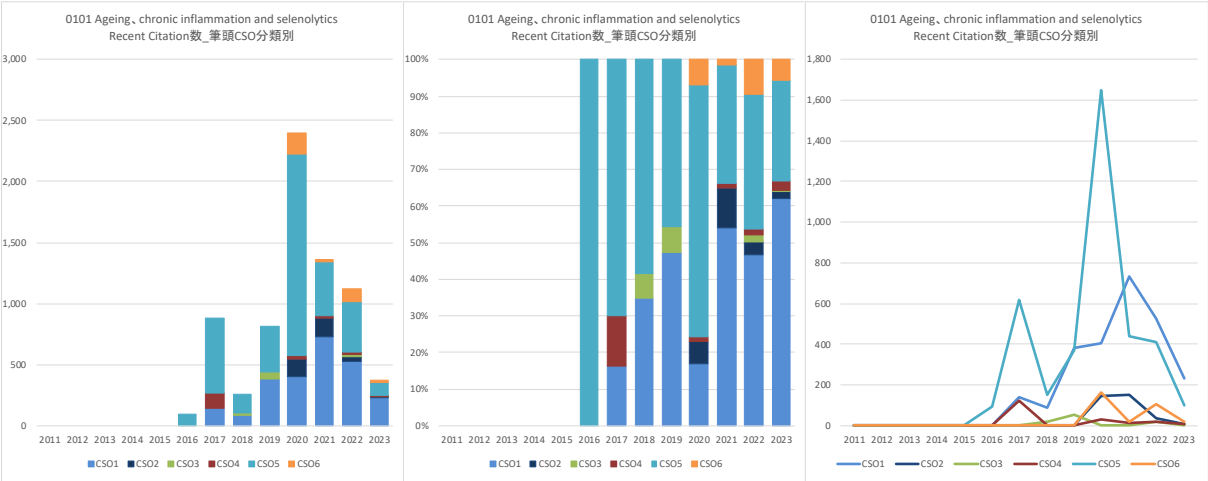




0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	0	0	0	0	412	456	425	150	1,801	692	222	150	15	4,323
United Kingdom	0	0	0	0	0	0	95	0	225	679	114	66	92	4	1,275
China	0	0	0	0	0	0	76	38	0	70	291	319	26	5	825
Japan	0	0	0	0	0	0	0	0	73	88	16	156	5	3	341
others	0	0	0	0	0	17	429	215	652	939	899	1,336	182	6	4,675
合計	0	0	0	0	0	429	1,056	678	1,100	3,577	2,012	2,099	455	33	11,439

0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States						96.0%	43.2%	62.7%	13.6%	50.3%	34.4%	10.6%	33.0%	45.5%	37.8%
United Kingdom						0.0%	9.0%	0.0%	20.5%	19.0%	5.7%	3.1%	20.2%	12.1%	11.1%
China						0.0%	7.2%	5.6%	0.0%	2.0%	14.5%	15.2%	5.7%	15.2%	7.2%
Japan						0.0%	0.0%	0.0%	6.6%	2.5%	0.8%	7.4%	1.1%	9.1%	3.0%
others						4.0%	40.6%	31.7%	59.3%	26.3%	44.7%	63.6%	40.0%	18.2%	40.9%
合計						100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

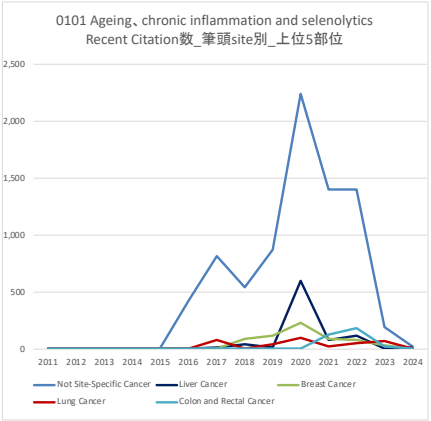
Ageing、chronic inflammation and selenolytics の CSO 分類別の引用数は、CSO1 Biology と CSO5 Treatment の Citation 数が多いと推計された。



0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	143	90	383	403	733	524	231	12	2,519
2 Etiology	0	0	0	0	0	0	0	0	0	146	150	39	8	0	343
3 Prevention	0	0	0	0	0	0	0	17	57	0	0	21	1	0	96
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	123	0	0	29	15	19	9	0	195
5 Treatment	0	0	0	0	0	95	617	151	371	1,651	441	412	103	13	3,854
6 Cancer Control, Survivorship, and Outcomes	0	0	0	0	0	0	0	0	0	166	20	105	21	0	312
others	0	0	0	0	0	334	173	420	289	1,182	653	979	82	8	4,120
合計	0	0	0	0	0	429	1,056	678	1,100	3,577	2,012	2,099	455	33	11,439

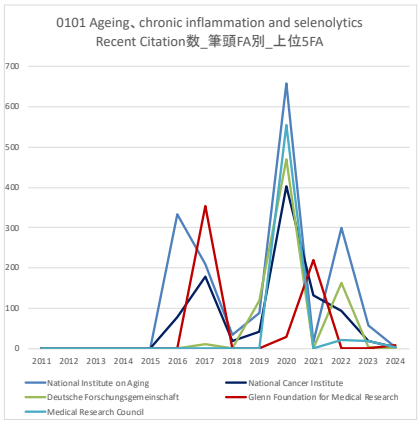
0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology						0.0%	13.5%	13.3%	34.8%	11.3%	36.4%	25.0%	50.8%	36.4%	22.0%
2 Etiology						0.0%	0.0%	0.0%	0.0%	4.1%	7.5%	1.9%	1.8%	0.0%	3.0%
3 Prevention						0.0%	0.0%	2.5%	5.2%	0.0%	0.0%	1.0%	0.2%	0.0%	0.8%
4 Early Detection, Diagnosis, and Prognosis						0.0%	11.6%	0.0%	0.0%	0.8%	0.7%	0.9%	2.0%	0.0%	1.7%
5 Treatment						22.1%	58.4%	22.3%	33.7%	46.2%	21.9%	19.6%	22.6%	39.4%	33.7%
6 Cancer Control, Survivorship, and Outcomes						0.0%	0.0%	0.0%	0.0%	4.6%	1.0%	5.0%	4.6%	0.0%	2.7%
others						77.9%	16.4%	61.9%	26.3%	33.0%	32.5%	46.6%	18.0%	24.2%	36.0%
合計						100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ageing、chronic inflammation and selenolytics の臓器別の引用数は、Not Site-specific Cancer の引用が最も多く、ついで肝がん、乳がんの順と推計された。



0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	0	0	0	0	0	429	815	537	865	2,235	1,393	1,396	187	20	7,877
Liver Cancer	0	0	0	0	0	0	12	36	13	599	74	112	0	7	853
Breast Cancer	0	0	0	0	0	0	0	83	114	226	90	76	31	1	621
Lung Cancer	0	0	0	0	0	0	76	0	42	97	21	46	67	0	349
Colon and Rectal Cancer	0	0	0	0	0	0	0	0	0	0	126	179	17	0	322
Brain Tumor	0	0	0	0	0	0	0	0	28	48	94	53	42	1	266
Prostate Cancer	0	0	0	0	0	0	0	0	0	78	23	0	31	0	132
Head and Neck Cancer	0	0	0	0	0	0	55	0	0	47	15	0	0	0	117
Skin Cancer	0	0	0	0	0	0	0	0	0	105	0	5	0	0	110
Non-Hodgkin's Lymphoma	0	0	0	0	0	0	0	0	0	73	9	11	0	0	93

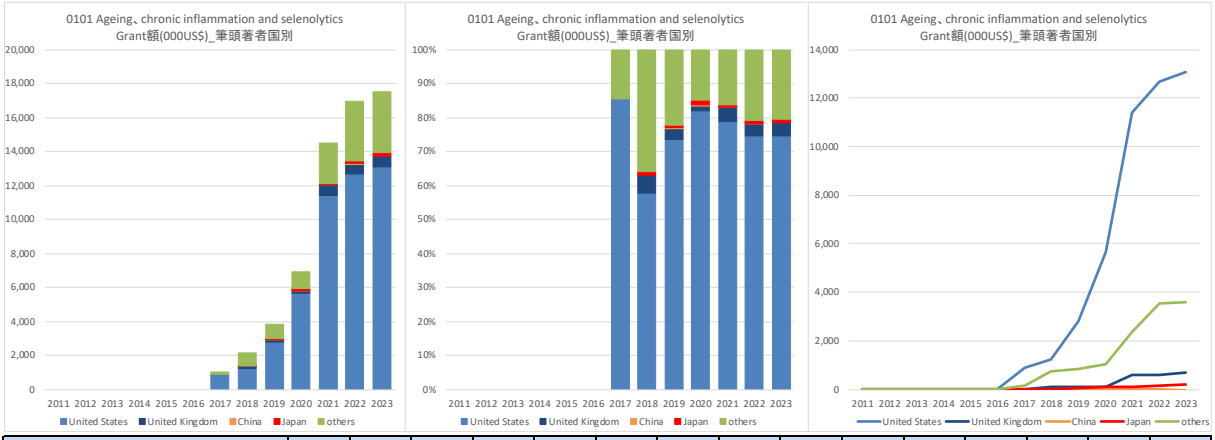
Ageing、chronic inflammation and selenolytics の FA 別の引用数は、米国 National Institute of Ageing が最も多く、ついで米国 NCI の順と推計された。



0101 Ageing、chronic inflammation and selenolytics Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Institute on Aging	0	0	0	0	0	334	209	33	87	659	16	299	56	3	1,696
National Cancer Institute	0	0	0	0	0	78	179	19	42	403	133	94	18	3	969
Deutsche Forschungsgemeinschaft	0	0	0	0	0	0	10	0	120	470	0	164	3	0	767
Glenn Foundation for Medical Research	0	0	0	0	0	0	353	0	0	29	220	0	0	7	609
Medical Research Council	0	0	0	0	0	0	0	0	0	556	0	22	18	3	599
National Natural Science Foundation of China	0	0	0	0	0	0	0	36	0	67	288	31	26	2	450
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	0	0	329	31	0	0	7	24	0	391
European Research Council	0	0	0	0	0	0	0	0	0	192	130	0	2	0	324
European Commission	0	0	0	0	0	0	0	36	0	23	114	135	14	0	322
The Mark Foundation for Cancer Research	0	0	0	0	0	0	0	0	0	0	0	311	0	0	311

4.1.3. Grant(000US$)額

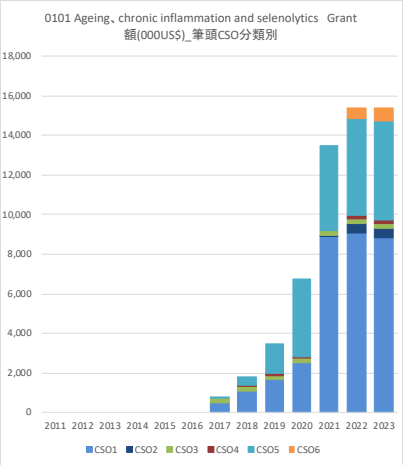
Ageing、chronic inflammation and selenolytics の研究費総額は、経年的に顕著な増加が見られた。国別の研究費配分額は、米国が最も多く、ついで英国と推計された。

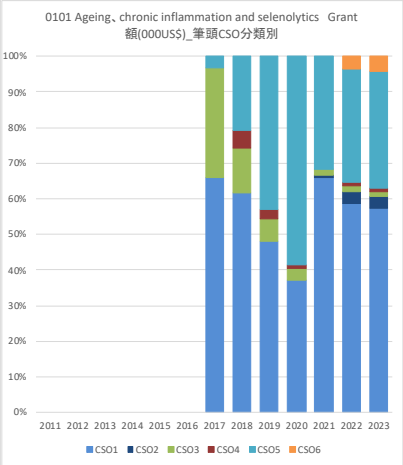


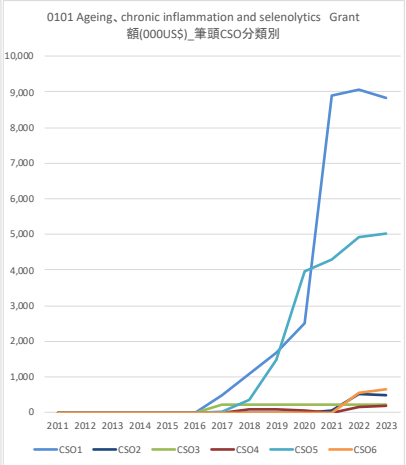
0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	0	0	0	0	0	877	1,232	2,812	5,664	11,409	12,661	13,061	12,697	60,414
United Kingdom	0	0	0	0	0	0	0	111	111	111	603	603	685	1,020	3,244
China	0	0	0	0	0	0	0	0	20	20	20	20	0	0	80
Japan	0	0	0	0	0	0	0	23	32	106	105	135	189	185	775
others	0	0	0	0	0	0	150	763	844	1,024	2,361	3,556	3,607	3,812	16,117
合計	0	0	0	0	0	0	1,026	2,130	3,819	6,926	14,498	16,975	17,541	17,715	80,630

0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States							85.4%	57.8%	73.6%	81.8%	78.7%	74.6%	74.5%	71.7%	74.9%
United Kingdom							0.0%	5.2%	2.9%	1.6%	4.2%	3.6%	3.9%	5.8%	4.0%
China							0.0%	0.0%	0.5%	0.3%	0.1%	0.1%	0.0%	0.0%	0.1%
Japan							0.0%	1.1%	0.8%	1.5%	0.7%	0.8%	1.1%	1.0%	1.0%
others							14.6%	35.8%	22.1%	14.8%	16.3%	20.9%	20.6%	21.5%	20.0%
合計							100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ageing、chronic inflammation and selenolytics の CSO 分類別の研究費配分額で、最も多いのは CSO1 Biology で、ついで CSO5 Treatment の順と推計された。



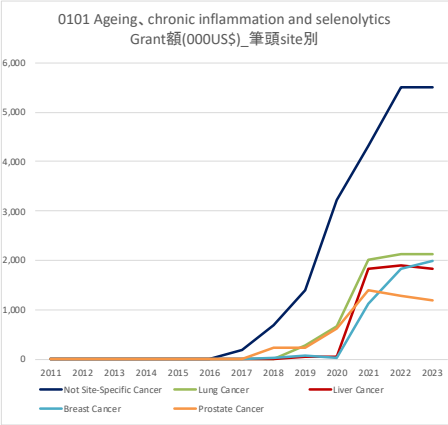




0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	476	1,092	1,662	2,519	8,895	9,056	8,832	8,145	40,678
2 Etiology	0	0	0	0	0	0	0	0	0	0	60	519	496	943	2,019
3 Prevention	0	0	0	0	0	0	222	222	222	222	222	222	222	222	1,773
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	0	86	86	57	0	168	180	230	809
5 Treatment	0	0	0	0	0	0	24	368	1,489	3,965	4,286	4,913	5,027	5,453	25,525
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	0	539	656	656	1,851
others	0	0	0	0	0	0	304	361	361	163	1,035	1,558	2,128	2,066	7,976
合計	0	0	0	0	0	0	1,026	2,130	3,819	6,926	14,498	16,975	17,541	17,715	80,630

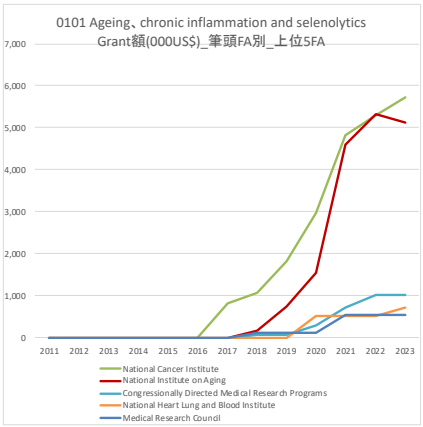
0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology							46.4%	51.3%	43.5%	36.4%	61.4%	53.3%	50.4%	46.0%	50.5%
2 Etiology							0.0%	0.0%	0.0%	0.0%	0.4%	3.1%	2.8%	5.3%	2.5%
3 Prevention							21.6%	10.4%	5.8%	3.2%	1.5%	1.3%	1.3%	1.3%	2.2%
4 Early Detection, Diagnosis, and Prognosis							0.0%	4.1%	2.3%	0.8%	0.0%	1.0%	1.0%	1.3%	1.0%
5 Treatment							2.4%	17.3%	39.0%	57.3%	29.6%	28.9%	28.7%	30.8%	31.7%
6 Cancer Control, Survivorship, and Outcomes Research							0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	3.7%	3.7%	2.3%
others							29.6%	16.9%	9.4%	2.4%	7.1%	9.2%	12.1%	11.7%	9.9%
合計							100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ageing、chronic inflammation and selenolytics の臓器別の研究費配分額は、Not Site-specific Cancer への研究費配分が最も多く、ついで肺がん、肝がんの順と推計された。



0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	0	0	0	0	0	0	192	695	1,399	3,228	4,325	5,499	5,510	5,582	26,431
Lung Cancer	0	0	0	0	0	0	0	0	283	668	2,018	2,127	2,127	2,127	9,352
Liver Cancer	0	0	0	0	0	0	0	10	60	60	1,824	1,893	1,843	1,985	7,675
Breast Cancer	0	0	0	0	0	0	0	29	66	37	1,136	1,843	1,997	2,073	7,181
Prostate Cancer	0	0	0	0	0	0	0	238	238	631	1,411	1,279	1,193	905	5,894
Leukemia / Leukaemia	0	0	0	0	0	0	0	14	383	819	1,163	1,163	1,171	1,109	5,822
Kidney Cancer	0	0	0	0	0	0	470	470	470	470	470	470	656	656	4,129
Brain Tumor	0	0	0	0	0	0	0	0	219	405	662	795	753	938	3,772
Melanoma	0	0	0	0	0	0	0	257	257	257	257	257	257	257	1,799
Blood Cancer	0	0	0	0	0	0	222	222	222	222	222	222	222	222	1,773

Ageing、chronic inflammation and selenolytics の FA 別の研究費配分額は、米国 NCI が最も多く、ついで米国 National Institute of Ageing の順と推計された。



0101 Ageing、chronic inflammation and selenolytics Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	0	0	0	0	0	0	816	1,073	1,827	2,965	4,823	5,297	5,732	5,616	28,148	United States
National Institute on Aging	0	0	0	0	0	0	0	179	760	1,538	4,592	5,324	5,126	5,069	22,588	United States
Congressionally Directed Medical Research Programs	0	0	0	0	0	0	0	75	75	306	712	1,031	1,031	725	3,955	United States
National Heart Lung and Blood Institute	0	0	0	0	0	0	0	0	0	521	521	521	719	719	3,001	United States
Medical Research Council	0	0	0	0	0	0	0	111	111	111	541	541	541	876	2,831	United Kingdom
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	0	0	14	14	14	369	369	369	369	1,520	United States
European Research Council	0	0	0	0	0	0	0	57	57	57	0	391	391	391	1,344	Belgium
Canadian Institutes of Health Research	0	0	0	0	0	0	7	18	99	193	192	248	161	161	1,080	Canada
National Institute of Arthritis and Musculoskeletal and Skin Diseases	0	0	0	0	0	0	0	0	0	0	228	228	228	228	913	United States
Fundação para a Ciência e Tecnologia	0	0	0	0	0	0	0	68	68	68	136	69	163	163	735	Portugal

4.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0101 Ageing、chronic inflammation and selenolytics

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Cellular senescence and the tumour microenvironment	Takasugi, Masaki; Yoshida, Yuya; Ohtani, Naoko	Molecular Oncology	Japan	2022	43	Review Article
2	Suppression of non-small-cell lung cancer A549 tumor growth by an mtDNA mutation-targeting pyrrole-imidazole polyamide-triphenylphosphonium and a senolytic drug	Tsuji, Kohei; Kida, Yuki; Koshikawa, Nobuko; Yamamoto, Seigi; Shinozaki, Yoshinao; Watanabe, Takayoshi; Lin, Jason; Nagase, Hiroki; Takenaga, Keizo	Cancer Science	Japan	2022	10	Research Article
3	RNA polymerase I inhibition induces terminal differentiation, growth arrest, and vulnerability to senolytics in colorectal cancer cells	Otto, Christoph; Kastner, Carolin; Schmidt, Stefanie; Uttinger, Konstantin; Baluapuri, Apoorva; Denk, Sarah; Rosenfeldt, Mathias T.; Rosenwald, Andreas; Roehrig, Florian; Ade, Carsten P.; Schuelein-Voelk, Christina; Diefenbacher, Markus E.; Germer, Christoph-Thomas; Wolf, Elmar; Eilers, Martin; Wiegering, Armin	Molecular Oncology	Germany	2022	0	Research Article
4	Senescence and cancer — role and therapeutic opportunities	Schmitt, Clemens A.; Wang, Boshi; Demaria, Marco	Nature Reviews Clinical Oncology	Austria	2022	196	Review Article
5	Senescence-associated tumor growth is promoted by 12-Lipoxygenase	Patil, Shilpa; Reedy, Jessica L; Scroggins, Bradley T; White, Ayla O; Kwon, Seokjoo; Shankavaram, Uma; López-Coral, Alfonso; Chung, Eun Joo; Citrin, Deborah E	Aging	United States	2022	4	Research Article
6	Inflammatory fibroblasts mediate resistance to neoadjuvant therapy in rectal cancer	Nicolas, Adele M; Pesic, Marina; Engel, Esther; Ziegler, Paul K; Diefenhardt, Markus; Kennel, Kilian B; Buettner, Florian; Conche, Claire; Petrocelli, Valentina; Elwakeel, Eiman; Weigert, Andreas; Zinoveva, Anna; Fleischmann, Maximilian; Häupl, Björn; Karakütük, Cem; Bohnenberger, Hanibal; Mosa, Mohammed H; Kaderali, Lars; Gaedcke, Jochen; Ghadimi, Michael; Rödel, Franz; Arkan, Melek C; Oellerich, Thomas; Rödel, Claus; Fokas, Emmanouil; Greten, Florian R	Cancer Cell	Germany	2022	138	Research Article
7	Cellular senescence imaging and senolysis monitoring in cancer therapy based on a β-galactosidase-activated aggregation-induced emission luminogen	Cen, Peili; Cui, Chunyi; Huang, Jiani; Chen, Hetian; Wu, Fei; Niu, Jiaqi; Zhong, Yan; Jin, Chentao; Zhu, Wei-Hong; Zhang, Hong; Tian, Mei	Acta Biomaterialia	China	2024	0	Research Article
8	Blocking methionine catabolism induces senescence and confers vulnerability to GSK3 inhibition in liver cancer	Li, Fuming; Liu, Pingyu; Mi, Wen; Li, Liucheng; Anderson, Nicole M.; Lesner, Nicholas P.; Burrows, Michelle; Plesset, Jacqueline; Majer, Ariana; Wang, Guanlin; Li, Jinyang; Zhu, Lingzhi; Keith, Brian; Simon, M. Celeste	Nature Cancer	United States	2024	3	Research Article
9	Aging and oral squamous cell carcinoma development: the role of cellular senescence	Niklander, Sven Eric; Aránguiz, Pablo; Faunes, Fernando; Martínez-Flores, René	Frontiers in Oral Health	Chile	2023	0	Review Article
10	Senolysis of gemcitabine-induced senescent human pancreatic cancer cells	Hoque, Mohammad Mahbubul; Iida, Yuichi; Kotani, Hitoshi; Harada, Mamoru	Cancer Reports	Japan	2024	0	Research Article

＜引用＞

Citation: 0101 Ageing, chronic inflammation and selenolytics

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Senescence and the SASP: many therapeutic avenues	Birch, Jodie; Gil, Jesús	Genes & Development	United Kingdom	2020	495	Review Article
2	Senolytic drugs: from discovery to translation	Kirkland, J. L.; Tchkonia, T.	Journal of Internal Medicine	United States	2020	428	Review Article
3	Senolytic CAR T cells reverse senescence-associated pathologies	Amor, Corina; Feucht, Judith; Leibold, Josef; Ho, Yu-Jui; Zhu, Changyu; Alonso-Curbelo, Direna; Mansilla-Soto, Jorge; Boyer, Jacob A.; Li, Xiang; Giavridis, Theodoros; Kulick, Amanda; Houlihan, Shauna; Peerschke, Ellinor; Friedman, Scott L.; Ponomarev, Vladimir; Piersigilli, Alessandra; Sadelain, Michel; Lowe, Scott W.	Nature	United States	2020	361	Research Article
4	Senescent cells: an emerging target for diseases of ageing	Childs, Bennett G.; Gluscevic, Martina; Baker, Darren J.; Laberge, Remi-Martin; Marquess, Dan; Dananberg, Jamie; van Deursen, Jan M.	Nature Reviews Drug Discovery	United States	2017	353	Review Article
5	Identification of a novel senolytic agent, navitoclax, targeting the Bcl-2 family of anti-apoptotic factors	Zhu, Yi; Tchkonia, Tamara; Fuhrmann-Stroissnigg, Heike; Dai, Haiming M.; Ling, Yuanyuan Y.; Stout, Michael B.; Pirtskhalava, Tamar; Giorgadze, Nino; Johnson, Kurt O.; Giles, Cory B.; Wren, Jonathan D.; Niedernhofer, Laura J.; Robbins, Paul D.; Kirkland, James L.	Aging Cell	United States	2016	334	Research Article
6	Fisetin is a senotherapeutic that extends health and lifespan	Yousefzadeh, Matthew J.; Zhu, Yi; McGowan, Sara J.; Angelini, Luise; Fuhrmann-Stroissnigg, Heike; Xu, Ming; Ling, Yuan Yuan; Melos, Kendra I.; Pirtskhalava, Tamar; Inman, Christina L.; McGuckian, Collin; Wade, Erin A.; Kato, Jonathon I.; Grassi, Diego; Wentworth, Mark; Burd, Christin E.; Arriaga, Edgar A.; Ladiges, Warren L.; Tchkonia, Tamara; Kirkland, James L.; Robbins, Paul D.; Niedernhofer, Laura J.	EBioMedicine	United States	2018	329	Research Article
7	Exploiting senescence for the treatment of cancer	Wang, Liqin; Lankhorst, Lina; Bernards, René	Nature Reviews Cancer	Netherlands	2022	311	Review Article
8	Cellular senescence: the good, the bad and the unknown	Huang, Weijun; Hickson, LaTonya J.; Eirin, Alfonso; Kirkland, James L.; Lerman, Lilach O.	Nature Reviews Nephrology	China	2022	264	Review Article
9	Strategies for targeting senescent cells in human disease	Gasek, Nathan S.; Kuchel, George A.; Kirkland, James L.; Xu, Ming	Nature Aging	United States	2021	220	Review Article
10	Aging and age-related diseases: from mechanisms to therapeutic strategies	Li, Zhe; Zhang, Zhenkun; Ren, Yikun; Wang, Yingying; Fang, Jiarui; Yue, Han; Ma, Shanshan; Guan, Fangxia	Biogerontology	China	2021	215	Review Article

＜研究費＞

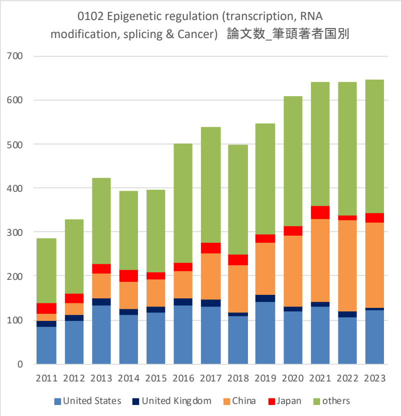
Citation: 0101 Ageing, chronic inflammation and selenolytics

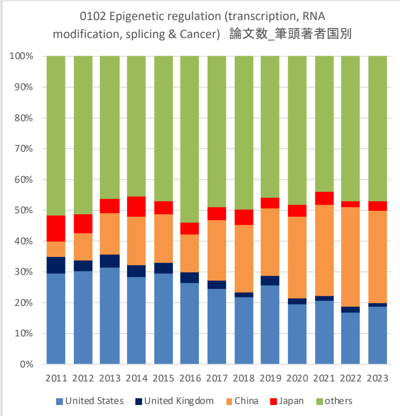
	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Senescence and the SASP: many therapeutic avenues	Birch, Jodie; Gil, Jesús	Genes & Development	United Kingdom	2020	495	Review Article
2	Senolytic drugs: from discovery to translation	Kirkland, J. L.; Tchkonia, T.	Journal of Internal Medicine	United States	2020	428	Review Article
3	Senolytic CAR T cells reverse senescence-associated pathologies	Amor, Corina; Feucht, Judith; Leibold, Josef; Ho, Yu-Jui; Zhu, Changyu; Alonso-Curbelo, Direna; Mansilla-Soto, Jorge; Boyer, Jacob A.; Li, Xiang; Giavridis, Theodoros; Kulick, Amanda; Houlihan, Shauna; Peerschke, Ellinor; Friedman, Scott L.; Ponomarev, Vladimir; Piersigilli, Alessandra; Sadelain, Michel; Lowe, Scott W.	Nature	United States	2020	361	Research Article
4	Senescent cells: an emerging target for diseases of ageing	Childs, Bennett G.; Gluscevic, Martina; Baker, Darren J.; Laberge, Remi-Martin; Marquess, Dan; Dananberg, Jamie; van Deursen, Jan M.	Nature Reviews Drug Discovery	United States	2017	353	Review Article
5	Identification of a novel senolytic agent, navitoclax, targeting the Bcl-2 family of anti-apoptotic factors	Zhu, Yi; Tchkonia, Tamara; Fuhrmann-Stroissnigg, Heike; Dai, Haiming M.; Ling, Yuanyuan Y.; Stout, Michael B.; Pirtskhalava, Tamar; Giorgadze, Nino; Johnson, Kurt O.; Giles, Cory B.; Wren, Jonathan D.; Niedernhofer, Laura J.; Robbins, Paul D.; Kirkland, James L.	Aging Cell	United States	2016	334	Research Article
6	Fisetin is a senotherapeutic that extends health and lifespan	Yousefzadeh, Matthew J.; Zhu, Yi; McGowan, Sara J.; Angelini, Luise; Fuhrmann-Stroissnigg, Heike; Xu, Ming; Ling, Yuan Yuan; Melos, Kendra I.; Pirtskhalava, Tamar; Inman, Christina L.; McGuckian, Collin; Wade, Erin A.; Kato, Jonathon I.; Grassi, Diego; Wentworth, Mark; Burd, Christin E.; Arriaga, Edgar A.; Ladiges, Warren L.; Tchkonia, Tamara; Kirkland, James L.; Robbins, Paul D.; Niedernhofer, Laura J.	EBioMedicine	United States	2018	329	Research Article
7	Exploiting senescence for the treatment of cancer	Wang, Liqin; Lankhorst, Lina; Bernards, René	Nature Reviews Cancer	Netherlands	2022	311	Review Article
8	Cellular senescence: the good, the bad and the unknown	Huang, Weijun; Hickson, LaTonya J.; Eirin, Alfonso; Kirkland, James L.; Lerman, Lilach O.	Nature Reviews Nephrology	China	2022	264	Review Article
9	Strategies for targeting senescent cells in human disease	Gasek, Nathan S.; Kuchel, George A.; Kirkland, James L.; Xu, Ming	Nature Aging	United States	2021	220	Review Article
10	Aging and age-related diseases: from mechanisms to therapeutic strategies	Li, Zhe; Zhang, Zhenkun; Ren, Yikun; Wang, Yingying; Fang, Jiarui; Yue, Han; Ma, Shanshan; Guan, Fangxia	Biogerontology	China	2021	215	Review Article

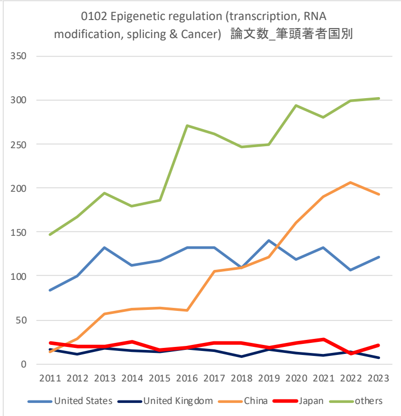
4.2. 0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)

4.2.1. 論文数

Epigenetic regulation の論文数は経年的に増加傾向が見られたが、ここ数年は横ばい傾向と推計された。国別の論文数は、その他の国を除くと米国と中国の論文数が多く、特に近年中国の論文数の伸びが顕著であった。



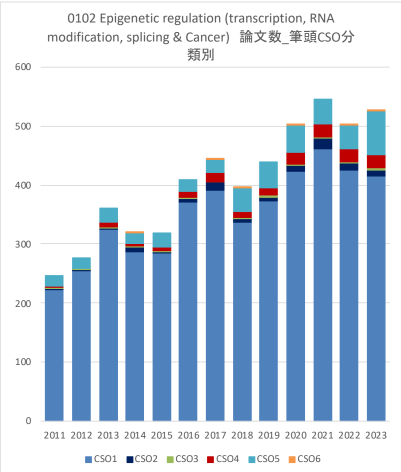


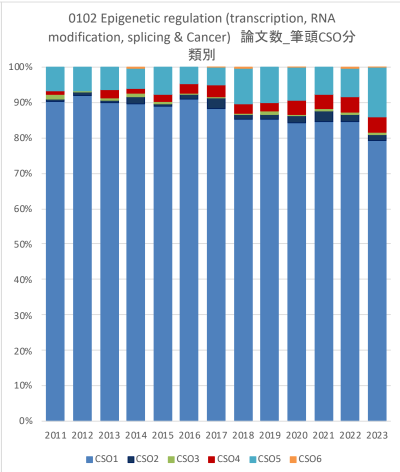


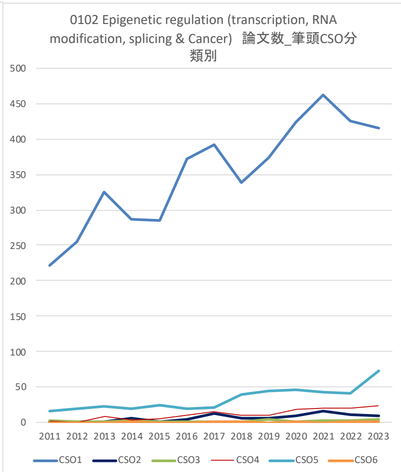
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	84	100	133	112	117	133	132	109	141	119	132	107	122	70	1,611
United Kingdom	16	11	17	15	13	18	15	8	16	12	10	14	7	8	180
China	14	29	57	62	64	61	105	109	121	161	190	207	193	76	1,449
Japan	24	20	20	25	16	19	24	24	18	24	28	12	21	7	282
others	147	168	195	179	186	271	262	247	250	294	281	300	303	140	3,223
合計	285	328	422	393	396	502	538	497	546	610	641	640	646	301	6,745

0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	29.5%	30.5%	31.5%	28.5%	29.5%	26.5%	24.5%	21.9%	25.8%	19.5%	20.6%	16.7%	18.9%	23.3%	23.9%
United Kingdom	5.6%	3.4%	4.0%	3.8%	3.3%	3.6%	2.8%	1.6%	2.9%	2.0%	1.6%	2.2%	1.1%	2.7%	2.7%
China	4.9%	8.8%	13.5%	15.8%	16.2%	12.2%	19.5%	21.9%	22.2%	26.4%	29.6%	32.3%	29.9%	25.2%	21.5%
Japan	8.4%	6.1%	4.7%	6.4%	4.0%	3.8%	4.5%	4.8%	3.3%	3.9%	4.4%	1.9%	3.3%	2.3%	4.2%
others	51.6%	51.2%	46.2%	45.5%	47.0%	54.0%	48.7%	49.7%	45.8%	48.2%	43.8%	46.9%	46.9%	46.5%	47.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の CSO 分類別の論文数は、ほとんどが CSO1 Biology と推計された。



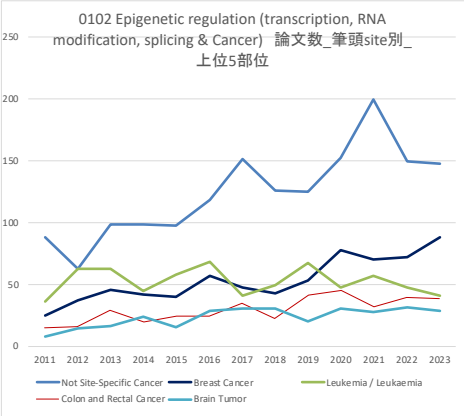




0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	222	255	325	287	285	372	392	338	374	424	462	426	416	214	4,792
2 Etiology	2	2	2	7	2	5	13	6	6	10	17	11	9	2	94
3 Prevention	3	1	2	3	2	2	1	1	4	2	3	3	4	3	34
4 Early Detection, Diagnosis, and Prognosis	2	0	9	4	6	10	15	11	11	19	21	21	23	6	158
5 Treatment	17	19	23	19	25	20	22	40	44	47	43	41	73	19	452
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	1	0	0	1	1	0	1	0	2	1	0	7
others	39	51	61	72	76	93	94	100	107	107	95	136	120	57	1,208
合計	285	328	422	393	396	502	538	497	546	610	641	640	646	301	6,745

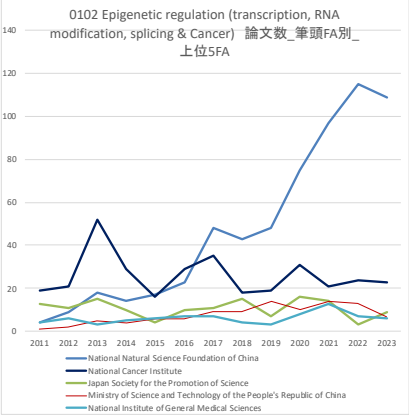
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	77.9%	77.7%	77.0%	73.0%	72.0%	74.1%	72.9%	68.0%	68.5%	69.5%	72.1%	66.6%	64.4%	71.1%	71.0%
2 Etiology	0.7%	0.6%	0.5%	1.8%	0.5%	1.0%	2.4%	1.2%	1.1%	1.6%	2.7%	1.7%	1.4%	0.7%	1.4%
3 Prevention	1.1%	0.3%	0.5%	0.8%	0.5%	0.4%	0.2%	0.2%	0.7%	0.3%	0.5%	0.5%	0.6%	1.0%	0.5%
4 Early Detection, Diagnosis, and Prognosis	0.7%	0.0%	2.1%	1.0%	1.5%	2.0%	2.8%	2.2%	2.0%	3.1%	3.3%	3.3%	3.6%	2.0%	2.3%
5 Treatment	6.0%	5.8%	5.5%	4.8%	6.3%	4.0%	4.1%	8.0%	8.1%	7.7%	6.7%	6.4%	11.3%	6.3%	6.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	0.2%	0.0%	0.2%	0.0%	0.3%	0.2%	0.0%	0.1%
others	13.7%	15.5%	14.5%	18.3%	19.2%	18.5%	17.5%	20.1%	19.6%	17.5%	14.8%	21.3%	18.6%	18.9%	17.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の臓器別の論文数は、Not Site-specific Cancer が最も多く、次いで乳がん、白血病、大腸がんなどの論文が多いと推計された。



0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	88	63	99	99	98	118	151	126	125	152	199	149	148	87	1,702
Breast Cancer	25	37	46	42	40	57	48	43	53	78	70	72	88	22	721
Leukemia / Leukaemia	36	63	63	45	58	68	41	50	67	48	57	48	41	15	700
Colon and Rectal Cancer	15	16	29	20	25	25	35	23	42	45	32	40	39	17	403
Brain Tumor	8	15	17	24	16	29	31	31	20	31	28	32	29	13	324
Lung Cancer	19	15	18	19	9	17	22	28	30	38	36	23	39	10	323
Liver Cancer	8	12	16	17	13	17	28	18	27	20	28	43	39	13	299
Prostate Cancer	12	17	17	7	12	17	11	17	10	9	8	19	19	11	186
Pancreatic Cancer	7	4	6	2	6	6	13	6	9	16	13	16	12	16	132
Ovarian Cancer	3	7	5	5	9	11	11	12	8	12	10	15	14	4	126

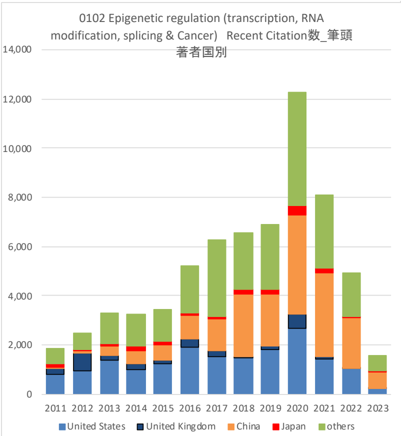
Epigenetic regulation の FA 別の論文数は、中国 NSFC が最も多く、経年的にも増加傾向が顕著と推計された。次いで米国 NCI、日本の JSPS と推計された。

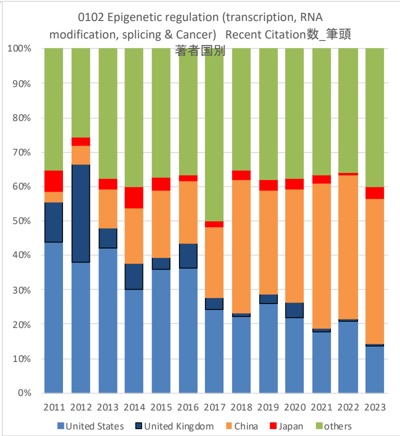


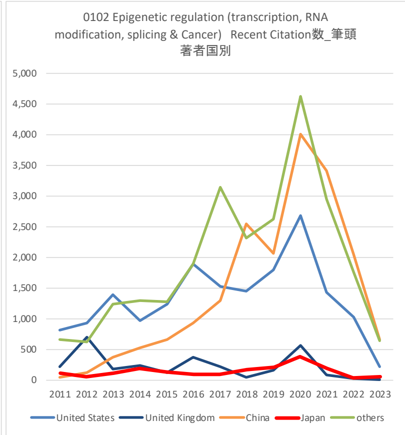
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	4	9	18	14	17	23	48	43	48	75	97	115	109	36	656
National Cancer Institute	19	21	52	29	16	29	35	18	19	31	21	24	23	12	349
Japan Society for the Promotion of Science	13	11	15	10	4	10	11	15	7	16	14	3	9	3	141
Ministry of Science and Technology of the People's Republic of China	1	2	5	4	6	6	9	9	14	10	14	13	7	3	103
National Institute of General Medical Sciences	4	6	3	5	6	7	7	4	3	8	13	7	6	3	82
European Commission	0	1	2	5	1	3	8	5	11	7	8	10	7	2	70
National Research Foundation of Korea	3	4	1	6	4	4	5	11	3	9	8	3	7	2	70
Deutsche Forschungsgemeinschaft	2	2	4	2	2	3	6	4	6	5	2	7	0	0	45
National Institute of Diabetes and Digestive and Kidney Diseases	2	7	5	3	5	1	2	5	3	1	6	1	4	0	45
National Heart Lung and Blood Institute	4	3	3	3	3	6	3	6	1	1	3	1	1	2	40

4.2.2. Recent Citation 数

Epigenetic regulation の引用数は 2020 年にピークが見られ、近年はやや下降気味と推計された。国別の引用数は米国と中国が多く、特に近年は中国の引用数が米国より多い傾向が見られた。日本と英国の引用数はあまり多くは見られないと推計された。



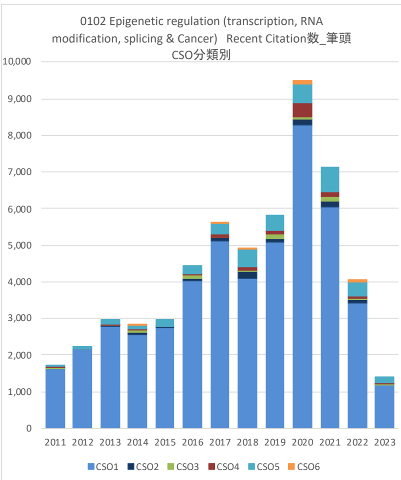


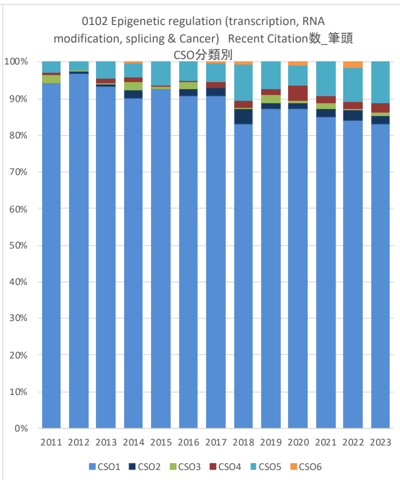


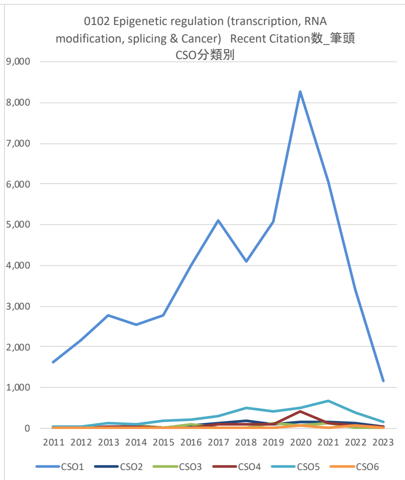
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	822	938	1,389	982	1,238	1,896	1,524	1,461	1,801	2,688	1,441	1,022	219	10	17,431
United Kingdom	220	706	193	244	118	370	226	56	172	565	84	34	10	1	2,999
China	58	129	375	524	668	933	1,291	2,557	2,077	4,008	3,412	2,059	670	22	18,783
Japan	121	60	109	198	130	98	106	177	213	395	186	42	56	0	1,891
others	661	636	1,240	1,306	1,286	1,904	3,139	2,314	2,624	4,627	2,960	1,766	637	26	25,126
合計	1,882	2,469	3,306	3,254	3,440	5,201	6,286	6,565	6,887	12,283	8,083	4,923	1,592	59	66,230

0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	43.7%	38.0%	42.0%	30.2%	36.0%	36.5%	24.2%	22.3%	26.2%	21.9%	17.8%	20.8%	13.8%	16.9%	26.3%
United Kingdom	11.7%	28.6%	5.8%	7.5%	3.4%	7.1%	3.6%	0.9%	2.5%	4.6%	1.0%	0.7%	0.6%	1.7%	4.5%
China	3.1%	5.2%	11.3%	16.1%	19.4%	17.9%	20.5%	38.9%	30.2%	32.6%	42.2%	41.8%	42.1%	37.3%	28.4%
Japan	6.4%	2.4%	3.3%	6.1%	3.8%	1.9%	1.7%	2.7%	3.1%	3.2%	2.3%	0.9%	3.5%	0.0%	2.9%
others	35.1%	25.8%	37.5%	40.1%	37.4%	36.6%	49.9%	35.2%	38.1%	37.7%	36.6%	35.9%	40.0%	44.1%	37.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の CSO 分類別の引用数は、CSO1 Biology がほとんどと推計された。



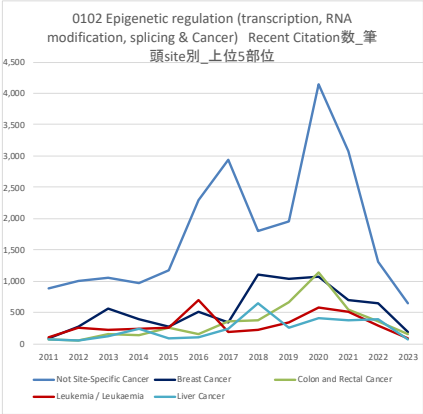




0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,631	2,165	2,787	2,555	2,763	4,022	5,106	4,086	5,090	8,283	6,054	3,416	1,166	48	49,172
2 Etiology	1	16	12	63	4	82	117	195	91	148	159	115	27	1	1,031
3 Prevention	43	5	8	63	12	85	1	23	129	66	131	19	14	2	601
4 Early Detection, Diagnosis, and Prognosis	6	0	43	31	12	18	94	96	86	402	115	75	38	0	1,016
5 Treatment	51	48	130	112	189	221	290	489	425	513	666	379	155	2	3,670
6 Cancer Control, Survivorship, and Outcomes	0	0	0	7	0	0	10	21	0	74	0	57	0	0	169
others	150	235	326	423	460	773	668	1,655	1,066	2,797	958	862	192	6	10,571
合計	1,882	2,469	3,306	3,254	3,440	5,201	6,286	6,565	6,887	12,283	8,083	4,923	1,592	59	66,230

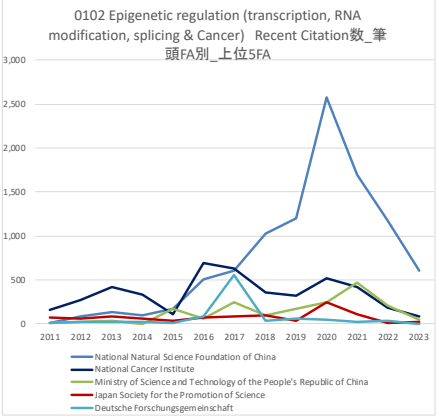
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	86.7%	87.7%	84.3%	78.5%	80.3%	77.3%	81.2%	62.2%	73.9%	67.4%	74.9%	69.4%	73.2%	81.4%	74.2%
2 Etiology	0.1%	0.6%	0.4%	1.9%	0.1%	1.6%	1.9%	3.0%	1.3%	1.2%	2.0%	2.3%	1.7%	1.7%	1.6%
3 Prevention	2.3%	0.2%	0.2%	1.9%	0.3%	1.6%	0.0%	0.4%	1.9%	0.5%	1.6%	0.4%	0.9%	3.4%	0.9%
4 Early Detection, Diagnosis, and Prognosis	0.3%	0.0%	1.3%	1.0%	0.3%	0.3%	1.5%	1.5%	1.2%	3.3%	1.4%	1.5%	2.4%	0.0%	1.5%
5 Treatment	2.7%	1.9%	3.9%	3.4%	5.5%	4.2%	4.6%	7.4%	6.2%	4.2%	8.2%	7.7%	9.7%	3.4%	5.5%
6 Cancer Control, Survivorship, and Outcomes	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.3%	0.0%	0.6%	0.0%	1.2%	0.0%	0.0%	0.3%
others	8.0%	9.5%	9.9%	13.0%	13.4%	14.9%	10.6%	25.2%	15.5%	22.8%	11.9%	17.5%	12.1%	10.2%	16.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の臓器別の引用数は、Not Site-specific Cancer が最も多く、次いで乳がん、大腸がん、白血病の順に引用数が多い傾向が見られた。



0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	878	1,005	1,061	965	1,171	2,286	2,943	1,805	1,957	4,139	3,083	1,315	649	31	23,288
Breast Cancer	84	282	564	388	270	505	350	1,102	1,033	1,081	694	641	184	4	7,182
Colon and Rectal Cancer	78	55	156	131	261	163	359	385	671	1,133	547	363	159	1	4,462
Leukemia / Leukaemia	104	256	228	244	266	698	198	228	351	575	509	286	88	1	4,032
Liver Cancer	76	60	116	241	84	103	242	650	264	406	369	395	73	3	3,082
Lung Cancer	100	89	104	196	64	111	129	267	479	625	577	239	66	4	3,050
Brain Tumor	72	198	115	189	135	121	268	298	128	343	150	175	32	0	2,224
Melanoma	24	23	17	41	74	12	292	71	405	220	407	91	29	0	1,706
Prostate Cancer	58	95	114	29	67	114	69	260	58	153	38	67	27	1	1,150
Pancreatic Cancer	37	5	97	16	67	35	108	61	68	144	284	129	38	1	1,090

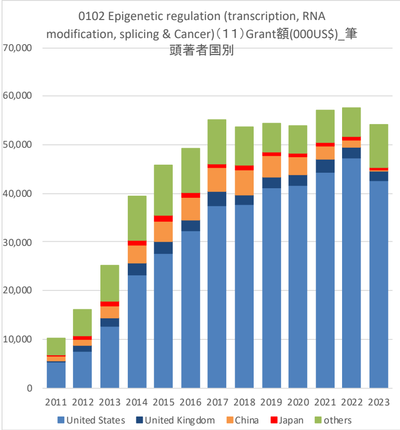
Epigenetic regulation の FA 別の引用数は、中国 NSFC が最も多く、続いて米国 NCI と推計された。

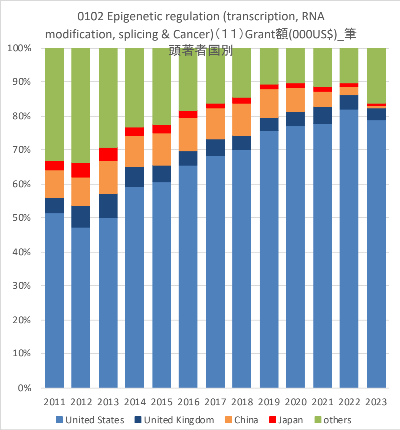


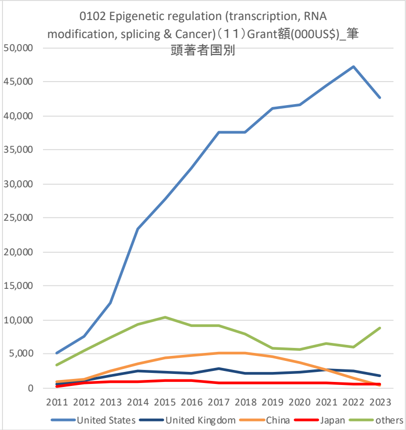
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer) Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	8	90	133	104	169	513	612	1,025	1,196	2,577	1,693	1,174	606	13	9,913
National Cancer Institute	157	274	425	336	117	694	630	356	317	525	417	189	83	6	4,526
Ministry of Science and Technology of the People's Republic of China	9	20	33	4	170	58	253	104	178	251	468	208	52	1	1,809
Japan Society for the Promotion of Science	73	56	92	67	32	68	86	96	41	243	114	13	21	0	1,002
Deutsche Forschungsgemeinschaft	17	19	20	24	15	87	558	38	66	45	22	31	0	0	942
National Institute of General Medical Sciences	72	51	35	15	79	58	71	55	27	53	286	123	13	2	940
Wellcome Trust	0	622	46	12	0	0	57	4	30	8	50	1	0	0	830
National Research Foundation of Korea	41	27	5	66	47	34	46	72	41	197	124	13	11	0	724
China Scholarship Council	0	0	0	0	59	0	5	545	0	35	36	4	0	0	684
European Research Council	0	0	14	136	5	200	38	165	19	94	6	1	3	0	681

4.2.3. Grant(000US$)額

Epigenetic regulation の研究費総額は 2010 年代初頭に大きく増加したが、近年は横ばい傾向と推計された。国別の研究費配分額は、米国がほとんどで、中国、英国での配分額は経年的に減少傾向が見られた。日本は横ばい傾向であった。



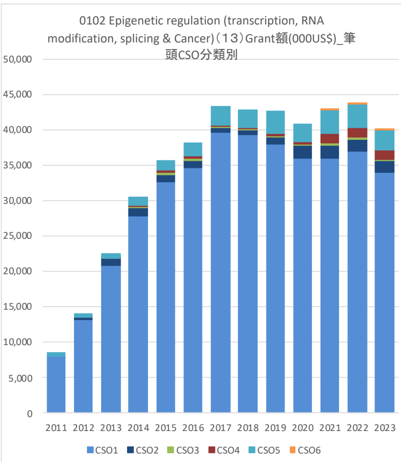


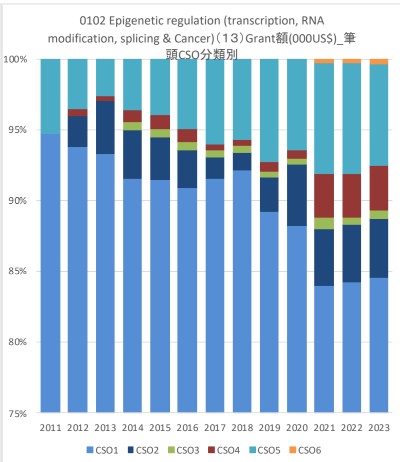


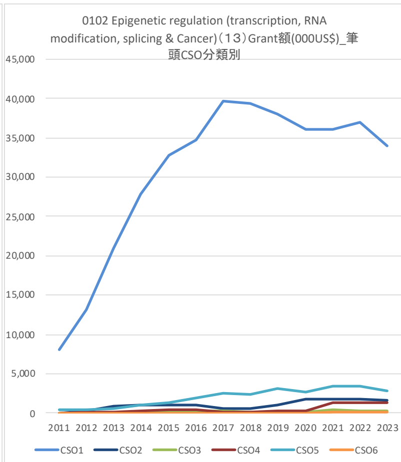
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(１１)Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	5,193	7,623	12,560	23,342	27,692	32,358	37,547	37,624	41,058	41,585	44,406	47,180	42,652	37,394	438,216
United Kingdom	460	1,038	1,770	2,433	2,311	2,056	2,760	2,177	2,191	2,238	2,729	2,438	1,836	1,791	28,229
China	821	1,332	2,475	3,555	4,344	4,802	5,101	5,147	4,562	3,752	2,631	1,472	349	210	40,553
Japan	274	706	941	922	1,116	1,064	668	772	709	782	789	591	564	429	10,326
others	3,359	5,473	7,401	9,264	10,374	9,073	9,058	7,887	5,795	5,581	6,447	5,955	8,725	7,239	101,629
合計	10,106	16,171	25,147	39,516	45,838	49,353	55,134	53,606	54,315	53,938	57,003	57,636	54,126	47,064	618,954

0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(１１)Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	51.4%	47.1%	49.9%	59.1%	60.4%	65.6%	68.1%	70.2%	75.6%	77.1%	77.9%	81.9%	78.8%	79.5%	70.8%
United Kingdom	4.6%	6.4%	7.0%	6.2%	5.0%	4.2%	5.0%	4.1%	4.0%	4.1%	4.8%	4.2%	3.4%	3.8%	4.6%
China	8.1%	8.2%	9.8%	9.0%	9.5%	9.7%	9.3%	9.6%	8.4%	7.0%	4.6%	2.6%	0.6%	0.4%	6.6%
Japan	2.7%	4.4%	3.7%	2.3%	2.4%	2.2%	1.2%	1.4%	1.3%	1.5%	1.4%	1.0%	1.0%	0.9%	1.7%
others	33.2%	33.8%	29.4%	23.4%	22.6%	18.4%	16.4%	14.7%	10.7%	10.3%	11.3%	10.3%	16.1%	15.4%	16.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の CSO 分類別の研究費配分額は、 CSO1 Biology への配分が大半であり、経年的にも近年はほぼ変化が見られなかった。



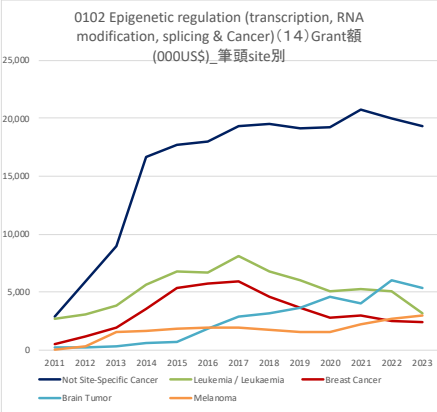




0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(１３)Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	8,061	13,226	20,951	27,913	32,716	34,715	39,673	39,416	38,021	36,075	36,047	36,971	33,944	29,119	426,849
2 Etiology	0	308	845	1,042	1,042	1,005	624	544	1,044	1,767	1,722	1,780	1,672	1,663	15,061
3 Prevention	0	0	0	189	219	219	230	203	162	162	373	211	211	211	2,390
4 Early Detection, Diagnosis, and Prognosis	0	71	71	250	361	375	178	195	293	269	1,289	1,367	1,287	504	6,510
5 Treatment	443	492	586	1,089	1,397	1,860	2,600	2,407	3,080	2,606	3,356	3,416	2,870	2,298	28,500
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	125	125	125	179	555
others	1,601	2,074	2,694	9,033	10,101	11,178	11,829	10,840	11,716	13,059	14,090	13,766	14,017	13,090	139,089
合計	10,106	16,171	25,147	39,516	45,838	49,353	55,134	53,606	54,315	53,938	57,003	57,636	54,126	47,064	618,954

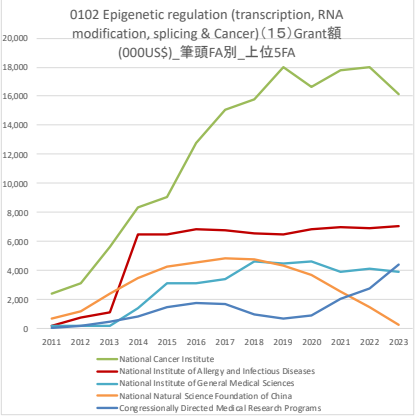
0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(１３)Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	79.8%	81.8%	83.3%	70.6%	71.4%	70.3%	72.0%	73.5%	70.0%	66.9%	63.2%	64.1%	62.7%	61.9%	69.0%
2 Etiology	0.0%	1.9%	3.4%	2.6%	2.3%	2.0%	1.1%	1.0%	1.9%	3.3%	3.0%	3.1%	3.1%	3.5%	2.4%
3 Prevention	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.7%	0.4%	0.4%	0.4%	0.4%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.4%	0.3%	0.6%	0.8%	0.8%	0.3%	0.4%	0.5%	0.5%	2.3%	2.4%	2.4%	1.1%	1.1%
5 Treatment	4.4%	3.0%	2.3%	2.8%	3.0%	3.8%	4.7%	4.5%	5.7%	4.8%	5.9%	5.9%	5.3%	4.9%	4.6%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.4%	0.1%
others	15.8%	12.8%	10.7%	22.9%	22.0%	22.6%	21.5%	20.2%	21.6%	24.2%	24.7%	23.9%	25.9%	27.8%	22.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Epigenetic regulation の臓器別の研究費配分額は、Not Site-specific Cancer について、白血病、乳がん、脳腫瘍への配分額が多いと推計された。



0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(14)Grant額 (000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	2,861	5,964	8,940	16,649	17,723	18,022	19,317	19,530	19,102	19,216	20,772	19,960	19,306	16,756	224,117
Leukemia / Leukaemia	2,736	3,065	3,795	5,626	6,797	6,671	8,083	6,812	6,059	5,063	5,289	5,024	3,172	2,998	71,190
Breast Cancer	556	1,200	1,887	3,571	5,350	5,708	5,879	4,570	3,639	2,826	2,997	2,516	2,389	2,322	45,410
Brain Tumor	177	177	314	581	713	1,879	2,876	3,158	3,623	4,632	4,058	5,993	5,324	4,740	38,246
Melanoma	0	272	1,548	1,669	1,823	1,980	1,956	1,774	1,521	1,592	2,176	2,689	2,934	2,762	24,694
Lung Cancer	156	202	357	910	964	957	1,742	2,254	2,911	2,023	2,147	1,871	1,614	1,056	19,164
Colon and Rectal Cancer	302	441	656	752	1,052	1,108	1,265	1,681	1,661	1,681	1,844	1,994	2,012	1,551	18,000
Liver Cancer	816	1,316	1,594	1,259	1,484	1,388	1,028	883	1,249	1,327	1,208	1,135	1,012	847	16,544
Prostate Cancer	240	404	931	1,112	1,663	1,814	1,826	1,376	910	1,005	1,580	1,298	1,338	1,011	16,508
Pancreatic Cancer	13	13	40	569	707	676	964	1,280	1,307	1,094	822	994	847	711	10,039

Epigenetic regulation の FA 別の研究費配分額は、米国 NCI が最も多く、ついで米国 National Institute of Allergy and Infectious Diseases と推計された。



0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)(15)Grant額 (000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	2,437	3,142	5,647	8,353	9,091	12,758	15,099	15,800	18,028	16,625	17,768	17,991	16,153	11,849	170,740	United States
National Institute of Allergy and Infectious Diseases	230	756	1,103	6,489	6,489	6,856	6,808	6,579	6,525	6,862	6,986	6,953	7,044	7,044	76,726	United States
National Institute of General Medical Sciences	194	229	229	1,412	3,133	3,165	3,404	4,637	4,475	4,631	3,892	4,162	3,887	3,958	41,409	United States
National Natural Science Foundation of China	721	1,232	2,403	3,476	4,313	4,596	4,862	4,812	4,368	3,692	2,589	1,526	304	73	38,966	China
Congressionally Directed Medical Research Programs	32	196	508	852	1,523	1,748	1,719	964	734	887	2,088	2,759	4,409	4,113	22,534	United States
Medical Research Council	0	516	1,132	1,327	1,428	1,281	1,823	1,149	917	1,472	1,987	1,883	1,448	1,402	17,766	United Kingdom
European Research Council	341	341	835	835	835	835	781	1,061	1,778	1,778	2,137	2,137	1,850	1,841	17,384	Belgium
National Institute of Diabetes and Digestive and Kidney Diseases	300	427	456	668	564	585	873	672	1,355	1,816	1,861	2,547	2,547	2,098	16,769	United States
National Institute of Neurological Disorders and Stroke	0	0	0	0	318	433	1,155	1,400	1,490	2,258	2,659	2,694	2,067	1,621	16,095	United States
National Heart Lung and Blood Institute	0	0	261	261	408	554	554	407	976	1,464	2,213	2,435	2,527	2,459	14,520	United States

4.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Understanding and Targeting the Epigenetic Regulation to Overcome EGFR-TKIs Resistance in Human Cancer	Sun, Lan; Gao, Lingyue; Zhao, Yingxi; Wang, Yuqing; Xu, Qianhui; Zheng, Yiru; Chen, Jiali; Wang, He; Wang, Lihui	Recent Patents on Anti-Cancer Drug Discovery	China	2023	5	Review Article
2	Epigenetic regulation of autophagy in gastrointestinal cancers	Ghavami, Saeid; Zamani, Mozhdeh; Ahmadi, Mazaher; Erfani, Mehran; Dastghaib, Sanaz; Darbandi, Mahsa; Darbandi, Sara; Vakili, Omid; Siri, Morvarid; Grabarek, Beniamin Oskar; Boroń, Dariusz; Zarghooni, Maryam; Wiechec, Emilia; Mokarram, Pooneh	Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease	Iran	2022	20	Research Article
3	The golden key to open mystery boxes of SMARCA4-deficient undifferentiated thoracic tumor: focusing immunotherapy, tumor microenvironment and epigenetic regulation	Li, Xiang; Tian, Sen; Shi, Hui; Ta, Na; Ni, Xiang; Bai, Chenguang; Zhu, Zhanli; Chen, Yilin; Shi, Dongchen; Huang, Haidong; Chen, Longpei; Hu, Zhenhong; Qu, Lei; Fang, Yao; Bai, Chong	Cancer Gene Therapy	China	2024	0	Review Article
4	Amino acid metabolism, redox balance and epigenetic regulation in cancer	Li, Xiang; Zhang, Hong-Sheng	The FEBS Journal	China	2023	9	Review Article
5	Association of Wiskott-Aldrich syndrome protein (WASp) in epigenetic regulation of B cell differentiation in non-small-cell lung cancer (NSCLC)	Chandnani, Nikhil; Mandal, Ayush; Gupta, Ishika; Mukherjee, Oishi; Rakshit, Sudeshna; Shanmugam, Geetha; George, Melvin; Sarkar, Koustav	Medical Oncology	India	2023	0	Research Article
6	Epigenetic regulation of breast cancer metastasis	Thakur, Chitra; Qiu, Yiran; Pawar, Aashna; Chen, Fei	Cancer and Metastasis Reviews	United States	2023	1	Review Article
7	Loss of Epigenetic Regulation Disrupts Lineage Integrity, Induces Aberrant Alveogenesis, and Promotes Breast Cancer.	Langille, Ellen; Al-Zahrani, Khalid N; Ma, Zhibo; Liang, Minggao; Uuskula-Reimand, Liis; Espin, Roderic; Teng, Katie; Malik, Ahmad; Bergholtz, Helga; Ghamrasni, Samah El; Afiuni-Zadeh, Somaieh; Tsai, Ricky; Alvi, Sana; Elia, Andrew; Lü, YiQing; Oh, Robin H; Kozma, Katelyn J; Trcka, Daniel; Narimatsu, Masahiro; Liu, Jeff C; Nguyen, Thomas; Barutcu, Seda; Loganathan, Sampath K; Bremner, Rod; Bader, Gary D; Egan, Sean E; Cescon, David W; Sørlie, Therese; Wrana, Jeffrey L; Jackson, Hartland W; Wilson, Michael D; Witkiewicz, Agnieszka K; Knudsen, Erik S; Pujana, Miguel Angel; Wahl, Geoffrey M; Schramek, Daniel	Cancer Discovery	Canada	2022	12	Research Article
8	Epigenetic regulation of tumor-immune symbiosis in glioma	Liu, Yang; Ali, Heba; Khan, Fatima; Pang, Lizhi; Chen, Peiwen	Trends in Molecular Medicine	United States	2024	0	Review Article
9	Intimate communications within the tumor microenvironment: stromal factors function as an orchestra	Cheng, Bing; Yu, Qiang; Wang, Wenyu	Journal of Biomedical Science	Singapore	2023	16	Review Article
10	Epigenetic regulation of EIF4A1 through DNA methylation and an oncogenic role of eIF4A1 through BRD2 signaling in prostate cancer	Wang, Chao; Leavenworth, Jonathan; Zhang, Chao; Liu, Zhichao; Yuan, Katherine Y.; Wang, Yicun; Zhang, Guangxin; Wang, Shuaibin; Cui, Xuelian; Zhang, Yue; Bae, Sejong; Zhou, Jiangbing; Wang, Lizhong; Liu, Runhua	Oncogene	United States	2022	7	Research Article

＜引用＞

Citation: 0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Cancer Epigenetics: From Mechanism to Therapy	Dawson, Mark A.; Kouzarides, Tony	Cell	United Kingdom	2012	611	Review Article
2	m6A regulator-mediated methylation modification patterns and tumor microenvironment infiltration characterization in gastric cancer	Zhang, Bo; Wu, Qiong; Li, Ben; Wang, Defeng; Wang, Lei; Zhou, You Lang	Molecular Cancer	China	2020	547	Research Article
3	Breast cancer development and progression: Risk factors, cancer stem cells, signaling pathways, genomics, and molecular pathogenesis	Feng, Yixiao; Spezia, Mia; Huang, Shifeng; Yuan, Chengfu; Zeng, Zongyue; Zhang, Linghuan; Ji, Xiaojuan; Liu, Wei; Huang, Bo; Luo, Wenping; Liu, Bo; Lei, Yan; Du, Scott; Vuppalapati, Akhila; Luu, Hue H.; Haydon, Rex C.; He, Tong-Chuan; Ren, Guosheng	Genes & Diseases	China	2018	545	Review Article
4	The DNA methyltransferase family: a versatile toolkit for epigenetic regulation	Lyko, Frank	Nature Reviews Genetics	Germany	2017	434	Review Article
5	RNA N6-methyladenosine methyltransferase-like 3 promotes liver cancer progression through YTHDF2-dependent posttranscriptional silencing of SOCS2	Chen, Mengnuo; Wei, Lai; Law, Cheuk-Ting; Tsang, Felice Ho-Ching; Shen, Jialing; Cheng, Carol Lai-Hung; Tsang, Long-Hin; Ho, Daniel Wai-Hung; Chiu, David Kung-Chun; Lee, Joyce Man-Fong; Wong, Carmen Chak-Lui; Ng, Irene Oi-Lin; Wong, Chun-Ming	Hepatology	China	2018	428	Research Article
6	Progress, opportunity, and perspective on exosome isolation – efforts for efficient exosome-based theranostics	Yang, Dongbin; Zhang, Weihong; Zhang, Huanyun; Zhang, Fengqiu; Chen, Lanmei; Ma, Lixia; Larcher, Leon M.; Chen, Suxiang; Liu, Nan; Zhao, Qingxia; Tran, Phuong H.L.; Chen, Changying; Veedu, Rakesh N; Wang, Tao	Theranostics	Australia	2020	413	Review Article
7	Glutamine reliance in cell metabolism	Yoo, Hee Chan; Yu, Ya Chun; Sung, Yulseung; Han, Jung Min	Experimental & Molecular Medicine	South Korea	2020	381	Review Article
8	Histone Deacetylase Inhibitors as Anticancer Drugs	Eckschlager, Tomas; Plch, Johana; Stiborova, Marie; Hrabeta, Jan	International Journal of Molecular Sciences	Czechia	2017	334	Review Article
9	Amino acids in cancer	Lieu, Elizabeth L.; Nguyen, Tu; Rhyne, Shawn; Kim, Jiyeon	Experimental & Molecular Medicine	United States	2020	328	Review Article
10	The Structure and Function of DNA G-Quadruplexes	Spiegel, Jochen; Adhikari, Santosh; Balasubramanian, Shankar	Trends in Chemistry	United Kingdom	2020	327	Review Article

＜研究費＞

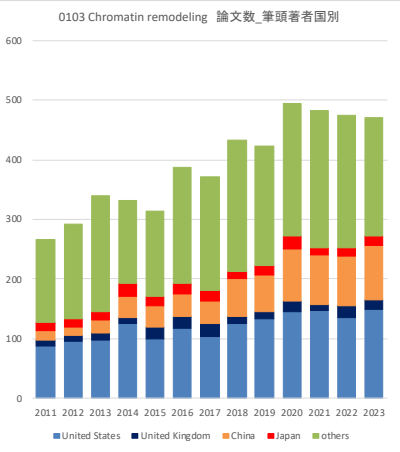
Grant: 0102 Epigenetic regulation (transcription, RNA modification, splicing & Cancer)

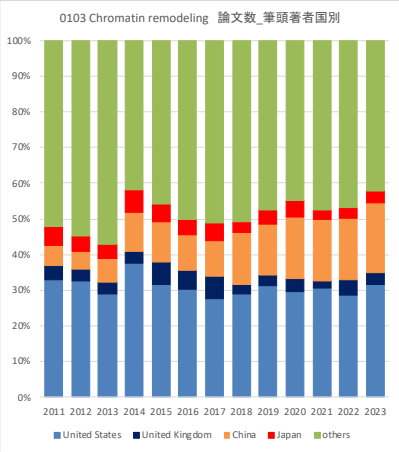
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Molecular Regulation of B cells and T cells in Human SLE	IGNACIO E. SANZ, JEREMY M. BOSS	National Institute of Allergy and Infectious Diseases	United States	59,250,448	2014	2024
2	Targetable epigenetic and transcriptional mechanisms in melanoma that shape the microenvironment	DAVID E FISHER, LYNDA CHIN, HENSIN TSAO, GAD A GETZ, LEVI A. GARRAWAY, LEONARD IRA ZON, KAI W WUCHERPFENNIG, XIAOLE SHIRLEY LIU	National Cancer Institute	United States	14,346,121	2013	2024
3	Targeting tumour-host interactions in paediatric malignant gliomas to reinvigorate immunity and improve radio- and immunotherapy efficacy	0	European Commission	Belgium	10,428,576	2023	2027
4	Targeting Cyclic AMP and Protein Kinase A Signaling to Treat ADPKD: An Efficacious Strategy with Further Potential	Vicente E Torres	Congressionally Directed Medical Research Programs	United States	8,966,819	2023	2027
5	Studies on oncoprotein-induced feedback: Basic and therapeutic implications	NEAL ROSEN	National Cancer Institute	United States	7,341,720	2016	2023
6	Epigenetic plasticity in tumor initiation and evolution	BRADLEY EVAN BERNSTEIN	National Cancer Institute	United States	5,949,090	2016	2022
7	Interventional Epigenetics in Myeloid Malignancies	Stephen Nimer, md	Leukemia and Lymphoma Society	United States	5,000,000	2017	2022
8	Intrinsic B cell epigenetic regulation of antibody and autoantibody responses by Sirt1	PAOLO CASALI	National Institute of Allergy and Infectious Diseases	United States	4,505,471	2013	2025
9	Immune Mechanisms in Ocular Graft versus Host Disease	VICTOR L PEREZ, ROBERT BENJAMIN LEVY	National Eye Institute	United States	4,316,234	2014	2026
10	KSHV Epigenetic Regulation	JAE U JUNG	National Institute of Dental and Craniofacial Research	United States	4,174,287	2013	2024

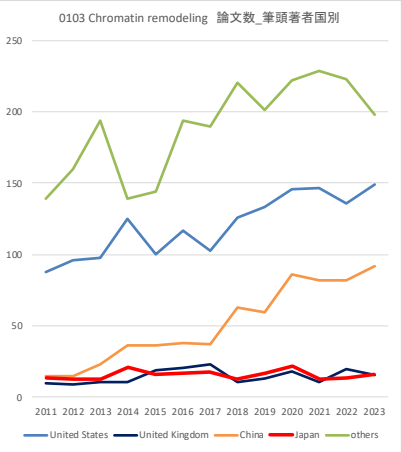
4.3. 0103 Chromatin remodeling

4.3.1. 論文数

Chromatin remodeling の論文数は増加傾向にあるものの、近年は横ばい傾向と推計された。国別の論文数は、その他の国を除くと米国、中国の論文数が多く、中国の論文が近年増加傾向と推計された。



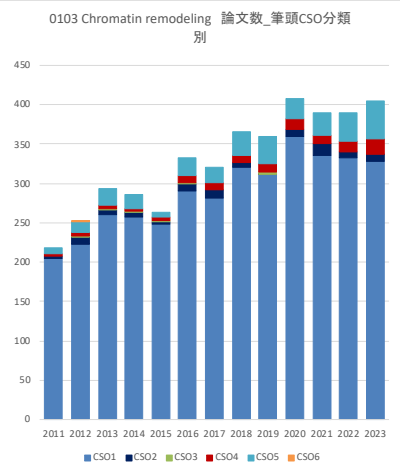


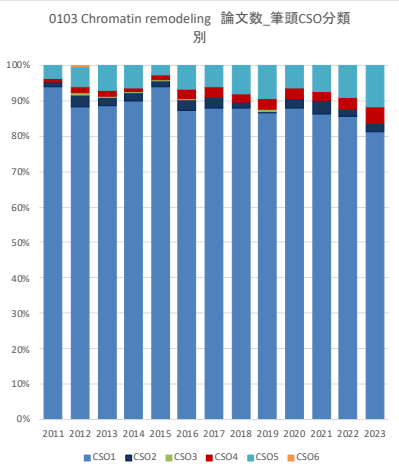


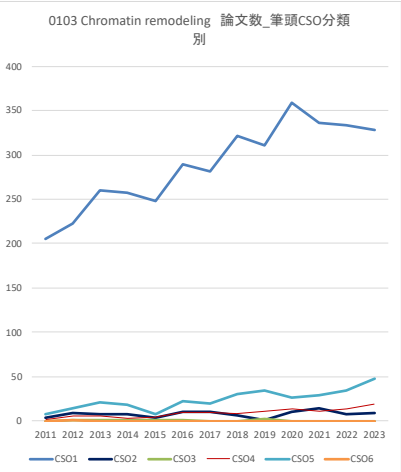
0103 Chromatin remodeling 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	88	96	98	125	100	117	103	126	133	146	147	136	149	80	1,644
United Kingdom	10	9	11	11	19	21	23	11	13	18	11	20	16	7	200
China	15	15	23	36	36	38	37	63	60	86	82	82	92	36	701
Japan	14	13	13	21	16	17	18	13	17	22	13	14	16	7	214
others	139	160	194	139	144	194	190	220	201	222	229	223	198	86	2,539
合計	266	293	339	332	315	387	371	433	424	494	482	475	471	216	5,298

0103 Chromatin remodeling 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	33.1%	32.8%	28.9%	37.7%	31.7%	30.2%	27.8%	29.1%	31.4%	29.6%	30.5%	28.6%	31.6%	37.0%	31.0%
United Kingdom	3.8%	3.1%	3.2%	3.3%	6.0%	5.4%	6.2%	2.5%	3.1%	3.6%	2.3%	4.2%	3.4%	3.2%	3.8%
China	5.6%	5.1%	6.8%	10.8%	11.4%	9.8%	10.0%	14.5%	14.2%	17.4%	17.0%	17.3%	19.5%	16.7%	13.2%
Japan	5.3%	4.4%	3.8%	6.3%	5.1%	4.4%	4.9%	3.0%	4.0%	4.5%	2.7%	2.9%	3.4%	3.2%	4.0%
others	52.3%	54.6%	57.2%	41.9%	45.7%	50.1%	51.2%	50.8%	47.4%	44.9%	47.5%	46.9%	42.0%	39.8%	47.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin remodeling の CSO 分類別の論文数は、7 割以上が CSO1 Biology と推定された。



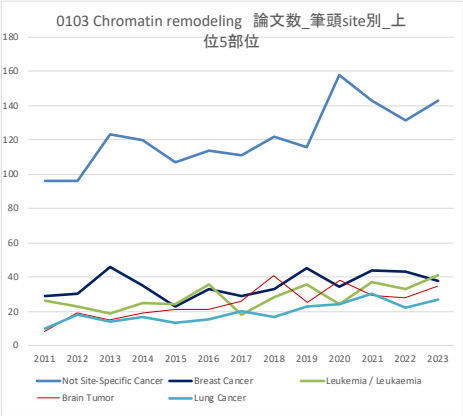




0103 Chromatin remodeling 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	205	223	260	257	248	290	282	321	311	359	336	333	328	154	3,907
2 Etiology	3	9	7	7	4	10	10	6	1	10	14	7	9	1	98
3 Prevention	0	1	1	1	1	1	0	0	2	0	0	0	0	0	7
4 Early Detection, Diagnosis, and Prognosis	2	5	5	3	4	9	9	8	11	13	11	14	19	6	119
5 Treatment	8	14	21	18	7	22	20	30	34	26	29	35	48	26	338
6 Cancer Control, Survivorship, and Outcomes Research	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
others	48	40	45	46	51	55	50	68	65	86	92	86	67	29	828
合計	266	293	339	332	315	387	371	433	424	494	482	475	471	216	5,298

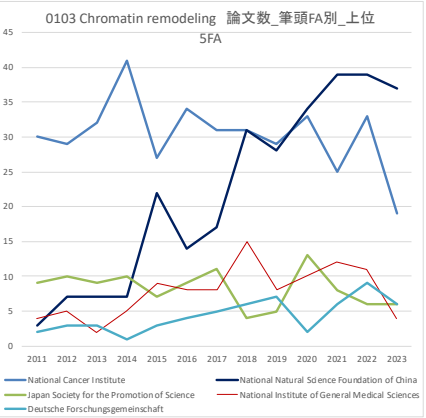
0103 Chromatin remodeling 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	77.1%	76.1%	76.7%	77.4%	78.7%	74.9%	76.0%	74.1%	73.3%	72.7%	69.7%	70.1%	69.6%	71.3%	73.7%
2 Etiology	1.1%	3.1%	2.1%	2.1%	1.3%	2.6%	2.7%	1.4%	0.2%	2.0%	2.9%	1.5%	1.9%	0.5%	1.8%
3 Prevention	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	0.8%	1.7%	1.5%	0.9%	1.3%	2.3%	2.4%	1.8%	2.6%	2.6%	2.3%	2.9%	4.0%	2.8%	2.2%
5 Treatment	3.0%	4.8%	6.2%	5.4%	2.2%	5.7%	5.4%	6.9%	8.0%	5.3%	6.0%	7.4%	10.2%	12.0%	6.4%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
others	18.0%	13.7%	13.3%	13.9%	16.2%	14.2%	13.5%	15.7%	15.3%	17.4%	19.1%	18.1%	14.2%	13.4%	15.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin remodeling の臓器別の論文は、Not Site-specific Cancer が最も多く、次いで乳がん、白血病、脳腫瘍が多いと推計された。



0103 Chromatin remodeling 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	96	96	123	120	107	114	111	122	116	158	143	131	143	59	1,639
Breast Cancer	29	30	46	35	23	33	29	33	45	34	44	43	38	30	492
Leukemia / Leukaemia	26	23	19	25	24	36	18	28	36	24	37	33	41	9	379
Brain Tumor	8	19	15	19	21	21	26	41	25	38	29	28	35	12	337
Lung Cancer	10	18	14	17	13	15	20	17	23	24	30	22	27	13	263
Kidney Cancer	9	10	16	8	11	19	17	24	16	14	11	19	18	4	196
Colon and Rectal Cancer	7	5	10	13	8	19	12	13	17	20	21	23	10	13	191
Liver Cancer	6	8	8	10	12	11	17	23	17	13	22	20	15	8	190
Pancreatic Cancer	10	7	10	7	5	15	12	14	12	9	15	17	7	6	146
Prostate Cancer	13	10	11	3	6	6	9	9	10	13	7	20	10	4	131

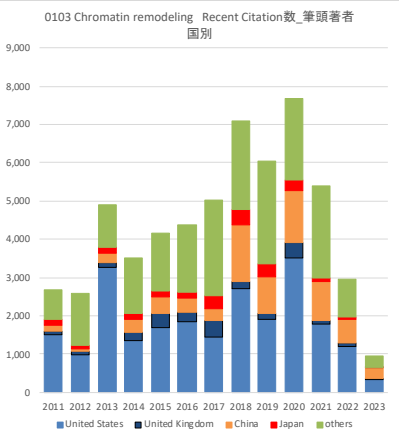
Chromatin remodeling の FA 別の論文数は、米国 NCI が最も多く、次いで、中国 NSFC、わが国の JSPS の順と推計された。経年的には、中国 NSFC の論文数の増加が近年顕著であった。

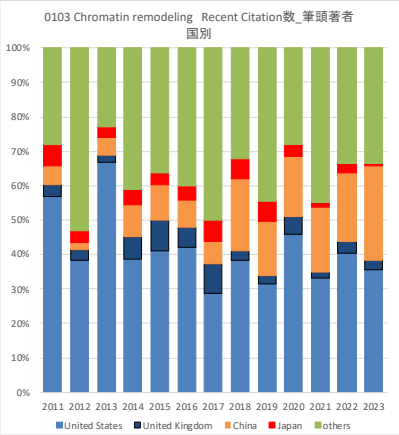


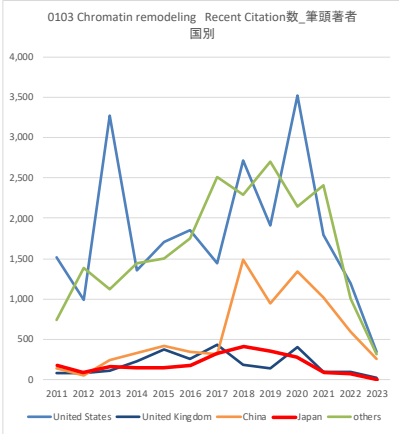
0103 Chromatin remodeling 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	30	29	32	41	27	34	31	31	29	33	25	33	19	11	405
National Natural Science Foundation of China	3	7	7	7	22	14	17	31	28	34	39	39	37	16	301
Japan Society for the Promotion of Science	9	10	9	10	7	9	11	4	5	13	8	6	6	3	110
National Institute of General Medical Sciences	4	5	2	5	9	8	8	15	8	10	12	11	4	4	105
Deutsche Forschungsgemeinschaft	2	3	3	1	3	4	5	6	7	2	6	9	6	0	57
Ministry of Science and Technology of the People's Republic of China	2	1	3	4	1	2	6	6	7	3	3	11	3	2	54
European Commission	4	3	2	3	3	3	3	1	2	4	8	5	4	1	46
Medical Research Council	2	5	0	4	7	3	5	3	0	1	9	3	0	1	43
Canadian Institutes of Health Research	2	7	4	3	4	4	3	1	2	1	5	1	3	0	40
National Research Foundation of Korea	2	1	6	7	1	3	1	3	0	5	5	5	1	0	40

4.3.2. Recent Citation 数

Chromatin remodeling の引用数は増加傾向と推計された。国別の引用数は、その他の国を除くと米国が最も多く、次いで中国の引用数が多いと推計された。



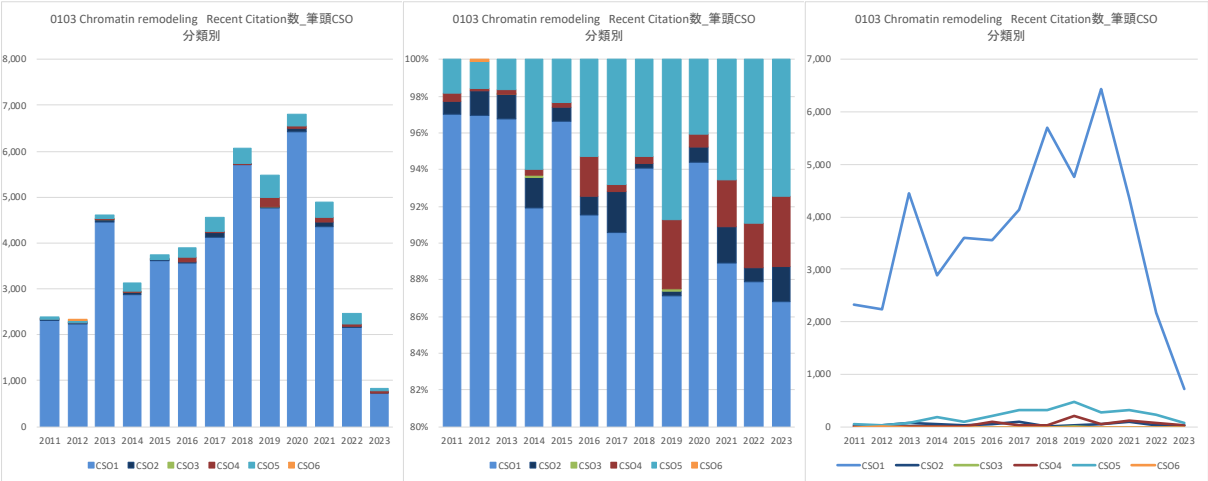




0103 Chromatin remodeling Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,516	991	3,272	1,350	1,703	1,848	1,447	2,714	1,916	3,519	1,792	1,195	342	7	23,612
United Kingdom	88	82	108	229	371	258	427	184	143	406	96	104	28	3	2,527
China	144	53	247	331	424	342	319	1,480	952	1,338	1,012	596	262	8	7,508
Japan	171	89	164	152	147	184	318	413	348	275	85	77	8	0	2,431
others	745	1,381	1,116	1,436	1,505	1,752	2,510	2,288	2,697	2,143	2,414	998	322	10	21,317
合計	2,664	2,596	4,907	3,498	4,150	4,384	5,021	7,079	6,056	7,681	5,399	2,970	962	28	57,395

0103 Chromatin remodeling Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	56.9%	38.2%	66.7%	38.6%	41.0%	42.2%	28.8%	38.3%	31.6%	45.8%	33.2%	40.2%	35.6%	25.0%	41.1%
United Kingdom	3.3%	3.2%	2.2%	6.5%	8.9%	5.9%	8.5%	2.6%	2.4%	5.3%	1.8%	3.5%	2.9%	10.7%	4.4%
China	5.4%	2.0%	5.0%	9.5%	10.2%	7.8%	6.4%	20.9%	15.7%	17.4%	18.7%	20.1%	27.2%	28.6%	13.1%
Japan	6.4%	3.4%	3.3%	4.3%	3.5%	4.2%	6.3%	5.8%	5.7%	3.6%	1.6%	2.6%	0.8%	0.0%	4.2%
others	28.0%	53.2%	22.7%	41.1%	36.3%	40.0%	50.0%	32.3%	44.5%	27.9%	44.7%	33.6%	33.5%	35.7%	37.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

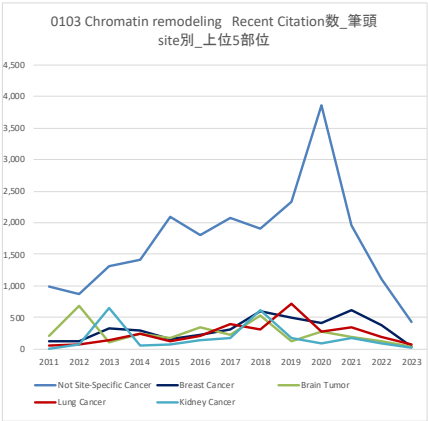
Chromatin remodeling の CSO 分類別の引用数は、CSO1 Biology は年度を通じて多いが、近年は CSO5 Treatment の引用数が徐々に増加しつつあると推計された。



0103 Chromatin remodeling Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2,318	2,238	4,457	2,880	3,606	3,565	4,126	5,706	4,769	6,434	4,351	2,168	724	18	47,360
2 Etiology	18	32	60	52	30	38	100	14	15	56	95	19	16	0	545
3 Prevention	0	0	2	4	0	0	0	0	7	0	0	0	0	0	13
4 Early Detection, Diagnosis, and Prognosis	10	3	10	10	8	86	19	22	207	50	125	60	32	1	643
5 Treatment	44	34	76	188	88	205	309	321	477	275	322	220	62	2	2,623
6 Cancer Control, Survivorship, and Outcomes Research	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
others	274	287	302	364	418	490	467	1,016	581	866	506	503	128	7	6,209
合計	2,664	2,596	4,907	3,498	4,150	4,384	5,021	7,079	6,056	7,681	5,399	2,970	962	28	57,395

0103 Chromatin remodeling Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	87.0%	86.2%	90.8%	82.3%	86.9%	81.3%	82.2%	80.6%	78.7%	83.8%	80.6%	73.0%	75.3%	64.3%	82.5%
2 Etiology	0.7%	1.2%	1.2%	1.5%	0.7%	0.9%	2.0%	0.2%	0.2%	0.7%	1.8%	0.6%	1.7%	0.0%	0.9%
3 Prevention	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	0.4%	0.1%	0.2%	0.3%	0.2%	2.0%	0.4%	0.3%	3.4%	0.7%	2.3%	2.0%	3.3%	3.6%	1.1%
5 Treatment	1.7%	1.3%	1.5%	5.4%	2.1%	4.7%	6.2%	4.5%	7.9%	3.6%	6.0%	7.4%	6.4%	7.1%	4.6%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
others	10.3%	11.1%	6.2%	10.4%	10.1%	11.2%	9.3%	14.4%	9.6%	11.3%	9.4%	16.9%	13.3%	25.0%	10.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

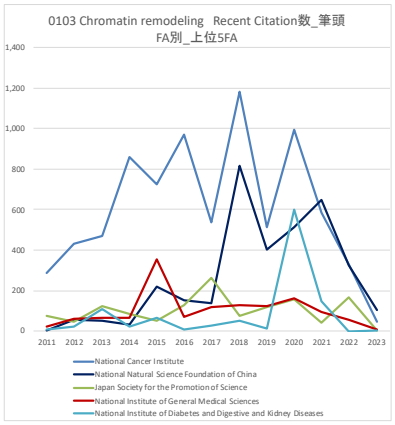
Chromatin remodeling の臓器別の引用数は、Not Site-specific Cancer が最も多く、次いで乳がん、脳腫瘍などが多いと推計された。



0103 Chromatin remodeling Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	996	880	1,311	1,407	2,101	1,799	2,081	1,899	2,338	3,865	1,960	1,118	426	6	22,187
Breast Cancer	120	118	323	297	157	230	315	596	492	410	622	374	37	1	4,092
Brain Tumor	210	690	109	240	174	345	223	529	127	282	188	127	37	6	3,287
Lung Cancer	64	81	141	246	117	206	393	320	714	273	352	185	75	6	3,173
Kidney Cancer	10	74	657	58	79	145	173	618	176	84	179	85	17	0	2,355
Liver Cancer	79	70	59	147	99	119	188	720	217	125	361	85	15	1	2,285
Leukemia / Leukaemia	158	96	171	135	123	230	131	294	288	167	251	110	66	2	2,222
Endometrial Cancer	72	57	1,444	0	117	36	20	159	16	134	15	38	7	0	2,115
Colon and Rectal Cancer	52	17	65	239	55	222	169	262	351	341	221	80	18	1	2,093
Pancreatic Cancer	454	69	142	57	207	130	346	191	108	39	123	132	57	0	2,055

Chromatin remodeling の筆頭 FA では米国 NCI の論文の引用が最も多いと推計された。次いで中国

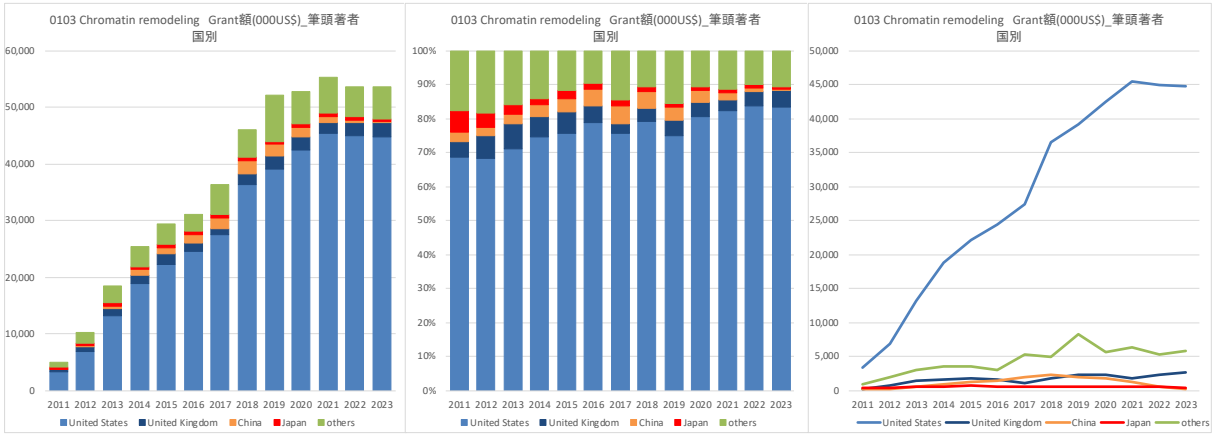
NSFC、わが国の JSPS と推計された。



0103 Chromatin remodeling Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	287	429	469	857	724	967	537	1,183	514	992	586	329	47	3	7,924
National Natural Science Foundation of China	5	54	49	33	219	150	140	816	401	514	645	323	104	4	3,457
Japan Society for the Promotion of Science	77	48	123	87	52	128	261	73	116	158	41	167	4	1	1,336
National Institute of General Medical Sciences	21	63	64	67	352	70	116	127	124	162	93	54	6	0	1,319
National Institute of Diabetes and Digestive and Kidney Diseases	6	23	107	23	64	10	25	51	11	598	147	0	1	0	1,066
Ministry of Science and Technology of the People's Republic of China	55	4	32	29	4	16	68	81	136	224	29	168	2	0	848
National Institute of Neurological Disorders and Stroke	168	5	0	0	14	23	35	239	25	115	21	17	0	0	662
Deutsche Forschungsgemeinschaft	2	37	24	3	49	95	100	53	63	39	75	67	19	0	626
Italian Association for Cancer Research	8	16	25	16	17	63	47	181	78	21	80	32	8	0	592
Medical Research Council	3	46	0	53	173	6	40	47	0	43	99	31	0	3	544

4.3.3. Grant(000US$)額

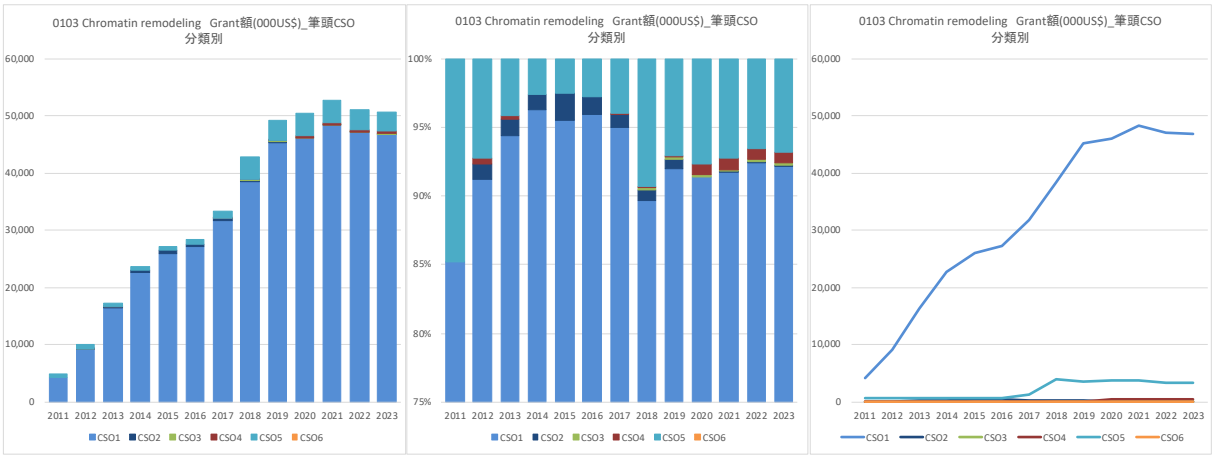
Chromatin remodeling の研究費総額は、経年的に増加傾向が見られたが、ここ数年は横ばい傾向と推計された。国別の研究費配分額は、米国が最も多く、経年的にも上昇傾向と推計された。



0103 Chromatin remodeling Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	3,391	6,941	13,088	18,869	22,187	24,451	27,408	36,420	39,099	42,457	45,391	44,905	44,693	39,997	409,297
United Kingdom	219	699	1,355	1,532	1,849	1,525	1,062	1,818	2,303	2,218	1,805	2,315	2,598	2,255	23,555
China	150	260	490	889	1,160	1,488	1,969	2,252	2,027	1,834	1,202	574	238	133	14,665
Japan	315	402	524	478	653	590	619	617	539	556	525	482	358	234	6,892
others	866	1,889	2,942	3,560	3,473	2,942	5,245	4,961	8,183	5,711	6,335	5,356	5,775	4,541	61,777
合計	4,941	10,191	18,399	25,328	29,323	30,996	36,304	46,068	52,150	52,776	55,258	53,631	53,662	47,160	516,187

0103 Chromatin remodeling Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	68.6%	68.1%	71.1%	74.5%	75.7%	78.9%	75.5%	79.1%	75.0%	80.4%	82.1%	83.7%	83.3%	84.8%	79.3%
United Kingdom	4.4%	6.9%	7.4%	6.1%	6.3%	4.9%	2.9%	3.9%	4.4%	4.2%	3.3%	4.3%	4.8%	4.8%	4.6%
China	3.0%	2.6%	2.7%	3.5%	4.0%	4.8%	5.4%	4.9%	3.9%	3.5%	2.2%	1.1%	0.4%	0.3%	2.8%
Japan	6.4%	3.9%	2.8%	1.9%	2.2%	1.9%	1.7%	1.3%	1.0%	1.1%	1.0%	0.9%	0.7%	0.5%	1.3%
others	17.5%	18.5%	16.0%	14.1%	11.8%	9.5%	14.4%	10.8%	15.7%	10.8%	11.5%	10.0%	10.8%	9.6%	12.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

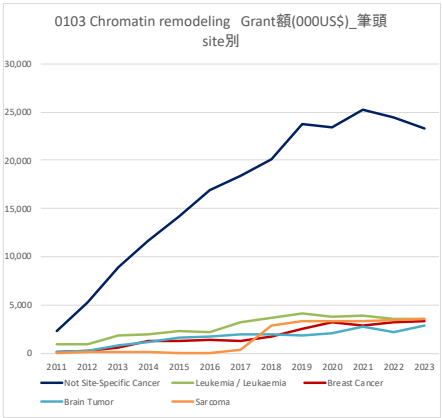
Chromatin remodeling の CSO 分類別の研究費配分額は、CSO1 Biology が大半を占めていると推計された。



0103 Chromatin remodeling Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4,185	9,143	16,350	22,667	25,932	27,189	31,699	38,466	45,200	46,035	48,284	47,113	46,722	40,696	449,681
2 Etiology	0	108	203	271	551	381	313	313	313	0	8	39	39	39	2,577
3 Prevention	0	0	0	0	0	0	0	76	76	76	76	76	76	0	459
4 Early Detection, Diagnosis, and Prognosis	0	44	44	0	0	0	20	43	43	422	422	399	399	399	2,234
5 Treatment	728	728	728	607	679	778	1,333	3,989	3,495	3,855	3,832	3,344	3,453	2,704	30,254
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
others	28	169	1,075	1,783	2,160	2,648	2,938	3,180	3,023	2,387	2,635	2,660	2,973	3,322	30,982
合計	4,941	10,191	18,399	25,328	29,323	30,996	36,304	46,068	52,150	52,776	55,258	53,631	53,662	47,160	516,187

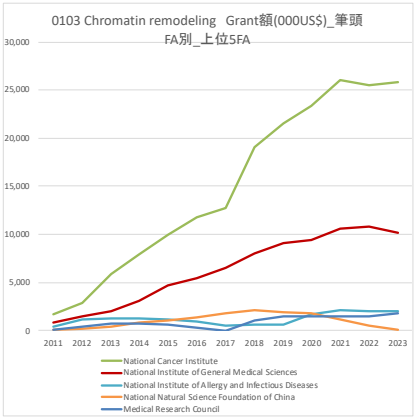
0103 Chromatin remodeling Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	84.7%	89.7%	88.9%	89.5%	88.4%	87.7%	87.3%	83.5%	86.7%	87.2%	87.4%	87.8%	87.1%	86.3%	87.1%
2 Etiology	0.0%	1.1%	1.1%	1.1%	1.9%	1.2%	0.9%	0.7%	0.6%	0.0%	0.0%	0.1%	0.1%	0.1%	0.5%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.8%	0.8%	0.7%	0.7%	0.8%	0.4%
5 Treatment	14.7%	7.1%	4.0%	2.4%	2.3%	2.5%	3.7%	8.7%	6.7%	7.3%	6.9%	6.2%	6.4%	5.7%	5.9%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
others	0.6%	1.7%	5.8%	7.0%	7.4%	8.5%	8.1%	6.9%	5.8%	4.5%	4.8%	5.0%	5.5%	7.0%	6.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin remodeling の臓器別の研究費配分額は、Not Site-specific Cancer が大半を占めていたと推計された。



0103 Chromatin remodeling Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	2,357	5,230	8,952	11,628	14,211	16,863	18,437	20,107	23,745	23,415	25,295	24,438	23,270	20,476	238,425
Leukemia / Leukaemia	900	972	1,853	1,970	2,334	2,209	3,211	3,677	4,133	3,808	3,923	3,603	3,606	2,972	39,171
Breast Cancer	123	313	573	1,259	1,327	1,438	1,342	1,750	2,501	3,229	2,896	3,246	3,360	2,936	26,292
Brain Tumor	116	211	809	1,208	1,622	1,758	1,939	2,035	1,817	2,070	2,833	2,243	2,859	2,779	24,298
Sarcoma	56	175	208	208	33	0	383	2,934	3,386	3,293	3,379	3,413	3,551	3,177	24,196
Melanoma	144	359	1,555	1,555	1,411	1,196	1,296	1,426	1,627	2,217	2,230	2,264	2,230	2,315	21,824
Non-Hodgkin's Lymphoma	0	51	63	72	79	42	42	1,703	1,274	1,817	2,000	2,162	2,162	2,162	13,628
Prostate Cancer	122	302	628	625	666	599	668	1,339	1,525	1,127	1,340	1,814	1,763	965	13,483
Lung Cancer	357	378	411	454	1,476	518	607	612	876	1,159	1,401	1,633	1,736	1,500	13,119
Ovarian Cancer	64	370	352	409	753	753	871	892	1,407	1,432	1,173	1,432	1,612	1,216	12,735

Chromatin remodeling の FA 別の研究費額は米国 NCI が最も大きく経年的にも大きく増加傾向が見られた。次いで、米国 National Institute of General Medical Sciences が多いと推計された。



0103 Chromatin remodeling Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	1,719	2,859	5,921	7,885	9,917	11,773	12,713	19,028	21,537	23,331	26,022	25,476	25,858	23,215	217,253	United States
National Institute of General Medical Sciences	853	1,484	2,053	3,098	4,692	5,477	6,517	8,060	9,136	9,468	10,652	10,806	10,151	9,178	91,626	United States
National Institute of Allergy and Infectious Diseases	400	1,169	1,315	1,315	1,167	913	513	603	603	1,714	2,136	2,066	2,066	1,956	17,936	United States
National Natural Science Foundation of China	115	225	455	828	1,106	1,371	1,824	2,101	1,882	1,765	1,153	557	125	0	13,507	China
Medical Research Council	102	419	764	764	662	360	0	1,029	1,507	1,507	1,453	1,453	1,822	1,479	13,323	United Kingdom
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	358	358	638	677	807	1,115	1,115	1,130	1,368	1,378	1,395	1,395	11,734	United States
FWF Austrian Science Fund	0	86	149	149	149	86	1,064	1,064	1,140	1,140	1,140	1,140	1,140	1,064	9,508	Austria
European Research Council	0	0	276	276	276	655	939	939	1,254	978	978	599	1,125	1,125	9,419	Belgium
Congressionally Directed Medical Research Programs	0	275	275	295	336	241	872	787	926	816	522	1,171	1,297	1,297	9,110	United States
National Institute of Arthritis and Musculoskeletal and Skin Diseases	0	0	0	492	492	523	523	572	1,038	1,279	662	541	541	541	7,202	United States

4.3.4. 主要論文、引用、研究費

＜論文＞

Publication: 0103 Chromatin remodeling

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Targeting Chromatin-Remodeling Factors in Cancer Cells: Promising Molecules in Cancer Therapy	Zhang, Fang-Lin; Li, Da-Qiang	International Journal of Molecular Sciences	China	2022	8	Review Article
2	(mis)-Targeting of SWI/SNF complex(es) in cancer	Reddy, Divya; Bhattacharya, Saikat; Workman, Jerry L.	Cancer and Metastasis Reviews	United States	2023	5	Review Article
3	Therapeutic significance of ARID1A mutation in bladder cancer	Conde, Marina; Frew, Ian J.	Neoplasia	Germany	2022	7	Review Article
4	Impact of Mutations in Subunit Genes of the Mammalian SWI/SNF Complex on Immunological Tumor Microenvironment	Hozumi, Chikako; Iizuka, Akira; Ikeya, Tomoatsu; Miyata, Haruo; Maeda, Chie; Ashizawa, Tadashi; Nagashima, Takeshi; Urakami, Kenichi; Shimoda, Yuji; Ohshima, Keiichi; Muramatsu, Koji; Sugino, Takashi; Shiomi, Akio; Ohde, Yasuhisa; Bando, Etsuro; Furukawa, Kenichiro; Sugiura, Teiichi; Mukaigawa, Takashi; Nishimura, Seiichiro; Hirashima, Yasuyuki; Mitsuya, Koichi; Yoshikawa, Shusuke; Tsubosa, Yasuhiro; Katagiri, Hirohisa; Niwakawa, Masashi; Yamaguchi, Ken; Kenmotsu, Hirotsugu; Akiyama, Yasuto	Cancer Genomics & Proteomics	Japan	2023	1	Research Article
5	Small molecules that disrupt RAD54-BLM interaction hamper tumor proliferation in colon cancer chemoresistance models	Kaur, Ekjot; Agrawal, Ritu; Arun, Rimpy; Madhavan, Vinoth; Srivastava, Vivek; Kumar, Dilip; Rath, Pragyan Parimita; Kumar, Nitin; Vedagopuram, Sreekanth; Pandey, Nishant; Priya, Swati; Legembre, Patrick; Gourinath, Samudrala; Bajaj, Avinash; Sengupta, Sagar	Journal of Clinical Investigation	Singapore	2024	0	Research Article
6	Clustering of Chromatin Remodeling Enzymes Predicts Prognosis and Clinical Benefit of Therapeutic Strategy in Pancreatic Cancer	Wang, Hui-Ching; Shih, Hsiang-Yao; Wu, Chun-Chieh; Chen, Li-Tzong; Luo, Chi-Wen; Liu, Yi-Chang; Du, Jeng-Shiun; Huang, Min-Chin; Su, Yung-Yeh; Chen, Huan-Da; Hsiao, Hui-Hua; Moi, Sin-Hua; Pan, Mei-Ren	International Journal of Medical Sciences	Taiwan	2022	0	Research Article
7	Recent insights into the SWI/SNF complex and the molecular mechanism of hSNF5 deficiency in rhabdoid tumors	Kuwahara, Yasumichi; Iehara, Tomoko; Matsumoto, Akifumi; Okuda, Tsukasa	Cancer Medicine	Japan	2023	0	Review Article
8	Genomic analysis reveals HDAC1 regulates clinically relevant transcriptional programs in Pancreatic cancer	Wright, Carter A.; Gordon, Emily R.; Cooper, Sara J.	BMC Cancer	United States	2023	0	Research Article
9	The SWI/SNF chromatin remodeling complexes BAF and PBAF differentially regulate epigenetic transitions in exhausted CD8+ T cells	Baxter, Amy E; Huang, Hua; Giles, Josephine R; Chen, Zeyu; Wu, Jennifer E; Drury, Sydney; Dalton, Katherine; Park, Simone L; Torres, Leonel; Simone, Brandon W; Klapholz, Max; Ngiow, Shin Foong; Freilich, Elizabeth; Manne, Sasikanth; Alcalde, Victor; Ekshyyan, Viktoriya; Berger, Shelley L; Shi, Junwei; Jordan, Martha S; Wherry, E John	Immunity	United States	2023	15	Research Article
10	MUC1-C integrates type II interferon and chromatin remodeling pathways in immunosuppression of prostate cancer	Hagiwara, Masayuki; Fushimi, Atsushi; Bhattacharya, Atrayee; Yamashita, Nami; Morimoto, Yoshihiro; Oya, Mototsugu; Withers, Henry G.; Hu, Qiang; Liu, Tao; Liu, Song; Wong, Kwok K.; Long, Mark D.; Kufe, Donald	OncoImmunology	United States	2022	18	Research Article

＜引用＞

Citation: 0103 Chromatin remodeling

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Integrated genomic characterization of endometrial carcinoma	Gad Getz; Stacey B. Gabriel; Kristian Cibulskis; Eric Lander; Andrey Sivachenko; Carrie Sougnez; Mike Lawrence; Cyriac Kandoth; David Dooling; Robert Fulton; Lucinda Fulton; Joelle Kalicki-Veizer; Michael D. McLellan; Michelle O' Laughlin; Heather Schmidt; Richard K. Wilson; Kai Ye; Li Ding; Elaine R. Mardis; Adrian Ally; Miruna Balasundaram; Inanc Birol; Yaron S. N. Butterfield; Rebecca Carlsen; Candace Carter; Andy Chu; Eric Chuah; Hye-Jung E. Chun; Noreen Dhalla; Ranabir Guin; Carrie Hirst; Robert A. Holt; Steven J. M. Jones; Darlene Lee; Haiyan I. Li; Marco A. Marra; Michael Mayo; Richard A. Moore; Andrew J. Mungall; Patrick Plettner; Jacqueline E. Schein; Payal Sipahimalani; Angela Tam; Richard J. Varhol; A. Gordon Robertson; Andrew D. Cherniack; Itai Pashtan; Gordon Saksena; Robert C. Onofrio; Steven E. Schumacher; Barbara Tabak; Scott	Nature	United States	2013	1326	Research Article
2	Comprehensive molecular characterization of clear cell renal cell carcinoma	Chad J. Creighton; Margaret Morgan; Preethi H. Gunaratne; David A. Wheeler; Richard A. Gibbs; A. Gordon Robertson; Andy Chu; Rameen Beroukhim; Kristian Cibulskis; Sabina Signoretti; Fabio Vandin Hsin-Ta Wu; Benjamin J. Raphael; Roel G. W. Verhaak; Pheroze Tamboli; Wandaliz Torres-Garcia; Rehan Akbani; John N. Weinstein; Victor Reuter; James J. Hsieh; A. Rose Brannon; A. Ari Hakimi; Anders Jacobsen; Giovanni Ciriello; Boris Reva; Christopher J. Ricketts; W. Marston Linehan; Joshua M. Stuart; W. Kimryn Rathmell; Hui Shen; Peter W. Laird; Donna Muzny; Caleb Davis; Margaret Morgan; Liu Xi; Kyle Chang; Nipun Kakkar;	Nature	United States	2013	584	Research Article
3	NAD+ metabolism and its roles in cellular processes during ageing	Covarrubias, Anthony J.; Perrone, Rosalba; Grozio, Alessia; Verdin, Eric	Nature Reviews Molecular Cell Biology	United States	2020	560	Review Article
4	The multifaceted roles of PARP1 in DNA repair and chromatin remodelling	Ray Chaudhuri, Arnab; Nussenzweig, André	Nature Reviews Molecular Cell Biology	Netherlands	2017	545	Review Article
5	Driver mutations in histone H3.3 and chromatin remodelling genes in paediatric glioblastoma	Schwartzentruber, Jeremy; Korshunov, Andrey; Liu, Xiao-Yang; Jones, David T. W.; Pfaff, Elke; Jacob, Karine; Sturm, Dominik; Fontebasso, Adam M.; Quang, Dong-Anh Khuong; Tönjes, Martje; Hovestadt, Volker; Albrecht, Steffen; Kool, Marcel; Nantel, Andre; Konermann, Carolin; Lindroth, Anders; Jäger, Natalie; Rausch, Tobias; Ryzhova, Marina; Korbel, Jan O.; Hielscher, Thomas; Hauser, Peter; Garami, Miklos; Klekner, Almos; Bognar, Laszlo; Ebinger, Martin; Schuhmann, Martin U.; Scheurlen, Wolfram; Pekrun, Arnulf; Frühwald, Michael C.; Roggendorf, Wolfgang; Kramm, Christoph; Dürken, Matthias; Atkinson, Jeffrey; Lepage, Pierre; Montpetit, Alexandre; Zakrzewska, Magdalena; Zakrzewski, Krzysztof; Liberski, Pawel P.; Dong, Zhifeng; Siegel, Peter; Kulozik, Andreas E.; Zapatka, Marc; Guha, Abhijit; Malkin, David; Felsberg, J	Nature	Canada	2012	432	Letter To Editor
6	RNA N6-methyladenosine methyltransferase-like 3 promotes liver cancer progression through YTHDF2-dependent posttranscriptional silencing of SOCS2	Chen, Mengnuo; Wei, Lai; Law, Cheuk-Ting; Tsang, Felice Ho-Ching; Shen, Jialing; Cheng, Carol Lai-Hung; Tsang, Long-Hin; Ho, Daniel Wai-Hung; Chiu, David Kung-Chun; Lee, Joyce Man-Fong; Wong, Carmen Chak-Lui; Ng, Irene Oi-Lin; Wong, Chun-Ming	Hepatology	China	2018	428	Research Article
7	HDACs and HDAC Inhibitors in Cancer Development and Therapy	Li, Yixuan; Seto, Edward	Cold Spring Harbor Perspectives in Medicine	United States	2016	385	Review Article
8	Genomic correlates of response to immune checkpoint therapies in clear cell renal cell carcinoma	Miao, Diana; Margolis, Claire A; Gao, Wenhua; Voss, Martin H; Li, Wei; Martini, Dylan J; Norton, Craig; Bossé, Dominick; Wankowicz, Stephanie M; Cullen, Dana; Horak, Christine; Wind-Rotolo, Megan; Tracy, Adam; Giannakis, Marios; Hodi, Frank Stephen; Drake, Charles G; Ball, Mark W; Allaf, Mohamad E; Snyder, Alexandra; Hellmann, Matthew D; Ho, Thai; Motzer, Robert J; Signoretti, Sabina; Kaelin, William G; Choueiri, Toni K; Van Allen, Eliezer M	Science	United States	2018	374	Research Article
9	Roles, Functions, and Mechanisms of Long Non-Coding RNAs in Cancer	Fang, Yiwen; Fullwood, Melissa J.	Genomics Proteomics & Bioinformatics	Singapore	2016	327	Review Article
10	The great escape: tumour cell plasticity in resistance to targeted therapy	Boumahdi, Soufiane; de Sauvage, Frederic J.	Nature Reviews Drug Discovery	United States	2019	284	Review Article

＜研究費＞

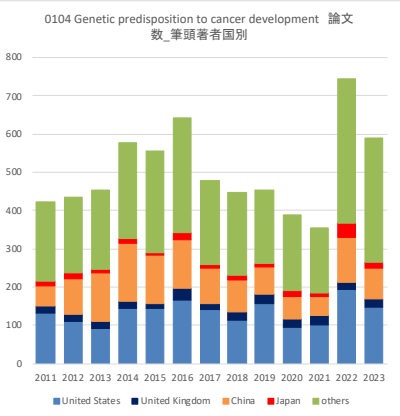
Grant: 0103 Chromatin remodeling

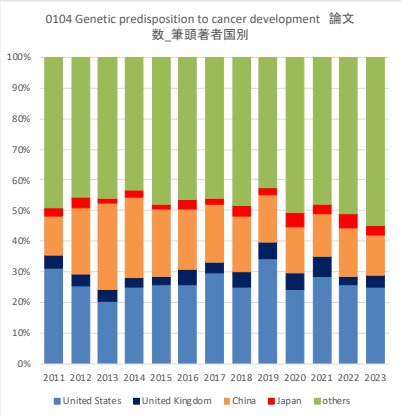
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Targetable epigenetic and transcriptional mechanisms in melanoma that shape the microenvironment	DAVID E FISHER, LYNDA CHIN, HENSIN TSAO, GAD A GETZ, LEVI A. GARRAWAY, LEONARD IRA ZON, KAI W WUCHERPFENNIG, XIAOLE SHIRLEY LIU	National Cancer Institute	United States	14,346,121	2013	2024
2	Targeting SS18-SSX biology in synovial sarcomagenesis	KEVIN BRUCE JONES, TORSTEN NIELSEN, JEFFREY T YAP, TULLY MICHAEL UNDERHILL, SCOTT W. LOWE, BRADLEY R. CAIRNS	National Cancer Institute	United States	12,020,789	2018	2024
3	Monarchies and Hierarchies in Shaping Chromatin Landscapes	Mathias Müller, Christoph Bock, Heidi Anne Neubauer, Richard Moriggl, Sylvia Knapp, Thomas Decker, Veronika Sexl	FWF Austrian Science Fund	Austria	9,574,312	2017	2025
4	Mechanism-Based Targeting of Mantle Cell Lymphoma	SELINA Y CHEN-KIANG, JIHYE PAIK, ROBERT ALAN BAIOCCHI, SCOTT ELY, OLIVIER ELEMENTO, KARLA V. BALLMAN, GIORGIO INGHIRAMI	National Cancer Institute	United States	8,914,842	2018	2024
5	Advancing Cancer Therapy through Groundbreaking Research in Radiation Biology	DAVID GUY KIRSCH	National Cancer Institute	United States	8,604,937	2016	2029
6	Modeling bladder cancer pathogenesis and tumor evolution	CORY ABATE-SHEN, DAVID B SOLIT, MICHAEL M. SHEN, HIKMAT AL-AHMADIE	National Cancer Institute	United States	8,555,541	2018	2024
7	Role of ncRNA Surveillance Complex "RNA Exosome" in Class Switch Recombination and Somatic Hypermutation	UTTIYA BASU	National Institute of Allergy and Infectious Diseases	United States	8,206,175	2012	2027
8	Structure-Function Mapping of the Nuclear Pore Complex-Renewal	MICHAEL P ROUT, JOHN D. AITCHISON	National Institute of General Medical Sciences	United States	7,078,189	2015	2027
9	Epigenetic Therapies - New Approaches	JEAN-PIERRE J. ISSA, STEPHEN B. BAYLIN, PETER A JONES, JAROSLAV JELINEK, SCOTT D JEWELL, SCOTT ROTHBART, KENNETH P NEPHEW, BART O WILLIAMS	National Cancer Institute	United States	6,960,491	2021	2026
10	Regulation of chromatin dynamics	CRAIG L PETERSON	National Institute of General Medical Sciences	United States	6,322,108	2017	2027

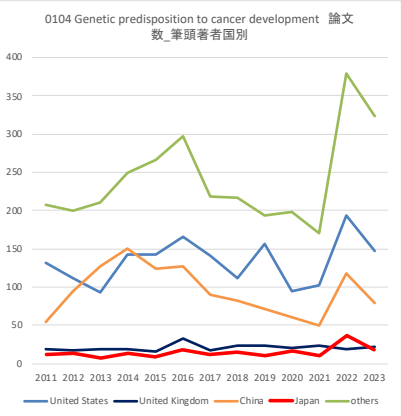
4.4. 0104 Genetic predisposition to cancer development

4.4.1. 論文数

Genetic predisposition to cancer development の論文数は横ばいからやや減少傾向であったが、2022年に大きく増加した。国別の論文数はその他の国を除くと、米国、中国、英国の順と推計された。



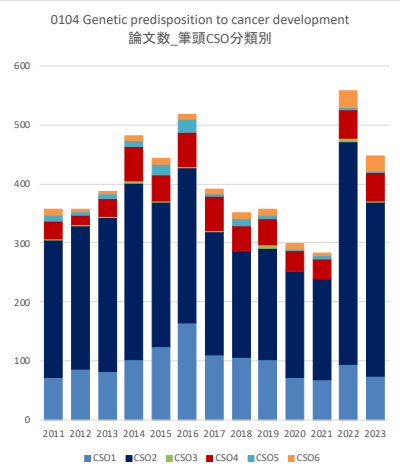


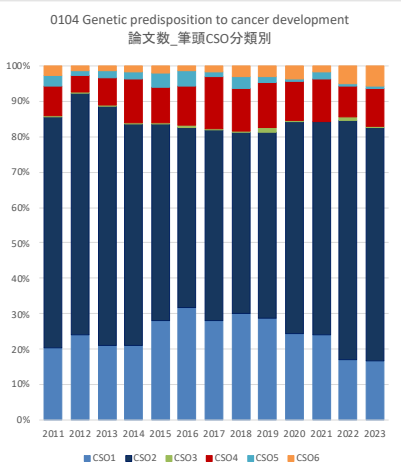


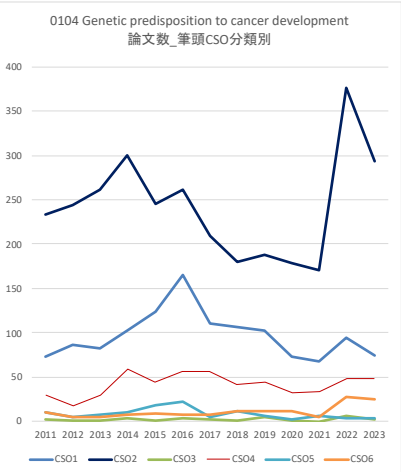
0104 Genetic predisposition to cancer development 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	131	111	93	143	143	165	141	112	156	95	102	193	147	47	1,779
United Kingdom	18	17	18	19	15	33	17	23	24	20	23	19	22	7	275
China	54	94	127	151	124	127	90	82	71	60	50	118	79	30	1,257
Japan	12	14	7	13	9	18	11	15	10	17	10	36	18	4	194
others	207	199	210	250	266	298	219	217	194	198	171	380	323	108	3,240
合計	422	435	455	576	557	641	478	449	455	390	356	746	589	196	6,745

0104 Genetic predisposition to cancer development 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	31.0%	25.5%	20.4%	24.8%	25.7%	25.7%	29.5%	24.9%	34.3%	24.4%	28.7%	25.9%	25.0%	24.0%	26.4%
United Kingdom	4.3%	3.9%	4.0%	3.3%	2.7%	5.1%	3.6%	5.1%	5.3%	5.1%	6.5%	2.5%	3.7%	3.6%	4.1%
China	12.8%	21.6%	27.9%	26.2%	22.3%	19.8%	18.8%	18.3%	15.6%	15.4%	14.0%	15.8%	13.4%	15.3%	18.6%
Japan	2.8%	3.2%	1.5%	2.3%	1.6%	2.8%	2.3%	3.3%	2.2%	4.4%	2.8%	4.8%	3.1%	2.0%	2.9%
others	49.1%	45.7%	46.2%	43.4%	47.8%	46.5%	45.8%	48.3%	42.6%	50.8%	48.0%	50.9%	54.8%	55.1%	48.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Genetic predisposition to cancer development の CSO 分類別の論文数は CSO2 Etiology が最も多く、ついで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO1 Biology の順と推計された。



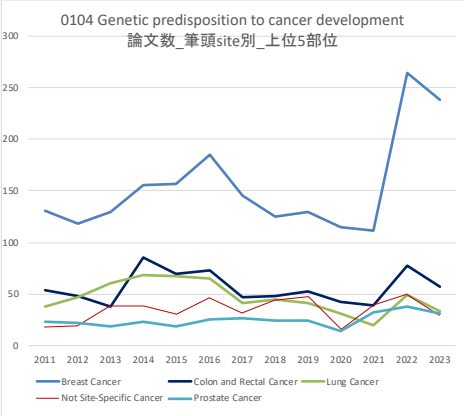




0104 Genetic predisposition to cancer development 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	73	86	82	102	124	165	110	106	103	73	68	95	75	24	1,286
2 Etiology	233	244	262	300	246	262	210	180	188	179	170	376	294	87	3,231
3 Prevention	2	1	1	3	1	3	2	1	5	1	0	6	2	3	31
4 Early Detection, Diagnosis, and Prognosis	30	17	30	59	45	57	57	42	45	33	34	48	48	14	559
5 Treatment	10	5	8	10	18	22	5	12	6	2	6	4	3	1	112
6 Cancer Control, Survivorship, and Outcomes Research	10	5	5	8	9	8	7	11	11	11	5	28	25	10	153
others	64	77	67	94	114	124	87	97	97	91	73	189	142	57	1,373
合計	422	435	455	576	557	641	478	449	455	390	356	746	589	196	6,745

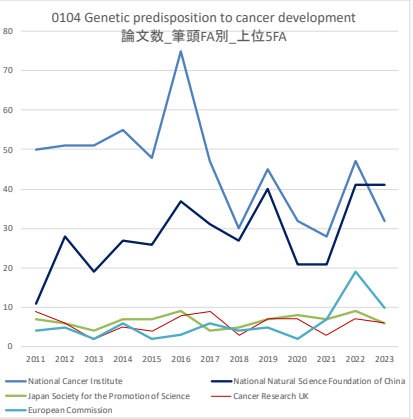
0104 Genetic predisposition to cancer development 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	17.3%	19.8%	18.0%	17.7%	22.3%	25.7%	23.0%	23.6%	22.6%	18.7%	19.1%	12.7%	12.7%	12.2%	19.1%
2 Etiology	55.2%	56.1%	57.6%	52.1%	44.2%	40.9%	43.9%	40.1%	41.3%	45.9%	47.8%	50.4%	49.9%	44.4%	47.9%
3 Prevention	0.5%	0.2%	0.2%	0.5%	0.2%	0.5%	0.4%	0.2%	1.1%	0.3%	0.0%	0.8%	0.3%	1.5%	0.5%
4 Early Detection, Diagnosis, and Prognosis	7.1%	3.9%	6.6%	10.2%	8.1%	8.9%	11.9%	9.4%	9.9%	8.5%	9.6%	6.4%	8.1%	7.1%	8.3%
5 Treatment	2.4%	1.1%	1.8%	1.7%	3.2%	3.4%	1.0%	2.7%	1.3%	0.5%	1.7%	0.5%	0.5%	0.5%	1.7%
6 Cancer Control, Survivorship, and Outcomes Research	2.4%	1.1%	1.1%	1.4%	1.6%	1.2%	1.5%	2.4%	2.4%	2.8%	1.4%	3.8%	4.2%	5.1%	2.3%
others	15.2%	17.7%	14.7%	16.3%	20.5%	19.3%	18.2%	21.6%	21.3%	23.3%	20.5%	25.3%	24.1%	29.1%	20.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Genetic predisposition to cancer development の臓器別の論文数は、乳がんが最も多く、ついで大腸がん、肺がんの順と推計された。



0104 Genetic predisposition to cancer development 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	131	118	130	156	157	185	145	125	130	115	112	264	238	71	2,077
Colon and Rectal Cancer	54	48	38	85	70	73	47	48	53	43	39	77	57	18	750
Lung Cancer	38	47	61	69	67	65	41	45	41	31	20	49	33	17	624
Not Site-Specific Cancer	18	19	39	38	31	47	32	44	48	16	40	50	29	16	467
Prostate Cancer	23	22	19	23	19	26	27	24	24	14	32	38	31	11	333
Stomach Cancer	13	19	27	28	26	30	16	16	8	15	13	24	22	5	262
Pancreatic Cancer	13	17	11	16	20	23	16	16	23	13	12	28	16	6	230
Ovarian Cancer	11	15	10	20	15	22	19	18	17	15	11	26	23	2	224
Bladder Cancer	17	22	23	17	22	18	15	11	8	13	6	16	12	0	200
Esophageal / Oesophageal Cancer	12	14	15	27	9	12	14	2	9	8	3	6	11	0	142

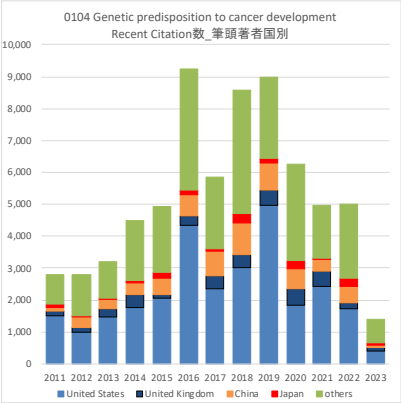
Genetic predisposition to cancer development の FA 別の論文数は、米国 NCI、中国 NSFC が多いと推計された。

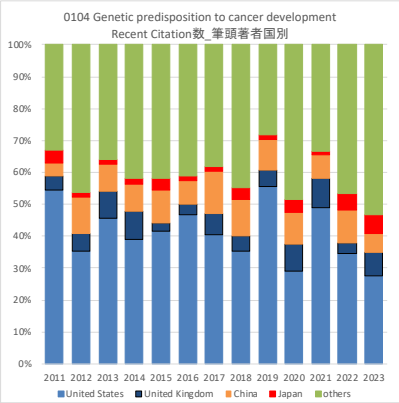


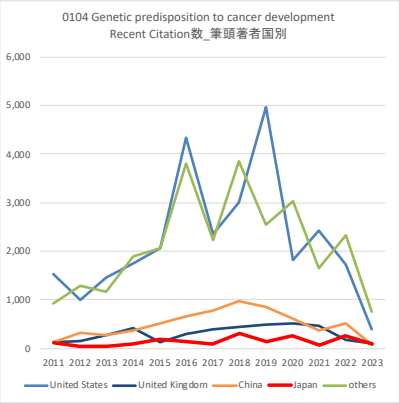
0104 Genetic predisposition to cancer development 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	50	51	51	55	48	75	47	30	45	32	28	47	32	17	608
National Natural Science Foundation of China	11	28	19	27	26	37	31	27	40	21	21	41	41	14	384
Japan Society for the Promotion of Science	7	6	4	7	7	9	4	5	7	8	7	9	6	0	86
Cancer Research UK	9	6	2	5	4	8	9	3	7	7	3	7	6	1	77
European Commission	4	5	2	6	2	3	6	4	5	2	7	19	10	1	76
Ministry of Science and Technology of the People's Republic of China	2	1	4	6	6	7	5	7	3	3	0	5	3	3	55
Medical Research Council	4	3	4	6	2	5	3	5	2	3	4	11	2	0	54
National Center for Advancing Translational Sciences	2	2	1	6	7	4	5	3	6	4	1	3	7	0	51
Canadian Institutes of Health Research	1	4	1	5	2	4	4	1	5	3	4	5	6	2	47
Wellcome Trust	0	2	2	2	2	6	2	1	2	3	2	7	2	1	34

4.4.2. Recent Citation 数

Genetic predisposition to cancer development の引用数は、2016 年から 2019 年にかけて大きく増加したが、それ以外は横ばい傾向と推計された。国別の引用数は、その他の国を除くと、米国、中国、英国、日本の順に多いと推計された。



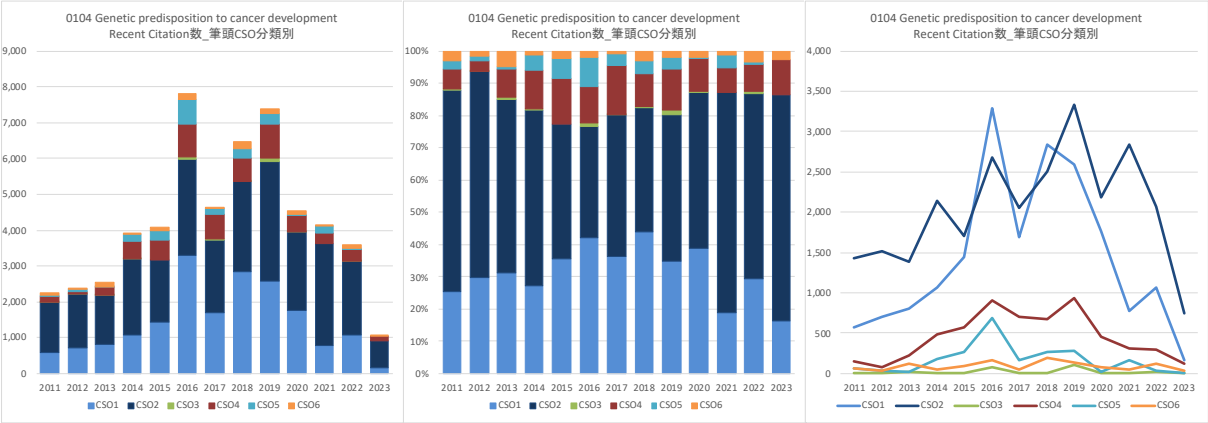




0104 Genetic predisposition to cancer development Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,517	986	1,466	1,753	2,050	4,337	2,356	3,008	4,967	1,829	2,434	1,726	385	10	28,824
United Kingdom	125	161	275	407	118	296	391	429	487	519	461	168	106	1	3,944
China	119	321	273	374	520	665	769	965	842	614	363	521	83	1	6,430
Japan	105	42	42	80	184	138	91	317	127	268	57	255	83	0	1,789
others	925	1,298	1,157	1,891	2,058	3,815	2,231	3,844	2,547	3,034	1,656	2,334	744	35	27,569
合計	2,791	2,808	3,213	4,505	4,930	9,251	5,838	8,563	8,970	6,264	4,971	5,004	1,401	47	68,556

0104 Genetic predisposition to cancer development Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	54.4%	35.1%	45.6%	38.9%	41.6%	46.9%	40.4%	35.1%	55.4%	29.2%	49.0%	34.5%	27.5%	21.3%	42.0%
United Kingdom	4.5%	5.7%	8.6%	9.0%	2.4%	3.2%	6.7%	5.0%	5.4%	8.3%	9.3%	3.4%	7.6%	2.1%	5.8%
China	4.3%	11.4%	8.5%	8.3%	10.5%	7.2%	13.2%	11.3%	9.4%	9.8%	7.3%	10.4%	5.9%	2.1%	9.4%
Japan	3.8%	1.5%	1.3%	1.8%	3.7%	1.5%	1.6%	3.7%	1.4%	4.3%	1.1%	5.1%	5.9%	0.0%	2.6%
others	33.1%	46.2%	36.0%	42.0%	41.7%	41.2%	38.2%	44.9%	28.4%	48.4%	33.3%	46.6%	53.1%	74.5%	40.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

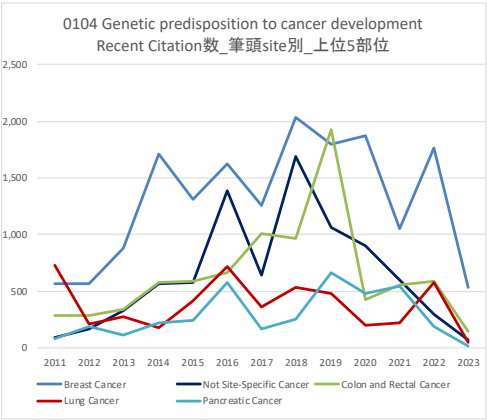
Genetic predisposition to cancer development の CSO 分類別の引用数は、CSO2 Etiology が最も多く、次いで CSO1 Biology が多いと推計された。



0104 Genetic predisposition to cancer development Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	572	702	798	1,065	1,444	3,296	1,689	2,846	2,586	1,762	781	1,060	172	2	18,775
2 Etiology	1,424	1,519	1,381	2,140	1,712	2,678	2,050	2,510	3,341	2,193	2,844	2,067	750	15	26,624
3 Prevention	1	3	17	10	0	78	6	3	103	8	0	22	0	0	251
4 Early Detection, Diagnosis, and Prognosis	144	73	221	482	574	904	705	668	938	462	307	300	116	8	5,902
5 Treatment	61	39	15	180	262	684	163	261	285	23	171	37	0	0	2,181
6 Cancer Control, Survivorship, and Outcomes I	65	36	128	48	87	163	43	196	134	84	47	116	28	4	1,179
others	524	436	653	580	856	1,448	1,182	2,079	1,584	1,732	821	1,402	335	18	13,644
合計	2,791	2,808	3,213	4,505	4,930	9,251	5,838	8,563	8,970	6,264	4,971	5,004	1,401	47	68,556

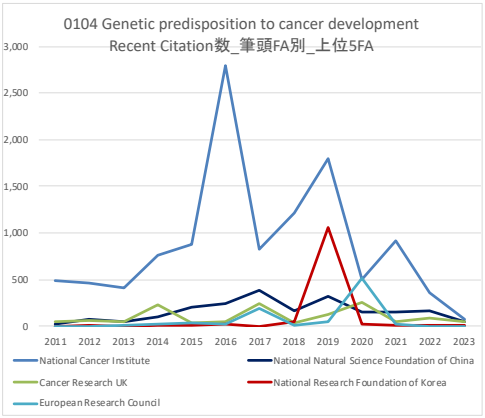
0104 Genetic predisposition to cancer development Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	20.5%	25.0%	24.8%	23.6%	29.3%	35.6%	28.9%	33.2%	28.8%	28.1%	15.7%	21.2%	12.3%	4.3%	27.4%
2 Etiology	51.0%	54.1%	43.0%	47.5%	34.7%	28.9%	35.1%	29.3%	37.2%	35.0%	57.2%	41.3%	53.5%	31.9%	38.8%
3 Prevention	0.0%	0.1%	0.5%	0.2%	0.0%	0.8%	0.1%	0.0%	1.1%	0.1%	0.0%	0.4%	0.0%	0.0%	0.4%
4 Early Detection, Diagnosis, and Prognosis	5.2%	2.6%	6.9%	10.7%	11.6%	9.8%	12.1%	7.8%	10.5%	7.4%	6.2%	6.0%	8.3%	17.0%	8.6%
5 Treatment	2.2%	1.4%	0.5%	4.0%	5.3%	7.4%	2.8%	3.0%	3.2%	0.4%	3.4%	0.7%	0.0%	0.0%	3.2%
6 Cancer Control, Survivorship, and Outcomes I	2.3%	1.3%	4.0%	1.1%	1.8%	1.8%	0.7%	2.3%	1.5%	1.3%	0.9%	2.3%	2.0%	8.5%	1.7%
others	18.8%	15.5%	20.3%	12.9%	17.4%	15.7%	20.2%	24.3%	17.7%	27.7%	16.5%	28.0%	23.9%	38.3%	19.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Genetic predisposition to cancer development の臓器別の引用数は、乳がんが最も多く、次いで Not Site-specific Cancer、大腸がんの順に多いと推計された。



0104 Genetic predisposition to cancer development Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	564	570	876	1,707	1,307	1,620	1,254	2,035	1,793	1,876	1,050	1,769	533	26	16,980
Not Site-Specific Cancer	90	166	331	563	576	1,392	646	1,685	1,062	898	602	299	68	4	8,382
Colon and Rectal Cancer	287	291	338	583	585	665	1,008	965	1,926	430	555	587	146	1	8,367
Lung Cancer	730	216	276	183	412	714	365	533	484	202	227	584	53	4	4,983
Pancreatic Cancer	79	188	113	221	246	582	165	257	668	486	550	192	23	2	3,772
Prostate Cancer	96	106	119	105	86	175	386	436	305	168	290	356	156	2	2,786
Brain Tumor	14	0	56	107	63	310	227	673	371	160	197	61	29	0	2,268
Ovarian Cancer	196	58	34	71	208	623	155	119	168	324	55	138	42	0	2,191
Bladder Cancer	73	489	93	77	153	283	209	77	76	187	87	90	32	0	1,926
Stomach Cancer	46	43	122	158	165	252	97	183	151	154	77	87	89	0	1,624

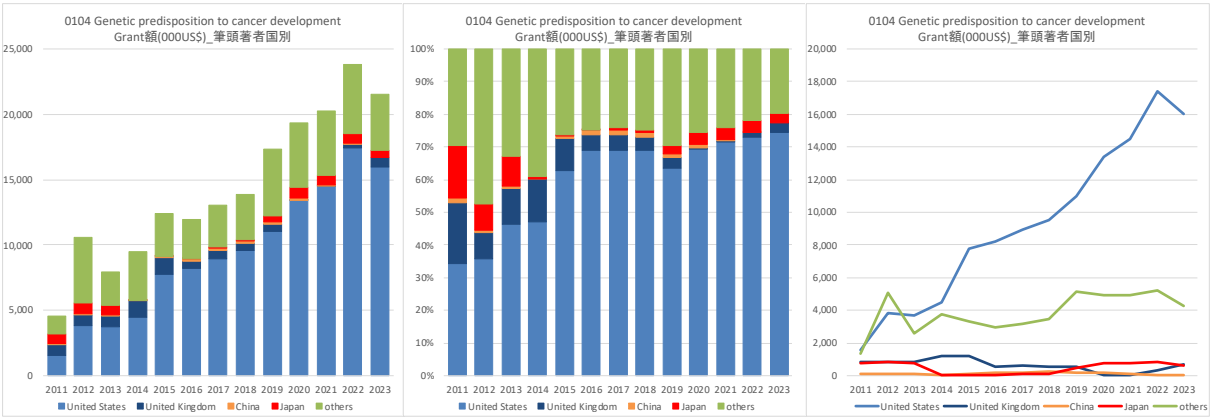
Genetic predisposition to cancer development の FA 別の引用数は、米国 NCI が最も多く、次いで中国 NSFC、英国 Cancer Research UK の順と推計された。



0104 Genetic predisposition to cancer development Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	496	466	417	764	878	2,790	831	1,217	1,792	502	918	359	79	4	11,513
National Natural Science Foundation of China	20	79	44	106	203	250	382	161	321	155	156	167	48	1	2,093
Cancer Research UK	49	61	52	236	32	47	243	37	129	256	49	91	46	0	1,328
National Research Foundation of Korea	2	9	0	7	11	30	0	51	1,065	24	11	14	9	0	1,233
European Research Council	0	0	5	19	31	23	193	14	52	520	25	2	1	0	885
National Center for Advancing Translational Science	63	16	2	128	121	20	172	176	66	34	0	14	37	0	849
European Commission	12	20	87	35	4	6	44	72	93	60	130	157	15	0	735
Wellcome Trust	0	24	53	12	12	80	172	113	70	122	17	43	6	0	724
National Institute of Diabetes and Digestive and Kidn	27	40	89	26	110	260	6	84	7	9	0	33	3	2	696
Japan Society for the Promotion of Science	40	9	34	57	14	49	40	60	85	48	33	141	74	0	684

4.4.3. Grant(000US$)額

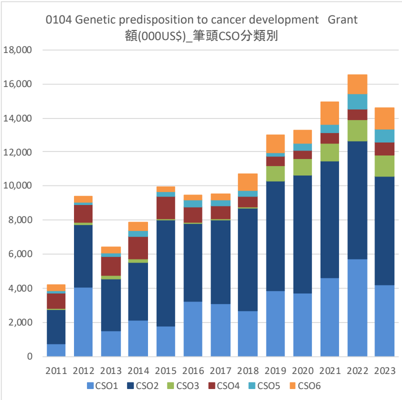
Genetic predisposition to cancer development の研究費総額は経年的に増加傾向が見られた。国別の研究費配分額は、米国が大半を占めており、経年的にも大きく増加傾向が見られた。

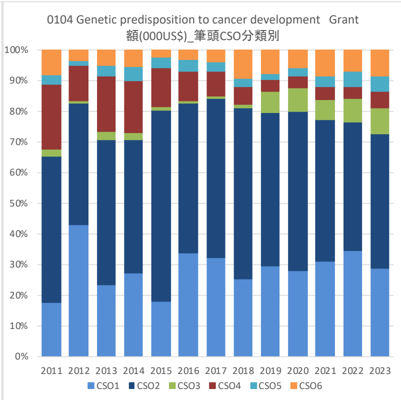


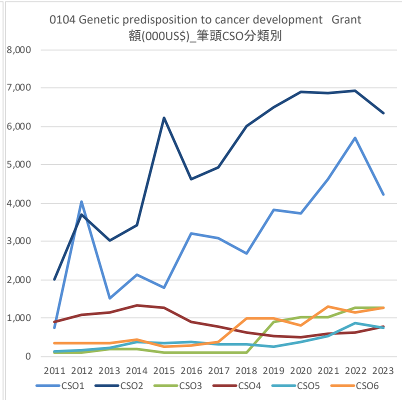
0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,560	3,802	3,706	4,475	7,787	8,244	8,965	9,543	11,011	13,383	14,478	17,383	16,005	12,898	133,238
United Kingdom	845	845	845	1,234	1,234	551	615	537	537	63	63	354	680	680	9,085
China	71	71	71	27	95	165	215	226	181	191	71	10	0	0	1,394
Japan	735	849	728	36	36	20	72	78	472	760	756	803	581	109	6,036
others	1,344	5,049	2,615	3,726	3,285	2,950	3,157	3,442	5,120	4,909	4,898	5,245	4,262	2,918	52,920
合計	4,555	10,616	7,965	9,498	12,437	11,930	13,024	13,826	17,321	19,306	20,266	23,794	21,529	16,605	202,674

0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.2%	35.8%	46.5%	47.1%	62.6%	69.1%	68.8%	69.0%	63.6%	69.3%	71.4%	73.1%	74.3%	77.7%	65.7%
United Kingdom	18.6%	8.0%	10.6%	13.0%	9.9%	4.6%	4.7%	3.9%	3.1%	0.3%	0.3%	1.5%	3.2%	4.1%	4.5%
China	1.6%	0.7%	0.9%	0.3%	0.8%	1.4%	1.6%	1.6%	1.0%	1.0%	0.4%	0.0%	0.0%	0.0%	0.7%
Japan	16.1%	8.0%	9.1%	0.4%	0.3%	0.2%	0.6%	0.6%	2.7%	3.9%	3.7%	3.4%	2.7%	0.7%	3.0%
others	29.5%	47.6%	32.8%	39.2%	26.4%	24.7%	24.2%	24.9%	29.6%	25.4%	24.2%	22.0%	19.8%	17.6%	26.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Genetic predisposition to cancer development の CSO 分類別の研究費配分額は、CSO2 Etiology が最も多く、次いで CSO1 Biology が多いと推計された。



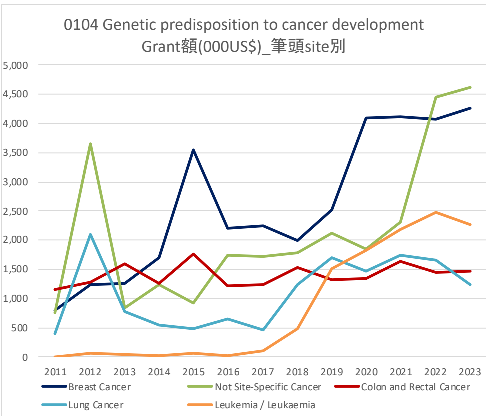




0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	736	4,037	1,507	2,128	1,787	3,198	3,071	2,692	3,825	3,718	4,636	5,707	4,213	3,408	44,663
2 Etiology	2,005	3,711	3,026	3,412	6,211	4,611	4,922	6,006	6,486	6,901	6,863	6,940	6,360	3,797	71,251
3 Prevention	90	90	184	184	94	94	94	94	900	1,026	1,026	1,268	1,274	854	7,274
4 Early Detection, Diagnosis, and Prognosis	896	1,068	1,153	1,335	1,273	891	766	623	526	482	590	611	757	185	11,157
5 Treatment	133	158	223	358	328	379	308	308	244	360	519	870	726	713	5,627
6 Cancer Control, Survivorship, and Outcomes R	340	334	328	428	248	290	358	984	991	790	1,286	1,136	1,267	1,267	10,047
others	562	1,426	1,839	1,838	2,618	2,721	3,827	3,413	4,845	6,228	5,546	7,719	7,607	6,857	57,046
合計	4,555	10,616	7,965	9,498	12,437	11,930	13,024	13,826	17,321	19,306	20,266	23,794	21,529	16,605	202,674

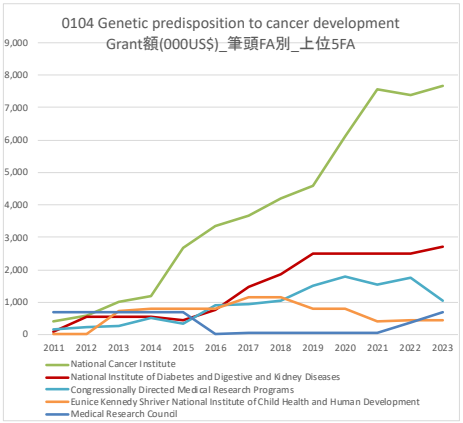
0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	16.1%	38.0%	18.9%	22.4%	14.4%	26.8%	23.6%	19.5%	22.1%	19.3%	22.9%	24.0%	19.6%	20.5%	22.0%
2 Etiology	44.0%	35.0%	38.0%	35.9%	49.9%	38.7%	37.8%	43.4%	37.4%	35.7%	33.9%	29.2%	29.5%	22.9%	35.2%
3 Prevention	2.0%	0.8%	2.3%	1.9%	0.8%	0.8%	0.7%	0.7%	5.2%	5.3%	5.1%	5.3%	5.9%	5.1%	3.6%
4 Early Detection, Diagnosis, and Prognosis	19.7%	10.1%	14.5%	14.1%	10.2%	7.5%	5.9%	4.5%	3.0%	2.5%	2.9%	2.6%	3.5%	1.1%	5.5%
5 Treatment	2.9%	1.5%	2.8%	3.8%	2.6%	3.2%	2.4%	2.2%	1.4%	1.9%	2.6%	3.7%	3.4%	4.3%	2.8%
6 Cancer Control, Survivorship, and Outcomes R	7.5%	3.1%	4.1%	4.5%	2.0%	2.4%	2.7%	7.1%	5.7%	4.1%	6.3%	4.8%	5.9%	7.6%	5.0%
others	12.3%	13.4%	23.1%	19.3%	21.0%	22.8%	29.4%	24.7%	28.0%	32.3%	27.4%	32.4%	35.3%	41.3%	28.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Genetic predisposition to cancer development の臓器別の研究費配分額は、乳がん、Not Site-specific Cancer、大腸がんの順に多いと推計された。



0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	788	1,228	1,265	1,709	3,554	2,209	2,247	1,994	2,516	4,099	4,124	4,065	4,263	3,179	37,240
Not Site-Specific Cancer	755	3,647	838	1,229	929	1,731	1,730	1,778	2,116	1,837	2,311	4,451	4,626	3,514	31,494
Colon and Rectal Cancer	1,144	1,271	1,592	1,248	1,761	1,212	1,231	1,527	1,317	1,335	1,645	1,457	1,475	832	19,047
Lung Cancer	404	2,093	771	547	486	647	451	1,242	1,700	1,467	1,745	1,655	1,227	867	15,303
Leukemia / Leukaemia	6	55	49	24	50	26	103	474	1,521	1,817	2,178	2,484	2,264	2,264	13,316
Prostate Cancer	522	522	652	1,323	945	896	896	516	474	306	306	332	332	169	8,191
Esophageal / Oesophageal Cancer	0	0	0	0	343	343	547	547	547	731	731	388	388	186	4,753
Pancreatic Cancer	11	11	11	307	364	364	514	205	485	485	520	315	315	35	3,942
Endometrial Cancer	64	73	417	417	377	445	445	445	445	368	0	0	0	0	3,493
Ovarian Cancer	16	16	16	0	113	113	113	323	210	418	538	538	328	96	2,840

Genetic predisposition to cancer development の FA 別の研究費配分額は、米国 NCI が最も多く経年的に増加傾向が見られた。次いで、米国 National Institute of Diabetes and Digestive and Kidney Diseases、米国 Congressionally Directed Medical Research Programs の順と推計された。



0104 Genetic predisposition to cancer development Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	417	584	993	1,179	2,691	3,339	3,668	4,211	4,593	6,114	7,570	7,382	7,659	5,770	56,170	United States
National Institute of Diabetes and Digestive and Kidney Diseases	104	553	553	553	449	766	1,476	1,863	2,486	2,486	2,486	2,486	2,725	2,047	21,031	United States
Congressionally Directed Medical Research Programs	172	230	267	516	344	912	953	1,059	1,520	1,777	1,530	1,752	1,056	629	12,717	United States
Eunice Kennedy Shriver National Institute of Child Health and Human Development	24	24	728	780	780	780	1,142	1,142	782	782	414	435	435	435	8,681	United States
Medical Research Council	682	682	682	682	682	0	63	63	63	63	63	354	680	680	5,442	United Kingdom
National Institute of General Medical Sciences	0	0	0	0	0	467	467	467	467	467	637	637	637	637	4,887	United States
National Science Center	88	211	211	295	282	302	387	368	365	389	306	584	514	501	4,802	Poland
European Research Council	0	0	0	474	474	474	474	474	474	275	275	275	356	356	4,384	Belgium
National Heart Lung and Blood Institute	0	0	0	0	268	268	268	406	406	406	527	527	512	512	4,100	United States
Ministry of Science and Higher Education	44	44	44	50	6	6	6	33	784	784	784	784	0	0	3,367	Poland

4.4.4. 主要論文、引用、研究費

＜論文＞

Publication: 0104 Genetic predisposition to cancer development

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Genetic predisposition to central nervous system tumors in children — what the neurosurgeon should know	Foss-Skiftesvik, Jon; Stoltze, Ulrik Kristoffer	Acta Neurochirurgica	Denmark	2022	0	Review Article
2	Counselling and management of women with genetic predisposition to gynaecological cancers	Malik, Naushabah; Sahu, Banchhita	European Journal of Obstetrics & Gynecology and Reproductive Biology	United Kingdom	2023	0	Review Article
3	ELANE neutropenia and solid tumors: Four cases from the French severe chronic neutropenia registry	Donadieu, Jean; Mitri, Fares Bou; Beaupain, Blandine; Alajidi, Nathalie; Viallard, Jean Francois; Le Paih, Jean-Philippe; Yacoub, Mokrane; Leblanc, Thierry; Quero, Laurent; Rouland, Alexia; Labbe, Louis; Deback, Claire; Bellanne-Chantelot, Christine; Emile, Jean-François	Pediatric Blood & Cancer	France	2022	0	Research Article
4	Gastric cancer in Jammu and Kashmir, India: A review of genetic perspectives.	Shah, Ruchi; Khaitan, Puja G; Pandita, Tej K; Rafiq, Adnan; Abrol, Deepak; Suri, Jyotsna; Kaul, Sandeep; Kumar, Rakesh; Sharma, Swarkar	Journal of Cancer Research and Therapeutics	United States	2022	0	Review Article
5	Genetic predisposition to depression and inflammation impacts symptom burden and survival in patients with head and neck cancer: A longitudinal study	Henry, Melissa; Harvey, Raphaële; Chen, Lawrence M; Meaney, Michael; Nguyen, Thi Thu Thao; Kao, Han-Tin; Rosberger, Zeev; Frenkiel, Saul; Hier, Michael; Zeitouni, Anthony; Kost, Karen; Mlynarek, Alex; Richardson, Keith; Greenwood, Celia M T; Melnychuk, David; Gold, Phil; Chartier, Gabrielle; Black, Martin; Mascarella, Marco; MacDonald, Christina; Sadeghi, Nader; Sultanem, Khalil; Shenouda, Georges; Cury, Fabio; O'Donnell, Kieran John	Journal of Affective Disorders	Canada	2023	2	Research Article
6	Case report: Therapy-related myeloid neoplasms in three pediatric cases with medulloblastoma	Mak, Li Shun; Li, Xiuling; Chan, Wilson Y. K.; Leung, Alex W. K.; Cheuk, Daniel K. L.; Yuen, Liz Y. P.; So, Jason C. C.; Ha, Shau Yin; Liu, Anthony P. Y.	Frontiers in Oncology	China	2024	0	Research Article
7	Genetic predisposition to cancers in children and adolescents	Nakano, Yoshiko; Rabinowicz, Ron; Malkin, David	Current Opinion in Pediatrics	Canada	2022	1	Review Article
8	Ovarian tumors and genetic predisposition.	Štellmachová, Júlia; Vrtěl, Petr; Vrtěl, Radek; Janíková, Mária; Kolaříková, Kristýna; Procházka, Martin; Vodička, Radek	Česká Gynekologie		2022	0	Research Article
9	Genetic Predisposition to Male Breast Cancer: A Case Series.	Apessos, Angela; Agiannitopoulos, Konstantinos; Pepe, Georgia; Tsaousis, Georgios N; Pitta, Panagiota; Bili, Chrysanthi; Florentin, Lina; Saloustros, Emmanouel; Kampletsas, Eleftherios; Tryfonopoulos, Dimitrios; Tsoukalas, Nikolaos; Bournakis, Evangelos; Zagouri, Flora; Kotsakis, Athanassios; Koumarianou, Anna; Korantzis, Ippokratis; Boukovinas, Ioannis; Lypas, George; Fountzilas, Georgios; Michalaki, Vasiliki; Xynogalos, Spyridon; Linardou, Helena; Papadopoulou, Eirini; Nasioulas, George; Georgoulias, Vassilis	Anticancer Research	Greece	2022	0	Research Article
10	Surveillance and Surgical Considerations in Hereditary Diffuse Gastric Cancer	Gamble, Lauren A; Davis, Jeremy L	Gastrointestinal Endoscopy Clinics of North America	United States	2022	5	Review Article

＜引用＞

Citation: 0104 Genetic predisposition to cancer development

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Global burden of colorectal cancer: emerging trends, risk factors and prevention strategies	Keum, NaNa; Giovannucci, Edward	Nature Reviews Gastroenterology & Hepatology	United States	2019	1065	Review Article
2	Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic, Version 2.2021, NCCN Clinical Practice Guidelines in Oncology.	Daly, Mary B; Pal, Tuya; Berry, Michael P; Buys, Saundra S; Dickson, Patricia; Domchek, Susan M; Elkhanany, Ahmed; Friedman, Susan; Goggins, Michael; Hutton, Mollie L; Karlan, Beth Y; Khan, Seema; Klein, Catherine; Kohlmann, Wendy; Kurian, Allison W; Laronga, Christine; Litton, Jennifer K; Mak, Julie S; Menendez, Carolyn S; Merajver, Sofia D; Norquist, Barbara S; Offit, Kenneth; Pederson, Holly J; Reiser, Gwen; Senter-Jamieson, Leigha; Shannon, Kristen Mahoney; Shatsky, Rebecca; Visvanathan, Kala; Weitzel, Jeffrey N; Wick, Myra J; Wisinski, Kari B; Yurgelun, Matthew B; Darlow, Susan D; Dwyer, Mary A	Journal of the National Comprehensive Cancer Network	United States	2021	578	0
3	Breast cancer development and progression: Risk factors, cancer stem cells, signaling pathways, genomics, and molecular pathogenesis	Feng, Yixiao; Spezia, Mia; Huang, Shifeng; Yuan, Chengfu; Zeng, Zongyue; Zhang, Linghuan; Ji, Xiaojuan; Liu, Wei; Huang, Bo; Luo, Wenping; Liu, Bo; Lei, Yan; Du, Scott; Vuppalapati, Akhila; Luu, Hue H.; Haydon, Rex C.; He, Tong-Chuan; Ren, Guosheng	Genes & Diseases	China	2018	545	Review Article
4	A compendium of mutational cancer driver genes	Martínez-Jiménez, Francisco; Muiños, Ferran; Sentís, Inés; Deu-Pons, Jordi; Reyes-Salazar, Iker; Arnedo-Pac, Claudia; Mularoni, Loris; Pich, Oriol; Bonet, Jose; Kranas, Hanna; Gonzalez-Perez, Abel; Lopez-Bigas, Nuria	Nature Reviews Cancer	Spain	2020	520	Review Article
5	Ovarian cancer	Matulonis, Ursula A.; Sood, Anil K.; Fallowfield, Lesley; Howitt, Brooke E.; Sehouli, Jalid; Karlan, Beth Y.	Nature Reviews Disease Primers	United States	2016	476	Review Article
6	The landscape of genomic alterations across childhood cancers	Gröbner, Susanne N.; Worst, Barbara C.; Weischenfeldt, Joachim; Buchhalter, Ivo; Kleinheinz, Kortine; Rudneva, Vasilisa A.; Johann, Pascal D.; Balasubramanian, Gnana Prakash; Segura-Wang, Maia; Brabetz, Sebastian; Bender, Sebastian; Hutter, Barbara; Sturm, Dominik; Pfaff, Elke; Hübschmann, Daniel; Zipprich, Gideon; Heinold, Michael; Eils, Jürgen; Lawerenz, Christian; Erkek, Serap; Lambo, Sander; Waszak, Sebastian; Blattmann, Claudia; Borkhardt, Arndt; Kuhlen, Michaela; Eggert, Angelika; Fulda, Simone; Gessler, Manfred; Wegert, Jenny; Kappler, Roland; Baumhoer, Daniel; Burdach, Stefan; Kirschner-Schwabe, Renate; Kontny, Udo; Kulozik, Andreas E.; Lohmann,	Nature	Germany	2018	474	Research Article
7	The chromatin accessibility landscape of primary human cancers	Corces, M. Ryan; Granja, Jeffrey M.; Shams, Shadi; Louie, Bryan H.; Seoane, Jose A.; Zhou, Wanding; Silva, Tiago C.; Groeneveld, Clarice; Wong, Christopher K.; Cho, Seung Woo; Satpathy, Ansuman T.; Mumbach, Maxwell R.; Hoadley, Katherine A.; Robertson, A. Gordon; Sheffield, Nathan C.; Felau, Ina; Castro, Mauro A. A.; Berman, Benjamin P.; Staudt, Louis M.; Zenklusen, Jean C.; Laird, Peter W.; Curtis, Christina; Greenleaf, William J.; Chang, Howard Y.; Akbani, Rehan; Benz, Christopher C.; Boyle, Evan A.; Broom, Bradley M.; Cherniack, Andrew D.; Craft, Brian; Demchok, John A.; Doane, Ashley S.; Elemento, Olivier; Ferguson, Martin L.; Goldman, Mary J.; Hayes, D. Neil; He, Jing;	Science	United States	2018	460	Research Article
8	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
9	Epidemiology and Risk Factors of Urothelial Bladder Cancer	Burger, Maximilian; Catto, James W.F.; Dalbagni, Guido; Grossman, H. Barton; Herr, Harry; Karakiewicz, Pierre; Kassouf, Wassim; Kiemeney, Lambertus A.; La Vecchia, Carlo; Shariat, Shahrokh; Lotan, Yair	European Urology	Canada	2012	396	Review Article
10	Mitochondria and Cancer	Zong, Wei-Xing; Rabinowitz, Joshua D.; White, Eileen	Molecular Cell	United States	2016	385	Review Article

＜研究費＞

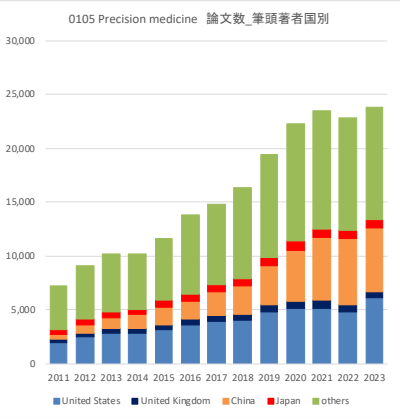
Grant: 0104 Genetic predisposition to cancer development

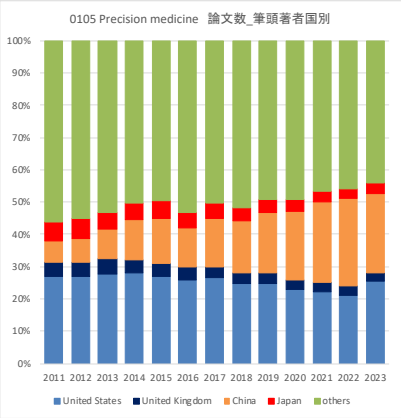
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Extending the Diversity, Reach, and Generalizability of the WISDOM Study	LAURA J ESSERMAN	National Cancer Institute	United States	9,088,649	2020	2025
2	Tuskegee University Health Disparities Biomedical Research Center	CHANNAPATNA S. PRAKASH	Office of the Director	United States	7,931,772	2022	2025
3	Systems Biology of Bone Marrow Failure and MDS for Precision Medicine	AKIKO SHIMAMURA, MARK D FLEMING, MARIA EUGENIA FIGUEROA, ROBERT COLEMAN LINDSLEY	National Institute of Diabetes and Digestive and Kidney Diseases	United States	6,432,141	2019	2024
4	GENOMIC ANALYSIS OF INHERITED BREAST AND OVARIAN CANCER	MARY-CLAIRE KING	National Cancer Institute	United States	6,406,690	2015	2023
5	Mechanisms of Genome Integrity	ERIC C GREENE	National Institute of General Medical Sciences	United States	5,142,153	2016	2026
6	Mitigating Long-term Treatment-related Morbidity in Childhood Cancer Survivors	SMITA BHATIA	National Cancer Institute	United States	5,066,076	2018	2025
7	Mitochondrial Methyltransferases – From discovery to disease	Anna Wredenberg, Nils-Göran Larsson, Joanna Rorbach, Anna Wedell	Knut and Alice Wallenberg Foundation	Sweden	3,780,770	2019	2024
8	Serrated Colorectal Cancer: An Emerging Disease Subtype	AMANDA IRENE PHIPPS, POLLY A NEWCOMB	National Cancer Institute	United States	3,690,418	2015	2023
9	Dietary fiber and soy protein-based microbiome metabolites for IBD prevention	ERIC C MARTENS, GRACE Y. CHEN	National Institute of Diabetes and Digestive and Kidney Diseases	United States	3,480,700	2018	2026
10	Diet, lifestyle and biological determinants of health and disease: the EPIC-Norfolk population study	Kay-Tee Khaw, Nicholas Wareham	Medical Research Council	United Kingdom	3,411,580	2011	2015

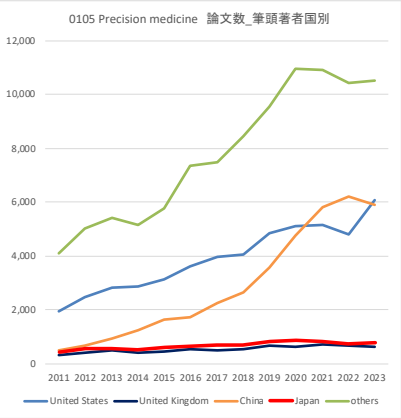
4.5. 0105 Precision medicine

4.5.1. 論文数

Precision medicine の論文数は経年的に上昇傾向が見られた。国別の論文数は、米国が最も多く上昇傾向も大きいと推計された。



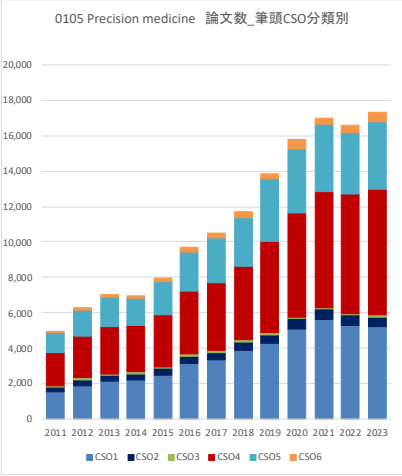


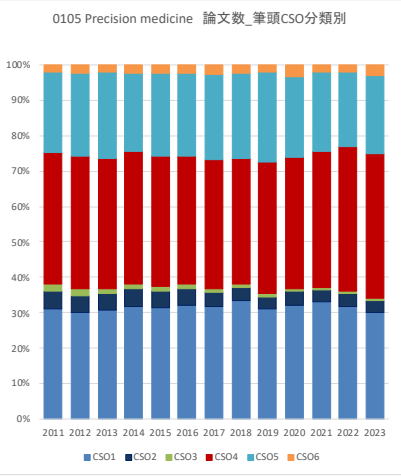


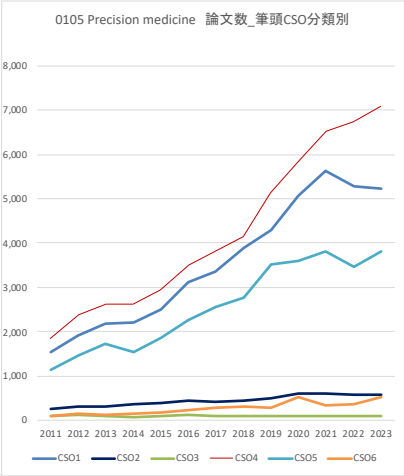
0105 Precision medicine 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,956	2,472	2,833	2,856	3,145	3,598	3,954	4,042	4,836	5,115	5,172	4,793	6,064	2,870	53,706
United Kingdom	313	392	467	417	449	524	508	541	645	633	718	666	629	296	7,198
China	477	669	924	1,257	1,645	1,702	2,229	2,636	3,569	4,768	5,827	6,206	5,897	2,706	40,512
Japan	427	564	538	507	612	621	669	695	817	844	825	718	762	383	8,982
others	4,077	5,025	5,419	5,133	5,775	7,364	7,490	8,431	9,547	10,943	10,911	10,431	10,502	4,501	105,549
合計	7,250	9,122	10,181	10,170	11,626	13,809	14,850	16,345	19,414	22,303	23,453	22,814	23,854	10,756	215,947

0105 Precision medicine 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	27.0%	27.1%	27.8%	28.1%	27.1%	26.1%	26.6%	24.7%	24.9%	22.9%	22.1%	21.0%	25.4%	26.7%	24.9%
United Kingdom	4.3%	4.3%	4.6%	4.1%	3.9%	3.8%	3.4%	3.3%	3.3%	2.8%	3.1%	2.9%	2.6%	2.8%	3.3%
China	6.6%	7.3%	9.1%	12.4%	14.1%	12.3%	15.0%	16.1%	18.4%	21.4%	24.8%	27.2%	24.7%	25.2%	18.8%
Japan	5.9%	6.2%	5.3%	5.0%	5.3%	4.5%	4.5%	4.3%	4.2%	3.8%	3.5%	3.1%	3.2%	3.6%	4.2%
others	56.2%	55.1%	53.2%	50.5%	49.7%	53.3%	50.4%	51.6%	49.2%	49.1%	46.5%	45.7%	44.0%	41.8%	48.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision medicine の CSO 分類別の論文数は、CSO1 Biology と CSO4 Early Detection, Diagnosis and Prognosis が多く、次いで CSO5 Treatment の順と推計された。



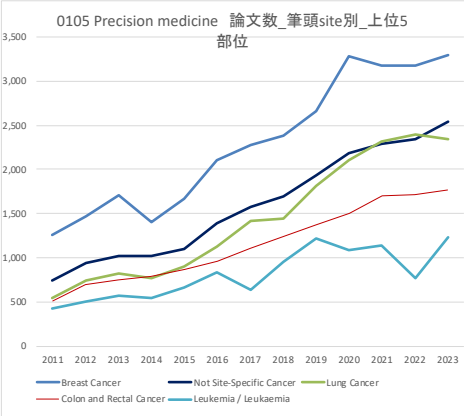




0105 Precision medicine 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,552	1,903	2,182	2,217	2,497	3,123	3,347	3,905	4,297	5,074	5,628	5,275	5,216	2,555	48,771
2 Etiology	253	300	313	367	386	458	412	444	491	602	597	590	573	252	6,038
3 Prevention	95	116	89	76	98	123	103	109	104	110	90	108	106	40	1,367
4 Early Detection, Diagnosis, and Prognosis	1,840	2,374	2,611	2,618	2,933	3,507	3,830	4,148	5,131	5,846	6,532	6,746	7,077	3,178	58,371
5 Treatment	1,135	1,470	1,717	1,550	1,873	2,253	2,553	2,781	3,521	3,608	3,817	3,469	3,825	1,781	35,353
6 Cancer Control, Survivorship, and Outcomes Research	105	147	138	165	185	242	278	300	283	538	328	363	523	151	3,746
others	2,270	2,812	3,131	3,177	3,654	4,103	4,327	4,658	5,587	6,525	6,461	6,263	6,534	2,799	62,301
合計	7,250	9,122	10,181	10,170	11,626	13,809	14,850	16,345	19,414	22,303	23,453	22,814	23,854	10,756	215,947

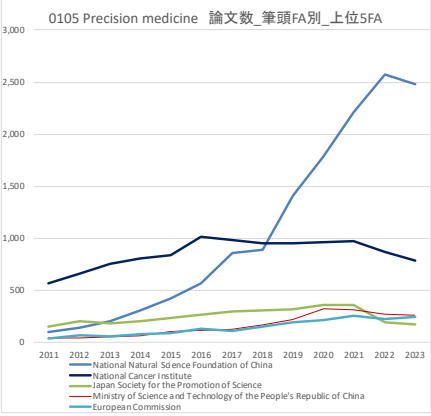
0105 Precision medicine 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	21.4%	20.9%	21.4%	21.8%	21.5%	22.6%	22.5%	23.9%	22.1%	22.8%	24.0%	23.1%	21.9%	23.8%	22.6%
2 Etiology	3.5%	3.3%	3.1%	3.6%	3.3%	3.3%	2.8%	2.7%	2.5%	2.7%	2.5%	2.6%	2.4%	2.3%	2.8%
3 Prevention	1.3%	1.3%	0.9%	0.7%	0.8%	0.9%	0.7%	0.7%	0.5%	0.5%	0.4%	0.5%	0.4%	0.4%	0.6%
4 Early Detection, Diagnosis, and Prognosis	25.4%	26.0%	25.6%	25.7%	25.2%	25.4%	25.8%	25.4%	26.4%	26.2%	27.9%	29.6%	29.7%	29.5%	27.0%
5 Treatment	15.7%	16.1%	16.9%	15.2%	16.1%	16.3%	17.2%	17.0%	18.1%	16.2%	16.3%	15.2%	16.0%	16.6%	16.4%
6 Cancer Control, Survivorship, and Outcomes Research	1.4%	1.6%	1.4%	1.6%	1.6%	1.8%	1.9%	1.8%	1.5%	2.4%	1.4%	1.6%	2.2%	1.4%	1.7%
others	31.3%	30.8%	30.8%	31.2%	31.4%	29.7%	29.1%	28.5%	28.8%	29.3%	27.5%	27.5%	27.4%	26.0%	28.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision medicine の臓器別の論文数は、Not Site-specific Cancer が最も多く、次いで乳がん、白血病の順と推計された。



0105 Precision medicine 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	1,260	1,469	1,712	1,410	1,672	2,111	2,276	2,381	2,655	3,283	3,168	3,168	3,293	1,669	31,527
Not Site-Specific Cancer	749	947	1,022	1,030	1,106	1,393	1,584	1,700	1,939	2,188	2,285	2,345	2,545	1,259	22,092
Lung Cancer	547	746	823	775	907	1,128	1,423	1,446	1,816	2,111	2,320	2,392	2,337	1,076	19,847
Colon and Rectal Cancer	510	707	751	797	869	960	1,109	1,240	1,369	1,503	1,698	1,716	1,764	856	15,849
Leukemia / Leukaemia	431	508	571	552	661	833	637	960	1,228	1,090	1,148	779	1,237	348	10,983
Brain Tumor	286	369	378	494	483	631	753	867	965	1,125	1,288	1,394	1,374	537	10,944
Liver Cancer	278	336	421	473	566	568	649	678	835	1,005	1,184	1,239	1,146	503	9,881
Prostate Cancer	310	460	472	491	517	661	642	724	754	924	914	875	988	461	9,193
Pancreatic Cancer	148	207	223	288	280	375	396	421	557	565	658	664	674	423	5,879
Ovarian Cancer	188	240	277	232	269	319	365	378	524	557	620	599	576	304	5,448

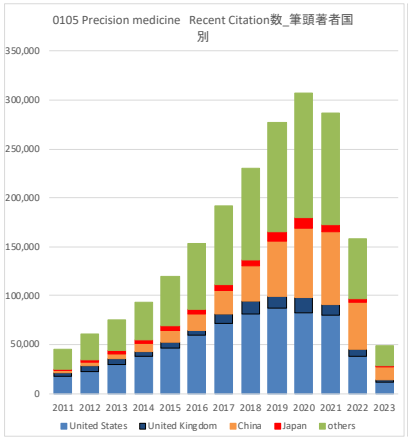
Precision medicine の FA 別の論文数は、当初米国 NCI が最も多かったが、2015 年からは中国 NSFC が逆転して最も多く、また経年的な伸びも大きいと推計された。次いでわが国の JSPS で、論文数は横ばいあるいは減少傾向が見られた。

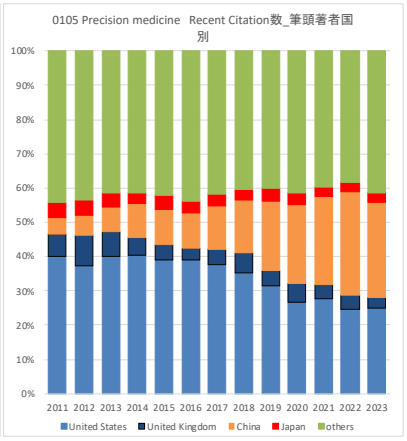


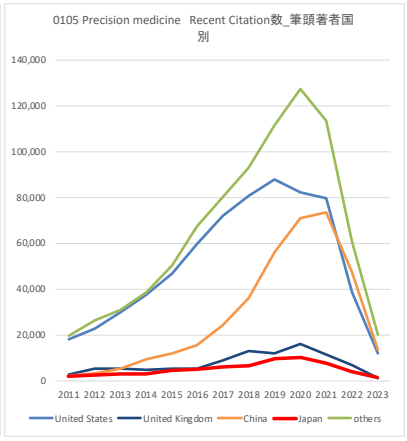
0105 Precision medicine 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	95	141	201	301	419	562	857	892	1,407	1,779	2,211	2,575	2,483	1,104	15,027
National Cancer Institute	566	656	749	806	832	1,009	982	949	952	959	969	869	787	318	11,403
Japan Society for the Promotion of Science	145	202	184	206	233	262	291	305	311	362	359	192	166	73	3,291
Ministry of Science and Technology of the People's Republic of China	41	37	51	65	104	117	123	165	218	316	307	267	257	106	2,174
European Commission	38	66	61	81	88	131	109	150	186	207	257	219	239	78	1,910
National Center for Advancing Translational Sciences	66	88	89	109	73	110	120	97	95	134	119	91	64	33	1,288
National Institute of General Medical Sciences	40	44	50	65	75	92	90	114	109	125	110	111	87	33	1,145
Cancer Research UK	49	42	71	58	86	80	81	75	100	80	109	106	73	29	1,039
Italian Association for Cancer Research	26	31	41	47	61	61	71	89	111	134	106	89	101	25	993
National Research Foundation of Korea	20	25	31	28	47	71	76	79	109	130	128	94	85	33	956

4.5.2. Recent Citation 数

Precision medicine の引用数は経年的に大きく増加していると推計された。国別の引用数は米国とが最も多く、ついで中国が多いと推計された。近年は中国の引用数の伸びが顕著と推計された。



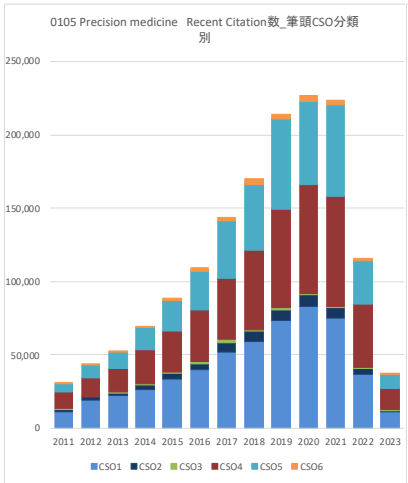


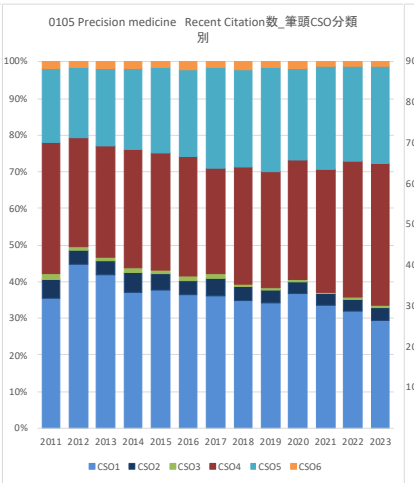


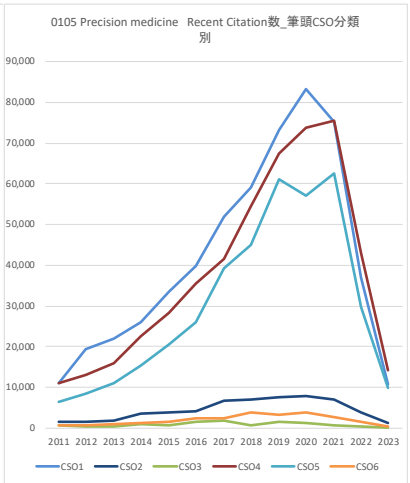
0105 Precision medicine Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	18,152	22,767	30,017	37,656	46,832	59,589	72,087	80,813	87,636	82,338	79,769	38,695	12,228	471	669,050
United Kingdom	2,871	5,444	5,301	4,803	5,315	5,549	9,133	13,367	11,915	16,042	11,679	6,917	1,397	81	99,814
China	2,162	3,438	5,528	9,490	12,224	15,775	24,445	36,094	56,096	70,961	73,525	47,547	13,616	414	371,315
Japan	2,061	2,666	3,009	2,919	4,919	5,046	6,277	6,628	9,995	10,372	7,963	4,178	1,382	34	67,449
others	19,942	26,559	31,137	38,678	50,739	67,166	80,309	93,065	111,206	127,195	113,718	60,724	20,188	767	841,393
合計	45,188	60,874	74,992	93,546	120,029	153,125	192,251	229,967	276,848	306,908	286,654	158,061	48,811	1,767	2,049,021

0105 Precision medicine Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	40.2%	37.4%	40.0%	40.3%	39.0%	38.9%	37.5%	35.1%	31.7%	26.8%	27.8%	24.5%	25.1%	26.7%	32.7%
United Kingdom	6.4%	8.9%	7.1%	5.1%	4.4%	3.6%	4.8%	5.8%	4.3%	5.2%	4.1%	4.4%	2.9%	4.6%	4.9%
China	4.8%	5.6%	7.4%	10.1%	10.2%	10.3%	12.7%	15.7%	20.3%	23.1%	25.6%	30.1%	27.9%	23.4%	18.1%
Japan	4.6%	4.4%	4.0%	3.1%	4.1%	3.3%	3.3%	2.9%	3.6%	3.4%	2.8%	2.6%	2.8%	1.9%	3.3%
others	44.1%	43.6%	41.5%	41.3%	42.3%	43.9%	41.8%	40.5%	40.2%	41.4%	39.7%	38.4%	41.4%	43.4%	41.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision medicine の CSO 分類別の引用数は、CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis、CSO5 Treatment が多いと推計された。



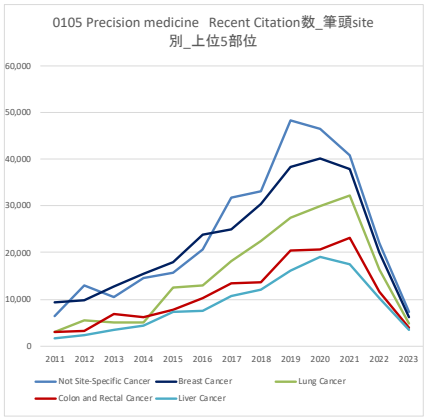




0105 Precision medicine Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	11,103	19,500	22,139	25,947	33,418	39,774	52,041	59,044	73,305	83,171	75,248	36,921	10,899	384	542,894
2 Etiology	1,566	1,653	1,966	3,704	3,911	4,093	6,648	7,057	7,490	7,776	6,982	3,937	1,316	22	58,121
3 Prevention	554	497	478	1,040	830	1,626	1,816	797	1,657	1,220	625	545	185	2	11,872
4 Early Detection, Diagnosis, and Prognosis	11,150	12,949	16,005	22,583	28,384	35,451	41,690	54,657	67,373	73,742	75,433	43,034	14,343	567	497,361
5 Treatment	6,324	8,385	11,127	15,318	20,637	25,962	39,368	44,958	61,151	57,058	62,607	29,795	9,782	380	392,852
6 Cancer Control, Survivorship, and Outcomes	565	627	1,047	1,297	1,442	2,304	2,286	3,721	3,357	3,800	2,803	1,558	450	18	25,275
others	13,931	17,265	22,240	23,686	31,409	43,931	48,408	59,758	62,549	80,147	62,957	42,306	11,855	394	520,646
合計	45,188	60,874	74,992	93,546	120,029	153,125	192,251	229,967	276,848	306,908	286,654	158,061	48,811	1,767	2,049,021

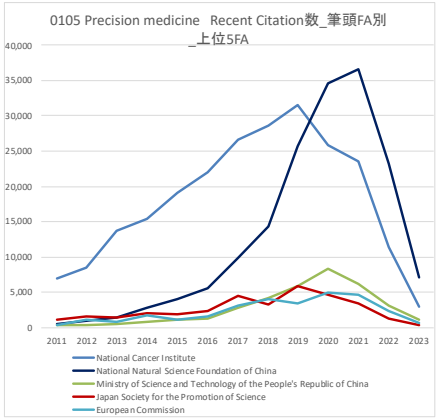
0105 Precision medicine Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	24.6%	32.0%	29.5%	27.7%	27.8%	26.0%	27.1%	25.7%	26.5%	27.1%	26.3%	23.4%	22.3%	21.7%	26.5%
2 Etiology	3.5%	2.7%	2.6%	4.0%	3.3%	2.7%	3.5%	3.1%	2.7%	2.5%	2.4%	2.5%	2.7%	1.2%	2.8%
3 Prevention	1.2%	0.8%	0.6%	1.1%	0.7%	1.1%	0.9%	0.3%	0.6%	0.4%	0.2%	0.3%	0.4%	0.1%	0.6%
4 Early Detection, Diagnosis, and Prognosis	24.7%	21.3%	21.3%	24.1%	23.6%	23.2%	21.7%	23.8%	24.3%	24.0%	26.3%	27.2%	29.4%	32.1%	24.3%
5 Treatment	14.0%	13.8%	14.8%	16.4%	17.2%	17.0%	20.5%	19.5%	22.1%	18.6%	21.8%	18.9%	20.0%	21.5%	19.2%
6 Cancer Control, Survivorship, and Outcomes	1.3%	1.0%	1.4%	1.4%	1.2%	1.5%	1.2%	1.6%	1.2%	1.2%	1.0%	1.0%	0.9%	1.0%	1.2%
others	30.8%	28.4%	29.7%	25.3%	26.2%	28.7%	25.2%	26.0%	22.6%	26.1%	22.0%	26.8%	24.3%	22.3%	25.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision medicine の臓器別の引用数は、Not Site-specific Cancer に次いで、乳がん、肺がんの順に多いと推計された。



0105 Precision medicine Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	6,302	12,978	10,489	14,423	15,656	20,678	31,825	33,045	48,155	46,462	40,723	21,929	7,398	269	310,332
Breast Cancer	9,436	9,757	12,684	15,340	17,994	23,731	24,988	30,431	38,304	40,032	37,869	20,058	6,266	240	287,130
Lung Cancer	3,078	5,407	5,124	5,048	12,547	12,894	18,044	22,509	27,433	29,944	32,073	16,368	4,818	214	195,501
Colon and Rectal Cancer	2,984	3,322	6,732	6,209	7,810	10,251	13,469	13,708	20,446	20,717	23,134	11,568	3,793	119	144,262
Liver Cancer	1,674	2,256	3,533	4,440	7,393	7,584	10,670	12,137	16,029	19,042	17,500	10,219	3,349	79	115,905
Brain Tumor	1,942	3,062	6,455	3,006	6,053	6,422	9,028	10,528	12,173	13,770	14,716	7,359	2,189	123	96,826
Leukemia / Leukaemia	1,652	2,792	2,917	3,143	3,750	8,989	8,262	11,021	10,170	11,214	9,417	6,445	1,590	52	81,414
Melanoma	581	969	1,317	3,399	3,371	7,592	9,341	12,840	8,521	11,644	9,801	4,512	1,468	61	75,417
Prostate Cancer	1,498	1,683	2,234	3,881	4,906	6,088	6,171	7,308	8,702	10,939	9,822	5,321	1,512	70	70,135
Pancreatic Cancer	820	1,532	1,440	2,841	3,724	4,503	4,129	7,024	7,166	8,871	7,056	4,449	1,418	55	55,028

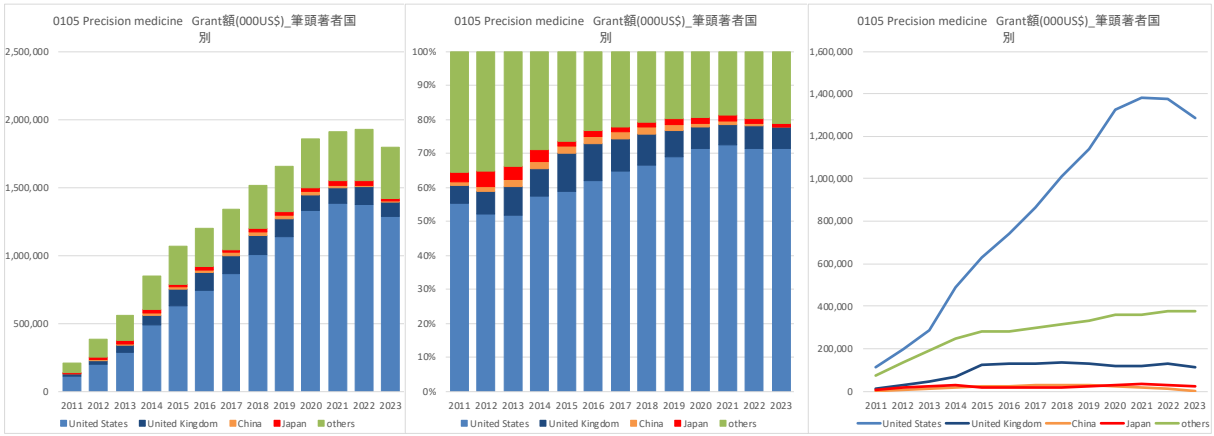
Precision medicine の FA 別の引用数では、2019 年までは米国 NCI が最も多かったが、その後中国 NSFC が逆転して最も多くなったと推計された。



0105 Precision medicine Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	6,944	8,444	13,721	15,462	19,094	22,035	26,566	28,612	31,557	25,799	23,571	11,443	2,989	74	236,311
National Natural Science Foundation of China	492	975	1,462	2,801	3,947	5,486	9,869	14,303	25,618	34,676	36,554	23,199	7,096	214	166,692
Ministry of Science and Technology of the People's Republic of China	262	383	504	839	1,043	1,212	2,787	4,236	5,928	8,323	6,142	3,089	1,093	21	35,862
Japan Society for the Promotion of Science	1,029	1,560	1,380	1,994	1,923	2,309	4,553	3,245	5,862	4,676	3,459	1,209	259	15	33,473
European Commission	258	1,122	780	1,661	1,138	1,498	3,066	4,025	3,348	4,906	4,683	2,286	641	27	29,439
National Center for Advancing Translational Sciences	548	3,347	1,191	1,396	1,348	2,051	3,675	3,451	3,191	3,437	2,348	958	231	24	27,196
Cancer Research UK	717	1,998	1,810	1,008	1,443	2,030	2,077	2,239	4,585	3,208	1,910	1,565	280	20	24,890
National Institute of General Medical Sciences	643	438	664	1,117	1,277	3,678	3,066	2,440	2,380	2,420	1,971	1,185	298	6	21,583
Deutsche Forschungsgemeinschaft	175	425	344	968	517	451	1,158	1,812	2,725	2,153	2,867	2,206	425	13	16,239
Congressionally Directed Medical Research Programs	1,525	724	763	817	1,501	584	1,275	1,561	1,184	2,335	1,828	554	253	21	14,925

4.5.3. Grant(000US$)額

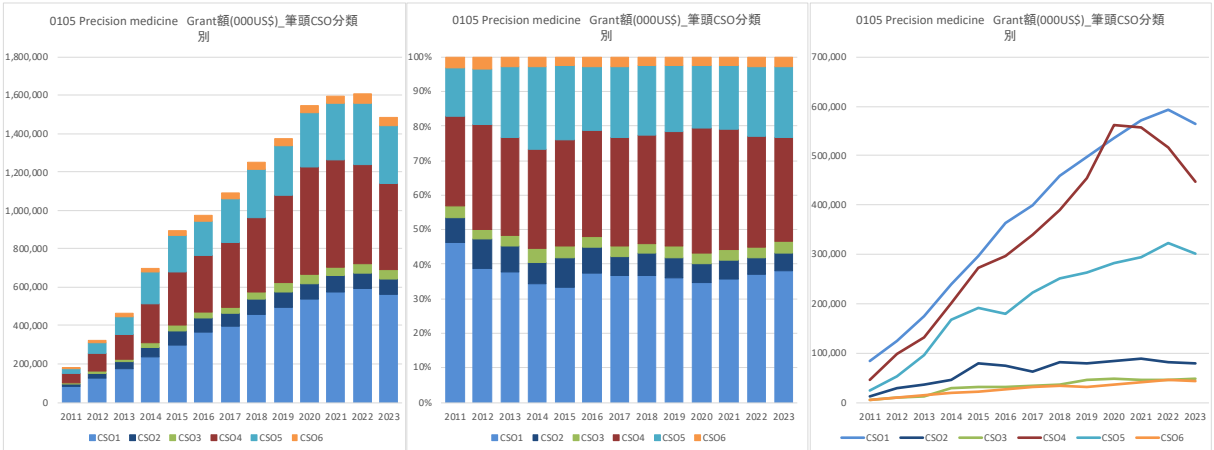
Precision medicine の研究費総額は経年的に増加傾向にあり、国別の研究費配分額は米国が最も多く、また増加割合も最も多い傾向が見られた。次いで英国が多いが経年的には横ばいであった。



0105 Precision medicine Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	114,234	198,703	288,902	487,099	627,786	739,924	864,492	1,008,784	1,139,219	1,327,756	1,380,794	1,373,189	1,283,363	1,040,450	11,874,695
United Kingdom	11,237	26,026	47,412	70,028	122,233	130,577	127,598	136,961	128,062	116,983	119,410	131,655	111,074	97,013	1,376,270
China	2,195	5,552	11,977	16,683	21,741	24,731	26,677	29,634	28,747	23,485	16,027	9,610	1,804	1,518	220,381
Japan	5,955	16,799	21,161	30,053	15,964	19,298	18,556	20,061	25,305	29,479	31,831	31,376	22,444	15,266	303,548
others	73,606	134,869	189,511	245,151	281,517	280,320	296,772	317,189	329,487	362,109	360,087	377,795	378,982	275,948	3,903,343
合計	207,227	381,950	558,964	849,013	1,069,240	1,194,851	1,334,095	1,512,629	1,650,820	1,859,811	1,908,149	1,923,626	1,797,667	1,430,195	17,678,237

0105 Precision medicine Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	55.1%	52.0%	51.7%	57.4%	58.7%	61.9%	64.8%	66.7%	69.0%	71.4%	72.4%	71.4%	71.4%	72.7%	67.2%
United Kingdom	5.4%	6.8%	8.5%	8.2%	11.4%	10.9%	9.6%	9.1%	7.8%	6.3%	6.3%	6.8%	6.2%	6.8%	7.8%
China	1.1%	1.5%	2.1%	2.0%	2.0%	2.1%	2.0%	2.0%	1.7%	1.3%	0.8%	0.5%	0.1%	0.1%	1.2%
Japan	2.9%	4.4%	3.8%	3.5%	1.5%	1.6%	1.4%	1.3%	1.5%	1.6%	1.7%	1.6%	1.2%	1.1%	1.7%
others	35.5%	35.3%	33.9%	28.9%	26.3%	23.5%	22.2%	21.0%	20.0%	19.5%	18.9%	19.6%	21.1%	19.3%	22.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

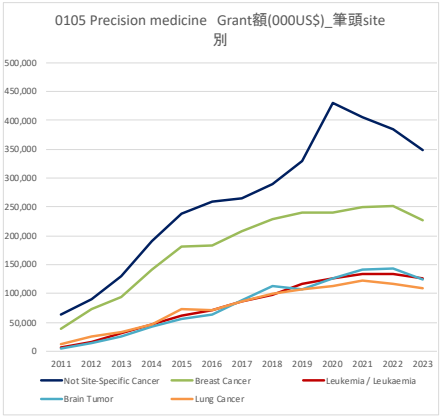
Precision medicine の CSO 分類別の研究費配分額は、CSO1 Biology と CSO4 Early Detection, Diagnosis and Prognosis が多く、次いで CSO5 Treatment の順と推計された。



0105 Precision medicine Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	82,944	123,712	174,795	239,606	296,072	363,331	399,429	458,366	496,671	535,781	572,179	593,410	564,512	442,122	5,342,928
2 Etiology	12,979	27,798	35,048	44,782	78,636	73,898	62,432	81,714	79,818	83,890	87,883	81,649	79,245	57,993	887,763
3 Prevention	5,890	8,657	13,214	27,669	30,011	31,647	33,596	35,530	45,961	48,822	45,188	46,625	49,111	42,562	464,483
4 Early Detection, Diagnosis, and Prognosis	46,644	97,643	131,398	201,956	273,436	297,753	339,816	389,324	453,743	561,257	556,831	517,174	446,713	354,812	4,668,501
5 Treatment	25,155	51,720	94,571	167,978	192,310	180,423	223,267	250,849	264,288	282,283	294,907	322,763	300,285	244,016	2,894,815
6 Cancer Control, Survivorship, and Outcomes Research	5,599	10,800	13,719	18,746	22,128	27,396	32,249	32,999	32,198	36,128	40,500	45,131	43,834	33,526	394,952
others	31,539	67,439	103,406	156,444	186,656	231,239	254,384	274,352	288,231	324,188	324,391	328,827	326,591	264,694	3,162,381
合計	207,227	381,950	558,964	849,013	1,069,240	1,194,851	1,334,095	1,512,629	1,650,820	1,859,811	1,908,149	1,923,626	1,797,667	1,430,195	17,678,237

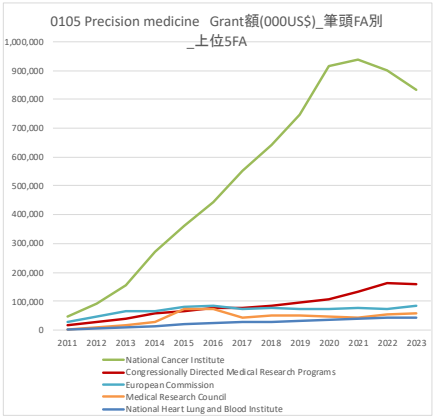
0105 Precision medicine Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	40.0%	32.4%	31.3%	28.2%	27.7%	30.4%	29.9%	30.3%	30.1%	28.8%	30.0%	30.8%	31.4%	30.9%	30.2%
2 Etiology	6.3%	7.3%	6.3%	5.3%	7.4%	6.2%	4.7%	5.4%	4.8%	4.5%	4.6%	4.2%	4.4%	4.1%	5.0%
3 Prevention	2.8%	2.3%	2.4%	3.3%	2.8%	2.6%	2.5%	2.3%	2.8%	2.6%	2.4%	2.4%	2.7%	3.0%	2.6%
4 Early Detection, Diagnosis, and Prognosis	22.5%	25.6%	23.5%	23.8%	25.6%	24.9%	25.5%	25.7%	27.5%	30.2%	29.2%	26.9%	24.8%	24.8%	26.4%
5 Treatment	12.1%	13.5%	16.9%	19.8%	18.0%	15.1%	16.7%	16.6%	16.0%	15.2%	15.5%	16.8%	16.7%	17.1%	16.4%
6 Cancer Control, Survivorship, and Outcomes Research	2.7%	2.8%	2.5%	2.2%	2.1%	2.3%	2.4%	2.2%	2.0%	1.9%	2.1%	2.3%	2.4%	2.3%	2.2%
others	15.2%	17.7%	18.5%	18.4%	17.5%	19.4%	19.1%	18.1%	17.5%	17.4%	17.0%	17.1%	18.2%	18.5%	17.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision medicine の臓器別の研究費配分額は、Not Site-specific Cancer に次いで乳がんが多いと推計された。



0105 Precision medicine Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	63,534	90,565	129,026	191,598	238,216	259,070	264,311	290,114	330,414	430,941	405,472	383,753	349,073	252,156	3,678,243
Breast Cancer	38,078	72,652	93,500	140,800	180,292	182,499	207,927	228,424	239,779	239,313	248,975	250,711	226,564	181,430	2,530,946
Leukemia / Leukaemia	6,750	15,998	31,574	46,452	62,337	70,409	86,202	96,796	116,859	125,201	133,020	133,192	126,621	98,182	1,149,594
Brain Tumor	5,297	13,834	25,049	43,232	56,687	62,804	88,487	111,878	107,713	125,805	141,490	143,634	124,063	93,870	1,143,843
Lung Cancer	12,763	25,114	33,727	45,462	72,098	70,348	85,718	99,969	106,323	112,071	122,195	117,397	108,377	89,028	1,100,590
Prostate Cancer	9,289	20,092	32,212	52,366	65,135	75,329	81,079	95,153	102,690	107,161	115,836	121,161	105,415	81,895	1,064,815
Colon and Rectal Cancer	12,141	21,273	30,205	40,035	43,065	50,614	54,492	62,212	74,736	79,348	85,395	86,791	80,514	66,626	787,446
Melanoma	2,749	9,211	16,603	25,064	28,391	32,200	35,591	43,833	49,245	51,076	53,630	54,617	56,157	47,106	505,472
Liver Cancer	6,363	10,669	16,841	19,056	31,798	26,900	28,573	40,660	41,188	51,490	48,729	48,250	49,828	43,975	464,319
Pancreatic Cancer	2,907	7,341	13,496	18,410	23,937	26,554	32,315	35,497	36,441	37,844	43,466	47,252	42,133	36,949	404,543

Precision medicine の FA 別の研究費配分額は、米国 NCI が最も多く、経年的にも最も上昇割合が高いと推計された。



0105 Precision medicine Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	45,699	90,818	156,484	273,223	362,308	442,668	552,033	641,421	747,583	914,339	937,251	898,312	832,185	649,138	7,543,460	United States
Congressionally Directed Medical Research Programs	15,371	28,330	39,648	56,560	66,666	76,179	76,120	83,651	96,416	108,550	133,513	162,817	160,470	135,095	1,239,384	United States
European Commission	27,963	47,366	65,186	66,986	81,650	84,106	71,818	75,256	74,779	74,405	78,259	71,925	86,135	90,170	996,007	Belgium
Medical Research Council	3,738	8,576	17,335	28,606	74,605	74,970	43,812	50,470	51,250	45,763	45,144	53,788	58,056	51,622	607,737	United Kingdom
National Heart Lung and Blood Institute	1,396	4,426	10,294	14,979	19,633	25,177	27,362	27,933	33,291	36,555	39,290	44,994	44,772	36,343	366,446	United States
European Research Council	4,933	9,215	16,520	21,864	25,977	29,517	30,524	30,044	32,141	30,284	30,224	32,468	33,532	33,763	361,006	Belgium
National Institute of General Medical Sciences	1,958	4,719	5,750	9,034	13,915	16,914	23,868	29,023	36,342	41,498	43,691	39,665	41,279	35,458	343,116	United States
National Institute of Allergy and Infectious Diseases	1,014	4,393	5,833	14,498	15,908	20,080	21,528	25,001	30,361	35,423	33,262	35,059	36,200	28,025	306,586	United States
Japan Agency for Medical Research and Development	0	0	0	4,438	9,183	22,250	26,581	28,063	29,757	30,317	34,672	32,856	21,852	14,289	254,258	Japan
National Institute of Diabetes and Digestive and Kidney Diseases	2,140	3,969	5,794	6,903	11,748	13,176	14,532	15,749	18,036	22,103	24,762	26,711	27,305	24,410	217,339	United States

4.5.4. 主要論文、引用、研究費

＜論文＞

Publication: 0105 Precision medicine

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The prognostic biological markers of immunotherapy for non-small cell lung cancer: current landscape and future perspective	Liang, Shuai; Wang, Hanyu; Tian, Haixia; Xu, Zhicheng; Wu, Min; Hua, Dong; Li, Chengming	Frontiers in Immunology	China	2023	3	Review Article
2	Molecular and biological factors in the prognosis of head and neck squamous cell cancer	Naumov, Sergei S.; Kulbakin, Denis E.; Krakhmal, Nadezhda V.; Vtorushin, Sergey V.	Molecular Biology Reports	Russia	2023	1	Review Article
3	Biological Markers of High-Risk Childhood Acute Lymphoblastic Leukemia	He, Jiasen; Munir, Faryal; Catueno, Samanta; Connors, Jeremy S.; Gibson, Amber; Robusto, Lindsay; McCall, David; Nunez, Cesar; Roth, Michael; Tewari, Priti; Garces, Sofia; Cuglievan, Branko; Garcia, Miriam B.	Cancers	United States	2024	0	Review Article
4	Targeting signaling pathways in osteosarcoma: Mechanisms and clinical studies	Ji, Ziyu; Shen, Jianlin; Lan, Yujian; Yi, Qian; Liu, Huan	MedComm	China	2023	7	Review Article
5	NQO-1 activatable NIR photosensitizer for visualization and selective killing of breast cancer cells	Li, Zhipeng; Feng, Qincong; Hou, Jiting; Shen, Jianliang	Bioorganic Chemistry	China	2023	1	Research Article
6	The predictive and prognostic role of metabolic and volume-based parameters of positron emission tomography/computed tomography as non-invasive dynamic biological markers in early breast cancer treated with preoperative systemic therapy	Inno, Alessandro; Peri, Marta; Turazza, Monica; Bogina, Giuseppe; Modena, Alessandra; Massocco, Alberto; Pezzella, Modestino; Valerio, Matteo; Mazzola, Rosario; Olivari, Laura; Severi, Fabrizia; Foti, Giovanni; Mazzi, Cristina; Marchetti, Fabiana; Lunardi, Gianluigi; Salgarello, Matteo; Russo, Antonio; Gori, Stefania	Frontiers in Oncology	Italy	2023	0	Research Article
7	The effects of ARID1A mutation in gastric cancer and its significance for treatment	Lu, Shan; Duan, Ruifeng; Cong, Liang; Song, Ying	Cancer Cell International	China	2023	1	Review Article
8	The role of zinc finger proteins in malignant tumors	Zhao, Jia; Wen, Doudou; Zhang, Shubing; Jiang, Hao; Di, Xiaotang	The FASEB Journal	China	2023	5	Review Article
9	The deregulation of arachidonic acid metabolism in ovarian cancer	Xia, Qiuyi; Gao, Wen; Yang, Jintao; Xing, Zhifang; Ji, Zhaodong	Frontiers in Oncology	China	2024	0	Review Article
10	Proteomics in Childhood Acute Lymphoblastic Leukemia: Challenges and Opportunities	Kourti, Maria; Aivaliotis, Michalis; Hatzipantelis, Emmanouel	Diagnostics	Greece	2023	1	Review Article

＜引用＞

Citation: 0105 Precision medicine

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failureThe Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)Developed with the special contribution of the Heart Failure Association (HFA) of the ESC	Piotr Ponikowski; Adriaan A. Voors; Stefan D. Anker; Héctor Bueno; John G. F. Cleland; Andrew J. S. Coats; Volkmar Falk; José Ramón González-Juanatey; Veli-Pekka Harjola; Ewa A. Jankowska; Mariell Jessup; Cecilia Linde; Petros Nihoyannopoulos; John T. Parissis; Burkert Pieske; Jillian P. Riley; Giuseppe M. C. Rosano; Luis M. Ruilope; Frank Ruschitzka; Frans H. Rutten; Peter van der Meer; Gerasimos Filippatos; John	European Heart Journal	Poland	2016	2600	0
2	3D Slicer as an image computing platform for the Quantitative Imaging Network	Fedorov, Andriy; Beichel, Reinhard; Kalpathy-Cramer, Jayashree; Finet, Julien; Fillion-Robin, Jean-Christophe; Pujol, Sonia; Bauer, Christian; Jennings, Dominique; Fennessy, Fiona; Sonka, Milan; Buatti, John; Aylward, Stephen; Miller, James V.; Pieper, Steve; Kikinis, Ron	Magnetic Resonance Imaging	United States	2012	2443	Research Article
3	Signatures of T cell dysfunction and exclusion predict cancer immunotherapy response	Jiang, Peng; Gu, Shengqing; Pan, Deng; Fu, Jingxin; Sahu, Avinash; Hu, Xihao; Li, Ziyi; Traugh, Nicole; Bu, Xia; Li, Bo; Liu, Jun; Freeman, Gordon J.; Brown, Myles A.; Wucherpfennig, Kai W.; Liu, X. Shirley	Nature Medicine	United States	2018	2416	Research Article
4	The Cancer Genome Atlas Pan-Cancer analysis project	Kyle Chang; Chad J Creighton; Caleb Davis; Lawrence Donehower; Jennifer Drummond; David Wheeler; Adrian Ally; Miruna Balasundaram; Inanc Birol; Yaron S N Butterfield; Andy Chu; Eric Chuah; Hye-Jung E Chun; Noreen Dhalla; Ranabir Guin; Martin Hirst; Carrie Hirst; Robert A Holt; Steven J M Jones; Darlene Lee; Haiyan I Li; Marco A Marra; Michael Mayo; Richard A Moore; Andrew J Mungall; A Gordon Robertson; Jacqueline E Schein; Payal Sipahimalani; Angela Tam; Nina Thiessen; Richard J	Nature Genetics	Canada	2013	2130	Research Article
5	Pan-cancer Immunogenomic Analyses Reveal Genotype-Immunophenotype Relationships and Predictors of Response to Checkpoint Blockade	Charoentong, Pornpimol; Finotello, Francesca; Angelova, Mihaela; Mayer, Clemens; Efremova, Mirjana; Rieder, Dietmar; Hackl, Hubert; Trajanoski, Zlatko	Cell Reports	Austria	2017	2084	Research Article
6	Signatures of mutational processes in human cancer	Alexandrov, Ludmil B.; Nik-Zainal, Serena; Wedge, David C.; Aparicio, Samuel A. J. R.; Behjati, Sam; Biankin, Andrew V.; Bignell, Graham R.; Bolli, Niccolò; Borg, Ake; Børresen-Dale, Anne-Lise; Boyault, Sandrine; Burkhardt, Birgit; Butler, Adam P.; Caldas, Carlos; Davies, Helen R.; Desmedt, Christine; Eils, Roland; Eyfjörd, Jórunn Erla; Foekens, John A.; Greaves, Mel; Hosoda, Fumie; Hutter, Barbara; Ilicic, Tomislav; Imbeaud, Sandrine; Imielinski, Marcin; Jäger, Natalie; Jones, David T. W.; Jones, David;	Nature	United States	2013	1857	Research Article
7	Diagnosis and management of AML in adults: 2017 ELN recommendations from an international expert panel	Döhner, Hartmut; Estey, Elihu; Grimwade, David; Amadori, Sergio; Appelbaum, Frederick R; Büchner, Thomas; Dombret, Hervé; Ebert, Benjamin L; Fenaux, Pierre; Larson, Richard A; Levine, Ross L; Lo-Coco, Francesco; Naoe, Tomoki; Niederwieser, Dietger; Ossenkoppele, Gert J; Sanz, Miguel; Sierra, Jorge; Tallman, Martin S; Tien, Hwei-Fang; Wei, Andrew H; Löwenberg, Bob; Bloomfield, Clara D	Blood	Germany	2016	1855	Review Article
8	Axicabtagene Ciloleucel CAR T-Cell Therapy in Refractory Large B-Cell Lymphoma	Neelapu, Sattva S; Locke, Frederick L; Bartlett, Nancy L; Lekakis, Lazaros J; Miklos, David B; Jacobson, Caron A; Braunschweig, Ira; Oluwole, Olalekan O; Siddiqi, Tanya; Lin, Yi; Timmerman, John M; Stiff, Patrick J; Friedberg, Jonathan W; Flinn, Ian W; Goy, Andre; Hill, Brian T; Smith, Mitchell R; Deol, Abhinav; Farooq, Umar; McSweeney, Peter; Munoz, Javier; Avivi, Irit; Castro, Januario E; Westin, Jason R; Chavez, Julio C; Ghobadi, Armin; Komanduri,	New England Journal of Medicine	United States	2017	1820	Research Article
9	Head and neck squamous cell carcinoma	Johnson, Daniel E.; Burtness, Barbara; Leemans, C. René; Lui, Vivian Wai Yan; Bauman, Julie E.; Grandis, Jennifer R.	Nature Reviews Disease Primers	Netherlands	2020	1766	Review Article
10	EASL 2017 Clinical Practice Guidelines on the management of hepatitis B virus infection	for the Study of the Liver, European Association; Lampertico, Pietro; Agarwal, Kosh; Berg, Thomas; Buti, Maria; Janssen, Harry L.A.; Papatheodoridis, George; Zoulim, Fabien; Tacke, Frank	Journal of Hepatology		2017	1636	Review Article

＜研究費＞

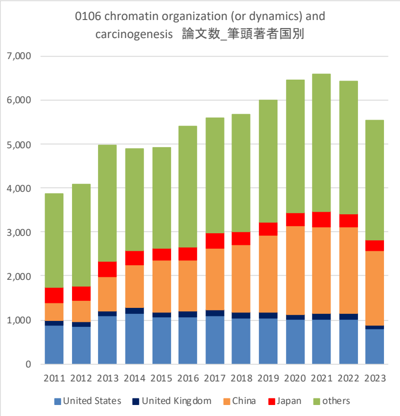
Grant: 0105 Precision medicine

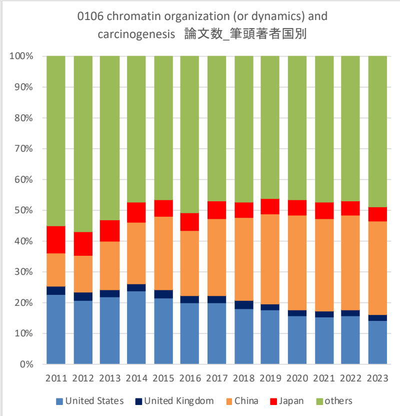
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	ECOG-ACRIN NCORP Research Base	LYNNE I. WAGNER, PETER J ODWYER, MITCHELL D. SCHNALL, RUTH C CARLOS	National Cancer Institute	United States	147,095,616	2014	2025
2	ECOG-ACRIN Network Group Operations Center	PETER J ODWYER, MITCHELL D. SCHNALL, ROBERT L COMIS	National Cancer Institute	United States	133,465,944	2014	2025
3	NRG Oncology - Statistical and Data Management Center	JAMES J. DIGNAM, GREG YOTHERS, JOSEPH P. COSTANTINO, ALAN DAVID HUTSON, JOHN A BLESSING, WENDY BERGANTZ	National Cancer Institute	United States	103,800,440	2014	2025
4	Alliance Statistics and Data Management Center	SUMITHRA JAY MANDREKAR, DANIEL J. SARGENT	National Cancer Institute	United States	87,071,040	2014	2025
5	Combatting Bacterial Resistance in Europe - Molecules against Gram Negative Infections	Hasan Jafri	European Commission	Belgium	85,727,800	2015	2021
6	ECOG-ACRIN Network Group Statistics and Data Management Center	ROBERT J GRAY, CONSTANTINE A. GATSONIS, JEAN MACDONALD	National Cancer Institute	United States	84,433,808	2014	2025
7	CEITEC 2020	Jiří Nantl	Ministry of Education Youth and Sports	Czechia	66,788,776	2016	2020
8	Division of Cancer Tratment and DIagnosis- Operational Task Order	LEONARD FREEDMAN	National Cancer Institute	United States	63,381,340	2020	2021
9	Division of Cancer Treatment and Diagnosis- Operational Task Order	LEONARD FREEDMAN	National Cancer Institute	United States	62,828,084	2020	2021
10	Illinois Precision Medicine Consortium	PHILIP GREENLAND, HABIBUL AHSAN, MARIA ARGOS, BRISEIS A ASCHEBROOK-KILFOY, MARTHA L DAVIGLUS, JOYCE HO	Office of the Director	United States	60,460,508	2018	2023

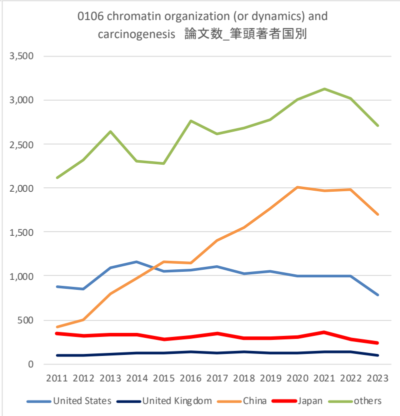
4.6. 0106 Chromatin organization (or dynamics) and carcinogenesis

4.6.1. 論文数

Chromatin organization (or dynamics) and carcinogenesis の論文数は経年的に増加傾向にあり、国別の論文数は分析年度を通じてその他の国を除くと米国が最も多く微増傾向であったが、近年中国の増加が顕著で 2015 年以降は米国の論文数を抜いていると推計された。



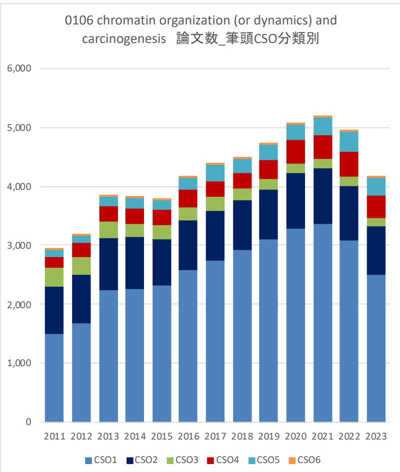


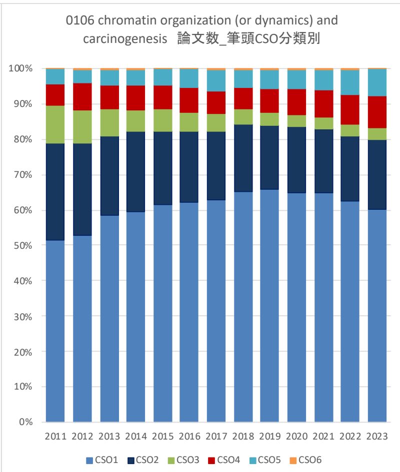


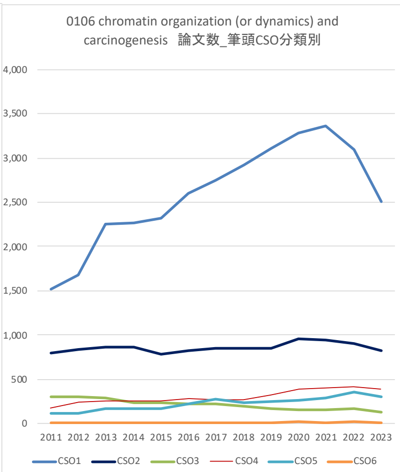
0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	878	850	1,092	1,158	1,059	1,070	1,107	1,032	1,050	1,005	1,002	1,002	789	350	13,444
United Kingdom	99	100	103	117	128	138	128	140	121	127	136	137	100	27	1,601
China	418	503	802	973	1,167	1,144	1,406	1,548	1,772	2,013	1,975	1,991	1,702	584	17,998
Japan	342	314	338	334	279	308	339	287	287	311	363	282	241	88	4,113
others	2,126	2,326	2,648	2,306	2,282	2,763	2,624	2,689	2,787	3,016	3,128	3,028	2,718	948	35,389
合計	3,863	4,093	4,983	4,888	4,915	5,423	5,604	5,696	6,017	6,472	6,604	6,440	5,550	1,997	72,545

0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	22.7%	20.8%	21.9%	23.7%	21.5%	19.7%	19.8%	18.1%	17.5%	15.5%	15.2%	15.6%	14.2%	17.5%	18.5%
United Kingdom	2.6%	2.4%	2.1%	2.4%	2.6%	2.5%	2.3%	2.5%	2.0%	2.0%	2.1%	2.1%	1.8%	1.4%	2.2%
China	10.8%	12.3%	16.1%	19.9%	23.7%	21.1%	25.1%	27.2%	29.4%	31.1%	29.9%	30.9%	30.7%	29.2%	24.8%
Japan	8.9%	7.7%	6.8%	6.8%	5.7%	5.7%	6.0%	5.0%	4.8%	4.8%	5.5%	4.4%	4.3%	4.4%	5.7%
others	55.0%	56.8%	53.1%	47.2%	46.4%	50.9%	46.8%	47.2%	46.3%	46.6%	47.4%	47.0%	49.0%	47.5%	48.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の CSO 分類別の論文数は、CSO1 Biology が最も多く経年的に増加傾向と推計された。



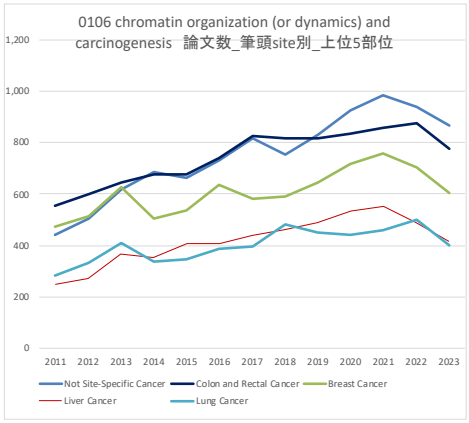




0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,516	1,685	2,254	2,273	2,324	2,597	2,749	2,925	3,106	3,287	3,365	3,099	2,513	885	34,578
2 Etiology	802	832	869	868	788	829	851	855	855	955	939	911	819	333	11,506
3 Prevention	309	297	287	231	234	228	222	192	171	160	162	167	133	42	2,835
4 Early Detection, Diagnosis, and Prognosis	182	245	263	263	258	290	271	266	322	384	409	414	384	141	4,092
5 Treatment	120	117	166	168	166	217	271	233	251	268	296	352	310	144	3,079
6 Cancer Control, Survivorship, and Outcomes Research	6	9	14	14	9	8	14	13	16	17	13	18	7	8	166
others	928	908	1,130	1,071	1,136	1,254	1,226	1,212	1,296	1,401	1,420	1,479	1,384	444	16,289
合計	3,863	4,093	4,983	4,888	4,915	5,423	5,604	5,696	6,017	6,472	6,604	6,440	5,550	1,997	72,545

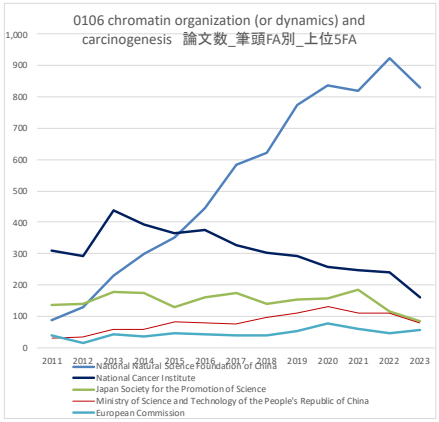
0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	39.2%	41.2%	45.2%	46.5%	47.3%	47.9%	49.1%	51.4%	51.6%	50.8%	51.0%	48.1%	45.3%	44.3%	47.7%
2 Etiology	20.8%	20.3%	17.4%	17.8%	16.0%	15.3%	15.2%	15.0%	14.2%	14.8%	14.2%	14.1%	14.8%	16.7%	15.9%
3 Prevention	8.0%	7.3%	5.8%	4.7%	4.8%	4.2%	4.0%	3.4%	2.8%	2.5%	2.5%	2.6%	2.4%	2.1%	3.9%
4 Early Detection, Diagnosis, and Prognosis	4.7%	6.0%	5.3%	5.4%	5.2%	5.3%	4.8%	4.7%	5.4%	5.9%	6.2%	6.4%	6.9%	7.1%	5.6%
5 Treatment	3.1%	2.9%	3.3%	3.4%	3.4%	4.0%	4.8%	4.1%	4.2%	4.1%	4.5%	5.5%	5.6%	7.2%	4.2%
6 Cancer Control, Survivorship, and Outcomes Research	0.2%	0.2%	0.3%	0.3%	0.2%	0.1%	0.2%	0.2%	0.3%	0.3%	0.2%	0.3%	0.1%	0.4%	0.2%
others	24.0%	22.2%	22.7%	21.9%	23.1%	23.1%	21.9%	21.3%	21.5%	21.6%	21.5%	23.0%	24.9%	22.2%	22.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の臓器別の論文数は、Not Site-specific Cancer に次いで、大腸がん、乳がんの順に多いと推計された。



0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	443	504	616	686	664	733	816	752	832	926	984	941	867	320	10,084
Colon and Rectal Cancer	553	598	643	677	677	739	825	815	818	836	859	874	774	265	9,953
Breast Cancer	474	516	628	505	537	634	583	589	646	719	756	705	604	196	8,092
Liver Cancer	247	273	366	353	408	409	437	464	489	532	551	490	418	163	5,600
Lung Cancer	283	332	408	338	348	388	394	480	451	442	459	499	399	148	5,369
Stomach Cancer	160	195	208	252	222	235	235	245	248	278	243	248	212	82	3,063
Cervical Cancer	171	146	149	184	186	173	184	189	216	243	248	195	200	79	2,563
Prostate Cancer	167	155	188	165	136	165	161	167	125	176	137	178	120	43	2,083
Pancreatic Cancer	78	91	135	105	108	150	148	145	165	181	198	191	149	52	1,896
Brain Tumor	27	27	95	92	74	125	122	153	182	181	155	180	107	42	1,562

Chromatin organization (or dynamics) and carcinogenesis の FA 別の論文数は、2013 年頃までは米国 NCI が最も多かったが経年的には減少傾向にあり、逆に中国 NSFC の論文数の伸びが大きく、現在は最も論文数が多いと推計された。

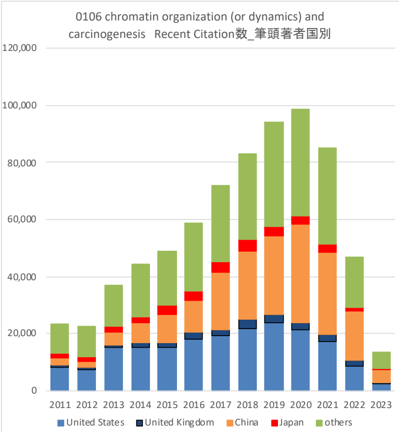


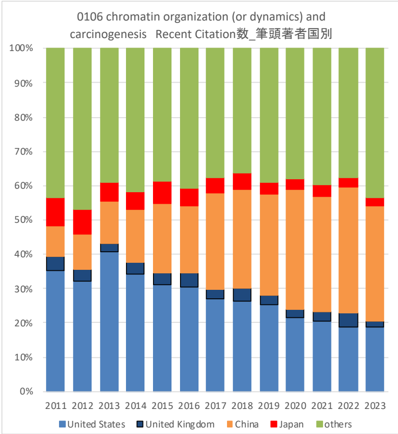
0106 chromatin organization (or dynamics) and carcinogenesis 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	88	130	230	300	351	444	585	621	775	838	821	923	830	284	7,220
National Cancer Institute	309	294	437	394	364	374	328	303	291	259	247	242	161	65	4,068
Japan Society for the Promotion of Science	135	139	177	174	130	161	174	140	154	158	184	116	83	31	1,956
Ministry of Science and Technology of the People's Republic of China	31	35	57	57	84	80	76	95	111	133	109	109	78	37	1,092
European Commission	39	16	43	37	45	44	40	40	53	76	61	48	58	11	611
National Research Foundation of Korea	28	24	29	44	34	42	46	59	60	56	52	51	43	10	578
National Institute of Diabetes and Digestive and Kidney Diseases	34	29	53	54	43	44	51	49	33	26	32	39	32	3	522
National Institute of General Medical Sciences	14	19	32	41	40	47	53	48	47	54	51	23	35	11	515
Deutsche Forschungsgemeinschaft	32	24	24	23	20	42	18	39	47	47	37	38	31	13	435
Italian Association for Cancer Research	11	15	23	24	28	22	31	29	28	30	30	32	21	5	329

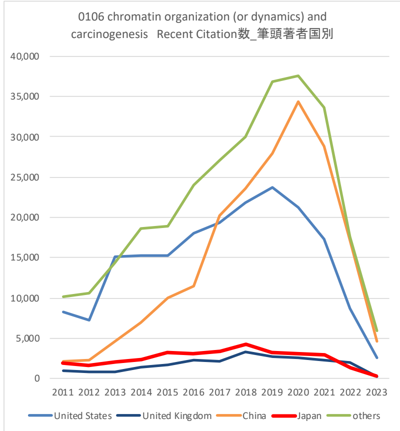
4.6.2. Recent Citation 数

Chromatin organization (or dynamics) and carcinogenesis の引用数は経年的に増加傾向が見られた。国別の引用数は、米国と中国が多く、また経年的にも増加傾向が顕著であった。次いで英国もやや

増加傾向が大きかったが、わが国は横ばい傾向であった。



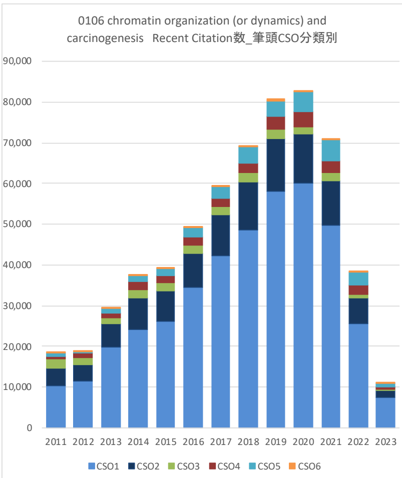


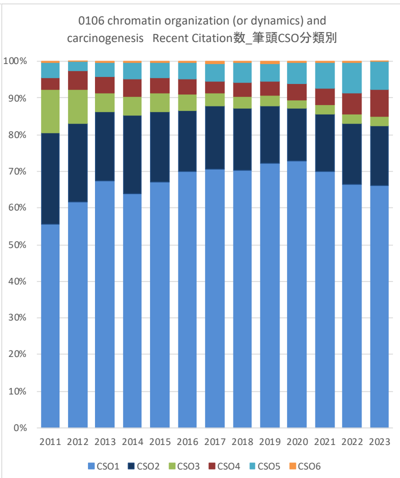


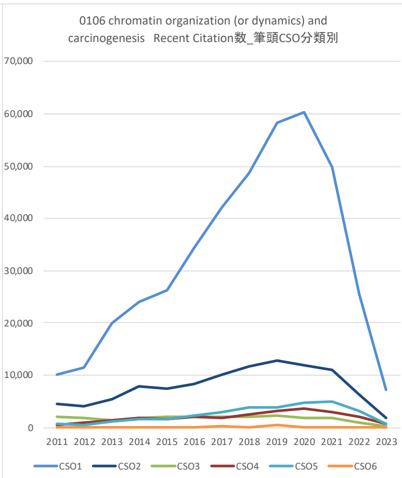
0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	8,222	7,287	15,119	15,264	15,187	18,018	19,370	21,805	23,732	21,296	17,372	8,741	2,553	72	194,038
United Kingdom	924	777	854	1,443	1,723	2,281	2,128	3,288	2,733	2,519	2,277	1,985	259	7	23,198
China	2,098	2,291	4,597	6,893	9,956	11,503	20,174	23,635	27,937	34,422	28,843	17,102	4,585	154	194,190
Japan	1,887	1,667	2,006	2,416	3,183	3,019	3,373	4,187	3,178	3,070	2,922	1,324	341	10	32,583
others	10,123	10,617	14,454	18,548	18,859	24,057	27,075	29,963	36,777	37,566	33,693	17,603	5,913	174	285,422
合計	23,254	22,639	37,030	44,564	48,908	58,878	72,120	82,878	94,357	98,873	85,107	46,755	13,651	417	729,431

0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	35.4%	32.2%	40.8%	34.3%	31.1%	30.6%	26.9%	26.3%	25.2%	21.5%	20.4%	18.7%	18.7%	17.3%	26.6%
United Kingdom	4.0%	3.4%	2.3%	3.2%	3.5%	3.9%	3.0%	4.0%	2.9%	2.5%	2.7%	4.2%	1.9%	1.7%	3.2%
China	9.0%	10.1%	12.4%	15.5%	20.4%	19.5%	28.0%	28.5%	29.6%	34.8%	33.9%	36.6%	33.6%	36.9%	26.6%
Japan	8.1%	7.4%	5.4%	5.4%	6.5%	5.1%	4.7%	5.1%	3.4%	3.1%	3.4%	2.8%	2.5%	2.4%	4.5%
others	43.5%	46.9%	39.0%	41.6%	38.6%	40.9%	37.5%	36.2%	39.0%	38.0%	39.6%	37.6%	43.3%	41.7%	39.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の CSO 分類別の引用数は、CSO1 Biology が最も多く経年的な伸びも大きいと推計された。



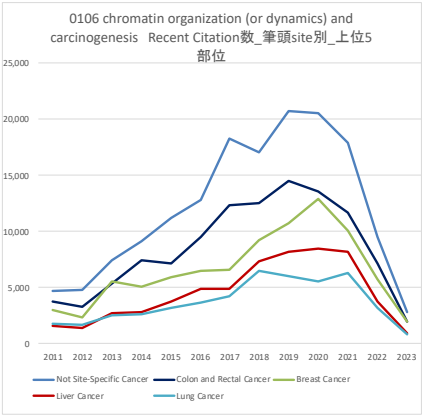




0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	10,179	11,550	19,934	24,011	26,223	34,422	42,212	48,657	58,235	60,200	49,747	25,541	7,293	197	418,401
2 Etiology	4,549	4,008	5,549	8,019	7,454	8,298	10,132	11,765	12,747	11,992	11,076	6,413	1,795	57	103,854
3 Prevention	2,148	1,766	1,509	1,910	2,056	2,150	2,113	2,163	2,283	1,778	1,811	931	269	5	22,892
4 Early Detection, Diagnosis, and Prognosis	626	944	1,312	1,910	1,602	2,119	1,976	2,511	3,172	3,665	3,075	2,189	793	24	25,918
5 Treatment	742	470	1,129	1,600	1,677	2,201	2,917	3,952	3,927	4,828	5,109	3,190	844	45	32,631
6 Cancer Control, Survivorship, and Outcomes Research	39	13	76	125	56	81	294	78	424	143	174	143	6	0	1,652
others	4,971	3,888	7,521	6,989	9,840	9,607	12,476	13,752	13,569	16,273	14,115	8,348	2,651	89	124,083
合計	23,254	22,639	37,030	44,564	48,908	58,878	72,120	82,878	94,357	98,873	85,107	46,755	13,651	417	729,431

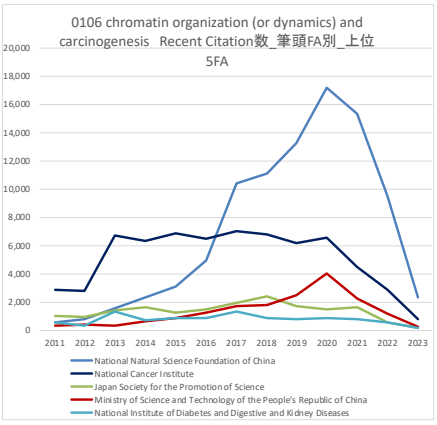
0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	43.8%	51.0%	53.8%	53.9%	53.6%	58.5%	58.5%	58.7%	61.7%	60.9%	58.5%	54.6%	53.4%	47.2%	57.4%
2 Etiology	19.6%	17.7%	15.0%	18.0%	15.2%	14.1%	14.0%	14.2%	13.5%	12.1%	13.0%	13.7%	13.1%	13.7%	14.2%
3 Prevention	9.2%	7.8%	4.1%	4.3%	4.2%	3.7%	2.9%	2.6%	2.4%	1.8%	2.1%	2.0%	2.0%	1.2%	3.1%
4 Early Detection, Diagnosis, and Prognosis	2.7%	4.2%	3.5%	4.3%	3.3%	3.6%	2.7%	3.0%	3.4%	3.7%	3.6%	4.7%	5.8%	5.8%	3.6%
5 Treatment	3.2%	2.1%	3.0%	3.6%	3.4%	3.7%	4.0%	4.8%	4.2%	4.9%	6.0%	6.8%	6.2%	10.8%	4.5%
6 Cancer Control, Survivorship, and Outcomes Research	0.2%	0.1%	0.2%	0.3%	0.1%	0.1%	0.4%	0.1%	0.4%	0.1%	0.2%	0.3%	0.0%	0.0%	0.2%
others	21.4%	17.2%	20.3%	15.7%	20.1%	16.3%	17.3%	16.6%	14.4%	16.5%	16.6%	17.9%	19.4%	21.3%	17.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の臓器別の引用数がは、Not Site-specific Cancer に次いで大腸がん、乳がんの順に多いと推計された。



0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	4,728	4,844	7,459	9,152	11,193	12,809	18,246	17,051	20,721	20,500	17,860	9,550	2,799	84	156,996
Colon and Rectal Cancer	3,724	3,302	5,379	7,417	7,133	9,522	12,349	12,487	14,504	13,613	11,724	7,204	1,997	65	110,420
Breast Cancer	2,999	2,386	5,543	5,079	5,928	6,464	6,622	9,261	10,703	12,876	10,059	5,700	1,934	72	85,626
Liver Cancer	1,614	1,431	2,741	2,854	3,774	4,914	4,897	7,394	8,220	8,438	8,188	3,795	939	46	59,245
Lung Cancer	1,755	1,718	2,554	2,616	3,220	3,666	4,234	6,462	6,036	5,588	6,329	3,226	851	23	48,278
Stomach Cancer	886	821	1,390	2,176	1,479	2,203	2,465	2,962	2,947	4,561	2,888	1,631	440	17	26,866
Pancreatic Cancer	429	859	881	884	1,720	1,631	2,240	2,124	2,684	3,370	2,701	1,215	452	7	21,197
Brain Tumor	143	98	696	1,042	711	1,684	3,000	2,908	2,793	3,296	2,105	1,528	254	13	20,271
Cervical Cancer	725	586	723	1,106	1,382	1,386	1,692	2,223	2,415	2,931	2,222	1,215	420	7	19,033
Prostate Cancer	678	547	1,064	1,353	916	1,336	1,359	1,987	1,498	1,915	1,538	1,276	225	5	15,697

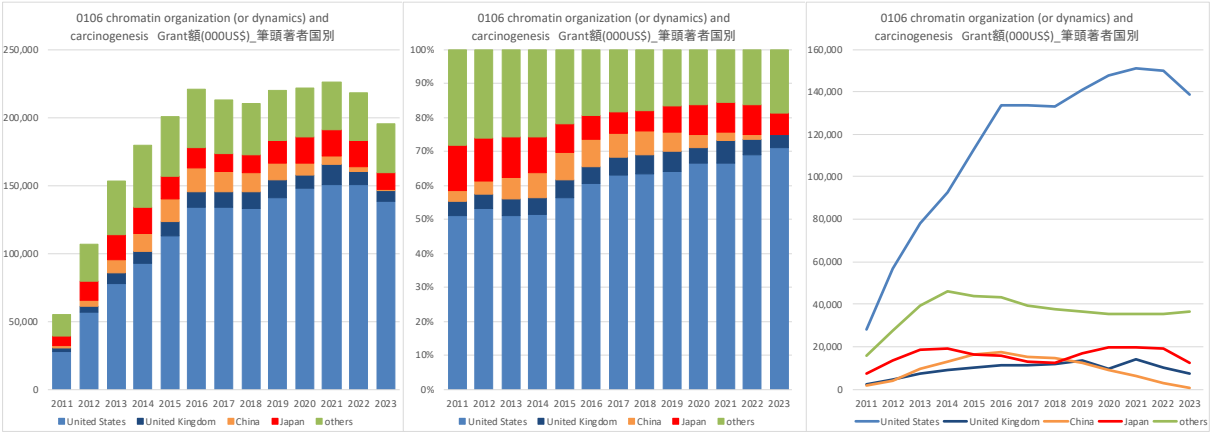
Chromatin organization (or dynamics) and carcinogenesis の FA 別の引用数は、2013 年頃までは米国 NCI が最も多かったが経年的には横ばいから減少傾向にあり、逆に中国 NSFC の引用数の伸びが大きく、現在は引用数が最も多いと推計された。



0106 chromatin organization (or dynamics) and carcinogenesis Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	549	786	1,569	2,318	3,118	4,922	10,429	11,111	13,232	17,163	15,295	9,443	2,318	94	92,347
National Cancer Institute	2,907	2,767	6,745	6,361	6,882	6,504	7,013	6,782	6,180	6,552	4,461	2,878	791	16	66,839
Japan Society for the Promotion of Science	1,059	956	1,382	1,658	1,276	1,504	1,958	2,387	1,705	1,486	1,641	581	148	4	17,745
Ministry of Science and Technology of the People's Republic of China	312	391	330	668	879	1,286	1,685	1,772	2,493	4,003	2,277	1,174	291	13	17,574
National Institute of Diabetes and Digestive and Kidney Diseases	560	339	1,314	714	845	882	1,330	879	812	897	805	563	155	1	10,096
European Commission	274	126	500	300	900	987	1,287	832	824	1,330	908	578	213	1	9,060
National Institute of General Medical Sciences	132	198	601	661	544	766	945	665	967	1,299	955	330	135	5	8,203
Deutsche Forschungsgemeinschaft	261	653	188	235	176	695	272	699	2,656	972	983	235	123	4	8,152
National Research Foundation of Korea	149	92	222	356	243	472	462	970	1,957	1,022	530	515	101	2	7,093
Cancer Research UK	200	536	78	556	546	571	370	430	990	530	411	316	96	4	5,634

4.6.3. Grant(000US$)額

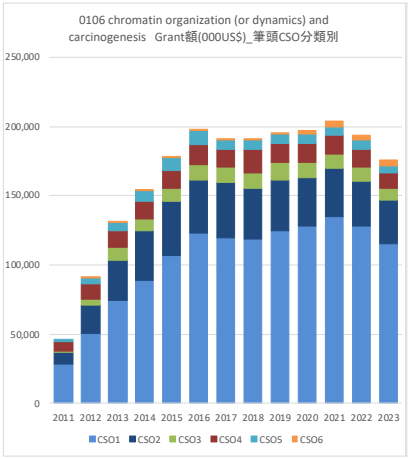
Chromatin organization (or dynamics) and carcinogenesis の研究費総額は近年横ばい傾向にある。国別の研究費配分額は、その他の国を除くと、米国が最も多く経年的にも増加傾向が見られた。次いでわが国の研究費額が多いと推計されたが、経年的には横ばい傾向と推計された。

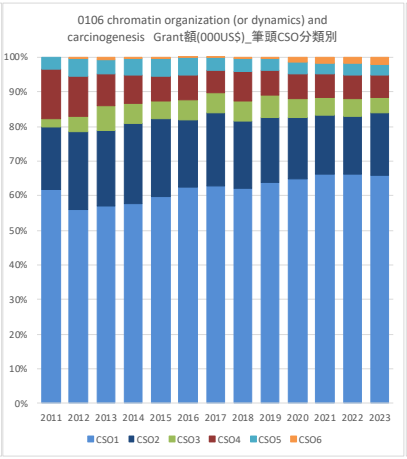


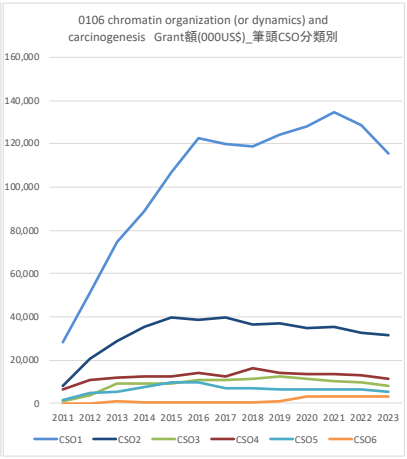
0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28,056	56,631	78,129	92,463	112,827	133,839	133,921	132,920	140,748	147,585	150,869	150,094	138,666	115,515	1,612,266
United Kingdom	2,251	4,750	7,558	8,874	10,439	11,221	11,298	11,905	13,578	9,785	14,365	10,410	7,604	5,985	130,023
China	1,723	3,849	9,866	12,970	16,569	17,302	15,274	14,566	12,137	8,856	6,086	2,968	570	381	123,118
Japan	7,240	13,811	18,400	19,141	16,511	15,505	13,040	12,621	16,877	19,564	19,441	19,208	12,401	6,355	210,115
others	15,500	27,708	39,378	46,257	44,085	43,162	39,330	37,733	36,734	35,698	35,463	35,228	36,327	21,264	493,868
合計	54,770	106,749	153,332	179,705	200,431	221,029	212,863	209,745	220,074	221,488	226,224	217,909	195,569	149,501	2,569,390

0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	51.2%	53.1%	51.0%	51.5%	56.3%	60.6%	62.9%	63.4%	64.0%	66.6%	66.7%	68.9%	70.9%	77.3%	62.7%
United Kingdom	4.1%	4.4%	4.9%	4.9%	5.2%	5.1%	5.3%	5.7%	6.2%	4.4%	6.4%	4.8%	3.9%	4.0%	5.1%
China	3.1%	3.6%	6.4%	7.2%	8.3%	7.8%	7.2%	6.9%	5.5%	4.0%	2.7%	1.4%	0.3%	0.3%	4.8%
Japan	13.2%	12.9%	12.0%	10.7%	8.2%	7.0%	6.1%	6.0%	7.7%	8.8%	8.6%	8.8%	6.3%	4.3%	8.2%
others	28.3%	26.0%	25.7%	25.7%	22.0%	19.5%	18.5%	18.0%	16.7%	16.1%	15.7%	16.2%	18.6%	14.2%	19.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の CSO 分類別の研究費配分額は、CSO1 Biology が最も多く、経年的な上昇傾向も大きいと推計された。次いで CSO2 Etiology が多いと推計されたが、経年的にはやや減少傾向が見られた。



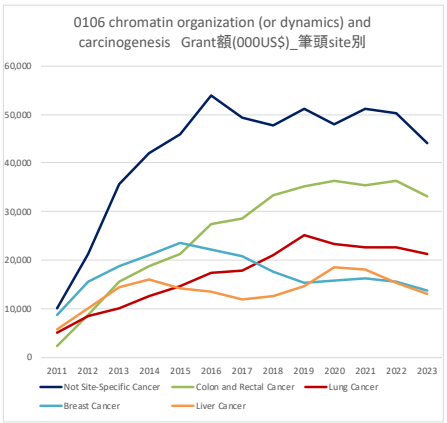




0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	28,548	50,980	74,681	88,948	106,531	122,815	119,786	118,833	124,406	127,909	134,529	128,347	115,600	86,323	1,428,236
2 Etiology	8,216	20,465	28,928	35,474	39,730	38,646	39,738	36,745	36,869	35,049	35,143	32,519	31,376	24,552	443,450
3 Prevention	1,217	4,030	9,209	9,135	9,194	11,040	11,030	11,182	12,404	11,234	10,188	9,774	8,211	6,962	124,812
4 Early Detection, Diagnosis, and Prognosis	6,529	10,760	12,073	12,729	12,461	14,173	12,639	16,534	13,967	13,593	13,812	13,208	11,229	8,500	172,207
5 Treatment	1,580	4,653	5,370	7,331	9,532	10,031	6,832	6,846	6,695	6,684	6,396	6,327	5,541	4,059	87,879
6 Cancer Control, Survivorship, and Outcomes Research	0	234	940	396	419	354	313	711	1,018	3,023	3,432	3,432	3,469	3,469	21,211
others	8,679	15,807	22,380	26,040	22,836	24,174	22,849	19,128	24,950	25,956	24,766	26,322	22,007	17,419	303,312
合計	54,770	106,749	153,332	179,705	200,431	221,029	212,863	209,745	220,074	221,488	226,224	217,909	195,569	149,501	2,569,390

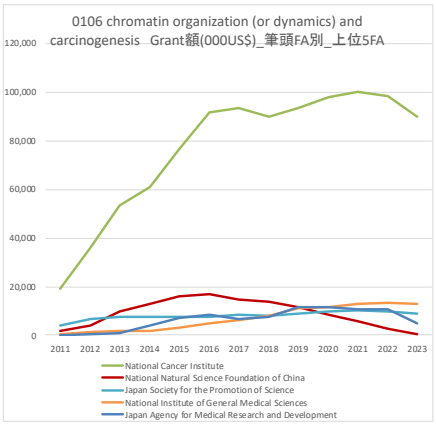
0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	52.1%	47.8%	48.7%	49.5%	53.2%	55.6%	56.3%	56.7%	56.5%	57.7%	59.5%	58.9%	59.1%	57.7%	55.6%
2 Etiology	15.0%	19.2%	18.9%	19.7%	19.8%	17.5%	18.7%	17.5%	16.8%	15.8%	15.5%	14.9%	16.0%	16.4%	17.3%
3 Prevention	2.2%	3.8%	6.0%	5.1%	4.6%	5.0%	5.2%	5.3%	5.6%	5.1%	4.5%	4.5%	4.2%	4.7%	4.9%
4 Early Detection, Diagnosis, and Prognosis	11.9%	10.1%	7.9%	7.1%	6.2%	6.4%	5.9%	7.9%	6.3%	6.1%	6.1%	6.1%	5.7%	5.7%	6.7%
5 Treatment	2.9%	4.4%	3.5%	4.1%	4.8%	4.5%	3.2%	3.3%	3.0%	3.0%	2.8%	2.9%	2.8%	2.7%	3.4%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.2%	0.6%	0.2%	0.2%	0.2%	0.1%	0.3%	0.5%	1.4%	1.5%	1.6%	1.8%	2.3%	0.8%
others	15.8%	14.8%	14.6%	14.5%	11.4%	10.9%	10.7%	9.1%	11.3%	11.7%	10.9%	12.1%	11.3%	11.7%	11.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chromatin organization (or dynamics) and carcinogenesis の臓器別の研究費配分額は、 Not Site-specific Cancer に次いで、大腸がん、肺がんの順に多いと推計され、いずれも経年的に上昇傾向が見られた。



0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	10,156	21,230	35,665	42,099	45,984	53,873	49,259	47,731	51,221	47,888	51,099	50,325	43,991	33,970	584,490
Colon and Rectal Cancer	2,415	8,680	15,476	18,892	21,220	27,525	28,583	33,413	35,259	36,381	35,346	36,454	33,174	21,742	354,561
Lung Cancer	5,160	8,461	10,196	12,580	14,750	17,379	17,830	20,984	25,070	23,271	22,594	22,655	21,256	16,588	238,773
Breast Cancer	8,746	15,582	18,788	20,985	23,479	22,105	20,766	17,736	15,352	15,905	16,266	15,486	13,737	13,013	237,949
Liver Cancer	5,704	10,042	14,351	16,005	14,298	13,556	11,923	12,517	14,563	18,576	18,008	15,277	13,111	11,572	189,503
Prostate Cancer	1,617	4,217	5,721	7,090	10,536	10,571	9,717	8,495	9,456	8,196	8,555	8,161	7,256	6,228	105,814
Pancreatic Cancer	2,083	3,394	6,375	7,536	7,707	9,364	9,133	8,156	7,314	5,825	6,145	7,179	5,438	4,970	90,620
Esophageal / Oesophageal Cancer	2,755	2,928	3,101	3,712	4,632	5,806	5,807	5,683	5,743	5,543	5,334	4,680	4,511	1,554	61,789
Skin Cancer	848	1,634	2,350	2,645	4,411	3,802	4,517	5,247	5,356	5,847	7,301	6,278	5,804	4,531	60,573
Cervical Cancer	542	806	2,649	3,095	4,812	5,788	5,762	5,561	5,251	6,439	5,376	4,057	3,998	2,630	56,765

Chromatin organization (or dynamics) and carcinogenesis の FA 別の研究費配分額は、米国 NCI が最も多く経年的に増加傾向が見られた。次いで、中国 NSFC、わが国の JSPS の順と推計された。



0106 chromatin organization (or dynamics) and carcinogenesis Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	18,931	36,187	53,583	60,807	76,444	91,893	93,554	90,002	93,617	97,959	100,054	98,599	90,031	68,720	1,070,382	United States
National Natural Science Foundation of China	1,659	3,769	9,682	12,687	16,002	16,717	14,605	13,857	11,552	8,425	5,729	2,787	273	83	117,825	China
Japan Society for the Promotion of Science	3,888	6,519	7,483	7,482	7,767	7,471	8,498	7,999	9,030	9,805	10,351	9,999	8,973	5,585	110,850	Japan
National Institute of General Medical Sciences	354	1,522	1,754	1,941	3,062	4,941	6,396	7,969	11,239	11,490	12,933	13,456	13,122	12,127	102,308	United States
Japan Agency for Medical Research and Development	0	426	984	3,821	7,172	8,604	6,740	7,456	11,352	11,625	10,850	10,570	4,996	1,991	86,588	Japan
Medical Research Council	1,983	3,792	6,057	6,575	7,641	8,374	6,400	6,384	6,561	4,644	9,182	5,846	4,096	3,785	81,322	United Kingdom
Congressionally Directed Medical Research Programs	2,546	3,755	5,200	6,660	6,637	6,789	6,125	3,465	3,891	4,021	3,812	5,072	5,612	5,211	68,797	United States
European Commission	2,804	4,073	4,803	4,815	6,036	4,332	3,305	4,614	3,588	3,902	3,693	4,498	6,572	4,936	61,970	Belgium
European Research Council	311	1,843	2,336	3,287	4,565	6,440	4,897	5,157	4,686	4,688	4,206	3,783	3,459	3,444	53,102	Belgium
Wellcome Trust	213	435	721	796	1,244	1,023	2,121	3,817	4,802	3,928	3,334	3,334	2,761	1,295	29,826	United Kingdom

4.6.4. 主要論文、引用、研究費

＜論文＞

Publication: 0106 chromatin organization (or dynamics) and carcinogenesis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Chromatin and Cancer: Implications of Disrupted Chromatin Organization in Tumorigenesis and Its Diversification	Sehgal, Poonam; Chaturvedi, Pankaj	Cancers	United States	2023	4	Review Article
2	Identification of chromatin organization-related gene signature for hepatocellular carcinoma prognosis and predicting immunotherapy response	Chen, Jingbo; Chen, Xingte; Li, Ting; Wang, Lei; Lin, Guishan	International Immunopharmacology	China	2022	8	Research Article
3	Comparative characterization of 3D chromatin organization in triple-negative breast cancers	Kim, Taemook; Han, Sungwook; Chun, Yujin; Yang, Hyeokjun; Min, Hyesung; Jeon, Sook Young; Kim, Jang-il; Moon, Hyeong-Gon; Lee, Daeyoup	Experimental & Molecular Medicine	South Korea	2022	14	Research Article
4	Detecting radio- and chemoresistant cells in 3D cancer co-cultures using chromatin biomarkers	Pekeč, Tina; Venkatachalapathy, Saradha; Shim, Anne R.; Paysan, Daniel; Grzmil, Michal; Schibli, Roger; Béhé, Martin; Shivashankar, G. V.	Scientific Reports	Switzerland	2023	0	Research Article
5	Ultrastructural visualization of chromatin in cancer pathogenesis using a simple small-molecule fluorescent probe	Xu, Jianquan; Sun, Xuejiao; Kim, Kwangho; Brand, Rhonda M.; Hartman, Douglas; Ma, Hongqiang; Brand, Randall E.; Bai, Mingfeng; Liu, Yang	Science Advances	United States	2022	4	Research Article
6	Screening and identification of potential biomarkers for pancreatic cancer: An integrated bioinformatics analysis	Jafari, Somayeh; Ravan, Milad; Karimi-Sani, Iman; Aria, Hamid; Hasan-Abad, Amin Moradi; Banasaz, Bahar; Atapour, Amir; Sarab, Gholamreza Anani	Pathology – Research and Practice	Iran	2023	6	Research Article
7	Dynamic Interplay between Structural Variations and 3D Genome Organization in Pancreatic Cancer	Du, Yongxing; Gu, Zongting; Li, Zongze; Yuan, Zan; Zhao, Yue; Zheng, Xiaohao; Bo, Xiaochen; Chen, Hebing; Wang, Chengfeng	Advanced Science	China	2022	16	Research Article
8	The spectrum of sex differences in cancer	Rubin, Joshua B	Trends in Cancer	United States	2022	49	Review Article
9	Molecular phenotyping of small cell lung cancer using targeted cfDNA profiling of transcriptional regulatory regions	Hiatt, Joseph B; Doebley, Anna-Lisa; Arnold, Henry U; Adil, Mohamed; Sandborg, Holly; Persse, Thomas W; Ko, Minjeong; Wu, Feinan; Quintanal Villalonga, Alvaro; Santana-Davila, Rafael; Eaton, Keith; Dive, Caroline; Rudin, Charles M; Thomas, Anish; Houghton, A McGarry; Ha, Gavin; MacPherson, David	Science Advances	United States	2024	0	Research Article
10	Super-Enhancers, Phase-Separated Condensates, and 3D Genome Organization in Cancer	Tang, Seng Chuan; Vijayakumar, Udhaya; Zhang, Ying; Fullwood, Melissa Jane	Cancers	Singapore	2022	17	Review Article

＜引用＞

Citation: 0106 chromatin organization (or dynamics) and carcinogenesis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Ferroptosis: A Regulated Cell Death Nexus Linking Metabolism, Redox Biology, and Disease	Stockwell, Brent R.; Angeli, José Pedro Friedmann; Bayir, Hülya; Bush, Ashley I.; Conrad, Marcus; Dixon, Scott J.; Fulda, Simone; Gascón, Sergio; Hatzios, Stavroula K.; Kagan, Valerian E.; Noel, Kay; Jiang, Xuejun; Linkermann, Andreas; Murphy, Maureen E.; Overholtzer, Michael; Oyagi, Atsushi; Pagnussat, Gabriela C.; Park, Jason; Ran, Qitao; Rosenfeld, Craig S.; Salnikow, Konstantin; Tang, Daolin; Torti, Frank M.; Torti, Suzy V.; Toyokuni, Shinya; Woerpel, K.A.; Zhang, Donna D.	Cell	China	2017	2782	Review Article
2	Inflammation and Cancer: Triggers, Mechanisms, and Consequences	Greten, Florian R.; Grivennikov, Sergei I.	Immunity	United States	2019	1599	Review Article
3	The tumor microenvironment	Anderson, Nicole M.; Simon, M. Celeste	Current Biology	United States	2020	1089	Research Article
4	Global burden of colorectal cancer: emerging trends, risk factors and prevention strategies	Keum, NaNa; Giovannucci, Edward	Nature Reviews Gastroenterology & Hepatology	United States	2019	1068	Review Article
5	Machine Learning Identifies Stemness Features Associated with Oncogenic Dedifferentiation	Tathiane M. Malta; Artem Sokolov; Andrew J. Gentles; Tomasz Burzykowski; Laila Poisson; John N. Weinstein; Bożena Kamińska; Joerg Huelsken; Larsson Omberg; Olivier Gevaert; Antonio Colaprico; Patrycja Czerwińska; Sylwia Mazurek; Lopa Mishra; Holger Heyn; Alex Krasnitz; Andrew K. Godwin; Alexander J. Lazar; The Cancer Genome Atlas Research Network; Samantha J. Caesar-Johnson; John A. Demchok; Ina Felau; Melpomeni Kasapi; Martin L. Ferguson; Carolyn M. Hutter; Heidi J. Sofia; Roy Tarnuzzer; Zhining Wang; Liming Yang; Jean C. Zenklusen; Jiashan Zhang; Sudha Chudamani; Jia Liu; Laxmi Lolla; Rashi Naresh; Todd Pihl; Qiang Sun; Yunhu Wan; Ye Wu; Juok Cho; Timothy DeFreitas; Scott Frazer; Nils Gehlenborg; Gad Getz;	Cell	Poland	2018	967	Research Article
6	Tumor microenvironment complexity and therapeutic implications at a glance	Baghban, Roghayyeh; Roshangar, Leila; Jahanban-Esfahlan, Rana; Seidi, Khaled; Ebrahimi-Kalan, Abbas; Jaymand, Mehdi; Kolahian, Saeed; Javaheri, Tahereh; Zare, Peyman	Cell Communication and Signaling	Iran	2020	831	Review Article
7	Wnt signaling in cancer	Zhan, T; Rindtorff, N; Boutros, M	Oncogene	Germany	2016	798	Review Article
8	Mutational landscape and significance across 12 major cancer types	Kandoth, Cyriac; McLellan, Michael D.; Vandin, Fabio; Ye, Kai; Niu, Beifang; Lu, Charles; Xie, Mingchao; Zhang, Qunyuan; McMichael, Joshua F.; Wyczalkowski, Matthew A.; Leiserson, Mark D. M.; Miller, Christopher A.; Welch, John S.; Walter, Matthew J.; Wendl, Michael C.; Ley, Timothy J.; Wilson, Richard K.; Raphael, Benjamin J.; Ding, Li	Nature	United States	2013	769	Research Article
9	Bile acid-microbiota crosstalk in gastrointestinal inflammation and carcinogenesis	Jia, Wei; Xie, Guoxiang; Jia, Weiping	Nature Reviews Gastroenterology & Hepatology	United States	2017	720	Review Article
10	Apoptosis in cancer: from pathogenesis to treatment	Wong, Rebecca SY	Journal of Experimental & Clinical Cancer Research	Malaysia	2011	719	Review Article

＜研究費＞

Grant: 0106 chromatin organization (or dynamics) and carcinogenesis

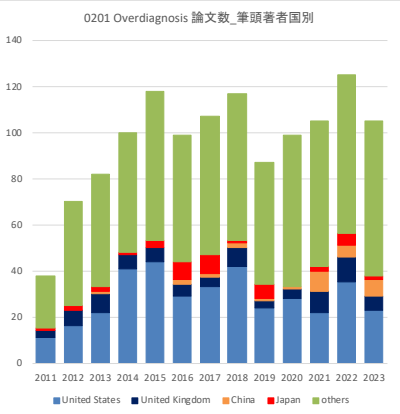
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Precision Medicine of Cancer	CURTIS HARRIS	National Cancer Institute	United States	20,025,220	2013	2023
2	Centre for Cancer Cell Reprogramming (CanCell)	Harald A. Stenmark	The Research Council of Norway	Norway	17,508,672	2017	2028
3	Regional Centre for Applied Molecular Oncology (RECAMO)	Dalibor Valík	Ministry of Education Youth and Sports	Czechia	15,499,648	2011	2014
4	CCR Genomics Core	ELIZABETH CONNER	National Cancer Institute	United States	15,164,559	2015	2023
5	Genome-wide hypermutation and structural instability	DMITRY GORDENIN, WILLIAM COPELAND	National Institute of Environmental Health Sciences	United States	14,803,647	2015	2023
6	Modulating Cancer Stem Cell Signaling in Thoracic Malignancies	DAVID SCHRUMP	National Cancer Institute	United States	14,034,644	2011	2023
7	Understanding Gene ENvironment Interaction in ALcohol-related hepatocellular carcinoma	0	European Commission	Belgium	12,963,354	2023	2027
8	Discovery of genes required for expression or activity of fusion oncogenes	NATASHA CAPLEN	National Cancer Institute	United States	12,772,344	2016	2023
9	Cancer Treatment Target Search Project	Hiroyuki Mano	Japan Agency for Medical Research and Development	Japan	12,766,774	2014	2019
10	The Role of the Microenvironment in Barrett's Esophagus	JULIAN ABRAMS, ANIL K RUSTGI, TIMOTHY CRAGIN WANG, KENNETH K WANG, JOHN P. LYNCH, HOWARD F. ANDREWS, GARY D. WU, HIROSHI NAKAGAWA, PRASAD G. IYER	National Cancer Institute	United States	12,458,735	2011	2023

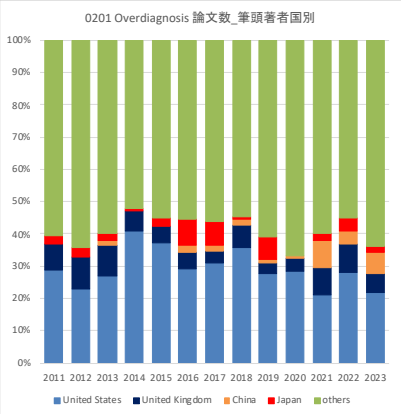
5. テーマ分析：領域 2

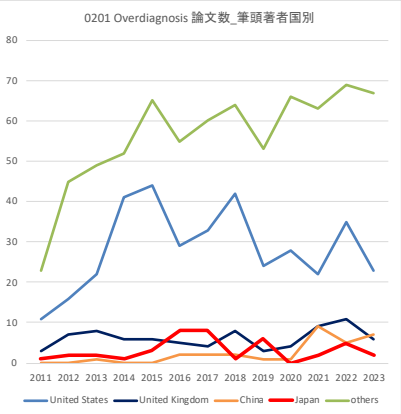
5.1. 0201 Overdiagnosis

5.1.1. 論文数

Overdiagnosis の論文数は経年的に横ばい傾向と推計された。国別の論文数は、その他の国を除くと米国が多く、次いで英国が多いと推計された。



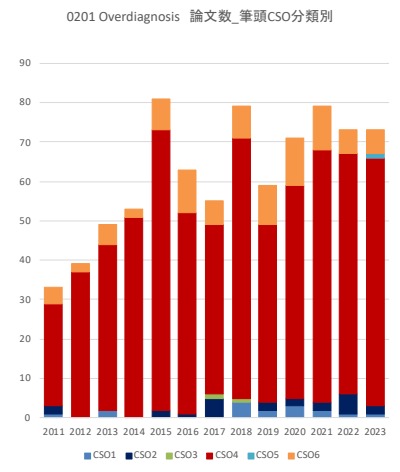


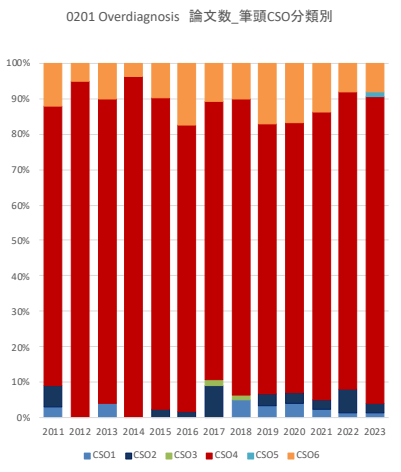


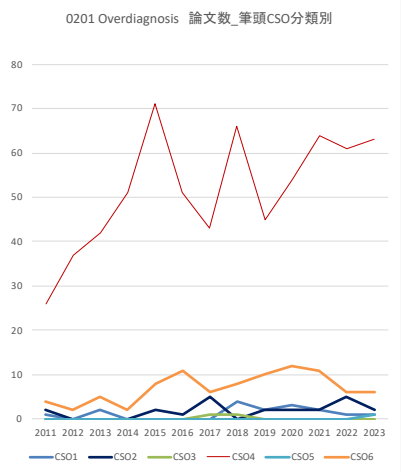
0201 Overdiagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	11	16	22	41	44	29	33	42	24	28	22	35	23	9	379
United Kingdom	3	7	8	6	6	5	4	8	3	4	9	11	6	5	85
China	0	0	1	0	0	2	2	2	1	1	9	5	7	3	33
Japan	1	2	2	1	3	8	8	1	6	0	2	5	2	0	41
others	23	45	49	52	65	55	60	64	53	66	63	69	67	25	756
合計	38	70	82	100	118	99	107	117	87	99	105	125	105	42	1,294

0201 Overdiagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28.9%	22.9%	26.8%	41.0%	37.3%	29.3%	30.8%	35.9%	27.6%	28.3%	21.0%	28.0%	21.9%	21.4%	29.3%
United Kingdom	7.9%	10.0%	9.8%	6.0%	5.1%	5.1%	3.7%	6.8%	3.4%	4.0%	8.6%	8.8%	5.7%	11.9%	6.6%
China	0.0%	0.0%	1.2%	0.0%	0.0%	2.0%	1.9%	1.7%	1.1%	1.0%	8.6%	4.0%	6.7%	7.1%	2.6%
Japan	2.6%	2.9%	2.4%	1.0%	2.5%	8.1%	7.5%	0.9%	6.9%	0.0%	1.9%	4.0%	1.9%	0.0%	3.2%
others	60.5%	64.3%	59.8%	52.0%	55.1%	55.6%	56.1%	54.7%	60.9%	66.7%	60.0%	55.2%	63.8%	59.5%	58.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overdiagnosis の CSO 分類別の論文数は、 CSO4 Early Detection, Diagnosis and Prognosis が大半を占めていると推計された。



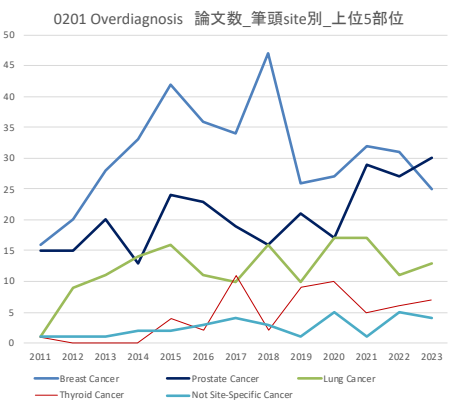




0201 Overdiagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1	0	2	0	0	0	0	4	2	3	2	1	1	0	16
2 Etiology	2	0	0	0	2	1	5	0	2	2	2	5	2	0	23
3 Prevention	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4 Early Detection, Diagnosis, and Prognosis	26	37	42	51	71	51	43	66	45	54	64	61	63	23	697
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6 Cancer Control, Survivorship, and Outcomes Research	4	2	5	2	8	11	6	8	10	12	11	6	6	5	96
others	5	31	33	47	37	36	52	38	28	28	26	52	32	14	459
合計	38	70	82	100	118	99	107	117	87	99	105	125	105	42	1,294

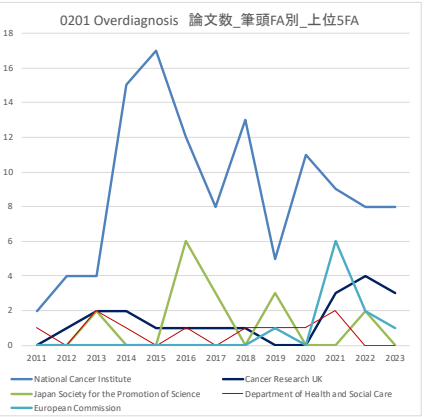
0201 Overdiagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2.6%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	3.4%	2.3%	3.0%	1.9%	0.8%	1.0%	0.0%	1.2%
2 Etiology	5.3%	0.0%	0.0%	0.0%	1.7%	1.0%	4.7%	0.0%	2.3%	2.0%	1.9%	4.0%	1.9%	0.0%	1.8%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
4 Early Detection, Diagnosis, and Prognosis	68.4%	52.9%	51.2%	51.0%	60.2%	51.5%	40.2%	56.4%	51.7%	54.5%	61.0%	48.8%	60.0%	54.8%	53.9%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.1%
6 Cancer Control, Survivorship, and Outcomes Research	10.5%	2.9%	6.1%	2.0%	6.8%	11.1%	5.6%	6.8%	11.5%	12.1%	10.5%	4.8%	5.7%	11.9%	7.4%
others	13.2%	44.3%	40.2%	47.0%	31.4%	36.4%	48.6%	32.5%	32.2%	28.3%	24.8%	41.6%	30.5%	33.3%	35.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overdiagnosis の臓器別の論文数は、乳がんが最も多く、また前立腺がんや肺がんも多いと推計された。



0201 Overdiagnosis 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	16	20	28	33	42	36	34	47	26	27	32	31	25	17	414
Prostate Cancer	15	15	20	13	24	23	19	16	21	17	29	27	30	11	280
Lung Cancer	1	9	11	14	16	11	10	16	10	17	17	11	13	3	159
Thyroid Cancer	1	0	0	0	4	2	11	2	9	10	5	6	7	2	59
Not Site-Specific Cancer	1	1	1	2	2	3	4	3	1	5	1	5	4	0	33
Colon and Rectal Cancer	0	2	2	3	3	1	1	3	3	3	1	3	3	2	30
Cervical Cancer	0	2	0	1	2	1	1	5	3	2	3	3	0	0	23
Melanoma	2	0	0	0	1	3	1	2	0	1	2	4	5	1	22
Genital System, Male	0	1	0	1	1	3	1	1	0	2	1	3	0	1	15
Esophageal / Oesophageal Cancer	0	0	0	0	2	2	0	1	0	2	1	1	0	0	9

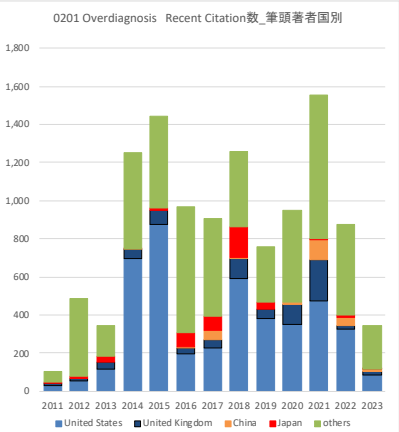
Overdiagnosis の FA 別の論文数は、米国 NCI が最も多く、次いで英国 Cancer Research UK が多いと推計された。

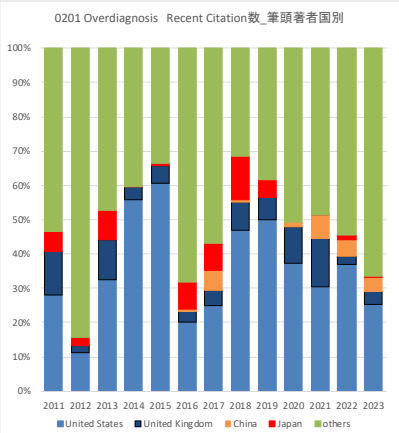


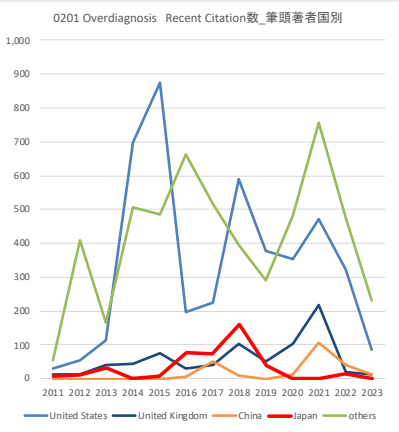
0201 Overdiagnosis 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	2	4	4	15	17	12	8	13	5	11	9	8	8	0	116
Cancer Research UK	0	1	2	2	1	1	1	1	0	0	3	4	3	0	19
Japan Society for the Promotion of Science	0	0	2	0	0	6	3	0	3	0	0	2	0	0	16
Department of Health and Social Care	1	0	2	1	0	1	0	1	1	1	2	0	0	0	10
European Commission	0	0	0	0	0	0	0	0	1	0	6	2	1	0	10
National Natural Science Foundation of China	0	0	0	0	0	0	1	0	0	0	3	1	3	0	8
American Cancer Society	0	1	0	0	2	0	0	1	1	0	0	0	2	0	7
National Center for Advancing Translational Sciences	0	1	0	1	0	0	0	3	0	1	0	1	0	0	7
National Institute on Aging	0	0	0	0	1	2	0	0	0	2	0	0	1	1	7
Italian Association for Cancer Research	0	0	0	0	0	0	2	0	1	1	1	0	0	0	5

5.1.2. Recent Citation 数

Overdiagnosis の FA 国別の引用数は、その他の国を除くと米国、英国、日本の順に多いと推計された。



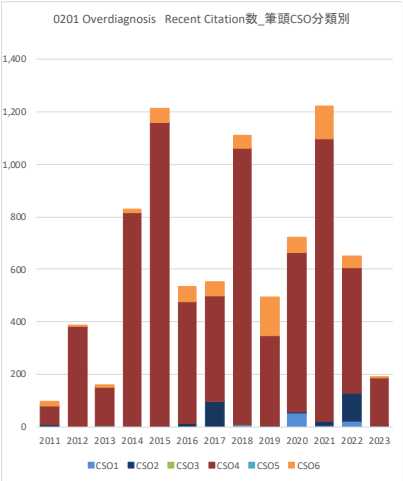


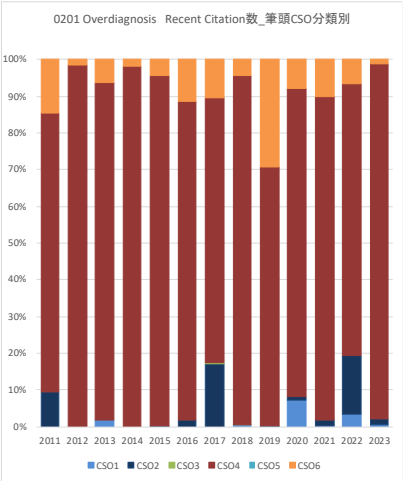


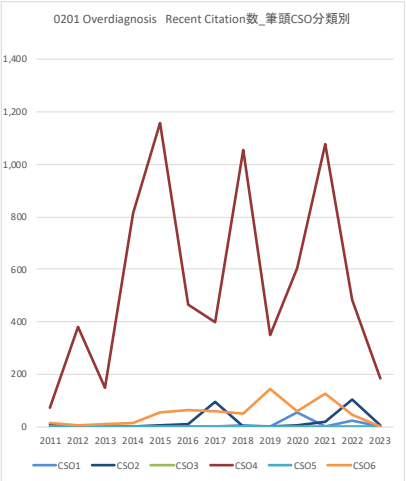
0201 Overdiagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	29	54	113	698	876	196	226	591	379	353	473	323	87	0	4,398
United Kingdom	13	11	40	45	76	30	42	103	50	102	217	21	14	5	769
China	0	0	0	0	0	5	51	10	0	12	108	41	14	0	241
Japan	6	11	30	1	7	76	73	161	38	0	2	14	1	0	420
others	55	409	164	506	487	661	516	396	290	481	756	474	230	5	5,430
合計	103	485	347	1,250	1,446	968	908	1,261	757	948	1,556	873	346	10	11,258

0201 Overdiagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28.2%	11.1%	32.6%	55.8%	60.6%	20.2%	24.9%	46.9%	50.1%	37.2%	30.4%	37.0%	25.1%	0.0%	39.1%
United Kingdom	12.6%	2.3%	11.5%	3.6%	5.3%	3.1%	4.6%	8.2%	6.6%	10.8%	13.9%	2.4%	4.0%	50.0%	6.8%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	5.6%	0.8%	0.0%	1.3%	6.9%	4.7%	4.0%	0.0%	2.1%
Japan	5.8%	2.3%	8.6%	0.1%	0.5%	7.9%	8.0%	12.8%	5.0%	0.0%	0.1%	1.6%	0.3%	0.0%	3.7%
others	53.4%	84.3%	47.3%	40.5%	33.7%	68.3%	56.8%	31.4%	38.3%	50.7%	48.6%	54.3%	66.5%	50.0%	48.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overdiagnosis の CSO 分類別の引用数は、 CSO4 Early Detection, Diagnosis and Prognosis が大半を占めていると推計された。



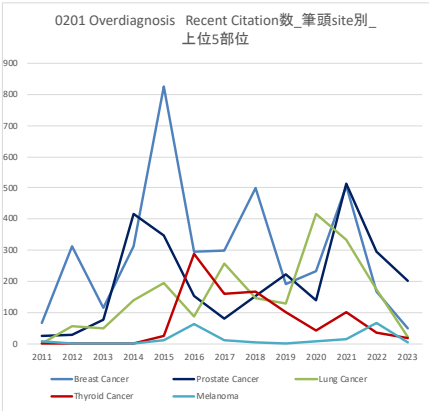




0201 Overdiagnosis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	3	0	0	0	0	6	0	53	1	22	1	0	86
2 Etiology	9	0	0	0	3	10	95	0	1	5	19	105	3	0	250
3 Prevention	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
4 Early Detection, Diagnosis, and Prognosis	72	381	146	815	1,156	465	400	1,054	347	605	1,077	481	182	4	7,185
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cancer Control, Survivorship, and Outcomes Research	14	6	10	15	55	61	57	48	145	58	124	44	2	2	641
others	8	98	188	420	232	432	354	178	264	227	335	221	158	4	3,093
合計	103	485	347	1,250	1,446	968	908	1,261	757	948	1,556	873	346	10	11,258

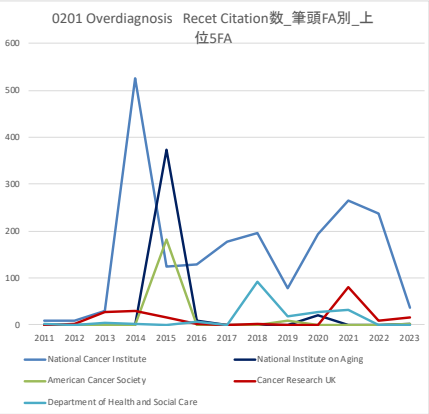
0201 Overdiagnosis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	5.6%	0.1%	2.5%	0.3%	0.0%	0.8%
2 Etiology	8.7%	0.0%	0.0%	0.0%	0.2%	1.0%	10.5%	0.0%	0.1%	0.5%	1.2%	12.0%	0.9%	0.0%	2.2%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	69.9%	78.6%	42.1%	65.2%	79.9%	48.0%	44.1%	83.6%	45.8%	63.8%	69.2%	55.1%	52.6%	40.0%	63.8%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6 Cancer Control, Survivorship, and Outcomes Research	13.6%	1.2%	2.9%	1.2%	3.8%	6.3%	6.3%	3.8%	19.2%	6.1%	8.0%	5.0%	0.6%	20.0%	5.7%
others	7.8%	20.2%	54.2%	33.6%	16.0%	44.6%	39.0%	14.1%	34.9%	23.9%	21.5%	25.3%	45.7%	40.0%	27.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overdiagnosis の臓器別の引用数は、乳がんが最も多く、次いで前立腺がん、肺がんの順と推計された。



0201 Overdiagnosis Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	67	313	114	312	825	296	299	498	193	233	506	168	48	2	3,874
Prostate Cancer	26	28	79	417	346	153	81	155	223	139	512	297	203	6	2,665
Lung Cancer	0	57	49	140	194	88	258	147	129	417	334	174	23	1	2,011
Thyroid Cancer	1	0	0	0	26	290	161	166	102	43	101	37	18	0	945
Melanoma	8	0	0	0	11	63	11	3	0	9	16	66	6	0	193
Esophageal / Oesophageal Cancer	0	0	0	0	11	1	0	161	0	0	2	2	0	0	177
Cervical Cancer	0	6	0	20	3	6	4	40	15	34	9	9	0	0	146
Colon and Rectal Cancer	0	4	8	32	2	3	5	13	1	26	11	17	5	0	127
Not Site-Specific Cancer	0	1	0	29	1	5	21	14	1	7	3	10	13	0	105
Stomach Cancer	0	0	27	0	0	21	0	0	0	0	16	0	0	0	64

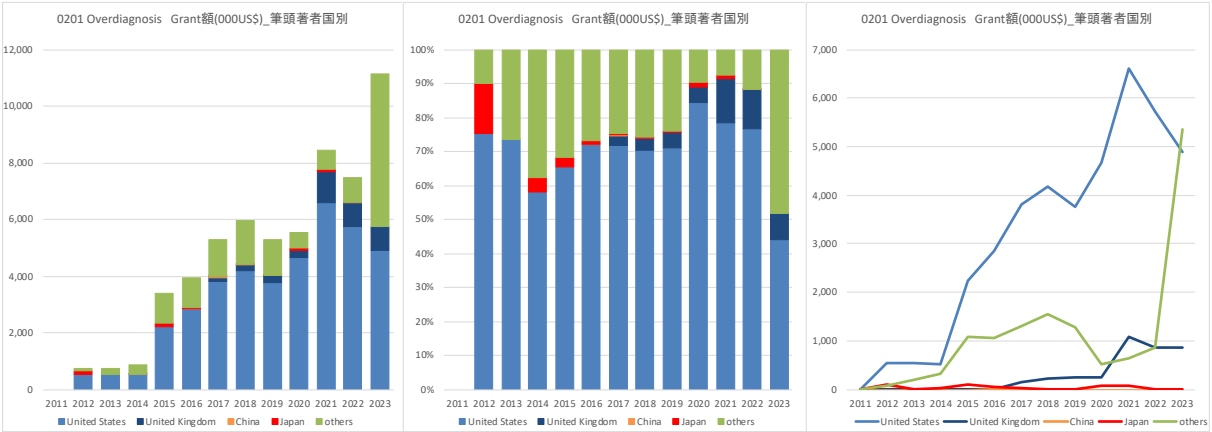
Overdiagnosis の FA 別の引用数は、米国 NCI が最も多く、次いで米国 National Institute of Ageing が多いと推計された。



0201 Overdiagnosis Recet Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	10	8	30	526	124	130	178	195	79	193	264	237	36	0	2,010
National Institute on Aging	0	0	0	0	373	8	0	0	0	21	0	0	1	0	403
American Cancer Society	0	0	0	0	182	0	0	0	9	0	0	0	3	0	194
Cancer Research UK	0	2	27	29	17	2	0	1	0	0	81	10	16	0	185
Department of Health and Social Care	1	0	5	3	0	6	0	91	18	27	32	0	0	0	183
Japan Society for the Promotion of Science	0	0	36	0	0	62	20	0	38	0	0	8	0	0	164
European Commission	0	0	0	0	0	0	0	0	3	0	120	21	1	0	145
Italian Association for Cancer Research	0	0	0	0	0	0	16	0	3	15	80	0	0	0	114
National Center for Advancing Translational Sciences	0	3	0	15	0	0	0	78	0	14	0	2	0	0	112
National Natural Science Foundation of China	0	0	0	0	0	0	41	0	0	0	29	2	4	0	76

5.1.3. Grant(000US$)額

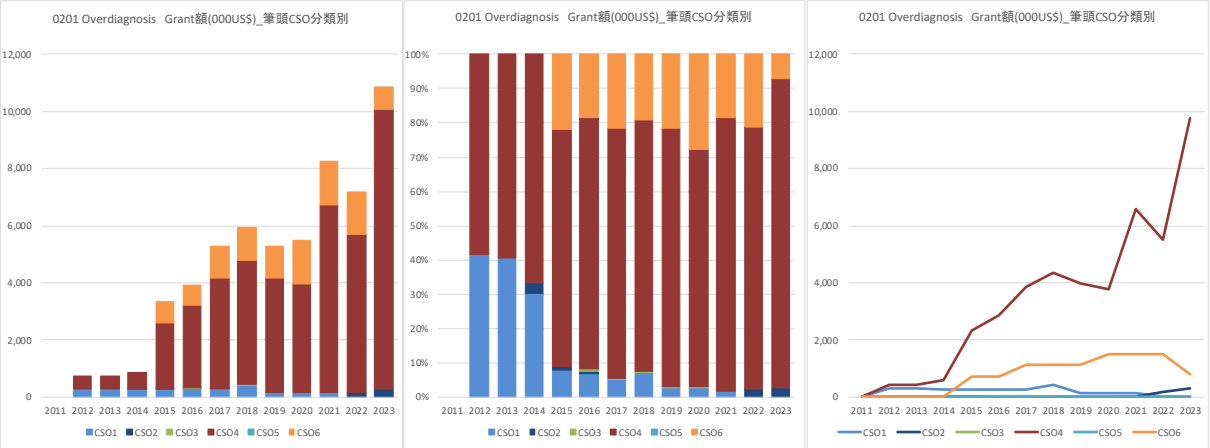
Overdiagnosis の研究費総額は経年的に大きく上昇傾向にあると推計された。国別の研究費配分額は、米国が最も多く増加傾向が見られた。



0201 Overdiagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	551	551	512	2,227	2,840	3,811	4,181	3,766	4,668	6,611	5,731	4,895	4,131	44,477
United Kingdom	0	0	0	0	0	0	147	212	247	247	1,083	871	874	139	3,819
China	0	0	0	0	0	9	9	9	0	0	0	0	0	0	27
Japan	0	110	0	38	95	44	16	6	6	83	83	6	0	0	486
others	0	72	197	332	1,072	1,052	1,316	1,539	1,280	523	647	871	5,352	5,222	19,476
合計	0	733	748	883	3,394	3,945	5,299	5,948	5,298	5,521	8,425	7,478	11,121	9,492	68,285

0201 Overdiagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States		75.1%	73.6%	58.0%	65.6%	72.0%	71.9%	70.3%	71.1%	84.6%	78.5%	76.6%	44.0%	43.5%	65.1%
United Kingdom		0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	3.6%	4.7%	4.5%	12.9%	11.6%	7.9%	1.5%	5.6%
China		0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan		15.0%	0.0%	4.3%	2.8%	1.1%	0.3%	0.1%	0.1%	1.5%	1.0%	0.1%	0.0%	0.0%	0.7%
others		9.8%	26.4%	37.6%	31.6%	26.7%	24.8%	25.9%	24.2%	9.5%	7.7%	11.6%	48.1%	55.0%	28.5%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

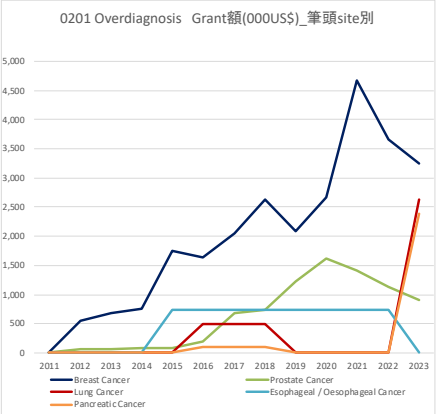
Overdiagnosis の CSO 分類別の研究費配分額は、 CSO4 Early Detection, Diagnosis and Prognosis が大半を占めていると推計された。また、分析対象期間の当初は CSO1 Biology が多かったがその後減少傾向と推計された。



0201 Overdiagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	305	305	266	266	275	275	423	148	148	148	0	0	0	2,559
2 Etiology	0	0	0	28	28	28	0	0	0	0	0	172	297	297	851
3 Prevention	0	0	0	0	0	20	20	20	20	20	0	0	0	0	100
4 Early Detection, Diagnosis, and Prognosis	0	429	444	589	2,311	2,884	3,861	4,362	3,988	3,789	6,587	5,511	9,767	8,137	52,658
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	732	732	1,137	1,137	1,137	1,520	1,520	1,520	787	787	11,008
others	0	0	0	0	789	738	1,142	1,142	1,142	1,564	1,690	1,795	1,057	1,057	12,118
合計	0	733	748	883	3,394	3,945	5,299	5,948	5,298	5,521	8,425	7,478	11,121	9,492	68,285

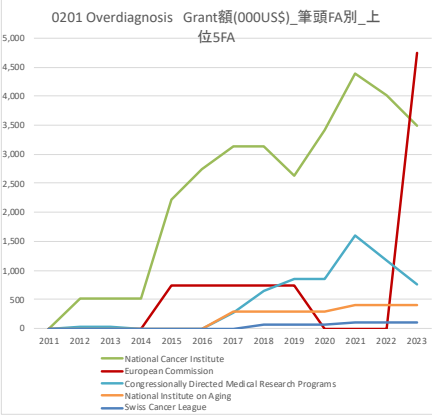
0201 Overdiagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology		41.6%	40.7%	30.1%	7.8%	7.0%	5.2%	7.1%	2.8%	2.7%	1.8%	0.0%	0.0%	0.0%	3.7%
2 Etiology		0.0%	0.0%	3.2%	0.8%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	2.7%	3.1%	1.2%
3 Prevention		0.0%	0.0%	0.0%	0.0%	0.5%	0.4%	0.3%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis		58.4%	59.3%	66.7%	68.1%	73.1%	72.9%	73.3%	75.3%	68.6%	78.2%	73.7%	87.8%	85.7%	77.1%
5 Treatment		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6 Cancer Control, Survivorship, and Outcomes Research		0.0%	0.0%	0.0%	21.6%	18.6%	21.5%	19.1%	21.5%	27.5%	18.0%	20.3%	7.1%	8.3%	16.1%
others		0.0%	0.0%	0.0%	23.3%	18.7%	21.6%	19.2%	21.6%	28.3%	20.1%	24.0%	9.5%	11.1%	17.7%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overdiagnosis の臓器別の研究費配分額は、最も多いのが乳がん、次いで前立腺がん、肺がんの順と推計された。



0201 Overdiagnosis Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	0	551	676	765	1,747	1,642	2,052	2,629	2,084	2,673	4,680	3,668	3,240	2,088	28,496
Prostate Cancer	0	72	72	80	80	199	688	747	1,222	1,619	1,407	1,125	907	889	9,107
Lung Cancer	0	0	0	0	0	488	488	488	0	0	0	0	2,622	2,622	6,710
Esophageal / Oesophageal Cancer	0	0	0	0	732	732	732	732	732	732	732	732	0	0	5,858
Pancreatic Cancer	0	0	0	0	0	100	100	100	0	0	0	0	2,384	2,384	5,068
Cervical Cancer	0	110	0	0	740	740	740	763	763	0	0	0	0	0	3,856
Liver Cancer	0	0	0	0	0	0	404	404	404	404	404	404	404	404	3,236
Colon and Rectal Cancer	0	0	0	0	0	0	0	0	0	0	585	718	718	259	2,279
Kidney Cancer	0	0	0	0	0	0	0	0	0	0	506	506	506	506	2,024
Not Site-Specific Cancer	0	0	0	0	0	0	0	0	0	0	0	215	215	215	644

Overdiagnosis の FA 別の研究費配分額が最も多かったのは米国 NCI、次いで European Commission と推計された。



0201 Overdiagnosis Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	0	512	512	512	2,227	2,740	3,144	3,144	2,636	3,415	4,386	4,013	3,485	3,485	34,213	United States
European Commission	0	0	0	0	740	740	740	740	740	0	0	0	4,749	4,749	13,196	Belgium
Congressionally Directed Medical Research Programs	0	39	39	0	0	0	282	652	845	845	1,609	1,179	764	0	6,255	United States
National Institute on Aging	0	0	0	0	0	0	285	285	285	285	411	411	411	411	2,786	United States
Swiss Cancer League	0	0	0	0	0	0	0	62	62	62	112	112	112	0	523	Switzerland
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	0	0	102	102	0	0	203	United Kingdom
Fonds de Recherche du Québec – Santé	0	0	0	0	0	20	20	20	20	20	0	0	0	0	100	Canada
Japan Society for the Promotion of Science	0	0	0	10	10	16	16	6	6	6	6	6	0	0	81	Japan
Canadian Institutes of Health Research	0	0	0	8	8	0	0	0	0	7	7	15	15	15	74	Canada
Instituto de Salud Carlos III	0	0	0	0	0	0	0	0	0	0	18	18	18	0	55	Spain

5.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0201 Overdiagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Screening mammography for average-risk women	Kaunitz, Andrew M; Pinkerton, JoAnn V; Ghate, Sujata V; Wolf, Andrew M D	Menopause The Journal of The North American Menopause Society	United States	2018	0	Review Article
2	Abbreviated breast MRI for screening women with dense breast: the EA1141 trial	Kuhl, Christiane K	British Journal of Radiology	Germany	2017	26	Research Article
3	Cancer Screening, Incidental Detection, and Overdiagnosis	Welch, H Gilbert; Bergmark, Regan	Clinical Chemistry	United States	2023	2	Review Article
4	Early and late detection of cancer in Georgia: Evidence from a population-based cancer registry, 2018-2019	Batavani, Tornike; Kereselidze, Maia; Chikhladze, Nino; Pitskhelauri, Nato	Cancer Epidemiology	Georgia	2022	0	Research Article
5	Exploring the Potential of Non-Coding RNAs as Liquid Biopsy Biomarkers for Lung Cancer Screening: A Literature Review	Garbo, Edoardo; Del Rio, Benedetta; Ferrari, Giorgia; Cani, Massimiliano; Napoli, Valerio Maria; Bertaglia, Valentina; Capelletto, Enrica; Rolfo, Christian; Novello, Silvia; Passiglia, Francesco	Cancers	Italy	2023	0	Review Article
6	Present Situation of Lung Cancer Screening Methods	Zhang, Hui; Zhang, Shucai	Chinese Journal of Lung Cancer	China	2016	3	Review Article
7	Effect of mammography screening on stage at breast cancer diagnosis: results from the Korea National Cancer Screening Program	Choi, Kui Son; Yoon, Minjoo; Song, Seung Hoon; Suh, Mina; Park, Boyoung; Jung, Kyu Won; Jun, Jae Kwan	Scientific Reports	South Korea	2018	12	Research Article
8	Growing incidence of thyroid carcinoma in recent years: Factors underlying overdiagnosis	Sanabria, Alvaro; Kowalski, Luiz P.; Shah, Jatin P.; Nixon, Iain J.; Angelos, Peter; Williams, Michelle D.; Rinaldo, Alessandra; Ferlito, Alfio	Head & Neck	United Kingdom	2017	41	Review Article
9	Detecting cancer in primary care: Where does early diagnosis stop and overdiagnosis begin?	Nicholson, B.D.	European Journal of Cancer Care	United Kingdom	2017	0	Research Article
10	The Importance of Lung Cancer Screening With Low-Dose Computed Tomography for Medicare Beneficiaries	Wood, Douglas E.	JAMA Internal Medicine	United States	2014	0	Research Article

＜引用＞

Citation: 0201 Overdiagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update From the American Cancer Society	Oeffinger, Kevin C.; Fontham, Elizabeth T. H.; Etzioni, Ruth; Herzig, Abbe; Michaelson, James S.; Shih, Ya-Chen Tina; Walter, Louise C.; Church, Timothy R.; Flowers, Christopher R.; LaMonte, Samuel J.; Wolf, Andrew M. D.; DeSantis, Carol; Lortet-Tieulent, Joannie; Andrews, Kimberly; Manassaram-Baptiste, Deana; Saslow, Debbie; Smith, Robert A.; Brawley, Otis W.; Wender, Richard	JAMA	United States	2015	373	0
2	Worldwide Thyroid-Cancer Epidemic? The Increasing Impact of Overdiagnosis	Vaccarella, Salvatore; Franceschi, Silvia; Bray, Freddie; Wild, Christopher P; Plummer, Martyn; Dal Maso, Luigino	New England Journal of Medicine	Italy	2016	280	Research Article
3	Screening and prostate cancer mortality: results of the European Randomised Study of Screening for Prostate Cancer (ERSPC) at 13 years of follow-up	Schröder, Fritz H; Hugosson, Jonas; Roobol, Monique J; Tammela, Teuvo L J; Zappa, Marco; Nelen, Vera; Kwiatkowski, Maciej; Lujan, Marcos; Määttänen, Liisa; Lilja, Hans; Denis, Louis J; Recker, Franz; Paez, Alvaro; Bangma, Chris H; Carlsson, Sigrid; Puliti, Donella; Villers, Arnauld; Rebillard, Xavier; Hakama, Matti; Stenman, Ulf-Hakan; Kujala, Paula; Taari, Kimmo; Aus, Gunnar; Huber, Andreas; van der Kwast, Theo H; van Schaik, Ron H N; de Koning, Harry J; Moss, Sue M; Auvinen, Anssi; Investigators, for the ERSPC	The Lancet	Germany	2014	237	Research Article
4	Korea's Thyroid-Cancer "Epidemic" — Screening and Overdiagnosis	Ahn, Hyeong Sik; Kim, Hyun Jung; Welch, H. Gilbert	New England Journal of Medicine	United States	2014	228	0
5	The benefits and harms of breast cancer screening: an independent review	Screening, Independent UK Panel on Breast Cancer	The Lancet		2012	196	Review Article
6	MRI-Targeted or Standard Biopsy in Prostate Cancer Screening	Eklund, Martin; Jäderling, Fredrik; Discacciati, Andrea; Bergman, Martin; Annerstedt, Magnus; Aly, Markus; Glaessgen, Axel; Carlsson, Stefan; Grönberg, Henrik; Nordström, Tobias	New England Journal of Medicine		2021	182	Research Article
7	Evaluation of the Benefits and Harms of Lung Cancer Screening With Low-Dose Computed Tomography	Meza, Rafael; Jeon, Jihyoun; Toumazis, Iakovos; Haaf, Kevin ten; Cao, Pianpian; Bastani, Mehrad; Han, Summer S.; Blom, Erik F.; Jonas, Daniel E.; Feuer, Eric J.; Plevritis, Sylvia K.; de Koning, Harry J.; Kong, Chung Yin	JAMA	United States	2021	177	Research Article
8	Diagnosis of thyroid cancer using deep convolutional neural network models applied to sonographic images: a retrospective, multicohort, diagnostic study	Li, Xiangchun; Zhang, Sheng; Zhang, Qiang; Wei, Xi; Pan, Yi; Zhao, Jing; Xin, Xiaojie; Qin, Chunxin; Wang, Xiaoqing; Li, Jianxin; Yang, Fan; Zhao, Yanhui; Yang, Meng; Wang, Qinghua; Zheng, Zhiming; Zheng, Xiangqian; Yang, Xiangming; Whitlow, Christopher T; Gurcan, Metin Nafi; Zhang, Lun; Wang, Xudong; Pasche, Boris C; Gao, Ming; Zhang, Wei; Chen, Kexin	The Lancet Oncology	United States	2018	163	Research Article
9	Update version of the Japanese Guidelines for Gastric Cancer Screening	Hamashima, Chisato; Guidelines, Systematic Review Group and Guideline Development Group for Gastric Cancer Screening	Japanese Journal of Clinical Oncology	Japan	2018	161	Review Article
10	Benefits and Harms of Breast Cancer Screening: A Systematic Review	Myers, Evan R.; Moorman, Patricia; Gierisch, Jennifer M.; Havrilesky, Laura J.; Grimm, Lars J.; Ghate, Sujata; Davidson, Brittany; Mongtomery, Ranee Chatterjee; Crowley, Matthew J.; McCrory, Douglas C.; Kendrick, Amy; Sanders, Gillian D.	JAMA	United States	2015	151	Review Article

＜研究費＞

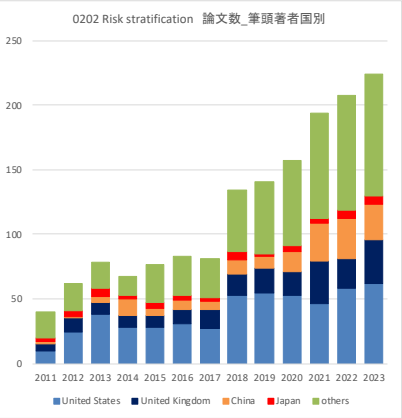
Grant: 0201 Overdiagnosis

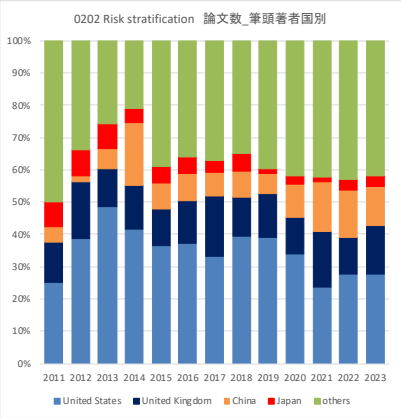
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	PANcreatic CAncer Initial Detection via liquid biopsy	0	European Commission	Belgium	10,631,572	2023	2027
2	Strengthening the screening of Lung Cancer in Europe	0	European Commission	Belgium	10,489,510	2023	2026
3	Controlling Esophageal Cancer: A Collaborative Modeling Approach	CHIN HUR, JOHN MATTHEW INADOMI, GEORG E. LUEBECK	National Cancer Institute	United States	5,858,027	2015	2022
4	Elucidating the molecular and contextual basis for IDLE ultralow risk lesions and the tumor immune microenvironment of high risk in situ and invasive breast cancers	LAURA J ESSERMAN, ALEXANDER D BOROWSKY	National Cancer Institute	United States	5,752,439	2015	2021
5	Validation of PreCursor-M for enhanced Cervical (Pre)Cancer detection	0	European Commission	Belgium	3,698,129	2015	2019
6	Harms of Hepatocellular Carcinoma Screening in Patients with Cirrhosis	AMIT SINGAL	National Cancer Institute	United States	3,235,607	2017	2024
7	MRI Imaging and Biomarkers for Early Detection of Aggressive Prostate Cancer	ALAN POLLACK, SANOJ PUNNEN, RADKA STOYANOVA	National Cancer Institute	United States	2,954,695	2019	2024
8	Translating Hyperpolarized 13C Metabolic MRI to Predict Renal Tumor Aggressiveness	ZHEN JANE WANG, PEDER ERIC ZUFALL LARSON	National Cancer Institute	United States	2,530,235	2021	2025
9	Understanding affective processing of scientific evidence to promote informed choice for breast cancer screening	LAURA D. SCHERER	National Cancer Institute	United States	2,521,946	2021	2026
10	Precision Prostate Cancer Screening with Genetically Adjusted Prostate-Specific Antigen Levels	JOHN S. WITTE	National Cancer Institute	United States	2,377,869	2020	2025

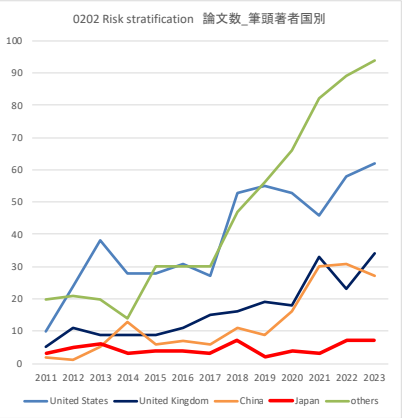
5.2. 0202 Risk stratification

5.2.1. 論文数

Risk stratification の論文数は経年的に大きく上昇傾向にあるが、全体として論文数はあまり多くないと推計された。特に論文数が多いのは米国、英国、中国の順で、どちらも経年的に増加傾向が見られた。



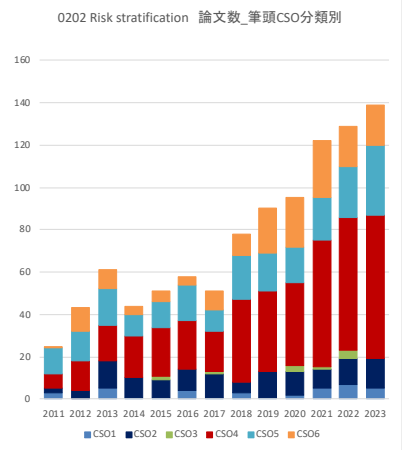


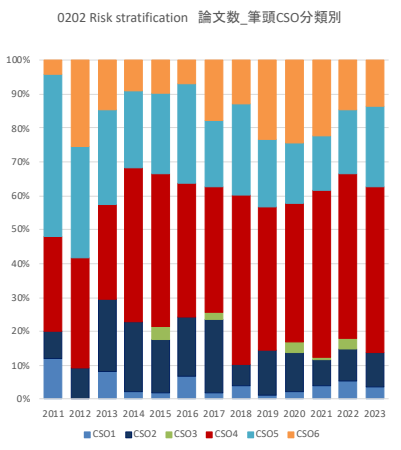


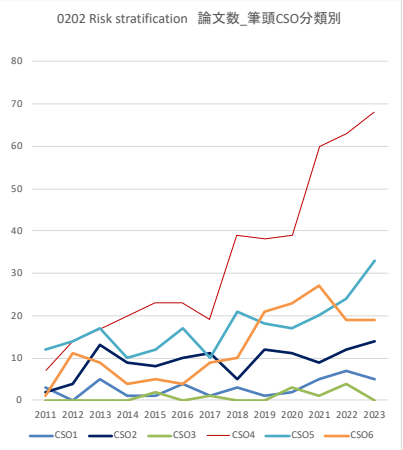
0202 Risk stratification 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	10	24	38	28	28	31	27	53	55	53	46	58	62	17	530
United Kingdom	5	11	9	9	9	11	15	16	19	18	33	23	34	17	229
China	2	1	5	13	6	7	6	11	9	16	30	31	27	6	170
Japan	3	5	6	3	4	4	3	7	2	4	3	7	7	2	60
others	20	21	20	14	30	30	30	47	56	66	82	89	94	38	637
合計	40	62	78	67	77	83	81	134	141	157	194	208	224	80	1,626

0202 Risk stratification 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	25.0%	38.7%	48.7%	41.8%	36.4%	37.3%	33.3%	39.6%	39.0%	33.8%	23.7%	27.9%	27.7%	21.3%	32.6%
United Kingdom	12.5%	17.7%	11.5%	13.4%	11.7%	13.3%	18.5%	11.9%	13.5%	11.5%	17.0%	11.1%	15.2%	21.3%	14.1%
China	5.0%	1.6%	6.4%	19.4%	7.8%	8.4%	7.4%	8.2%	6.4%	10.2%	15.5%	14.9%	12.1%	7.5%	10.5%
Japan	7.5%	8.1%	7.7%	4.5%	5.2%	4.8%	3.7%	5.2%	1.4%	2.5%	1.5%	3.4%	3.1%	2.5%	3.7%
others	50.0%	33.9%	25.6%	20.9%	39.0%	36.1%	37.0%	35.1%	39.7%	42.0%	42.3%	42.8%	42.0%	47.5%	39.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Risk stratification の CSO 分類別の論文数では、 CSO4 Early Detection, Diagnosis and Prognosis が最も多く、次いで CSO5 Treatment、CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



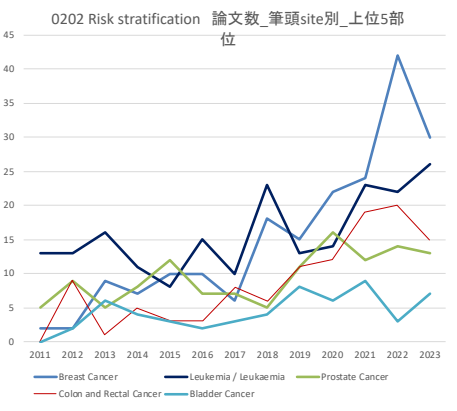




0202 Risk stratification　論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3	0	5	1	1	4	1	3	1	2	5	7	5	2	40
2 Etiology	2	4	13	9	8	10	11	5	12	11	9	12	14	1	121
3 Prevention	0	0	0	0	2	0	1	0	0	3	1	4	0	1	12
4 Early Detection, Diagnosis, and Prognosis	7	14	17	20	23	23	19	39	38	39	60	63	68	28	458
5 Treatment	12	14	17	10	12	17	10	21	18	17	20	24	33	2	227
6 Cancer Control, Survivorship, and Outcomes Research	1	11	9	4	5	4	9	10	21	23	27	19	19	11	173
others	15	19	17	23	26	25	30	56	51	62	72	79	85	35	595
合計	40	62	78	67	77	83	81	134	141	157	194	208	224	80	1,626

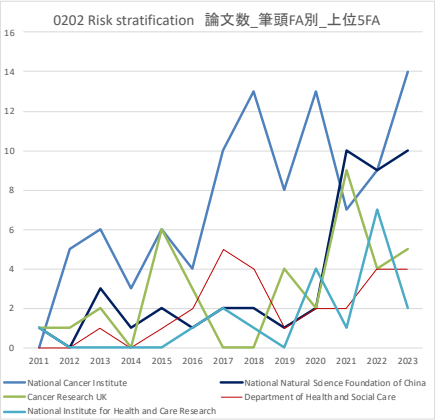
0202 Risk stratification　論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	7.5%	0.0%	6.4%	1.5%	1.3%	4.8%	1.2%	2.2%	0.7%	1.3%	2.6%	3.4%	2.2%	2.5%	2.5%
2 Etiology	5.0%	6.5%	16.7%	13.4%	10.4%	12.0%	13.6%	3.7%	8.5%	7.0%	4.6%	5.8%	6.3%	1.3%	7.4%
3 Prevention	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	1.2%	0.0%	0.0%	1.9%	0.5%	1.9%	0.0%	1.3%	0.7%
4 Early Detection, Diagnosis, and Prognosis	17.5%	22.6%	21.8%	29.9%	29.9%	27.7%	23.5%	29.1%	27.0%	24.8%	30.9%	30.3%	30.4%	35.0%	28.2%
5 Treatment	30.0%	22.6%	21.8%	14.9%	15.6%	20.5%	12.3%	15.7%	12.8%	10.8%	10.3%	11.5%	14.7%	2.5%	14.0%
6 Cancer Control, Survivorship, and Outcomes Research	2.5%	17.7%	11.5%	6.0%	6.5%	4.8%	11.1%	7.5%	14.9%	14.6%	13.9%	9.1%	8.5%	13.8%	10.6%
others	37.5%	30.6%	21.8%	34.3%	33.8%	30.1%	37.0%	41.8%	36.2%	39.5%	37.1%	38.0%	37.9%	43.8%	36.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Risk stratification の臓器別の論文数は、乳がん、白血病、前立腺がんの順に多いと推計された。



0202 Risk stratification　論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	2	2	9	7	10	10	6	18	15	22	24	42	30	17	214
Leukemia / Leukaemia	13	13	16	11	8	15	10	23	13	14	23	22	26	4	211
Prostate Cancer	5	9	5	8	12	7	7	5	11	16	12	14	13	13	137
Colon and Rectal Cancer	0	9	1	5	3	3	8	6	11	12	19	20	15	4	116
Bladder Cancer	0	2	6	4	3	2	3	4	8	6	9	3	7	3	60
Not Site-Specific Cancer	1	4	4	0	2	1	1	5	5	8	16	6	5	2	60
Non-Hodgkin's Lymphoma	1	2	3	4	1	5	2	4	6	8	5	4	8	5	58
Brain Tumor	2	0	0	1	1	3	1	8	3	10	5	5	9	5	53
Thyroid Cancer	3	1	2	2	3	1	8	7	4	2	4	5	7	1	50
Lung Cancer	0	2	3	0	4	2	2	3	4	5	2	10	9	1	47

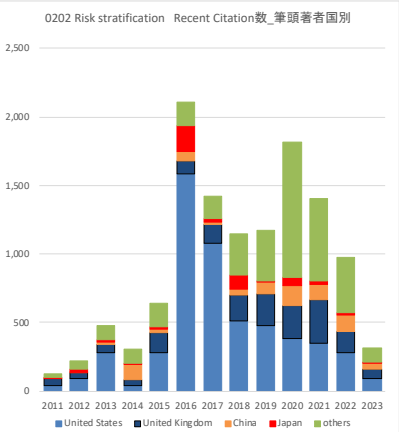
Risk stratification の FA 別の論文数は、米国 NCI が最も多く、次いで中国 NSFC、Cancer Research UK が多いと推計された。

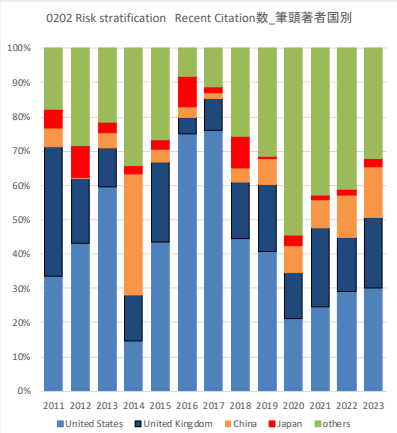


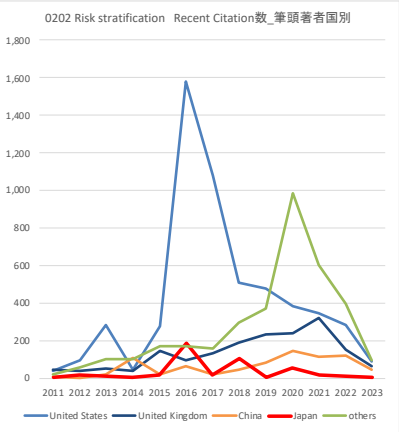
0202 Risk stratification　論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	0	5	6	3	6	4	10	13	8	13	7	9	14	3	101
National Natural Science Foundation of China	1	0	3	1	2	1	2	2	1	2	10	9	10	1	45
Cancer Research UK	1	1	2	0	6	3	0	0	4	2	9	4	5	2	39
Department of Health and Social Care	0	0	1	0	1	2	5	4	1	2	2	4	4	0	26
National Institute for Health and Care Research	1	0	0	0	0	1	2	1	0	4	1	7	2	2	21
Medical Research Council	1	0	0	0	1	2	1	0	2	3	3	4	0	0	17
Japan Society for the Promotion of Science	1	0	1	2	1	3	1	2	0	2	1	0	2	0	16
Ministry of Science and Technology of the People's Republic of China	0	0	0	2	0	0	0	1	0	2	4	0	0	1	10
National Center for Advancing Translational Sciences	0	1	1	0	1	2	0	2	0	0	0	3	0	0	10
European Commission	0	0	0	0	1	0	0	0	1	2	1	3	0	1	9

5.2.2. Recent Citation 数

Risk stratification の引用数は 2016 年と 2020 年に多く、その他は横ばい傾向であった。国別では、米国、次いで英国の引用数が多いと推計された。



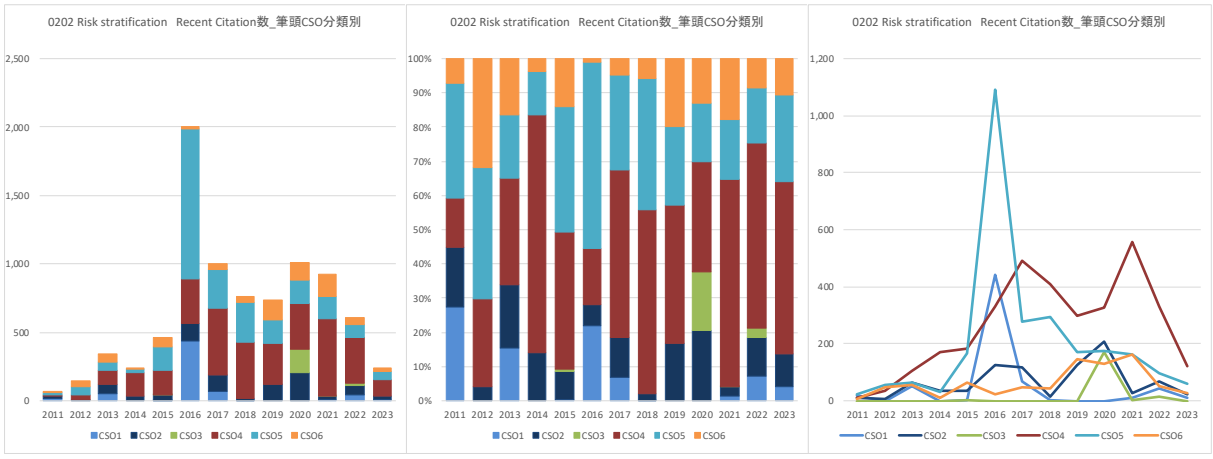




0202 Risk stratification　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	42	96	284	45	277	1,582	1,077	510	478	385	346	283	94	5	5,504
United Kingdom	47	42	54	40	150	100	136	190	233	240	321	155	64	5	1,777
China	7	1	20	108	23	66	24	47	87	149	114	121	46	2	815
Japan	7	21	15	7	18	188	21	104	6	55	20	16	8	0	486
others	22	63	103	104	171	175	161	295	372	987	602	401	100	19	3,575
合計	125	223	476	304	639	2,111	1,419	1,146	1,176	1,816	1,403	976	312	31	12,157

0202 Risk stratification　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	33.6%	43.0%	59.7%	14.8%	43.3%	74.9%	75.9%	44.5%	40.6%	21.2%	24.7%	29.0%	30.1%	16.1%	45.3%
United Kingdom	37.6%	18.8%	11.3%	13.2%	23.5%	4.7%	9.6%	16.6%	19.8%	13.2%	22.9%	15.9%	20.5%	16.1%	14.6%
China	5.6%	0.4%	4.2%	35.5%	3.6%	3.1%	1.7%	4.1%	7.4%	8.2%	8.1%	12.4%	14.7%	6.5%	6.7%
Japan	5.6%	9.4%	3.2%	2.3%	2.8%	8.9%	1.5%	9.1%	0.5%	3.0%	1.4%	1.6%	2.6%	0.0%	4.0%
others	17.6%	28.3%	21.6%	34.2%	26.8%	8.3%	11.3%	25.7%	31.6%	54.4%	42.9%	41.1%	32.1%	61.3%	29.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

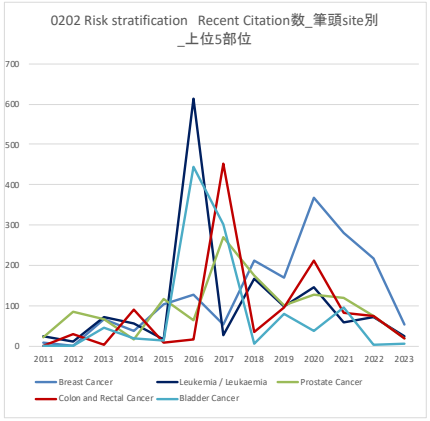
Risk stratification の CSO 分類別の引用数は、 CSO4 Early Detection, Diagnosis and Prognosis が最も多く、次いで CSO5 Treatment が多いと推計された。



0202 Risk stratification Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	19	0	53	0	2	441	69	1	0	0	12	45	10	3	655
2 Etiology	12	6	63	34	37	124	118	16	124	208	25	69	23	0	859
3 Prevention	0	0	0	0	3	0	0	0	0	172	1	16	0	0	192
4 Early Detection, Diagnosis, and Prognosis	10	37	107	169	184	329	490	410	300	327	559	331	122	11	3,386
5 Treatment	23	56	64	31	168	1,092	278	294	170	173	164	97	61	0	2,671
6 Cancer Control, Survivorship, and Outcomes Research	5	46	56	9	65	21	49	44	146	130	163	53	26	11	824
others	56	78	133	61	180	104	415	381	436	806	479	366	79	6	3,570
合計	125	223	476	304	639	2,111	1,419	1,146	1,176	1,816	1,403	976	312	31	12,157

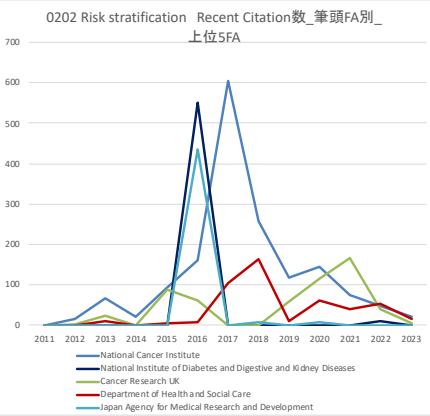
0202 Risk stratification Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	15.2%	0.0%	11.1%	0.0%	0.3%	20.9%	4.9%	0.1%	0.0%	0.0%	0.9%	4.6%	3.2%	9.7%	5.4%
2 Etiology	9.6%	2.7%	13.2%	11.2%	5.8%	5.9%	8.3%	1.4%	10.5%	11.5%	1.8%	7.1%	7.4%	0.0%	7.1%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	9.5%	0.1%	1.6%	0.0%	0.0%	1.6%
4 Early Detection, Diagnosis, and Prognosis	8.0%	16.6%	22.5%	55.6%	28.8%	15.6%	34.5%	35.8%	25.5%	18.0%	39.8%	33.9%	39.1%	35.5%	27.9%
5 Treatment	18.4%	25.1%	13.4%	10.2%	26.3%	51.7%	19.6%	25.7%	14.5%	9.5%	11.7%	9.9%	19.6%	0.0%	22.0%
6 Cancer Control, Survivorship, and Outcomes Research	4.0%	20.6%	11.8%	3.0%	10.2%	1.0%	3.5%	3.8%	12.4%	7.2%	11.6%	5.4%	8.3%	35.5%	6.8%
others	44.8%	35.0%	27.9%	20.1%	28.2%	4.9%	29.2%	33.2%	37.1%	44.4%	34.1%	37.5%	25.3%	19.4%	29.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Risk stratification の臓器別の引用数は、乳がん、白血病、前立腺がんの順に多いと推計された。



0202 Risk stratification Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	9	2	68	39	104	128	55	213	169	369	282	218	55	6	1,717
Leukemia / Leukaemia	25	11	72	57	17	613	28	168	98	147	59	73	25	0	1,393
Prostate Cancer	21	85	67	18	116	65	269	176	102	127	121	76	20	4	1,267
Colon and Rectal Cancer	0	30	4	90	10	17	452	36	96	213	82	75	20	10	1,135
Bladder Cancer	0	2	47	20	13	445	302	6	80	39	96	3	7	5	1,065
Neuroblastoma	0	0	11	0	0	449	0	76	61	0	6	0	6	0	609
Kidney Cancer	0	15	0	6	1	15	0	1	54	419	19	4	0	0	534
Liver Cancer	6	0	0	0	9	127	48	21	2	24	20	134	19	0	410
Not Site-Specific Cancer	7	40	6	0	4	20	5	20	71	14	120	47	11	1	366
Thyroid Cancer	10	1	66	1	78	45	53	38	43	10	11	6	3	0	365

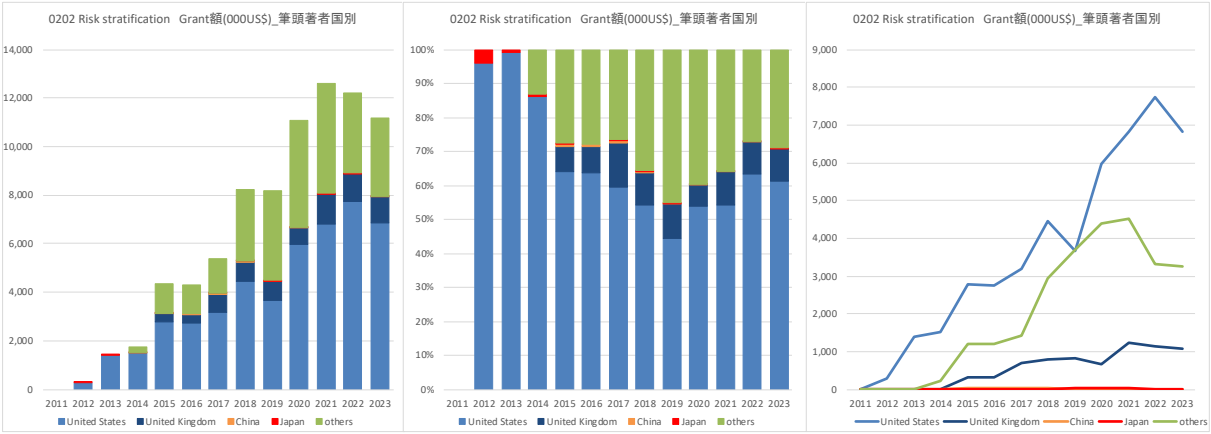
Risk stratification の FA 別の引用数は、米国 NCI、米国 National Institute of Diabetes and Digestive and Kidney Diseases、Cancer Research UK が多いと推計された。



0202 Risk stratification Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	0	15	67	20	94	160	605	259	119	144	75	47	21	3	1,629
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	550	0	0	0	0	0	11	0	0	561
Cancer Research UK	0	1	23	0	87	60	0	0	58	114	167	41	6	1	558
Department of Health and Social Care	0	0	9	0	4	8	104	164	10	61	40	54	16	0	470
Japan Agency for Medical Research and Development	0	0	0	0	0	435	0	7	0	7	0	0	0	0	449
Deutsche Forschungsgemeinschaft	0	0	0	0	0	0	0	0	0	407	0	2	0	0	409
United States Department of Veterans Affairs	0	0	0	0	6	7	349	0	0	4	0	0	0	0	366
National Institute for Health and Care Research	6	0	0	0	0	49	18	14	0	63	32	106	9	0	297
Medical Research Council	12	0	0	0	59	7	6	0	45	98	25	44	0	0	296
National Natural Science Foundation of China	0	0	11	1	3	48	21	5	14	26	55	59	30	0	273

5.2.3. Grant(000US$)額

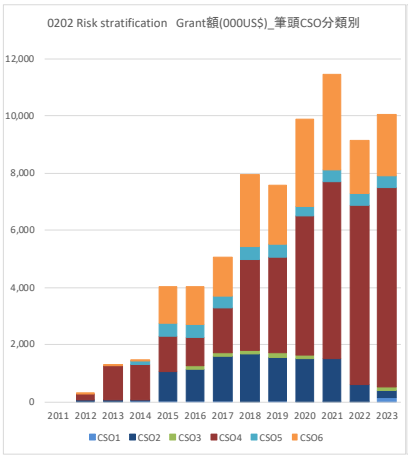
Risk stratification の研究費総額は経年的に上昇傾向が見られた。国別の研究費配分額は、半分以上が米国で経年的に上昇傾向が見られ、次いで英国が多いと推計された。

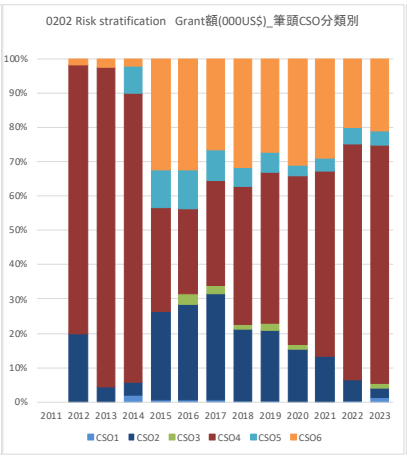


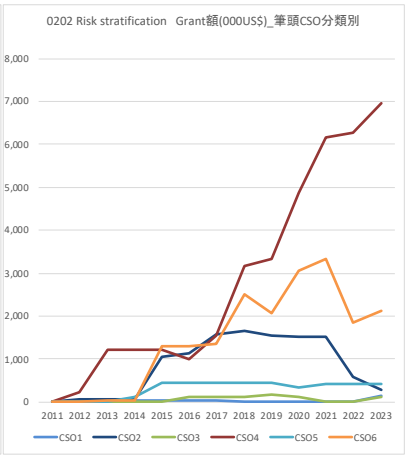
0202 Risk stratification Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	277	1,394	1,508	2,779	2,751	3,194	4,459	3,651	5,978	6,814	7,742	6,836	6,850	54,234
United Kingdom	0	0	0	0	331	331	713	779	813	675	1,240	1,137	1,078	978	8,075
China	0	0	0	0	27	35	35	45	10	10	0	0	0	0	162
Japan	0	11	11	11	11	0	8	18	28	20	20	18	9	9	173
others	0	0	0	229	1,199	1,199	1,428	2,938	3,692	4,400	4,522	3,319	3,249	3,458	29,631
合計	0	288	1,405	1,748	4,347	4,316	5,379	8,239	8,194	11,082	12,595	12,216	11,172	11,295	92,276

0202 Risk stratification Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States		96.1%	99.2%	86.3%	63.9%	63.7%	59.4%	54.1%	44.6%	53.9%	54.1%	63.4%	61.2%	60.6%	58.8%
United Kingdom		0.0%	0.0%	0.0%	7.6%	7.7%	13.3%	9.4%	9.9%	6.1%	9.8%	9.3%	9.7%	8.7%	8.8%
China		0.0%	0.0%	0.0%	0.6%	0.8%	0.7%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%
Japan		3.9%	0.8%	0.6%	0.3%	0.0%	0.2%	0.2%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%
others		0.0%	0.0%	13.1%	27.6%	27.8%	26.5%	35.7%	45.1%	39.7%	35.9%	27.2%	29.1%	30.6%	32.1%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Risk stratification の CSO 分類別の研究費配分額は、 CSO4 Early Detection, Diagnosis and Prognosis が最も多く経年的にも増加傾向が顕著であった。次いで CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



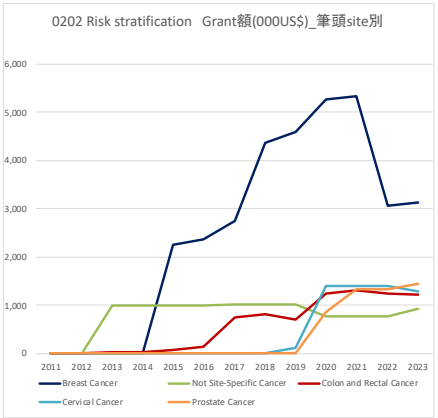




0202 Risk stratification Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	27	27	27	36	8	18	9	9	9	137	137	445
2 Etiology	0	55	55	55	1,044	1,121	1,564	1,664	1,555	1,513	1,513	592	273	173	11,177
3 Prevention	0	0	0	0	0	120	120	120	162	120	0	0	124	124	890
4 Early Detection, Diagnosis, and Prognosis	0	217	1,213	1,213	1,213	996	1,547	3,170	3,333	4,861	6,162	6,277	6,954	7,121	44,274
5 Treatment	0	0	0	119	450	450	450	450	450	331	422	422	422	422	4,388
6 Cancer Control, Survivorship, and Outcomes Research	0	5	35	30	1,309	1,309	1,347	2,511	2,055	3,056	3,320	1,846	2,122	2,236	21,182
others	0	16	138	334	1,614	1,603	1,625	1,595	2,681	3,009	2,987	3,608	1,647	1,589	22,445
合計	0	288	1,405	1,748	4,347	4,316	5,379	8,239	8,194	11,082	12,595	12,216	11,172	11,295	92,276

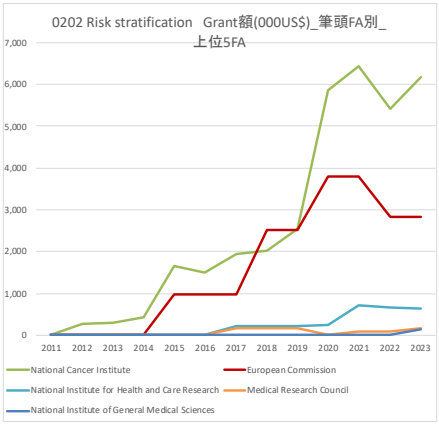
0202 Risk stratification Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology		0.0%	0.0%	1.6%	0.6%	0.6%	0.7%	0.1%	0.2%	0.1%	0.1%	0.1%	1.2%	1.2%	0.5%
2 Etiology		19.1%	3.9%	3.2%	24.0%	26.0%	29.1%	20.2%	19.0%	13.7%	12.0%	4.8%	2.4%	1.5%	12.1%
3 Prevention		0.0%	0.0%	0.0%	0.0%	2.8%	2.2%	1.5%	2.0%	1.1%	0.0%	0.0%	1.1%	1.1%	1.0%
4 Early Detection, Diagnosis, and Prognosis		75.3%	86.3%	69.4%	27.9%	23.1%	28.8%	38.5%	40.7%	43.9%	48.9%	51.4%	62.2%	63.0%	48.0%
5 Treatment		0.0%	0.0%	6.8%	10.3%	10.4%	8.4%	5.5%	5.5%	3.0%	3.4%	3.5%	3.8%	3.7%	4.8%
6 Cancer Control, Survivorship, and Outcomes Research		1.7%	2.5%	1.7%	30.1%	30.3%	25.0%	30.5%	25.1%	27.6%	26.4%	15.1%	19.0%	19.8%	23.0%
others		5.6%	9.8%	19.1%	37.1%	37.1%	30.2%	19.4%	32.7%	27.2%	23.7%	29.5%	14.7%	14.1%	24.3%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Risk stratification の臓器別の研究費配分額は、乳がんが最も多く、Not Site-specific Cancer、大腸がんの順と推計された。



0202 Risk stratification Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	0	0	0	0	2,249	2,378	2,760	4,363	4,585	5,260	5,346	3,071	3,126	3,241	36,379
Not Site-Specific Cancer	0	5	1,001	996	996	996	1,033	1,033	1,033	766	766	780	923	923	11,250
Colon and Rectal Cancer	0	0	30	30	77	145	758	828	713	1,254	1,324	1,255	1,219	1,061	8,694
Cervical Cancer	0	0	0	0	0	0	0	0	129	1,411	1,411	1,411	1,282	1,282	6,928
Prostate Cancer	0	0	0	0	0	0	0	0	0	870	1,329	1,329	1,442	1,442	6,412
Leukemia / Leukaemia	0	228	228	457	483	256	264	1,431	219	211	211	238	562	562	5,350
Thyroid Cancer	0	0	0	119	119	119	119	119	557	439	439	439	439	553	3,459
Non-Hodgkin's Lymphoma	0	0	92	92	156	156	156	156	65	507	442	442	442	442	3,148
Melanoma	0	0	0	0	0	0	0	0	583	0	371	371	371	371	2,066
Hodgkin's Disease	0	0	0	0	266	266	266	266	266	266	99	99	99	99	1,993

Risk stratification の FA 別の研究費配分額は、米国 NCI が最も多く、次いで European Commission が多いと推計された。



0202 Risk stratification Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	0	277	307	420	1,645	1,496	1,939	2,010	2,536	5,858	6,445	5,408	6,169	6,183	40,694	United States
European Commission	0	0	0	0	970	970	970	2,507	2,507	3,789	3,789	2,820	2,820	2,820	23,960	Belgium
National Institute for Health and Care Research	0	0	0	0	0	0	206	206	206	244	702	665	638	733	3,602	United Kingdom
Medical Research Council	0	0	0	0	0	0	175	175	175	0	100	100	161	60	948	United Kingdom
National Institute of General Medical Sciences	0	0	0	0	0	0	0	0	0	0	0	0	137	137	273	United States
Japan Society for the Promotion of Science	0	11	11	11	11	0	8	18	28	20	20	18	9	9	173	Japan
National Natural Science Foundation of China	0	0	0	0	27	35	35	45	10	10	0	0	0	0	162	China
Eunice Kennedy Shriver National Institute of Child Health and Human Development	0	0	0	0	0	0	0	0	0	0	0	0	22	22	43	United States

5.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0202 Risk stratification

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Women's Knowledge, Attitudes, and Perception on Personalized Risk-Stratified Breast Cancer Screening: A Cross-Sectional Study in Malaysia.	Segar, Jayshree Ap; Xuan, Teo Rong; Alahakoon, Alahakoon Mudiyanselage Gayali Nuwanya; Ravi, Harwinthra Al; Moe, Soe; Uthamalingam, Murali; Htay, Mila Nu Nu	Asian Pacific Journal of Cancer Prevention	Malaysia	2024	0	Research Article
2	Risk-stratified screening for the early detection of kidney cancer	Rossi, Sabrina H; Harrison, Hannah; Usher-Smith, Juliet A; Stewart, Grant D	The Surgeon	United Kingdom	2023	0	Review Article
3	Risk-Stratified Breast Cancer Screening in Malaysia: Challenges and Opportunities.	Htay, Mila Nu Nu; Su, Tin Tin; Donnelly, Michael	Asian Pacific Journal of Cancer Prevention	Malaysia	2024	0	Review Article
4	Attitudes towards risk-stratified breast cancer screening: a population-based survey among 5,001 Danish women	Loft, Louise Hougaard; Pedersen, Line Hjøllund; Bigaard, Janne; Bojesen, Stig Egil	BMC Cancer	Denmark	2024	0	Research Article
5	The cost-effectiveness of risk-stratified breast cancer screening in the UK	Hill, Harry; Kearns, Ben; Pashayan, Nora; Roadevin, Cristina; Sasieni, Peter; Offman, Judith; Duffy, Stephen	British Journal of Cancer	United Kingdom	2023	2	Research Article
6	The ethics of risk-stratified cancer screening	Dennison, Rebecca A; Usher-Smith, Juliet A; John, Stephen D	European Journal of Cancer	United Kingdom	2023	2	Research Article
7	Primary care providers' comfort in caring for cancer survivors: Implications for risk-stratified care	Nekhlyudov, Larissa; Snow, Craig; Knelson, Lauren P.; Dibble, Kate E.; Alfano, Catherine M.; Partridge, Ann H.	Pediatric Blood & Cancer	United States	2022	4	Research Article
8	Does receiving high or low breast cancer risk estimates produce a reduction in subsequent breast cancer screening attendance? Cohort study	French, David P.; McWilliams, Lorna; Howell, Anthony; Evans, D Gareth	The Breast	United Kingdom	2022	5	Research Article
9	Sustainable infrastructure and risk stratification are needed to appropriately deliver colorectal cancer screening globally	Coronado, Gloria D.	Cancer	United States	2022	1	Editorial
10	The influence of anatomic stage and receptor status on first recurrence for breast cancer within 5 years (AFT-01)	Neuman, Heather B.; Schumacher, Jessica R.; Edge, Stephen B.; Ruddy, Kathryn J.; Partridge, Ann H.; Yu, Menggang; Vanness, David J.; Hanlon, Bret M.; Le-Rademacher, Jennifer G.; Yang, Dou-Yan; Havlena, Jeffrey; Strand, Carrie A.; Greenberg, Caprice C.	Cancer	United States	2023	0	Research Article

＜引用＞

Citation: 0202 Risk stratification

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	CD19 CAR-T cells of defined CD4+:CD8+ composition in adult B cell ALL patients	Turtle, Cameron J.; Hanafi, Laïla-Aïcha; Berger, Carolina; Gooley, Theodore A.; Cherian, Sindhu; Hudecek, Michael; Sommermeyer, Daniel; Melville, Katherine; Pender, Barbara; Budiarto, Tanya M.; Robinson, Emily; Steevens, Natalia N.; Chaney, Colette; Soma, Lorinda; Chen, Xueyan; Yeung, Cecilia; Wood, Brent; Li, Daniel; Cao, Jianhong; Heimfeld, Shelly; Jensen, Michael C.; Riddell, Stanley R.; Maloney, David G.	Journal of Clinical Investigation	United States	2016	550	Research Article
2	Neuroblastoma	Matthay, Katherine K.; Maris, John M.; Schleiermacher, Gudrun; Nakagawara, Akira; Mackall, Crystal L.; Diller, Lisa; Weiss, William A.	Nature Reviews Disease Primers	United States	2016	435	Review Article
3	Diagnosis and Treatment of Non-Muscle Invasive Bladder Cancer: AUA/SUO Guideline	Chang, Sam S; Boorjian, Stephen A; Chou, Roger; Clark, Peter E; Daneshmand, Siamak; Konety, Badrinath R; Pruthi, Raj; Quale, Diane Z; Ritch, Chad R; Seigne, John D; Skinner, Eila Curlee; Smith, Norm D; McKiernan, James M	Journal of Urology	United States	2016	432	Review Article
4	Metabolically Healthy Obesity	Blüher, Matthias	Endocrine Reviews	Germany	2020	379	Review Article
5	Treatment of Non-Metastatic Muscle-Invasive Bladder Cancer: AUA/ASCO/ASTRO/SUO Guideline	Chang, Sam S; Bochner, Bernard H; Chou, Roger; Dreicer, Robert; Kamat, Ashish M; Lerner, Seth P; Lotan, Yair; Meeks, Joshua J; Michalski, Jeff M; Morgan, Todd M; Quale, Diane Z; Rosenberg, Jonathan E; Zietman, Anthony L; Holzbeierlein, Jeffrey M	Journal of Urology	United States	2017	298	Research Article
6	Clinically Localized Prostate Cancer: AUA/ASTRO/SUO Guideline. Part I: Risk Stratification, Shared Decision Making, and Care Options	Sanda, Martin G; Cadeddu, Jeffrey A; Kirkby, Erin; Chen, Ronald C; Crispino, Tony; Fontanarosa, Joann; Freedland, Stephen J; Greene, Kirsten; Klotz, Laurence H; Makarov, Danil V; Nelson, Joel B; Rodrigues, George; Sandler, Howard M; Taplin, Mary Ellen; Treadwell, Jonathan R	Journal of Urology	United States	2017	256	Review Article
7	Colorectal Cancer Screening: Recommendations for Physicians and Patients From the U.S. Multi-Society Task Force on Colorectal Cancer	Rex, Douglas K.; Boland, C. Richard; Dominitz, Jason A.; Giardiello, Francis M.; Johnson, David A.; Kaltenbach, Tonya; Levin, Theodore R.; Lieberman, David; Robertson, Douglas J.	Gastroenterology	United States	2017	178	Research Article
8	Colorectal Cancer Screening: Recommendations for Physicians and Patients from the U.S. Multi-Society Task Force on Colorectal Cancer	Rex, Douglas K; Boland, C Richard; Dominitz, Jason A; Giardiello, Francis M; Johnson, David A; Kaltenbach, Tonya; Levin, Theodore R; Lieberman, David; Robertson, Douglas J	The American Journal of Gastroenterology	United States	2017	171	Review Article
9	Personalized early detection and prevention of breast cancer: ENVISION consensus statement	Pashayan, Nora; Antoniou, Antonis C.; Ivanus, Urska; Esserman, Laura J.; Easton, Douglas F.; French, David; Sroczynski, Gaby; Hall, Per; Cuzick, Jack; Evans, D. Gareth; Simard, Jacques; Garcia-Closas, Montserrat; Schmutzler, Rita; Wegwarth, Odette; Pharoah, Paul; Moorthie, Sowmiya; De Montgolfier, Sandrine; Baron, Camille; Herceg, Zdenko; Turnbull, Clare; Balleyguier, Corinne; Rossi, Paolo Giorgi; Wesseling, Jelle; Ritchie, David; Tischkowitz, Marc; Broeders, Mireille; Reisel, Dan; Metspalu, Andres; Callender, Thomas; de Koning, Harry; Devilee, Peter; Delaloge, Suzette; Schmidt, Marjanka K.; Widschwendter, Martin	Nature Reviews Clinical Oncology	Netherlands	2020	162	Review Article
10	Risk-stratified staging in paediatric hepatoblastoma: a unified analysis from the Children's Hepatic tumors International Collaboration	Meyers, Rebecka L; Maibach, Rudolf; Hiyama, Eiso; Häberle, Beate; Krailo, Mark; Rangaswami, Arun; Aronson, Daniel C; Malogolowkin, Marcio H; Perilongo, Giorgio; von Schweinitz, Dietrich; Ansari, Marc; Lopez-Terrada, Dolores; Tanaka, Yukichi; Alaggio, Rita; Leuschner, Ivo; Hishiki, Tomoro; Schmid, Irene; Watanabe, Kenichiro; Yoshimura, Kenichi; Feng, Yurong; Rinaldi, Eugenia; Saraceno, Davide; Derosa, Marisa; Czauderna, Piotr	The Lancet Oncology	Japan	2016	126	Research Article

＜研究費＞

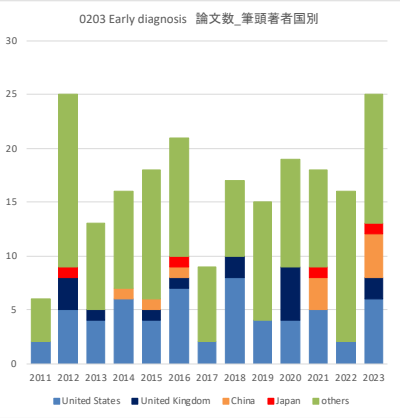
Grant: 0202 Risk stratification

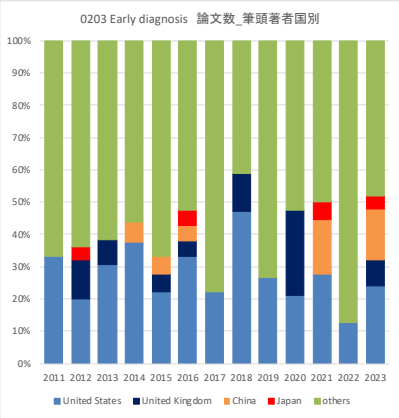
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	International Randomized Study Comparing personalized, Risk-Stratified to Standard Breast Cancer Screening In Women Aged 40-70	0	European Commission	Belgium	13,834,622	2018	2026
2	Comparative Modeling: Informing Breast Cancer Control Practice and Policy	JEANNE MANDELBLATT, DONALD A BERRY, SANDRA J LEE, SYLVIA KATINA PLEVRITIS, CLYDE SCHECHTER, AMY TRENTHAM-DIETZ, HARRY J DE KONING	National Cancer Institute	United States	8,956,972	2015	2021
3	Implementation, Adoption, and Utility of Family History in Diverse Care Settings	GEOFFREY S GINSBURG, LORI ANN ORLANDO	National Human Genome Research Institute	United States	6,970,427	2013	2019
4	Breast CAncer STratification: understanding the determinants of risk and prognosis of molecular subtypes	0	European Commission	Belgium	6,787,943	2015	2021
5	RISK-BASED SCREENING FOR CERVICAL CANCER	0	European Commission	Belgium	6,412,060	2020	2024
6	Modeling Precision Interventions for Prostate Cancer Control	RUTH D ETZIONI, NORA PASHAYAN, DIMITRIS RIZOPOULOS, ALEXANDER TSODIKOV	National Cancer Institute	United States	5,222,612	2020	2025
7	Onco-primary care networking to support TEAM-based care – the ONE TEAM Study	KEVIN CHARLES OEFFINGER, LEAH L. ZULLIG	National Cancer Institute	United States	3,393,660	2020	2025
8	Advancing equity in colorectal cancer genetic risk prediction through expansion of racial/ethnic minority representation	ULRIKE PETERS	National Cancer Institute	United States	2,834,311	2020	2025
9	BeSpoke: Building and Evaluating a risk Stratified PrOstate pathway for cancer screening, detection, treatment and surveillancE	Caroline Moore	National Institute for Health and Care Research	United Kingdom	2,749,366	2021	2026
10	Comprehensive Colorectal Cancer Risk Prediction to Inform Personalized Screening	ULRIKE PETERS, DOUGLAS ALLEN CORLEY, RICHARD BERNARD HAYES	National Cancer Institute	United States	2,659,516	2017	2022

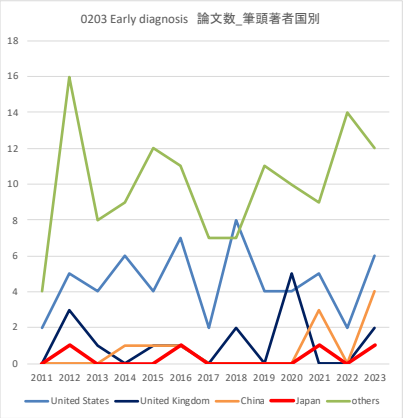
5.3. 0203 Early diagnosis

5.3.1. 論文数

Early diagnosis の論文数はあまり多くはなく、また経年的にも大きな動きは見られないと推計された。国別の論文数は、その他の国を除くと米国の論文数が多く、次いで英国と推計された。



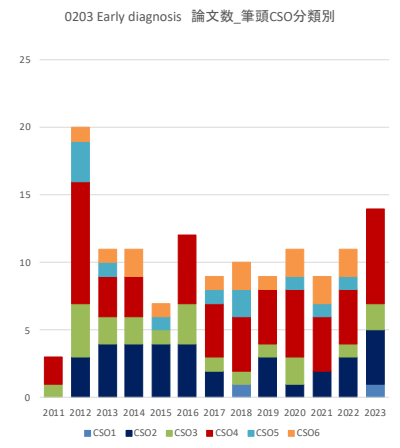


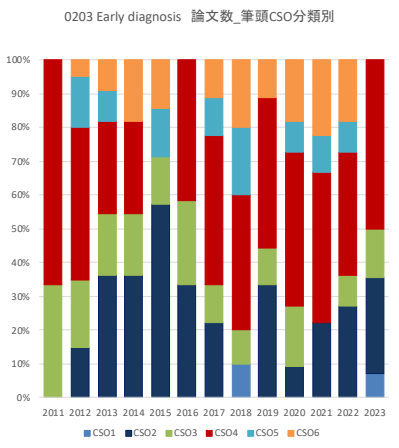


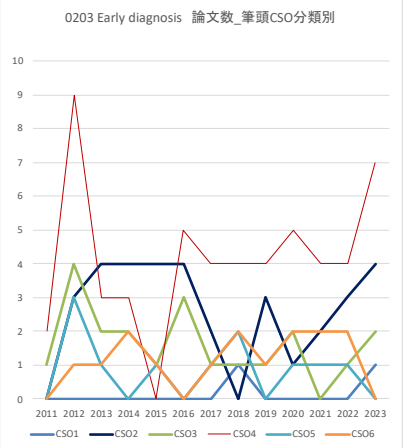
0203 Early diagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	2	5	4	6	4	7	2	8	4	4	5	2	6	1	60
United Kingdom	0	3	1	0	1	1	0	2	0	5	0	0	2	0	15
China	0	0	0	1	1	1	0	0	0	0	3	0	4	1	11
Japan	0	1	0	0	0	1	0	0	0	0	1	0	1	0	4
others	4	16	8	9	12	11	7	7	11	10	9	14	12	7	137
合計	6	25	13	16	18	21	9	17	15	19	18	16	25	9	227

0203 Early diagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	33.3%	20.0%	30.8%	37.5%	22.2%	33.3%	22.2%	47.1%	26.7%	21.1%	27.8%	12.5%	24.0%	11.1%	26.4%
United Kingdom	0.0%	12.0%	7.7%	0.0%	5.6%	4.8%	0.0%	11.8%	0.0%	26.3%	0.0%	0.0%	8.0%	0.0%	6.6%
China	0.0%	0.0%	0.0%	6.3%	5.6%	4.8%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	16.0%	11.1%	4.8%
Japan	0.0%	4.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	4.0%	0.0%	1.8%
others	66.7%	64.0%	61.5%	56.3%	66.7%	52.4%	77.8%	41.2%	73.3%	52.6%	50.0%	87.5%	48.0%	77.8%	60.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Early diagnosis の CSO 分類別の論文数では、 CSO4 Early Detection, Diagnosis and Prognosis が最も多く、次いで CSO2 Etiology が多いと推計された。



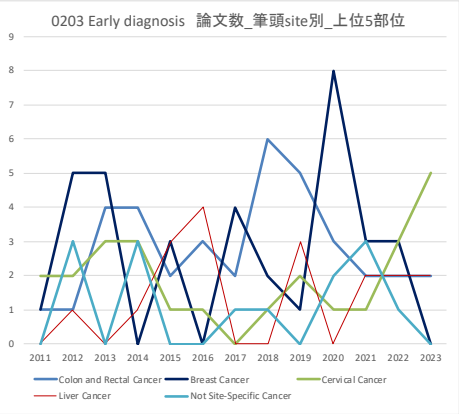




0203 Early diagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
2 Etiology	0	3	4	4	4	4	2	0	3	1	2	3	4	2	36
3 Prevention	1	4	2	2	1	3	1	1	1	2	0	1	2	1	22
4 Early Detection, Diagnosis, and Prognosis	2	9	3	3	0	5	4	4	4	5	4	4	7	2	56
5 Treatment	0	3	1	0	1	0	1	2	0	1	1	1	0	0	11
6 Cancer Control, Survivorship, and Outcomes Research	0	1	1	2	1	0	1	2	1	2	2	2	0	0	15
others	3	5	2	5	11	9	0	7	6	8	9	5	11	4	85
合計	6	25	13	16	18	21	9	17	15	19	18	16	25	9	227

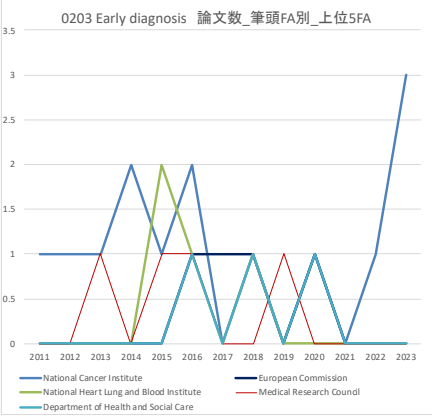
0203 Early diagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.9%
2 Etiology	0.0%	12.0%	30.8%	25.0%	22.2%	19.0%	22.2%	0.0%	20.0%	5.3%	11.1%	18.8%	16.0%	22.2%	15.9%
3 Prevention	16.7%	16.0%	15.4%	12.5%	5.6%	14.3%	11.1%	5.9%	6.7%	10.5%	0.0%	6.3%	8.0%	11.1%	9.7%
4 Early Detection, Diagnosis, and Prognosis	33.3%	36.0%	23.1%	18.8%	0.0%	23.8%	44.4%	23.5%	26.7%	26.3%	22.2%	25.0%	28.0%	22.2%	24.7%
5 Treatment	0.0%	12.0%	7.7%	0.0%	5.6%	0.0%	11.1%	11.8%	0.0%	5.3%	5.6%	6.3%	0.0%	0.0%	4.8%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	4.0%	7.7%	12.5%	5.6%	0.0%	11.1%	11.8%	6.7%	10.5%	11.1%	12.5%	0.0%	0.0%	6.6%
others	50.0%	20.0%	15.4%	31.3%	61.1%	42.9%	0.0%	41.2%	40.0%	42.1%	50.0%	31.3%	44.0%	44.4%	37.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Early diagnosis の臓器別の論文数では、大腸がん、乳がん、子宮頸がんの順に多いと推計された。



0203 Early diagnosis 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	1	1	4	4	2	3	2	6	5	3	2	2	2	0	37
Breast Cancer	1	5	5	0	3	0	4	2	1	8	3	3	0	1	36
Cervical Cancer	2	2	3	3	1	1	0	1	2	1	1	3	5	4	29
Liver Cancer	0	1	0	1	3	4	0	0	3	0	2	2	2	1	19
Not Site-Specific Cancer	0	3	0	3	0	0	1	1	0	2	3	1	0	1	15
Lung Cancer	0	2	0	0	0	2	0	1	1	0	0	1	2	1	10
Prostate Cancer	0	1	0	2	2	1	0	0	0	0	1	0	1	0	8
Esophageal / Oesophageal Cancer	0	0	0	0	0	1	1	0	0	0	0	1	2	0	5
Oral Cavity and Lip Cancer	0	3	0	0	0	0	0	0	0	1	0	0	1	0	5
Stomach Cancer	0	0	0	0	0	1	0	0	0	1	0	0	3	0	5

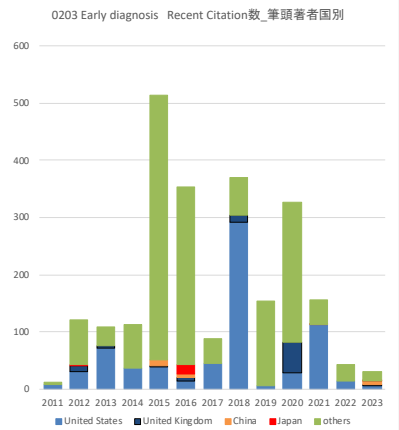
Early diagnosis の FA 別の論文数では、米国 NCI が最も多いと推計された。

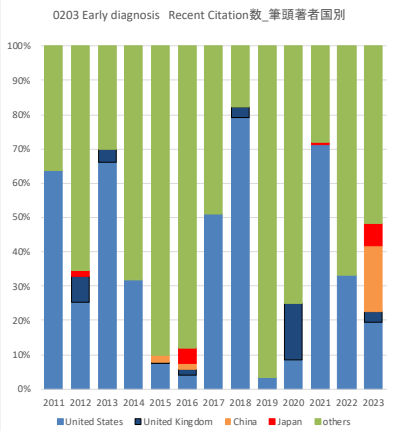


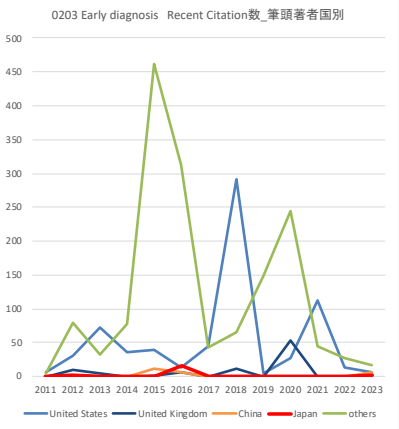
0203 Early diagnosis 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	1	1	1	2	1	2	0	1	0	1	0	1	3	0	14
European Commission	0	0	0	0	0	1	1	1	0	1	0	0	0	0	4
National Heart Lung and Blood Institute	0	0	0	0	2	1	0	1	0	0	0	0	0	0	4
Medical Research Council	0	0	1	0	1	1	0	0	1	0	0	0	0	0	4
Department of Health and Social Care	0	0	0	0	0	1	0	1	0	1	0	0	0	0	3
National Institute for Health and Care Research	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
Cancer Research UK	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
National Natural Science Foundation of China	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Deutsche Forschungsgemeinschaft	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
United States Department of Veterans Affairs	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

5.3.2. Recent Citation 数

Early diagnosis の引用数は 2015 年に多く、その他は横ばい傾向であった。国別では、その他の国を除くと米国の引用数が多く、次いで英国が多いと推計された。



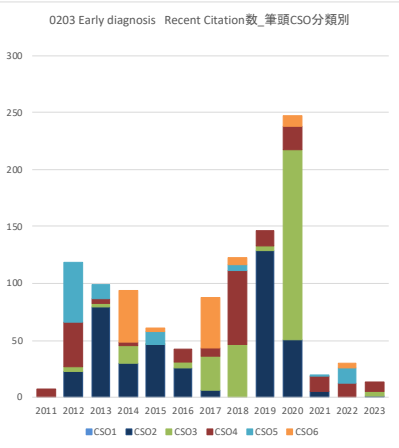


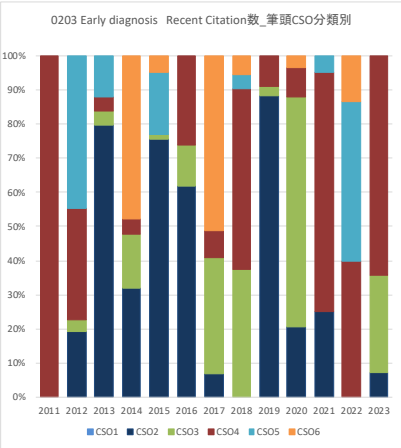


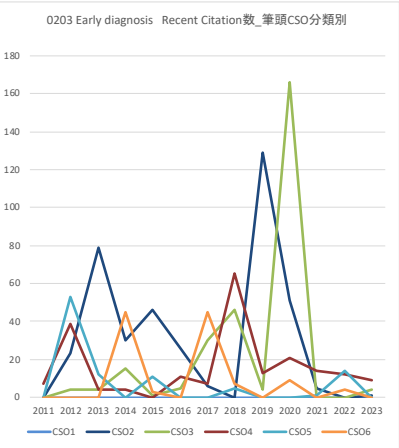
0203 Early diagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	7	31	72	36	39	14	45	292	5	28	112	14	6	0	701
United Kingdom	0	9	4	0	1	7	0	12	0	53	0	0	1	0	87
China	0	0	0	0	11	6	0	0	0	0	0	0	6	0	23
Japan	0	2	0	0	0	15	0	0	0	0	1	0	2	0	20
others	4	80	33	77	462	312	43	65	148	245	44	28	16	0	1,557
合計	11	122	109	113	513	354	88	369	153	326	157	42	31	0	2,388

0203 Early diagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	63.6%	25.4%	66.1%	31.9%	7.6%	4.0%	51.1%	79.1%	3.3%	8.6%	71.3%	33.3%	19.4%		29.4%
United Kingdom	0.0%	7.4%	3.7%	0.0%	0.2%	2.0%	0.0%	3.3%	0.0%	16.3%	0.0%	0.0%	3.2%		3.6%
China	0.0%	0.0%	0.0%	0.0%	2.1%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.4%		1.0%
Japan	0.0%	1.6%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	6.5%		0.8%
others	36.4%	65.6%	30.3%	68.1%	90.1%	88.1%	48.9%	17.6%	96.7%	75.2%	28.0%	66.7%	51.6%		65.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

Early diagnosis の CSO 分類別の引用数は、 CSO2 Etiology が最も多く、ついで CSO3 Prevention が多いと推計された。



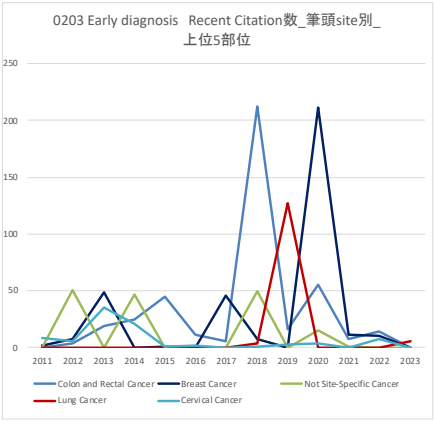




0203 Early diagnosis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Etiology	0	23	79	30	46	26	6	0	129	51	5	0	1	0	396
3 Prevention	0	4	4	15	1	5	30	46	4	166	0	0	4	0	279
4 Early Detection, Diagnosis, and Prognosis	7	39	4	4	0	11	7	65	13	21	14	12	9	0	206
5 Treatment	0	53	12	0	11	0	0	5	0	0	1	14	0	0	96
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	45	3	0	45	7	0	9	0	4	0	0	113
others	4	3	10	19	452	312	0	246	7	79	137	12	17	0	1,298
合計	11	122	109	113	513	354	88	369	153	326	157	42	31	0	2,388

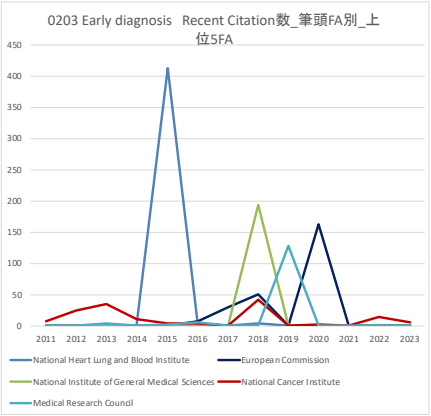
0203 Early diagnosis Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
2 Etiology	0.0%	18.9%	72.5%	26.5%	9.0%	7.3%	6.8%	0.0%	84.3%	15.6%	3.2%	0.0%	3.2%		16.6%
3 Prevention	0.0%	3.3%	3.7%	13.3%	0.2%	1.4%	34.1%	12.5%	2.6%	50.9%	0.0%	0.0%	12.9%		11.7%
4 Early Detection, Diagnosis, and Prognosis	63.6%	32.0%	3.7%	3.5%	0.0%	3.1%	8.0%	17.6%	8.5%	6.4%	8.9%	28.6%	29.0%		8.6%
5 Treatment	0.0%	43.4%	11.0%	0.0%	2.1%	0.0%	0.0%	1.4%	0.0%	0.0%	0.6%	33.3%	0.0%		4.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	39.8%	0.6%	0.0%	51.1%	1.9%	0.0%	2.8%	0.0%	9.5%	0.0%		4.7%
others	36.4%	2.5%	9.2%	16.8%	88.1%	88.1%	0.0%	66.7%	4.6%	24.2%	87.3%	28.6%	54.8%		54.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

Early diagnosis の臓器別の引用数では、大腸がん、乳がん、Not Site-specific Cancer の順に多いと推計された。



0203 Early diagnosis Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	0	4	19	25	45	11	6	212	16	55	8	14	0	0	415
Breast Cancer	2	8	49	0	1	0	46	8	0	211	11	10	0	0	346
Not Site-Specific Cancer	0	51	0	47	0	0	0	50	0	15	1	0	0	0	164
Lung Cancer	0	0	0	0	0	0	0	4	127	0	0	0	6	0	137
Cervical Cancer	9	6	35	21	1	2	0	1	3	4	0	8	0	0	90
Liver Cancer	0	23	0	0	25	22	0	0	3	0	5	0	1	0	79
Melanoma	0	0	0	1	0	0	0	46	0	0	4	0	0	0	51
Stomach Cancer	0	0	0	0	0	6	0	0	0	9	0	0	19	0	34
Esophageal / Oesophageal Cancer	0	0	0	0	0	1	30	0	0	0	0	0	2	0	33
Oral Cavity and Lip Cancer	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25

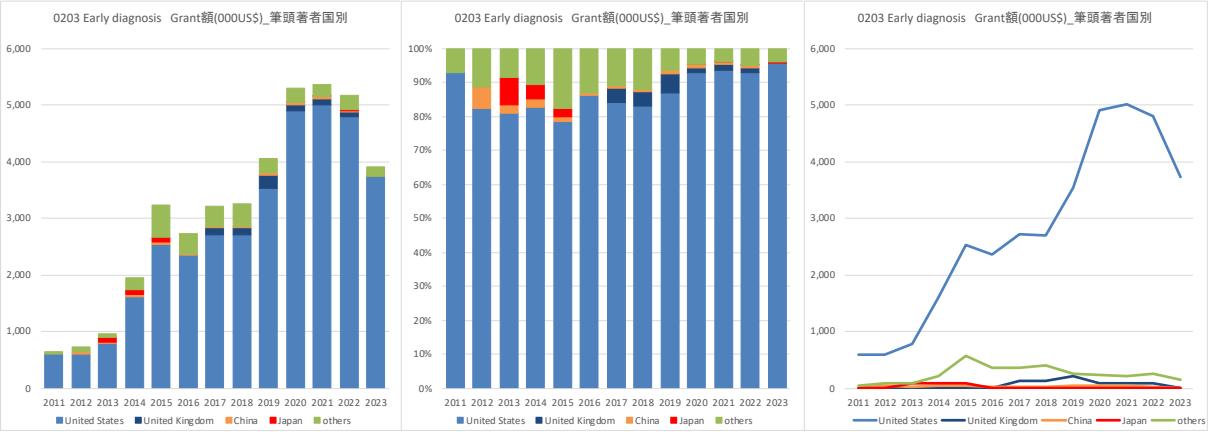
Early diagnosis の FA 別の引用数では、米国 National Heart Lung and Blood Institution が最も多く、ついで European Commission、米国 National Institute of General Medical Sciences の順と推計された。



0203 Early diagnosis Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Heart Lung and Blood Institute	0	0	0	0	412	0	0	4	0	0	0	0	0	0	416
European Commission	0	0	0	0	0	7	30	50	0	162	0	0	0	0	249
National Institute of General Medical Sciences	0	0	0	0	0	0	0	194	0	0	0	0	0	0	194
National Cancer Institute	7	25	35	11	3	3	0	41	0	2	0	14	6	0	147
Medical Research Council	0	0	4	0	1	6	0	0	127	0	0	0	0	0	138
Deutsche Forschungsgemeinschaft	0	0	0	0	0	0	0	0	0	51	0	0	0	0	51
National Institute for Health and Care Research	0	4	0	0	0	0	0	0	0	41	0	0	0	0	45
Cancer Research UK	0	0	0	38	0	0	0	4	0	0	0	0	0	0	42
Department of Health and Social Care	0	0	0	0	0	2	0	8	0	19	0	0	0	0	29
Fonds de Recherche du Québec – Santé	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23

5.3.3. Grant(000US$)額

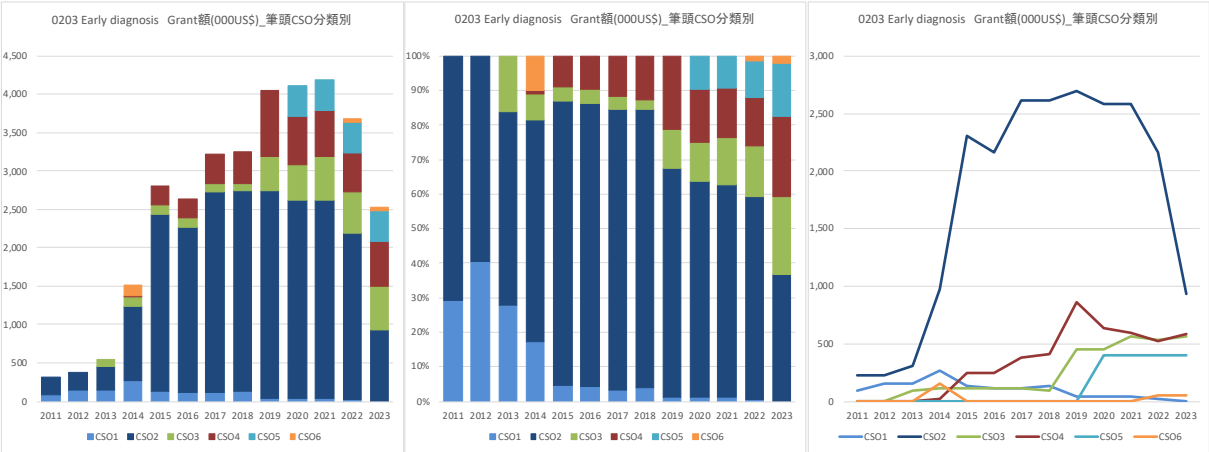
Early diagnosis の研究費総額は経年的に増加しており、筆頭著者の国別では、その大半が米国に配分されていた。



0203 Early diagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	595	595	785	1,608	2,535	2,355	2,708	2,701	3,533	4,904	5,011	4,792	3,737	3,377	39,238
United Kingdom	0	0	0	0	0	0	132	132	219	87	87	87	0	0	745
China	0	45	23	47	47	24	24	22	44	44	44	22	0	0	388
Japan	0	0	79	79	79	0	0	0	0	9	9	9	9	0	275
others	45	82	82	211	569	356	356	392	264	244	208	259	159	51	3,278
合計	640	723	970	1,945	3,231	2,736	3,220	3,248	4,060	5,289	5,360	5,170	3,905	3,427	43,924

0203 Early diagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	93.0%	82.4%	81.0%	82.7%	78.5%	86.1%	84.1%	83.2%	87.0%	92.7%	93.5%	92.7%	95.7%	98.5%	89.3%
United Kingdom	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	4.1%	5.4%	1.6%	1.6%	1.7%	0.0%	0.0%	1.7%
China	0.0%	6.2%	2.4%	2.4%	1.5%	0.9%	0.8%	0.7%	1.1%	0.8%	0.8%	0.4%	0.0%	0.0%	0.9%
Japan	0.0%	0.0%	8.2%	4.1%	2.4%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.0%	0.6%
others	7.0%	11.4%	8.5%	10.8%	17.6%	13.0%	11.1%	12.1%	6.5%	4.6%	3.9%	5.0%	4.1%	1.5%	7.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

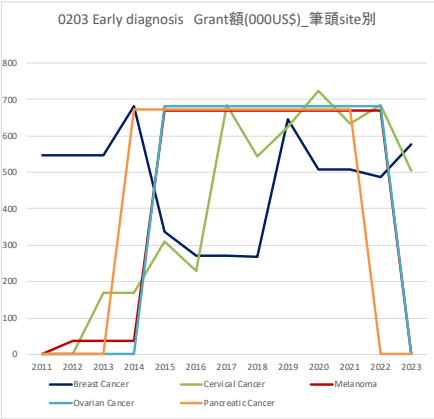
Early diagnosis の CSO 分類別の研究費は、CSO2 Etiology が最も多く、ついで CSO4 Early Detection, Diagnosis and Prognosis と推計された。



0203 Early diagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	93	153	153	263	133	110	110	133	44	44	44	22	0	0	1,303
2 Etiology	225	225	304	977	2,306	2,161	2,615	2,615	2,696	2,584	2,584	2,165	932	932	23,321
3 Prevention	0	0	89	113	113	113	113	89	456	456	563	537	568	568	3,778
4 Early Detection, Diagnosis, and Prognosis	0	0	0	18	250	250	382	411	859	635	600	518	583	530	5,036
5 Treatment	0	0	0	0	0	0	0	0	0	396	396	396	396	387	1,971
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	150	0	0	0	0	0	0	0	51	51	51	302
others	322	345	424	574	428	101	0	0	87	1,255	1,255	1,612	1,425	1,010	8,838
合計	640	723	970	1,945	3,231	2,736	3,220	3,248	4,060	5,289	5,360	5,170	3,905	3,427	43,924

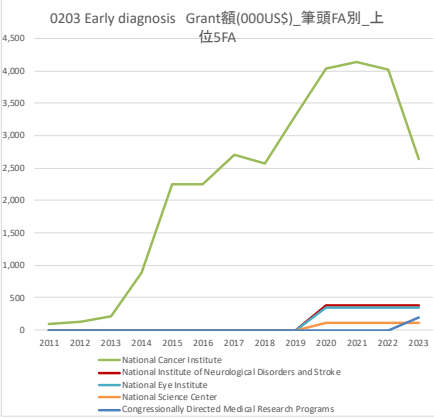
0203 Early diagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	14.5%	21.2%	15.8%	13.5%	4.1%	4.0%	3.4%	4.1%	1.1%	0.8%	0.8%	0.4%	0.0%	0.0%	3.0%
2 Etiology	35.1%	31.1%	31.4%	50.2%	71.4%	79.0%	81.2%	80.5%	66.4%	48.9%	48.2%	41.9%	23.9%	27.2%	53.1%
3 Prevention	0.0%	0.0%	9.2%	5.8%	3.5%	4.1%	3.5%	2.7%	11.2%	8.6%	10.5%	10.4%	14.5%	16.6%	8.6%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	0.0%	0.9%	7.7%	9.1%	11.9%	12.7%	21.1%	12.0%	11.2%	10.0%	14.9%	15.5%	11.5%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	7.4%	7.7%	10.1%	11.3%	4.5%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.3%	1.5%	0.7%
others	50.4%	47.7%	43.7%	29.5%	13.2%	3.7%	0.0%	0.0%	2.1%	23.7%	23.4%	31.2%	36.5%	29.5%	20.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Early diagnosis の臓器別の研究費額は、乳がんが最も多く、ついで子宮頸がんの順と推計された。



0203 Early diagnosis Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	547	547	547	682	338	272	272	270	646	509	509	487	578	578	6,783
Cervical Cancer	0	0	168	168	309	230	683	542	623	723	635	685	504	504	5,775
Melanoma	0	37	37	37	669	669	669	669	669	669	669	669	0	0	5,464
Ovarian Cancer	0	0	0	0	683	683	683	683	683	683	683	683	0	0	5,461
Pancreatic Cancer	0	0	0	673	673	673	673	673	673	673	673	0	0	0	5,381
Colon and Rectal Cancer	93	116	116	133	132	109	241	277	259	646	611	918	983	676	5,308
Nervous System	0	0	0	0	0	0	0	0	0	387	387	387	387	387	1,933
Not Site-Specific Cancer	0	0	0	150	0	0	0	0	259	259	259	259	259	259	1,706
Liver Cancer	0	22	0	0	0	0	0	0	0	34	231	206	206	196	895
Leukemia / Leukaemia	0	0	0	0	0	0	0	0	0	0	0	279	279	279	837

Early diagnosis の FA 別の研究費額は、米国 NCI が最も多く、ついで米国 National Institute of Neurological Disorders and Stroke、米国 National Eye Institute の順と推計された。



0203 Early diagnosis Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	93	130	219	891	2,254	2,254	2,708	2,567	3,318	4,028	4,135	4,023	2,636	2,329	31,584	United States
National Institute of Neurological Disorders and Stroke	0	0	0	0	0	0	0	0	0	387	387	387	387	387	1,933	United States
National Eye Institute	0	0	0	0	0	0	0	0	0	349	349	349	349	349	1,744	United States
National Science Center	0	0	0	0	0	0	0	0	0	108	108	108	108	0	433	Poland
Congressionally Directed Medical Research Programs	0	0	0	0	0	0	0	0	0	0	0	0	200	200	399	United States
FWF Austrian Science Fund	0	0	0	70	70	70	70	70	0	0	0	0	0	0	349	Austria
Medical Research Council	0	0	0	0	0	0	0	0	87	87	87	87	0	0	348	United Kingdom
Ministry of Science and Higher Education	0	0	0	0	326	0	0	0	0	0	0	0	0	0	326	Poland
National Natural Science Foundation of China	0	45	23	23	23	0	0	22	44	44	44	22	0	0	291	China
Instituto de Salud Carlos III	0	0	0	18	18	18	18	53	36	36	0	0	0	0	196	Spain

5.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0203 Early diagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Non-endoscopic Screening for Esophageal Squamous Cell Carcinoma: Recent Advances	Mou, Xiao; Peng, Zhenglin; Yin, Tao; Sun, Xingwang	Journal of Gastrointestinal Cancer	China	2023	0	Review Article
2	Feasibility of personalized screening and prevention recommendations in the general population through breast cancer risk assessment: results from a dedicated risk clinic	Saghatchian, Mahasti; Abehsera, Marc; Yamgnane, Amina; Geyl, Caroline; Gauthier, Emilien; Hélin, Valérie; Bazire, Matéo; Villoing-Gaudé, Laure; Reyes, Cécile; Gentien, David; Golmard, Lisa; Stoppa-Lyonnet, Dominique	Breast Cancer Research and Treatment	France	2022	6	Research Article
3	Management of Immune-Related Adverse Events from Immune-Checkpoint Inhibitors in Advanced or Metastatic Renal Cell Carcinoma	Leucht, Katharina; Ali, Nalyan; Foller, Susan; Grimm, Marc-Oliver	Cancers	Germany	2022	5	Review Article
4	Precision Cut Lung Slices as a Preclinical Model for Non-Small Cell Lung Cancer Chemoprevention.	Sompel, Kayla; Smith, Alex J; Hauer, Caroline; Elango, Alamelu P; Clamby, Eric T; Keith, Robert L; Tennis, Meredith A	Cancer Prevention Research	United States	2023	4	Research Article
5	A Global Perspective on Gastric Cancer Screening: Which Concepts Are Feasible, and When?	Januszewicz, Wladyslaw; Turkot, Maryla Helena; Malfertheiner, Peter; Regula, Jaroslaw	Cancers	Poland	2023	14	Review Article
6	Prevention over screening for ovarian cancer in patients with high-risk germline mutations: Misinterpreting the findings of ALDO	Manning-Geist, Beryl L.; Flint, Matthew; Roche, Kara Long	Gynecologic Oncology Reports	United States	2023	0	Research Article
7	Personalized early detection and prevention of breast cancer: ENVISION consensus statement	Pashayan, Nora; Antoniou, Antonis C.; Ivanus, Urska; Esserman, Laura J.; Easton, Douglas F.; French, David; Sroczynski, Gaby; Hall, Per; Cuzick, Jack; Evans, D. Gareth; Simard, Jacques; Garcia-Closas, Montserrat; Schmutzler, Rita; Wegwarth, Odette; Pharoah, Paul; Moorthie, Sowmiya; De Montgolfier, Sandrine; Baron, Camille; Herceg, Zdenko; Turnbull, Clare; Balleyguier, Corinne; Rossi, Paolo Giorgi; Wesseling, Jelle; Ritchie, David; Tischkowitz, Marc; Broeders, Mireille; Reisel, Dan; Metspalu, Andres; Callender, Thomas; de Koning, Harry; Devilee, Peter; Delaloge, Suzette; Schmidt, Marjanka K.; Widschwendter, Martin	Nature Reviews Clinical Oncology	Netherlands	2020	162	Review Article
8	TP53 mutation prevalence in normal airway epithelium as a biomarker for lung cancer risk	Craig, Daniel J.; Crawford, Erin L.; Chen, Heidi; Grogan, Eric L.; Deppen, Steven A.; Morrison, Thomas; Antic, Sanja L.; Massion, Pierre P.; Willey, James C.	BMC Cancer	United States	2023	2	Research Article
9	Convergence of Nanotechnology and Cancer Prevention: Are We There Yet?	Menter, David G; Patterson, Sherri L; Logsdon, Craig D; Kopetz, Scott; Sood, Anil K; Hawk, Ernest T	Cancer Prevention Research	United States	2014	2	Review Article
10	Surrogate Markers: Lessons from the Next Gen?	Reid, Brian J	Cancer Prevention Research	United States	2016	1	Research Article

＜引用＞

Citation: 0203 Early diagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The Global Burden of Cancer 2013	Christina Fitzmaurice; Daniel Dicker; Amanda Pain; Hannah Hamavid; Maziar Moradi-Lakeh; Michael F. MacIntyre; Christine Allen; Gillian Hansen; Rachel Woodbrook; Charles Wolfe; Randah R. Hamadeh; Ami Moore; Andrea Werdecker; Bradford D. Gessner; Braden Te Ao; Brian McMahon; Chante Karimkhani; Chuanhua Yu; Graham S. Cooke; David C. Schwebel; David O. Carpenter; David M. Pereira; Denis Nash; Dhruv S. Kazi; Diego De Leo; Dietrich Plass; Kingsley N. Ukwaja; George D. Thurston; Kim Yun	JAMA Oncology	Iran	2015	407	0
2	36th International Symposium on Intensive Care and Emergency Medicine	R. M. Bateman; M. D. Sharpe; J. E. Jagger; C. G. Ellis; J. Solé-Violán; M. López-Rodríguez; E. Herrera-Ramos; J. Ruíz-Hernández; L. Borderías; J. Horcajada; N. González-Quevedo; O. Rajas; M. Briones; F. Rodríguez de Castro; C. Rodríguez Gallego; F. Esen; G. Orhun; P. Ergin Ozcan; E. Senturk; C. Ugur Yilmaz; N. Orhan; N. Arican; M. Kaya; M. Kucukerden; M. Giris; U. Akcan; S. Bilgic Gazioglu; E. Tuzun; R. Riff; O. Naamani; A. Douvdevani; R. Takegawa; H. Yoshida; T. Hirose; N. Yamamoto; H. Hagiya; M. Ojima;	Critical Care	Lithuania	2016	251	0
3	Deep Learning Localizes and Identifies Polyps in Real Time With 96% Accuracy in Screening Colonoscopy	Urban, Gregor; Tripathi, Priyam; Alkayali, Talal; Mittal, Mohit; Jalali, Farid; Karnes, William; Baldi, Pierre	Gastroenterology	United States	2018	194	Research Article
4	Personalized early detection and prevention of breast cancer: ENVISION consensus statement	Pashayan, Nora; Antoniou, Antonis C.; Ivanus, Urska; Esserman, Laura J.; Easton, Douglas F.; French, David; Sroczynski, Gaby; Hall, Per; Cuzick, Jack; Evans, D. Gareth; Simard, Jacques; Garcia-Closas, Montserrat; Schmutzler, Rita; Wegwarth, Odette; Pharoah, Paul; Moorthie, Sowmiya; De Montgolfier, Sandrine; Baron, Camille; Herceg, Zdenko; Turnbull, Clare; Balleyguier, Corinne; Rossi, Paolo Giorgi; Wesseling, Jelle; Ritchie, David;	Nature Reviews Clinical Oncology	Netherlands	2020	162	Review Article
5	Identification of risk loci and a polygenic risk score for lung cancer: a large-scale prospective cohort study in Chinese populations	Dai, Juncheng; Lv, Jun; Zhu, Meng; Wang, Yuzhuo; Qin, Na; Ma, Hongxia; He, Yong-Qiao; Zhang, Ruoxin; Tan, Wen; Fan, Jingyi; Wang, Tianpei; Zheng, Hong; Sun, Qi; Wang, Lijuan; Huang, Mingtao; Ge, Zijun; Yu, Canqing; Guo, Yu; Wang, Tong-Min; Wang, Jie; Xu, Lin; Wu, Weibing; Chen, Liang; Bian, Zheng; Walters, Robin; Millwood, Iona Y; Li, Xi-Zhao; Wang, Xin; Hung, Rayjean J; Christiani, David C; Chen, Haiquan; Wang, Mengyun; Wang, Cheng; Jiang, Yue; Chen, Kexin; Chen, Zhengming; Jin, Guangfu; Wu, Tangchun; Lin, Dongxin; Hu, Zhibin; Amos, Christopher I; Wu, Chen; Wei, Qingyi; Jia, Wei-Hua; Li, Liming; Shen, Hongbing	The Lancet Respiratory Medicine	Canada	2019	127	Research Article
6	Approach to the Management of Recently Diagnosed Inflammatory Bowel Disease Patients: A User's Guide for Adult and Pediatric Gastroenterologists	Agrawal, Manasi; Spencer, Elizabeth A; Colombel, Jean-Frederic; Ungaro, Ryan C	Gastroenterology	United States	2021	94	Review Article
7	Estimation of Absolute Risk of Colorectal Cancer Based on Healthy Lifestyle, Genetic Risk, and Colonoscopy Status in a Population-Based Study	Carr, Prudence R; Weigl, Korbinian; Edelmann, Dominic; Jansen, Lina; Chang-Claude, Jenny; Brenner, Hermann; Hoffmeister, Michael	Gastroenterology	Germany	2020	51	Research Article
8	Epigenome-based cancer risk prediction: rationale, opportunities and challenges	Widschwendter, Martin; Jones, Allison; Evans, Iona; Reisel, Daniel; Dillner, Joakim; Sundström, Karin; Steyerberg, Ewout W.; Vergouwe, Yvonne; Wegwarth, Odette; Rebitschek, Felix G.; Siebert, Uwe; Sroczynski, Gaby; de Beaufort, Inez D.; Bolt, Ineke; Cibula, David; Zikan, Michal; Bjørge, Line; Colombo, Nicoletta; Harbeck, Nadia; Dudbridge, Frank; Tasse, Anne-Marie; Knoppers, Bartha M.; Joly, Yann; Teschendorff, Andrew E.; Pashayan, Nora	Nature Reviews Clinical Oncology	Sweden	2018	50	Review Article
9	Behavioral Counseling to Prevent Skin Cancer: US Preventive Services Task Force Recommendation Statement	Grossman, David C; Curry, Susan J; Owens, Douglas K; Barry, Michael J; Caughey, Aaron B; Davidson, Karina W; Doubeni, Chyke A; Epling, John W; Kemper, Alex R; Krist, Alex H; Kubik, Martha; Landefeld, Seth; Mangione, Carol M; Silverstein, Michael; Simon, Melissa A; Tseng, Chien-Wen	JAMA	United States	2018	46	0
10	Cardiotoxic effects of anthracycline-based therapy: what is the evidence and what are the potential harms?	Levis, Bennett E; Binkley, Phillip F; Shapiro, Charles L	The Lancet Oncology	United States	2017	45	Review Article

＜研究費＞

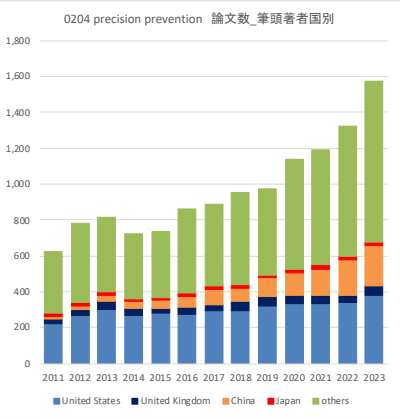
Grant: 0203 Early diagnosis

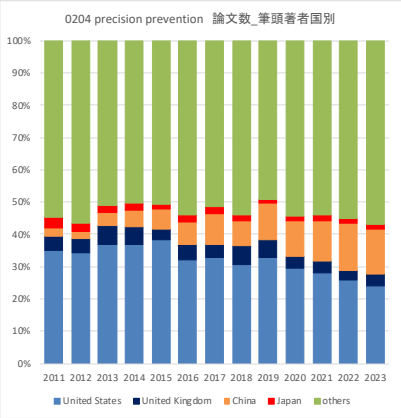
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Discovery of Novel Rare Variants as Ovarian Cancer Susceptibility Factors	CHAD DANIEL HUFF, MICHELLE A T HILDEBRANDT, JOELLEN M. SCHILDKRAUT	National Cancer Institute	United States	5,461,133	2015	2022
2	Discovery of Risk Loci and Genomics of Pancreatic Cancer through Exome Sequencing	PAUL A SCHEET, CHAD DANIEL HUFF	National Cancer Institute	United States	5,380,971	2014	2021
3	High-throughput sequencing to identify novel melanoma susceptibility genes	CHAD DANIEL HUFF, LISA CANNON ALBRIGHT, HUA ZHAO	National Cancer Institute	United States	5,352,446	2015	2022
4	CARES-REACH (Colorectal Cancer Awareness, Research, Education and Screening-Rural Expansion, Access and Capacity for Health)	CLEMENT K. GWEDE, CATHY D. MEADE	National Cancer Institute	United States	3,663,072	2020	2025
5	Investigation of Oral HPV Infection Natural History and Biomarkers of Persistent Infection: The HIM Study	ANNA R. GIULIANO	National Cancer Institute	United States	3,628,807	2017	2024
6	Understanding the biological basis for the association between parenchymal texture features and breast cancer risk	SARAH JANE NYANTE	National Cancer Institute	United States	2,790,562	2019	2024
7	Uncovering treatment targets for peripheral nerve sheath tumor progression in NF1	DAVID ANDREW LARGAESPADA, NANCY RATNER	National Institute of Neurological Disorders and Stroke	United States	2,319,342	2020	2025
8	Metabolomics a Novel Tool for Investigating the Pathogenesis of Age-related Macular Degeneration	DEEBA HUSAIN	National Eye Institute	United States	2,093,103	2020	2025
9	The genetic and epigenetic etiology of progression from the precursor state to chronic lymphocytic leukemia (CLL)	SUSAN L SLAGER, ESTEBAN BRAGGIO, CHRISTOPHER C. OAKES	National Cancer Institute	United States	1,674,992	2022	2027
10	Cancer Prevention and Control (CAPAC) Research Training Program	ANA PATRICIA ORTIZ, MARIEVELISSE SOTO-SALGADO, GUILLERMO TORTOLERO-LUNA	National Cancer Institute	United States	1,556,291	2019	2024

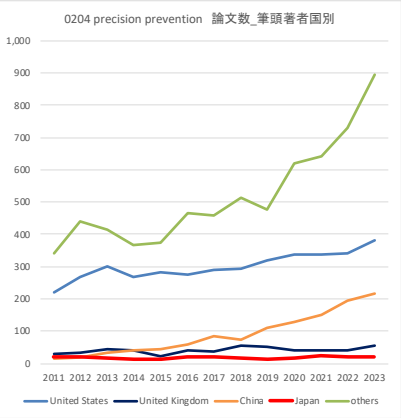
5.4. 0204 Precision prevention

5.4.1. 論文数

Precision prevention の著者別の論文数は経年的に増加傾向が見られた。国別の論文数は、その他の国を除くと米国、中国、英国の順に多いと推計された。



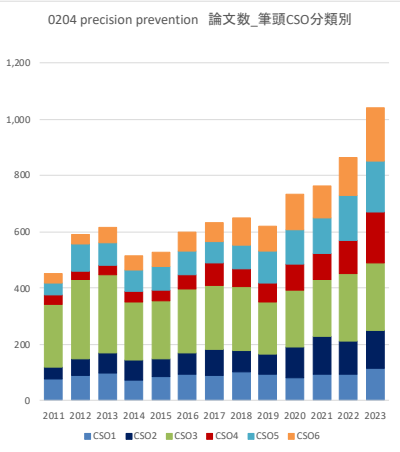


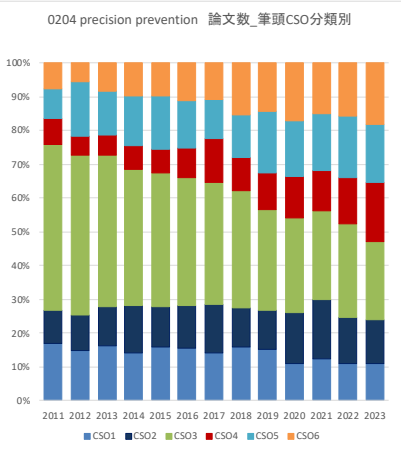


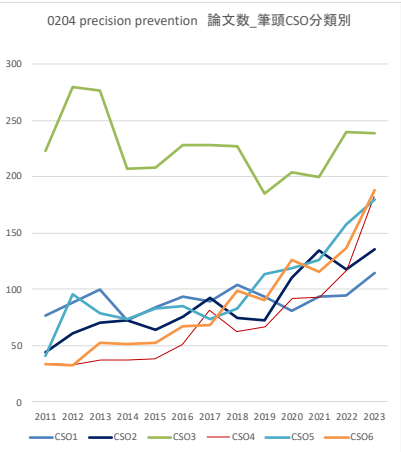
0204 precision prevention 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	219	267	301	268	283	276	291	293	320	337	337	341	380	164	4,077
United Kingdom	29	35	45	39	24	41	38	55	53	40	41	40	56	29	565
China	15	17	33	39	45	58	83	74	109	128	149	195	218	128	1,291
Japan	21	21	18	14	12	19	19	17	13	17	24	19	21	10	245
others	343	440	416	366	373	465	457	515	477	619	642	731	896	356	7,096
合計	627	780	813	726	737	859	888	954	972	1,141	1,193	1,326	1,571	687	13,274

0204 precision prevention 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.9%	34.2%	37.0%	36.9%	38.4%	32.1%	32.8%	30.7%	32.9%	29.5%	28.2%	25.7%	24.2%	23.9%	30.7%
United Kingdom	4.6%	4.5%	5.5%	5.4%	3.3%	4.8%	4.3%	5.8%	5.5%	3.5%	3.4%	3.0%	3.6%	4.2%	4.3%
China	2.4%	2.2%	4.1%	5.4%	6.1%	6.8%	9.3%	7.8%	11.2%	11.2%	12.5%	14.7%	13.9%	18.6%	9.7%
Japan	3.3%	2.7%	2.2%	1.9%	1.6%	2.2%	2.1%	1.8%	1.3%	1.5%	2.0%	1.4%	1.3%	1.5%	1.8%
others	54.7%	56.4%	51.2%	50.4%	50.6%	54.1%	51.5%	54.0%	49.1%	54.3%	53.8%	55.1%	57.0%	51.8%	53.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision prevention の CSO 分類別の論文数は CSO3 Prevention が最も多かったが、近年 CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO4 Early Detection, Diagnosis and Prognosis が増加傾向にあった。



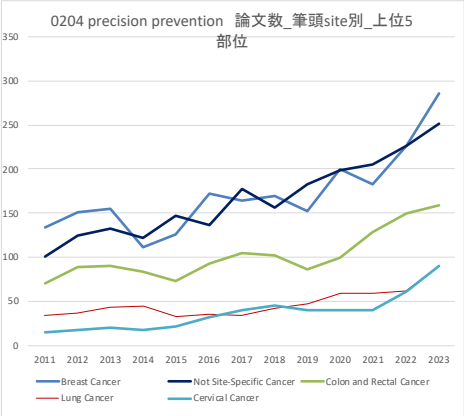




0204 precision prevention 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	77	88	100	72	84	93	89	104	94	81	94	95	115	58	1,244
2 Etiology	44	61	70	73	64	76	92	75	73	110	135	118	136	78	1,205
3 Prevention	223	280	276	207	208	228	228	227	185	204	200	240	239	92	3,037
4 Early Detection, Diagnosis, and Prognosis	34	33	37	37	38	51	81	63	67	92	93	117	182	85	1,010
5 Treatment	41	96	79	74	83	85	74	83	113	119	126	158	180	67	1,378
6 Cancer Control, Survivorship, and Outcomes Research	34	32	52	51	52	67	68	99	90	126	116	137	188	65	1,177
others	174	190	199	212	208	259	256	303	350	409	429	461	531	242	4,223
合計	627	780	813	726	737	859	888	954	972	1,141	1,193	1,326	1,571	687	13,274

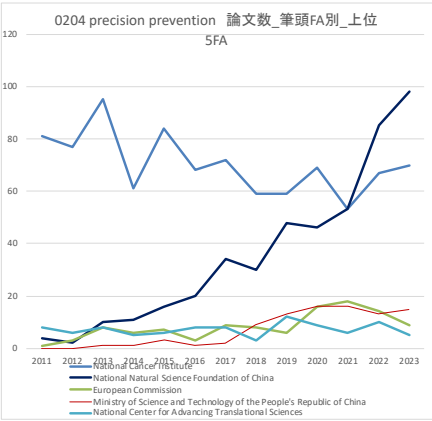
0204 precision prevention 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12.3%	11.3%	12.3%	9.9%	11.4%	10.8%	10.0%	10.9%	9.7%	7.1%	7.9%	7.2%	7.3%	8.4%	9.4%
2 Etiology	7.0%	7.8%	8.6%	10.1%	8.7%	8.8%	10.4%	7.9%	7.5%	9.6%	11.3%	8.9%	8.7%	11.4%	9.1%
3 Prevention	35.6%	35.9%	33.9%	28.5%	28.2%	26.5%	25.7%	23.8%	19.0%	17.9%	16.8%	18.1%	15.2%	13.4%	22.9%
4 Early Detection, Diagnosis, and Prognosis	5.4%	4.2%	4.6%	5.1%	5.2%	5.9%	9.1%	6.6%	6.9%	8.1%	7.8%	8.8%	11.6%	12.4%	7.6%
5 Treatment	6.5%	12.3%	9.7%	10.2%	11.3%	9.9%	8.3%	8.7%	11.6%	10.4%	10.6%	11.9%	11.5%	9.8%	10.4%
6 Cancer Control, Survivorship, and Outcomes Research	5.4%	4.1%	6.4%	7.0%	7.1%	7.8%	7.7%	10.4%	9.3%	11.0%	9.7%	10.3%	12.0%	9.5%	8.9%
others	27.8%	24.4%	24.5%	29.2%	28.2%	30.2%	28.8%	31.8%	36.0%	35.8%	36.0%	34.8%	33.8%	35.2%	31.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision prevention の臓器別の論文数は、乳がん、Not Site-specific Cancer、大腸がんの順に多いと推計された。



0204 precision prevention 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	134	151	155	111	126	172	165	169	153	200	183	226	286	103	2,334
Not Site-Specific Cancer	101	125	133	122	147	137	177	157	183	198	205	227	252	126	2,290
Colon and Rectal Cancer	71	89	90	84	74	93	105	103	87	100	129	150	159	73	1,407
Lung Cancer	35	37	44	45	33	36	35	42	48	59	59	62	90	41	666
Cervical Cancer	15	18	20	18	22	32	40	45	40	40	41	61	90	45	527
Esophageal / Oesophageal Cancer	23	36	32	37	35	39	21	41	35	41	32	37	47	23	479
Liver Cancer	13	25	34	29	27	36	24	27	23	24	45	41	49	25	422
Prostate Cancer	19	48	36	28	14	23	30	31	23	32	24	20	37	14	379
Melanoma	12	19	17	17	21	20	18	33	31	29	28	43	41	21	350
Leukemia / Leukaemia	8	15	12	17	21	18	14	27	33	25	31	25	29	12	287

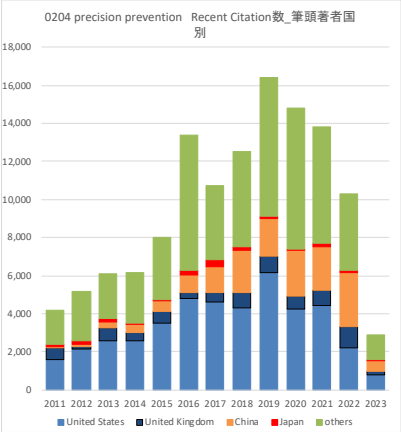
Precision prevention の FA 別の論文数は、米国 NCI が最も多く、ついで中国 NSFC、European Commission と推計され、特に近年は中国 NSFC の論文数の増加が顕著であった。

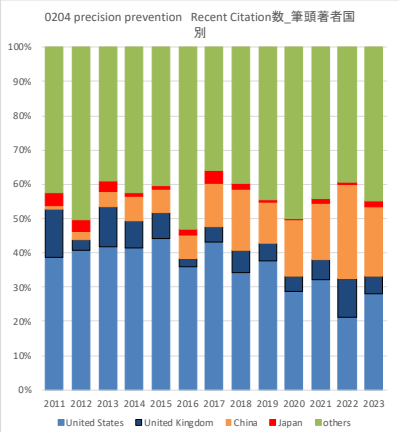


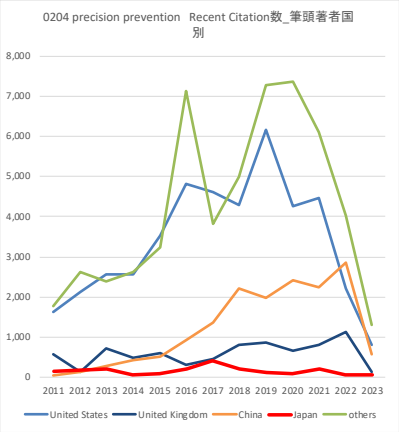
0204 precision prevention 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	81	77	95	61	84	68	72	59	59	69	53	67	70	20	935
National Natural Science Foundation of China	4	2	10	11	16	20	34	30	48	46	53	85	98	43	500
European Commission	1	3	8	6	7	3	9	8	6	16	18	14	9	10	118
Ministry of Science and Technology of the People's Republic of China	0	0	1	1	3	1	2	9	13	16	16	13	15	11	101
National Center for Advancing Translational Sciences	8	6	8	5	6	8	8	3	12	9	6	10	5	3	97
National Institute of Diabetes and Digestive and Kidney Diseases	3	5	4	11	8	3	8	5	8	2	14	8	6	1	86
Japan Society for the Promotion of Science	9	4	9	3	4	10	6	6	5	6	7	4	6	1	80
National Heart Lung and Blood Institute	1	6	6	5	7	5	5	5	9	7	7	7	8	2	80
Medical Research Council	5	7	7	8	5	3	4	11	4	3	3	4	3	3	70
Department of Health and Social Care	2	4	3	7	5	5	5	3	6	11	9	3	4	1	68

5.4.2. Recent Citation 数

Precision prevention の引用数は経年的に増加傾向と推計された。国別の引用数は、その他の国を除くと米国、中国、英国の順に多いと推計された。



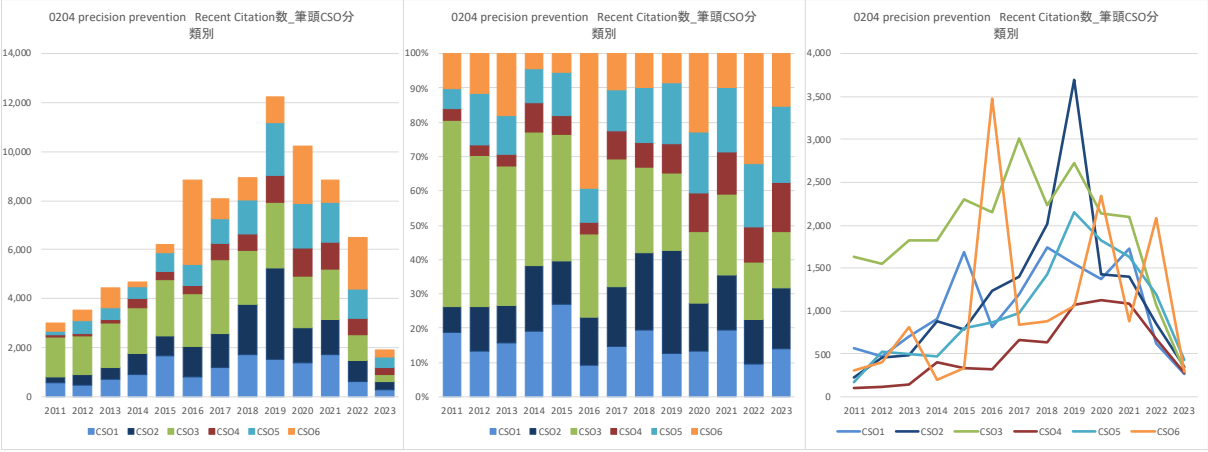




0204 precision prevention Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,623	2,124	2,550	2,554	3,536	4,826	4,615	4,292	6,157	4,249	4,453	2,200	818	31	44,028
United Kingdom	582	149	720	486	607	300	469	818	860	674	804	1,135	146	5	7,755
China	41	126	277	428	529	917	1,356	2,209	1,991	2,403	2,240	2,853	587	32	15,989
Japan	152	177	197	65	84	214	426	200	115	92	203	72	57	1	2,055
others	1,781	2,628	2,381	2,615	3,235	7,124	3,834	4,987	7,268	7,376	6,108	4,041	1,302	94	54,774
合計	4,179	5,204	6,125	6,148	7,991	13,381	10,700	12,506	16,391	14,794	13,808	10,301	2,910	163	124,601

0204 precision prevention Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	38.8%	40.8%	41.6%	41.5%	44.2%	36.1%	43.1%	34.3%	37.6%	28.7%	32.2%	21.4%	28.1%	19.0%	35.3%
United Kingdom	13.9%	2.9%	11.8%	7.9%	7.6%	2.2%	4.4%	6.5%	5.2%	4.6%	5.8%	11.0%	5.0%	3.1%	6.2%
China	1.0%	2.4%	4.5%	7.0%	6.6%	6.9%	12.7%	17.7%	12.1%	16.2%	16.2%	27.7%	20.2%	19.6%	12.8%
Japan	3.6%	3.4%	3.2%	1.1%	1.1%	1.6%	4.0%	1.6%	0.7%	0.6%	1.5%	0.7%	2.0%	0.6%	1.6%
others	42.6%	50.5%	38.9%	42.5%	40.5%	53.2%	35.8%	39.9%	44.3%	49.9%	44.2%	39.2%	44.7%	57.7%	44.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

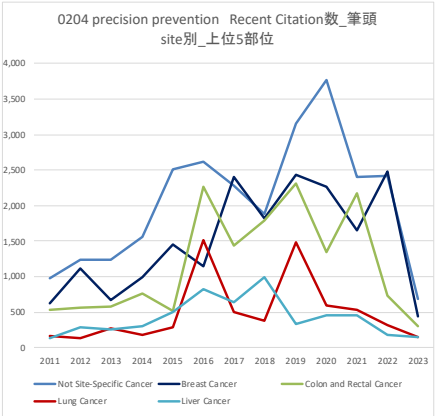
Precision prevention の CSO 分類別の引用数は、CSO3 Prevention が最も多いと推計された。ついで CSO2 Etiology、CSO6 Cancer Control, Survivorship, and Outcomes Research の順に多いと推計された。



0204 precision prevention Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	561	465	705	903	1,682	814	1,189	1,737	1,549	1,370	1,729	620	266	16	13,606
2 Etiology	231	457	481	886	781	1,235	1,395	2,018	3,690	1,430	1,401	853	347	32	15,237
3 Prevention	1,628	1,556	1,819	1,826	2,301	2,154	3,014	2,228	2,719	2,142	2,097	1,073	313	11	24,881
4 Early Detection, Diagnosis, and Prognosis	102	116	149	403	336	314	665	638	1,069	1,125	1,084	671	277	31	6,980
5 Treatment	173	524	495	471	796	869	982	1,426	2,151	1,830	1,634	1,200	428	17	12,996
6 Cancer Control, Survivorship, and Outcomes Research	308	409	810	199	336	3,477	841	877	1,052	2,341	882	2,077	294	12	13,915
others	1,191	1,677	1,671	1,460	1,759	4,801	2,628	3,631	4,175	4,556	5,003	3,823	1,001	44	36,986
合計	4,179	5,204	6,125	6,148	7,991	13,381	10,700	12,506	16,391	14,794	13,808	10,301	2,910	163	124,601

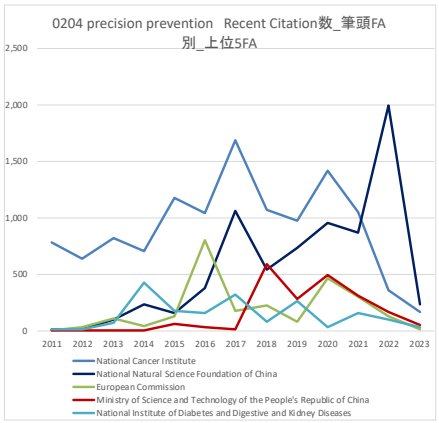
0204 precision prevention Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	13.4%	8.9%	11.5%	14.7%	21.0%	6.1%	11.1%	13.9%	9.5%	9.3%	12.5%	6.0%	9.1%	9.8%	10.9%
2 Etiology	5.5%	8.8%	7.9%	14.4%	9.8%	9.2%	13.0%	16.1%	22.5%	9.7%	10.1%	8.3%	11.9%	19.6%	12.2%
3 Prevention	39.0%	29.9%	29.7%	29.7%	28.8%	16.1%	28.2%	17.8%	16.6%	14.5%	15.2%	10.4%	10.8%	6.7%	20.0%
4 Early Detection, Diagnosis, and Prognosis	2.4%	2.2%	2.4%	6.6%	4.2%	2.3%	6.2%	5.1%	6.5%	7.6%	7.9%	6.5%	9.5%	19.0%	5.6%
5 Treatment	4.1%	10.1%	8.1%	7.7%	10.0%	6.5%	9.2%	11.4%	13.1%	12.4%	11.8%	11.6%	14.7%	10.4%	10.4%
6 Cancer Control, Survivorship, and Outcomes Research	7.4%	7.9%	13.2%	3.2%	4.2%	26.0%	7.9%	7.0%	6.4%	15.8%	6.4%	20.2%	10.1%	7.4%	11.2%
others	28.5%	32.2%	27.3%	23.7%	22.0%	35.9%	24.6%	29.0%	25.5%	30.8%	36.2%	37.1%	34.4%	27.0%	29.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision prevention の臓器別の引用数は、Not Site-specific Cancer が最も多く、ついで乳がん、大腸がんの順であった。



0204 precision prevention Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	977	1,234	1,232	1,562	2,508	2,617	2,284	1,879	3,152	3,764	2,405	2,415	681	48	26,758
Breast Cancer	630	1,113	671	1,001	1,449	1,147	2,398	1,821	2,433	2,271	1,656	2,474	438	12	19,514
Colon and Rectal Cancer	539	567	580	766	512	2,267	1,433	1,789	2,316	1,348	2,181	735	312	12	15,357
Lung Cancer	167	137	280	184	294	1,509	507	376	1,488	598	534	313	157	13	6,557
Liver Cancer	143	285	265	304	502	819	642	1,001	331	464	461	186	145	15	5,563
Esophageal / Oesophageal Cancer	324	126	476	141	248	422	179	312	312	516	352	98	54	4	3,564
Cervical Cancer	63	105	129	102	124	338	255	690	299	366	422	271	87	12	3,263
Melanoma	62	102	95	290	118	150	241	272	266	208	521	185	55	5	2,570
Leukemia / Leukaemia	64	43	60	85	146	203	60	653	232	298	439	195	31	2	2,511
Prostate Cancer	61	154	115	46	141	146	230	295	238	276	303	123	44	0	2,172

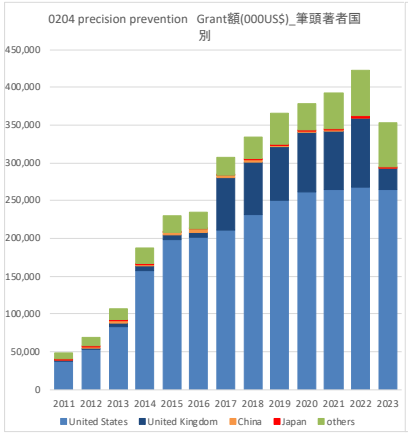
Precision prevention の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、European Commission の順であった。

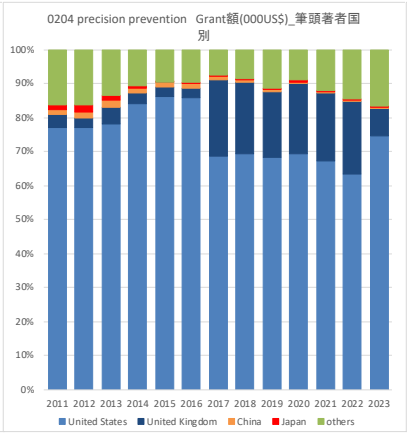


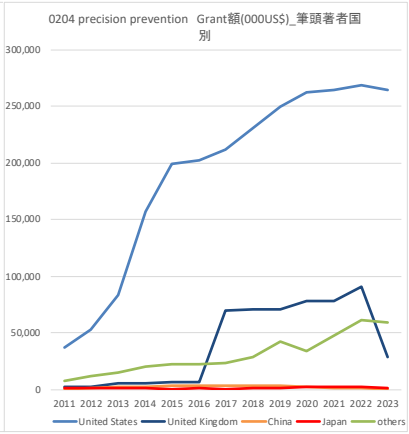
0204 precision prevention Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	779	640	822	703	1,176	1,043	1,687	1,066	977	1,417	1,049	362	163	8	11,892
National Natural Science Foundation of China	9	13	104	234	156	377	1,058	545	729	953	868	1,990	236	14	7,286
European Commission	4	35	106	45	129	799	181	220	80	465	305	124	17	4	2,514
Ministry of Science and Technology of the People's Republic of China	0	0	1	6	65	29	11	589	279	497	311	164	52	0	2,004
National Institute of Diabetes and Digestive and Kidney Diseases	9	13	70	425	175	157	318	82	265	28	156	98	29	0	1,825
Cancer Research UK	3	14	10	123	207	18	36	167	936	0	62	154	37	1	1,768
Medical Research Council	304	45	125	66	362	26	42	294	180	40	13	209	17	0	1,723
National Research Foundation of Korea	2	35	16	27	46	32	60	33	1,113	35	14	53	5	0	1,471
National Heart Lung and Blood Institute	4	74	270	14	48	120	176	19	427	122	65	25	28	0	1,392
Department of Health and Social Care	5	60	154	15	80	42	57	39	362	165	154	30	6	0	1,169

5.4.3. Grant(000US$)額

Precision prevention の研究費総額は経年的に増加傾向にあり、国別の研究費配分額は、大半が米国、ついで英国の順と推計された。



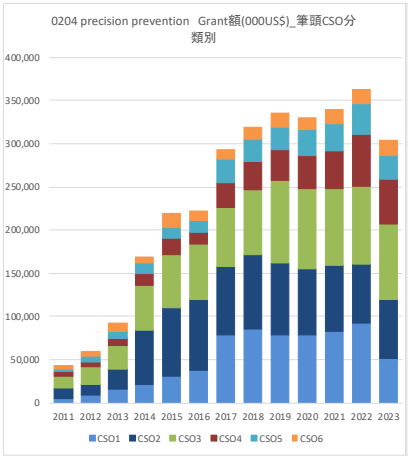


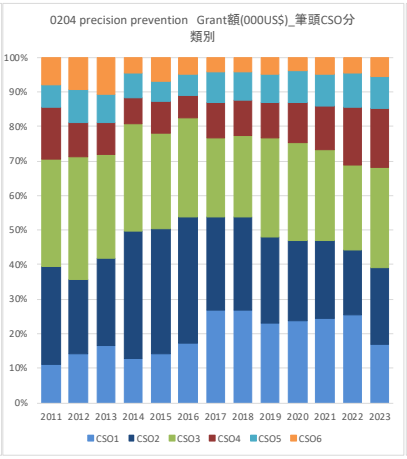


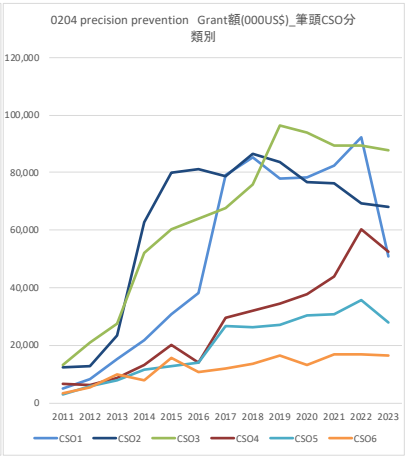
0204 precision prevention Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	37,027	52,794	83,005	157,254	198,623	202,031	211,151	230,935	249,745	262,175	263,898	268,523	263,957	196,355	2,677,471
United Kingdom	1,956	2,112	5,157	5,883	6,077	6,414	69,174	70,216	71,014	77,572	77,792	90,721	28,946	26,693	539,728
China	593	1,052	2,100	2,666	3,238	3,371	3,406	3,163	2,918	2,254	1,604	774	243	243	27,626
Japan	736	1,412	1,475	1,321	574	678	551	778	1,010	1,879	2,074	1,889	1,590	495	16,461
others	7,849	11,307	14,411	19,652	21,847	22,620	23,202	28,688	41,710	34,069	47,142	61,285	59,017	70,956	463,755
合計	48,160	68,678	106,149	186,776	230,358	235,113	307,485	333,781	366,397	377,949	392,510	423,191	353,753	294,742	3,725,042

0204 precision prevention Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	76.9%	76.9%	78.2%	84.2%	86.2%	85.9%	68.7%	69.2%	68.2%	69.4%	67.2%	63.5%	74.6%	66.6%	71.9%
United Kingdom	4.1%	3.1%	4.9%	3.1%	2.6%	2.7%	22.5%	21.0%	19.4%	20.5%	19.8%	21.4%	8.2%	9.1%	14.5%
China	1.2%	1.5%	2.0%	1.4%	1.4%	1.4%	1.1%	0.9%	0.8%	0.6%	0.4%	0.2%	0.1%	0.1%	0.7%
Japan	1.5%	2.1%	1.4%	0.7%	0.2%	0.3%	0.2%	0.2%	0.3%	0.5%	0.5%	0.4%	0.4%	0.2%	0.4%
others	16.3%	16.5%	13.6%	10.5%	9.5%	9.6%	7.5%	8.6%	11.4%	9.0%	12.0%	14.5%	16.7%	24.1%	12.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision prevention の CSO 分類別の研究費配分額は、CSO3 Prevention が最も多く近年増加傾向が強かった。ついで CSO2 Etiology、CSO1 Biology が多いと推計された。



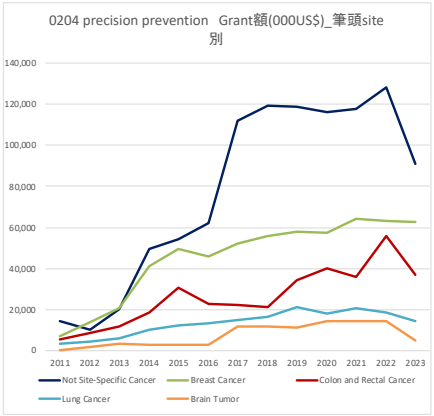




0204 precision prevention Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4,785	8,288	15,383	21,600	30,854	38,234	79,091	85,211	78,012	78,343	82,523	92,046	50,953	42,555	707,879
2 Etiology	12,184	12,735	23,465	62,665	79,846	81,213	78,603	86,343	83,567	76,468	76,449	69,128	68,109	42,175	852,951
3 Prevention	13,334	20,879	27,646	52,171	60,163	63,892	67,821	75,668	96,238	93,708	89,242	89,529	87,775	96,183	934,250
4 Early Detection, Diagnosis, and Prognosis	6,468	5,969	8,599	13,176	20,115	14,108	29,525	31,883	34,632	37,582	43,679	60,256	52,341	40,966	399,299
5 Treatment	2,818	5,601	7,707	11,669	12,572	14,043	26,834	26,227	27,275	30,278	30,620	35,591	27,766	21,072	280,073
6 Cancer Control, Survivorship, and Outcomes Research	3,343	5,476	9,884	7,848	15,491	10,811	11,784	13,723	16,324	13,152	16,661	16,827	16,543	13,733	171,600
others	11,126	19,786	27,529	36,458	39,292	39,687	41,979	44,524	60,878	72,326	76,984	85,379	78,304	61,281	695,533
合計	48,160	68,678	106,149	186,776	230,358	235,113	307,485	333,781	366,397	377,949	392,510	423,191	353,753	294,742	3,725,042

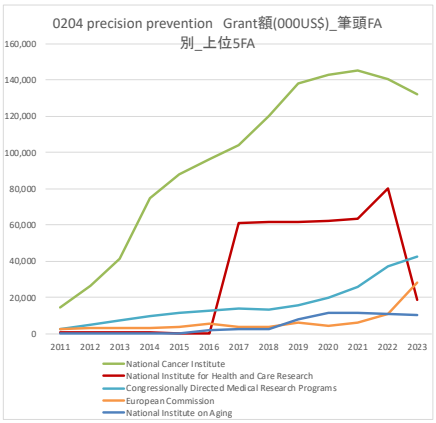
0204 precision prevention Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.9%	12.1%	14.5%	11.6%	13.4%	16.3%	25.7%	25.5%	21.3%	20.7%	21.0%	21.8%	14.4%	14.4%	19.0%
2 Etiology	25.3%	18.5%	22.1%	33.6%	34.7%	34.5%	25.6%	25.9%	22.8%	20.2%	19.5%	16.3%	19.3%	14.3%	22.9%
3 Prevention	27.7%	30.4%	26.0%	27.9%	26.1%	27.2%	22.1%	22.7%	26.3%	24.8%	22.7%	21.2%	24.8%	32.6%	25.1%
4 Early Detection, Diagnosis, and Prognosis	13.4%	8.7%	8.1%	7.1%	8.7%	6.0%	9.6%	9.6%	9.5%	9.9%	11.1%	14.2%	14.8%	13.9%	10.7%
5 Treatment	5.9%	8.2%	7.3%	6.2%	5.5%	6.0%	8.7%	7.9%	7.4%	8.0%	7.8%	8.4%	7.8%	7.1%	7.5%
6 Cancer Control, Survivorship, and Outcomes Research	6.9%	8.0%	9.3%	4.2%	6.7%	4.6%	3.8%	4.1%	4.5%	3.5%	4.2%	4.0%	4.7%	4.7%	4.6%
others	23.1%	28.8%	25.9%	19.5%	17.1%	16.9%	13.7%	13.3%	16.6%	19.1%	19.6%	20.2%	22.1%	20.8%	18.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Precision prevention の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く、ついで乳がん、大腸がんの順と推計された。



0204 precision prevention Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	14,483	10,091	20,332	49,584	54,303	62,366	112,198	119,285	118,834	116,386	117,498	128,318	90,742	79,892	1,094,310
Breast Cancer	7,146	13,826	20,550	41,140	49,570	45,633	51,949	56,072	57,722	57,612	64,344	63,113	62,648	51,546	642,870
Colon and Rectal Cancer	5,346	8,387	11,589	18,850	30,878	22,787	22,137	21,154	34,300	39,848	35,796	55,876	36,725	28,846	372,519
Lung Cancer	3,213	4,591	5,958	10,221	12,366	13,448	14,710	16,430	21,189	18,200	20,678	18,861	14,243	12,070	186,179
Brain Tumor	116	1,758	3,282	2,859	2,721	2,649	11,723	11,694	11,526	14,403	14,204	14,199	4,946	2,742	98,821
Prostate Cancer	2,364	2,009	2,643	5,583	6,746	6,515	6,901	9,126	8,646	8,639	9,400	9,125	6,302	5,604	89,602
Melanoma	410	505	2,273	2,386	3,445	3,730	5,840	5,963	8,332	8,897	11,453	12,418	10,627	9,020	85,299
Cervical Cancer	919	1,914	3,623	2,949	4,721	4,690	8,760	6,941	7,542	9,632	6,106	9,337	6,231	5,784	79,150
Liver Cancer	404	1,420	1,896	1,865	12,052	5,636	5,792	7,263	8,346	4,850	4,530	7,168	5,614	4,756	71,592
Leukemia / Leukaemia	1,040	1,312	2,007	3,363	3,785	5,213	5,859	5,696	6,611	5,768	5,838	6,028	6,482	4,094	63,097

Precision prevention の FA 別の研究費配分額は、米国 NCI が最も多く、ついで英国 NIHR、米国 Congressionally Directed Medical Research Programs の順と推計された。



0204 precision prevention Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	14,383	26,508	41,233	74,965	87,776	96,213	104,215	120,400	138,354	143,045	145,489	140,261	132,181	108,729	1,373,753	United States
National Institute for Health and Care Research	937	937	937	937	470	470	61,309	61,794	61,794	62,585	63,409	80,034	18,596	18,596	432,802	United Kingdom
Congressionally Directed Medical Research Programs	2,527	4,791	7,349	10,038	11,668	12,871	14,002	13,591	15,811	19,708	26,066	37,160	42,404	34,778	252,764	United States
European Commission	2,585	3,029	3,233	2,918	4,004	5,663	3,646	3,872	6,060	4,247	5,898	10,753	28,159	50,323	134,391	Belgium
National Institute on Aging	405	405	405	364	364	2,008	2,409	2,497	8,174	11,468	11,744	11,173	10,106	9,710	71,232	United States
National Institute of Allergy and Infectious Diseases	180	1,827	2,176	3,688	3,799	4,190	4,255	5,337	6,157	6,064	6,046	6,884	7,013	5,354	62,969	United States
National Heart Lung and Blood Institute	1,078	1,831	2,183	3,258	3,800	5,245	5,585	5,585	5,332	6,119	5,645	5,453	5,197	3,119	59,430	United States
Medical Research Council	862	926	2,996	3,148	3,344	3,513	2,740	3,172	3,854	4,518	3,557	4,436	6,065	4,543	47,676	United Kingdom
National Institute of Diabetes and Digestive and Kidney Diseases	326	1,397	2,138	2,659	2,390	3,105	3,745	4,357	3,273	4,011	4,957	4,656	5,201	4,563	46,777	United States
National Institute of General Medical Sciences	6	223	438	1,166	1,887	1,887	1,669	2,094	1,903	1,903	4,057	3,691	3,856	3,400	28,180	United States

5.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0204 precision prevention

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Precision Oncology, Signaling, and Anticancer Agents in Cancer Therapeutics	Advani, Dia; Sharma, Sudhanshu; Kumari, Smita; Ambasta, Rashmi K.; Kumar, Pravir	Anti-Cancer Agents in Medicinal Chemistry		2022	9	Review Article
2	Precision Cut Lung Slices as a Preclinical Model for Non-Small Cell Lung Cancer Chemoprevention.	Sompel, Kayla; Smith, Alex J; Hauer, Caroline; Elango, Alamelu P; Clamby, Eric T; Keith, Robert L; Tennis, Meredith A	Cancer Prevention Research	United States	2023	4	Research Article
3	Targeted Therapy and Personalized Medicine	Saeed, Rida Fatima; Awan, Uzma Azeem; Saeed, Sidra; Mumtaz, Sara; Akhtar, Nosheen; Aslam, Shaista	Cancer Treatment and Research	Pakistan	2023	3	Research Chapter
4	Breast cancer in the era of precision medicine	Sarhangi, Negar; Hajjari, Shahrzad; Heydari, Seyede Fatemeh; Ganjizadeh, Maryam; Rouhollah, Fatemeh; Hasanzad, Mandana	Molecular Biology Reports	Iran	2022	32	Review Article
5	Natural Products in Precision Oncology: Plant-Based Small Molecule Inhibitors of Protein Kinases for Cancer Chemoprevention	Thompson, Henry J.; Lutsiv, Tymofiy	Nutrients	United States	2023	4	Review Article
6	Green Cancer Prevention and Beyond	Ross, Sharon A.; Emenaker, Nancy J.; Kumar, Amit; Riscuta, Gabriela; Biswas, Kajal; Gupta, Shanker; Mohammed, Altaf; Shoemaker, Robert H.	Cancer Prevention Research	United States	2024	0	Review Article
7	Renal cell carcinoma management: A step to nano-chemoprevention	Siddiqi, Aisha; Rani, Madhu; Bansal, Preeti; Rizvi, M Moshahid Alam	Life Sciences	India	2022	13	Review Article
8	Redefining precision cancer prevention to promote health equity	Butler, Eboneé N; Umar, Asad; Heckman-Stoddard, Brandy M; Kundrod, Kathryn A; Signorello, Lisa B; Castle, Philip E	Trends in Cancer	United States	2022	4	Review Article
9	Chemoprevention Considerations in Patients with Hereditary Colorectal Cancer Syndromes	Macaron, Carole; Mankaney, Gautam N; Haider, Mahnur; Mouchli, Mohamad; Hurley, Karen; Burke, Carol A	Gastrointestinal Endoscopy Clinics of North America	United States	2022	5	Review Article
10	Precision and Immunoprevention Strategies for Tobacco-Related Head and Neck Cancer Chemoprevention	Centuori, Sara M.; Caulin, Carlos; Bauman, Julie E.	Current Treatment Options in Oncology	United States	2021	1	Review Article

＜引用＞

Citation: 0204 precision prevention

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Global patterns and trends in colorectal cancer incidence and mortality	Arnold, Melina; Sierra, Mónica S; Laversanne, Mathieu; Soerjomataram, Isabelle; Jemal, Ahmedin; Bray, Freddie	Gut	United States	2016	1345	Research Article
2	Lung cancer: current therapies and new targeted treatments	Hirsch, Fred R; Scagliotti, Giorgio V; Mulshine, James L; Kwon, Regina; Curran, Walter J; Wu, Yi-Long; Paz-Ares, Luis	The Lancet	Italy	2016	1156	Review Article
3	Global burden of colorectal cancer: emerging trends, risk factors and prevention strategies	Keum, NaNa; Giovannucci, Edward	Nature Reviews Gastroenterology & Hepatology	United States	2019	1068	Review Article
4	Cancer incidence and mortality in China, 2016	Zheng, Rongshou; Zhang, Siwei; Zeng, Hongmei; Wang, Shaoming; Sun, Kexin; Chen, Ru; Li, Li; Wei, Wenqiang; He, Jie	Journal of the National Cancer Center	China	2022	1060	Research Article
5	Epidemiology of Pancreatic Cancer: Global Trends, Etiology and Risk Factors	Rawla, Prashanth; Sunkara, Tagore; Gaduputi, Vinaya	World Journal of Oncology	United States	2019	894	Review Article
6	ESPEN guidelines on nutrition in cancer patients	Arends, Jann; Bachmann, Patrick; Baracos, Vickie; Barthelemy, Nicole; Bertz, Hartmut; Bozzetti, Federico; Fearon, Ken; Hütterer, Elisabeth; Isenring, Elizabeth; Kaasa, Stein; Krznaric, Zeljko; Laird, Barry; Larsson, Maria; Laviano, Alessandro; Mühlebach, Stefan; Muscaritoli, Maurizio; Oldervoll, Line; Ravasco, Paula; Solheim, Tora; Strasser, Florian; de van der Schueren, Marian; Preiser, Jean-Charles	Clinical Nutrition	Switzerland	2016	788	Research Article
7	Epithelial ovarian cancer	Lheureux, Stephanie; Gourley, Charlie; Vergote, Ignace; Oza, Amit M	The Lancet	Belgium	2019	708	Review Article
8	Risk Factors and Preventions of Breast Cancer	Sun, Yi-Sheng; Zhao, Zhao; Yang, Zhang-Nv; Xu, Fang; Lu, Hang-Jing; Zhu, Zhi-Yong; Shi, Wen; Jiang, Jianmin; Yao, Ping-Ping; Zhu, Han-Ping	International Journal of Biological Sciences	China	2017	602	Review Article
9	Polycystic ovary syndrome	Azziz, Ricardo; Carmina, Enrico; Chen, ZiJiang; Dunaif, Andrea; Laven, Joop S. E.; Legro, Richard S.; Lizneva, Daria; Natterson-Horowtiz, Barbara; Teede, Helena J.; Yildiz, Bulent O.	Nature Reviews Disease Primers	Turkey	2016	555	Review Article
10	Endometriosis: pathogenesis and treatment	Vercellini, Paolo; Viganò, Paola; Somigliana, Edgardo; Fedele, Luigi	Nature Reviews Endocrinology	Italy	2013	472	Review Article

＜研究費＞

Grant: 0204 precision prevention

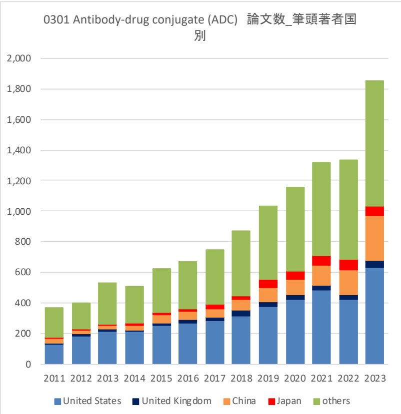
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	NIHR Cambridge BRC	Miles Parkes, John R Bradley	National Institute for Health and Care Research	United Kingdom	226,754,304	2017	2022
2	ECOG-ACRIN NCORP Research Base	LYNNE I. WAGNER, PETER J ODWYER, MITCHELL D. SCHNALL, RUTH C CARLOS	National Cancer Institute	United States	147,095,616	2014	2025
3	Cancer and other NCDs prevention –action on health determinants	0	European Commission	Belgium	82,566,240	2024	2027
4	NIHR Royal Marsden BRC	David Cunningham	National Institute for Health and Care Research	United Kingdom	62,843,596	2017	2022
5	Illinois Precision Medicine Consortium	PHILIP GREENLAND, HABIBUL AHSAN, MARIA ARGOS, BRISEIS A ASCHEBROOK-KILFOY, MARTHA L DAVIGLUS, JOYCE HO	Office of the Director	United States	60,460,508	2018	2023
6	NIHR GOSH BRC	Thomas Voit	National Institute for Health and Care Research	United Kingdom	53,953,856	2017	2022
7	ASPirin in Reducing Events in the Elderly – eXTension	ANNE M MURRAY, ANDREW T CHAN, JOHN JAMES MCNEIL, JOANNE RYAN, DANNY LIEW, ROBYN LORRAINE WOODS, MARK RAYMOND NELSON, RORY WOLFE	National Institute on Aging	United States	42,878,192	2019	2025
8	Birmingham BRC in Inflammation	Philip Newsome	National Institute for Health and Care Research	United Kingdom	37,860,116	2022	2027
9	NIHR Biomedical Research Centre at The Royal Marsden NHS Foundation Trust and The Institute of Cancer Research	David Cunningham	National Institute for Health and Care Research	United Kingdom	36,013,348	2022	2027
10	Toxicological Assessments for the National Toxicology Program	NIGEL J WALKER	National Institute of Environmental Health Sciences	United States	31,890,876	2016	2019

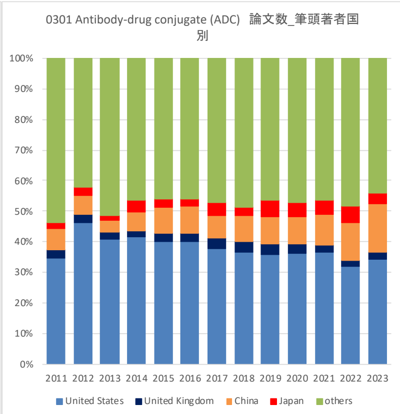
6. テーマ分析：領域 3

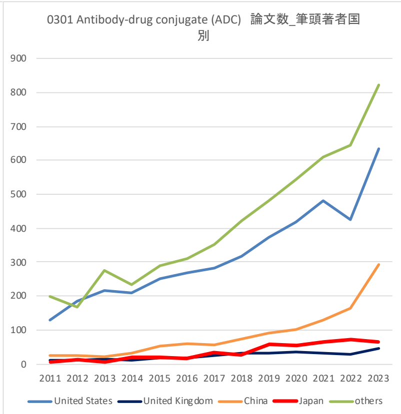
6.1. 0301 Antibody-drug conjugate（ADC）

6.1.1. 論文数

Antibody-drug conjugate (ADC)の論文数は経年的に大きく上昇傾向にあり、国別の論文数はその他の国を除くと、米国が多く経年的にも増加傾向が見られた。次いで、中国、日本の順と推計された。



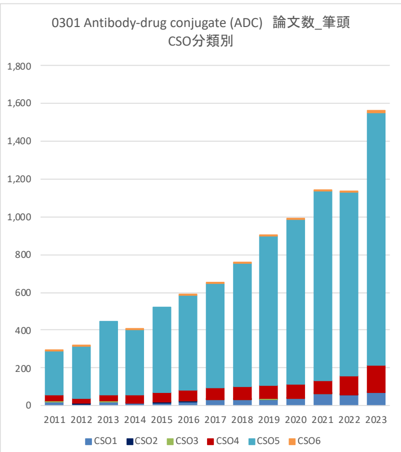


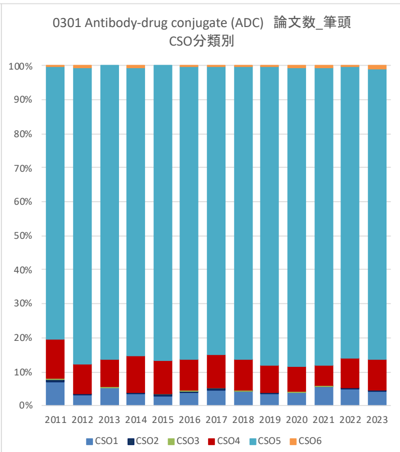


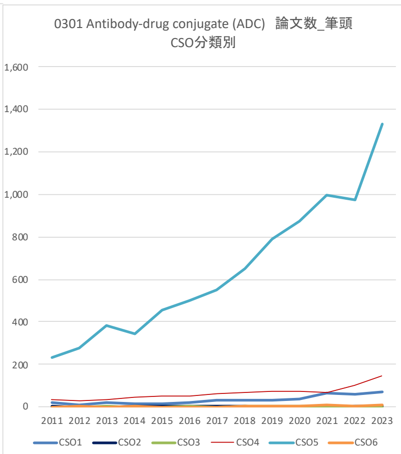
0301 Antibody-drug conjugate (ADC) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	129	184	216	210	251	269	282	317	373	419	482	426	633	327	4,518
United Kingdom	10	11	14	10	17	19	25	32	33	34	32	27	44	23	331
China	26	24	20	32	52	58	55	72	92	103	129	164	294	146	1,267
Japan	7	11	7	19	18	17	32	26	58	53	63	72	63	36	482
others	200	168	274	234	288	309	351	423	481	545	611	645	821	432	5,782
合計	372	398	531	505	626	672	745	870	1,037	1,154	1,317	1,334	1,855	964	12,380

0301 Antibody-drug conjugate (ADC) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.7%	46.2%	40.7%	41.6%	40.1%	40.0%	37.9%	36.4%	36.0%	36.3%	36.6%	31.9%	34.1%	33.9%	36.5%
United Kingdom	2.7%	2.8%	2.6%	2.0%	2.7%	2.8%	3.4%	3.7%	3.2%	2.9%	2.4%	2.0%	2.4%	2.4%	2.7%
China	7.0%	6.0%	3.8%	6.3%	8.3%	8.6%	7.4%	8.3%	8.9%	8.9%	9.8%	12.3%	15.8%	15.1%	10.2%
Japan	1.9%	2.8%	1.3%	3.8%	2.9%	2.5%	4.3%	3.0%	5.6%	4.6%	4.8%	5.4%	3.4%	3.7%	3.9%
others	53.8%	42.2%	51.6%	46.3%	46.0%	46.0%	47.1%	48.6%	46.4%	47.2%	46.4%	48.4%	44.3%	44.8%	46.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Antibody-drug conjugate (ADC)の CSO 分類別の論文数は、大半が CSO5 Treatment であった。



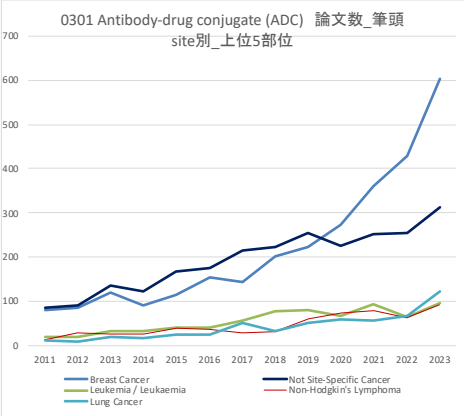




0301 Antibody-drug conjugate (ADC) 論文数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	21	10	23	14	15	22	30	31	33	38	64	58	69	34	462
2 Etiology	2	1	0	2	3	2	4	2	1	1	1	2	3	2	26
3 Prevention	1	0	2	0	1	2	1	2	2	2	2	0	0	0	15
4 Early Detection, Diagnosis, and Prognosis	33	28	35	44	50	54	62	69	72	74	69	100	144	99	933
5 Treatment	235	275	384	346	453	503	550	652	790	874	999	973	1,334	680	9,048
6 Cancer Control, Survivorship, and Outcomes Research	1	2	0	2	0	1	1	2	3	5	7	2	12	12	50
others	79	82	87	97	104	88	97	112	136	160	175	199	293	137	1,846
合計	372	398	531	505	626	672	745	870	1,037	1,154	1,317	1,334	1,855	964	12,380

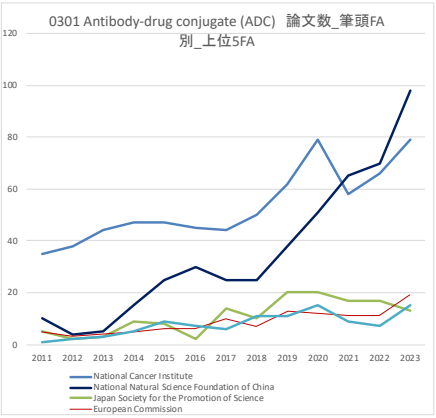
0301 Antibody-drug conjugate (ADC) 論文数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5.6%	2.5%	4.3%	2.8%	2.4%	3.3%	4.0%	3.6%	3.2%	3.3%	4.9%	4.3%	3.7%	3.5%	3.7%
2 Etiology	0.5%	0.3%	0.0%	0.4%	0.5%	0.3%	0.5%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
3 Prevention	0.3%	0.0%	0.4%	0.0%	0.2%	0.3%	0.1%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	8.9%	7.0%	6.6%	8.7%	8.0%	8.0%	8.3%	7.9%	6.9%	6.4%	5.2%	7.5%	7.8%	10.3%	7.5%
5 Treatment	63.2%	69.1%	72.3%	68.5%	72.4%	74.9%	73.8%	74.9%	76.2%	75.7%	75.9%	72.9%	71.9%	70.5%	73.1%
6 Cancer Control, Survivorship, and Outcomes Research	0.3%	0.5%	0.0%	0.4%	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%	0.5%	0.1%	0.6%	1.2%	0.4%
others	21.2%	20.6%	16.4%	19.2%	16.6%	13.1%	13.0%	12.9%	13.1%	13.9%	13.3%	14.9%	15.8%	14.2%	14.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Antibody-drug conjugate (ADC)の臓器別の論文数は、乳がんが最も多く経年的にも大きく上昇傾向が見られ、ついで Not Site-specific Cancer、白血病の順と推計された。



0301 Antibody-drug conjugate (ADC) 論文数_筆頭 site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	81	85	120	92	114	154	143	201	223	274	360	429	602	341	3,219
Not Site-Specific Cancer	86	91	136	124	167	175	214	223	255	226	251	256	313	177	2,694
Leukemia / Leukaemia	20	19	33	34	42	41	56	78	81	68	95	65	97	30	759
Non-Hodgkin's Lymphoma	13	28	27	26	39	37	29	33	61	73	80	64	93	25	628
Lung Cancer	12	9	20	18	25	25	51	34	53	60	56	67	123	63	616
Myeloma	1	6	6	7	2	13	8	23	40	72	88	50	71	20	407
Hodgkin's Disease	13	24	29	28	40	31	29	43	19	30	30	25	32	10	383
Colon and Rectal Cancer	12	7	14	16	30	14	21	30	33	44	29	30	58	39	377
Brain Tumor	10	8	10	19	14	20	32	25	36	18	38	28	37	15	310
Bladder Cancer	2	0	3	0	2	9	9	4	12	26	35	57	67	51	277

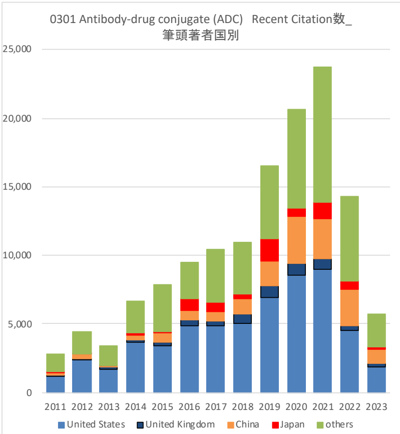
Antibody-drug conjugate (ADC)の FA 別の論文数は、米国 NCI が最も多かったが、近年中国 NSFC の論文数が大きく増加していた。

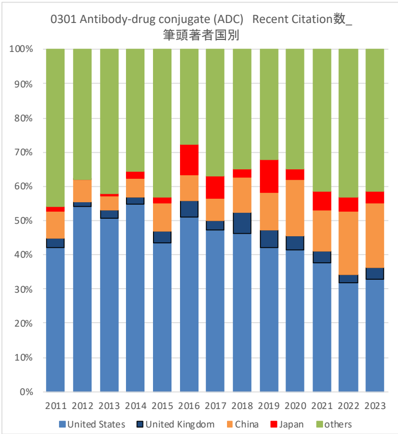


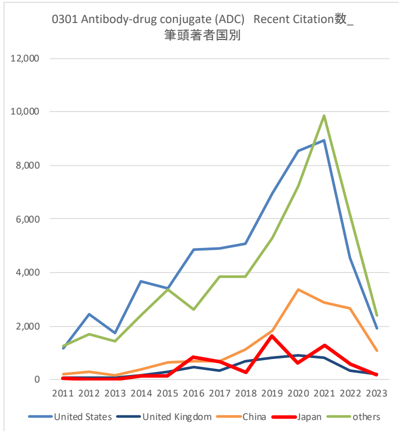
0301 Antibody-drug conjugate (ADC) 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	35	38	44	47	47	45	44	50	62	79	58	66	79	21	715
National Natural Science Foundation of China	10	4	5	15	25	30	25	25	38	51	65	70	98	49	510
Japan Society for the Promotion of Science	5	2	3	9	8	2	14	10	20	20	17	17	13	8	148
European Commission	5	3	4	5	6	6	10	7	13	12	11	11	19	4	116
Ministry of Science and Technology of the People's Republic of China	1	2	3	5	9	7	6	11	11	15	9	7	15	6	107
National Institute of General Medical Sciences	1	4	4	6	5	6	9	8	14	10	7	9	10	3	96
AbbVie (United States)	0	0	0	0	1	2	3	5	4	13	10	7	11	4	60
Deutsche Forschungsgemeinschaft	0	2	2	3	9	4	4	1	4	6	11	3	6	3	58
National Center for Advancing Translational Sciences	2	3	3	2	6	7	4	4	3	5	7	5	6	0	57
Congressionally Directed Medical Research Programs	5	4	3	3	1	2	3	3	3	3	6	3	6	6	51

6.1.2. Recent Citation 数

Antibody-drug conjugate (ADC)の引用数は経年的に大きく増加傾向にあると推計された。国別の引用数は、その他の国を除くと、米国、中国、日本の順に多いと推計された。



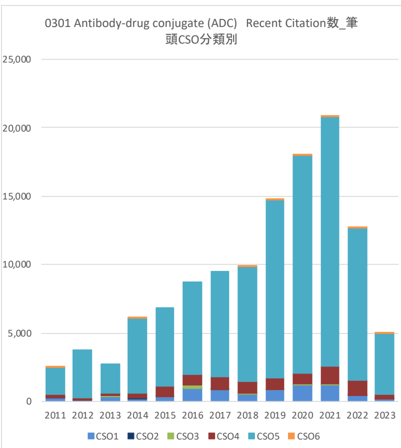


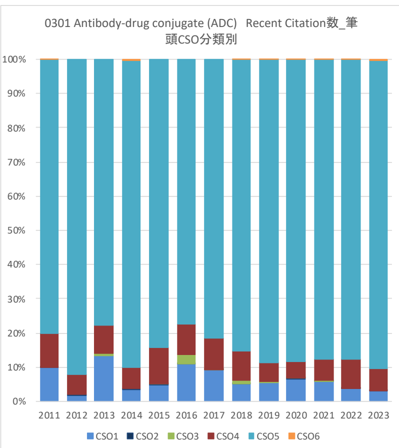


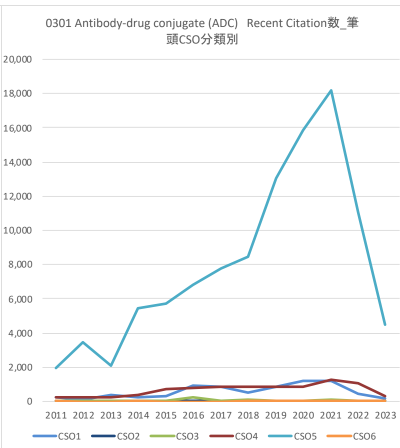
0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,173	2,426	1,739	3,671	3,408	4,835	4,905	5,069	6,954	8,547	8,945	4,568	1,903	60	58,203
United Kingdom	84	64	89	139	283	472	317	680	833	896	810	322	193	4	5,186
China	211	283	137	364	637	686	673	1,133	1,835	3,376	2,894	2,669	1,087	57	16,042
Japan	47	9	23	145	149	857	655	278	1,608	629	1,261	560	186	7	6,414
others	1,277	1,695	1,450	2,376	3,383	2,629	3,861	3,831	5,291	7,231	9,850	6,194	2,396	65	51,529
合計	2,792	4,477	3,438	6,695	7,860	9,479	10,411	10,991	16,521	20,679	23,760	14,313	5,765	193	137,374

0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	42.0%	54.2%	50.6%	54.8%	43.4%	51.0%	47.1%	46.1%	42.1%	41.3%	37.6%	31.9%	33.0%	31.1%	42.4%
United Kingdom	3.0%	1.4%	2.6%	2.1%	3.6%	5.0%	3.0%	6.2%	5.0%	4.3%	3.4%	2.2%	3.3%	2.1%	3.8%
China	7.6%	6.3%	4.0%	5.4%	8.1%	7.2%	6.5%	10.3%	11.1%	16.3%	12.2%	18.6%	18.9%	29.5%	11.7%
Japan	1.7%	0.2%	0.7%	2.2%	1.9%	9.0%	6.3%	2.5%	9.7%	3.0%	5.3%	3.9%	3.2%	3.6%	4.7%
others	45.7%	37.9%	42.2%	35.5%	43.0%	27.7%	37.1%	34.9%	32.0%	35.0%	41.5%	43.3%	41.6%	33.7%	37.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Antibody-drug conjugate (ADC)の CSO 分類別の引用数は、大半が CSO5 Treatment であった、



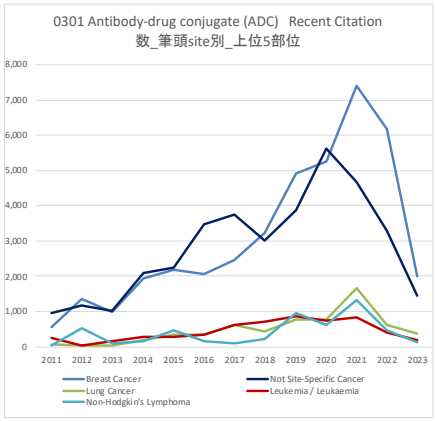




0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	245	70	363	204	330	951	873	498	822	1,190	1,205	460	153	2	7,366
2 Etiology	2	7	0	34	7	10	13	20	0	21	11	2	6	0	133
3 Prevention	0	0	22	0	10	248	3	81	13	42	80	0	0	0	499
4 Early Detection, Diagnosis, and Prognosis	248	215	219	370	735	758	867	840	839	820	1,286	1,086	318	17	8,618
5 Treatment	1,982	3,464	2,115	5,450	5,722	6,797	7,753	8,430	13,064	15,865	18,187	11,079	4,483	135	104,526
6 Cancer Control, Survivorship, and Outcomes Research	1	0	0	15	0	0	0	15	24	20	25	12	20	0	132
others	314	721	719	622	1,056	715	902	1,107	1,759	2,721	2,966	1,674	785	39	16,100
合計	2,792	4,477	3,438	6,695	7,860	9,479	10,411	10,991	16,521	20,679	23,760	14,313	5,765	193	137,374

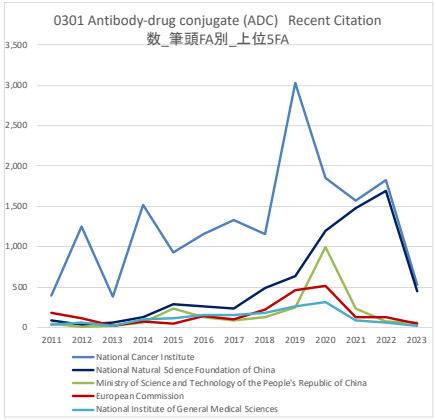
0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	8.8%	1.6%	10.6%	3.0%	4.2%	10.0%	8.4%	4.5%	5.0%	5.8%	5.1%	3.2%	2.7%	1.0%	5.4%
2 Etiology	0.1%	0.2%	0.0%	0.5%	0.1%	0.1%	0.1%	0.2%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%
3 Prevention	0.0%	0.0%	0.6%	0.0%	0.1%	2.6%	0.0%	0.7%	0.1%	0.2%	0.3%	0.0%	0.0%	0.0%	0.4%
4 Early Detection, Diagnosis, and Prognosis	8.9%	4.8%	6.4%	5.5%	9.4%	8.0%	8.3%	7.6%	5.1%	4.0%	5.4%	7.6%	5.5%	8.8%	6.3%
5 Treatment	71.0%	77.4%	61.5%	81.4%	72.8%	71.7%	74.5%	76.7%	79.1%	76.7%	76.5%	77.4%	77.8%	69.9%	76.1%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.0%	0.1%
others	11.2%	16.1%	20.9%	9.3%	13.4%	7.5%	8.7%	10.1%	10.6%	13.2%	12.5%	11.7%	13.6%	20.2%	11.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

臓器別の引用数は、最も多いのが乳がん、ついで Not Site-specific Cancer、肺がんの順であった。



0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	557	1,351	978	1,948	2,188	2,070	2,458	3,218	4,920	5,261	7,394	6,163	1,995	63	40,564
Not Site-Specific Cancer	964	1,183	1,016	2,092	2,236	3,465	3,753	3,010	3,883	5,625	4,679	3,300	1,435	63	36,704
Lung Cancer	69	38	35	198	330	346	625	432	780	770	1,673	612	366	9	6,283
Leukemia / Leukaemia	256	27	146	264	273	325	610	705	864	726	830	397	195	6	5,624
Non-Hodgkin's Lymphoma	23	523	90	155	453	142	87	206	945	616	1,335	478	123	2	5,178
Brain Tumor	48	91	117	201	382	375	376	216	624	250	954	299	98	1	4,032
Myeloma	1	33	13	123	23	93	44	276	630	1,088	1,026	369	132	3	3,854
Bladder Cancer	10	0	1	0	12	270	36	71	363	1,631	621	490	142	16	3,663
Hodgkin's Disease	85	272	70	610	154	384	637	298	52	187	438	299	32	0	3,518
Colon and Rectal Cancer	82	31	90	92	386	135	220	648	337	476	544	182	144	2	3,369

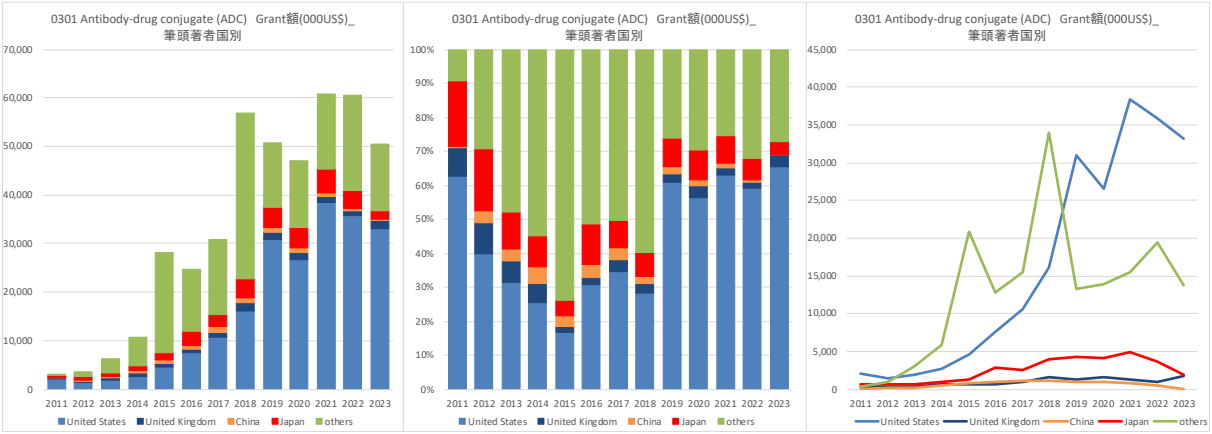
Antibody-drug conjugate (ADC)の FA 別の引用数は、最も多いのは米国 NCI、ついで中国 NSFC の順であった。



0301 Antibody-drug conjugate (ADC) Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	392	1,246	379	1,520	924	1,158	1,337	1,153	3,028	1,851	1,567	1,832	529	7	16,923
National Natural Science Foundation of China	89	27	54	121	282	265	234	493	633	1,203	1,474	1,689	447	21	7,032
Ministry of Science and Technology of the People's Republic of China	52	10	14	61	227	127	81	124	244	999	227	76	60	7	2,309
European Commission	185	112	19	74	41	140	98	217	454	516	125	124	45	0	2,150
National Institute of General Medical Sciences	33	65	15	103	119	156	155	174	262	313	92	60	19	0	1,566
National Heart Lung and Blood Institute	16	489	0	1	0	689	0	46	50	32	30	22	15	1	1,391
Japan Society for the Promotion of Science	47	0	22	48	91	14	207	40	494	129	159	103	26	0	1,380
Gilead Sciences (United States)	0	0	0	0	0	0	58	0	0	0	548	403	123	6	1,138
Italian Association for Cancer Research	5	0	0	12	20	0	46	131	18	48	703	104	30	0	1,117
Cancer Research UK	0	17	17	0	1	208	46	174	450	52	63	60	3	0	1,091

6.1.3. Grant(000US$)額

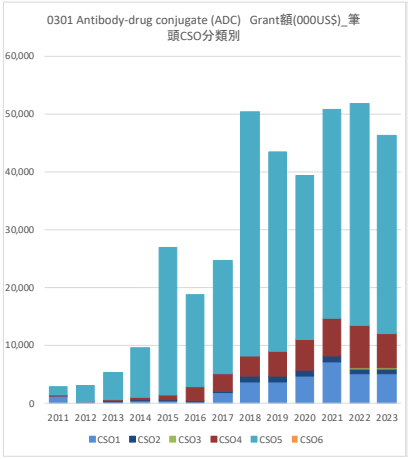
Antibody-drug conjugate (ADC)の研究費総額は経年的に増加傾向が見られたが、2018 年以降は横ばい傾向と推計された。国別の研究費配分額は、米国が最も多く、ついで日本、英国が多いと推計された。

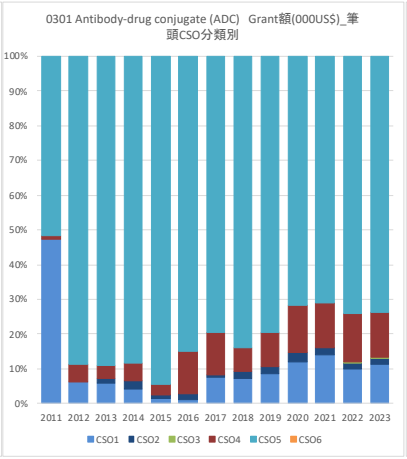


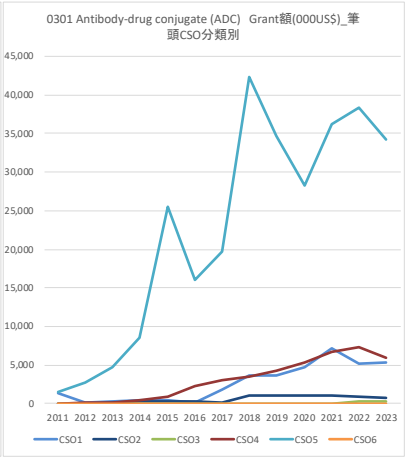
0301 Antibody-drug conjugate (ADC) Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	2,000	1,425	1,970	2,704	4,671	7,565	10,669	16,068	30,894	26,569	38,347	35,786	33,120	27,268	239,055
United Kingdom	267	316	397	591	576	576	1,042	1,654	1,354	1,577	1,269	1,021	1,731	1,562	13,931
China	15	131	219	507	863	958	1,111	1,128	1,003	897	835	474	51	0	8,193
Japan	612	652	674	992	1,293	2,883	2,465	3,997	4,310	4,149	4,855	3,690	1,888	1,657	34,116
others	299	1,039	2,998	5,803	20,835	12,747	15,559	33,921	13,274	13,875	15,520	19,493	13,723	7,616	176,701
合計	3,193	3,563	6,258	10,597	28,238	24,729	30,846	56,768	50,835	47,066	60,825	60,464	50,513	38,103	471,997

0301 Antibody-drug conjugate (ADC) Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	62.6%	40.0%	31.5%	25.5%	16.5%	30.6%	34.6%	28.3%	60.8%	56.4%	63.0%	59.2%	65.6%	71.6%	50.6%
United Kingdom	8.3%	8.9%	6.3%	5.6%	2.0%	2.3%	3.4%	2.9%	2.7%	3.3%	2.1%	1.7%	3.4%	4.1%	3.0%
China	0.5%	3.7%	3.5%	4.8%	3.1%	3.9%	3.6%	2.0%	2.0%	1.9%	1.4%	0.8%	0.1%	0.0%	1.7%
Japan	19.2%	18.3%	10.8%	9.4%	4.6%	11.7%	8.0%	7.0%	8.5%	8.8%	8.0%	6.1%	3.7%	4.3%	7.2%
others	9.4%	29.2%	47.9%	54.8%	73.8%	51.5%	50.4%	59.8%	26.1%	29.5%	25.5%	32.2%	27.2%	20.0%	37.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Antibody-drug conjugate (ADC)の CSO 分類別の研究費配分額は、大半が CSO5 Treatment で、ついで CSO4 Early Detection, Diagnosis and Prognosis、CSO1 Biology と推計された。



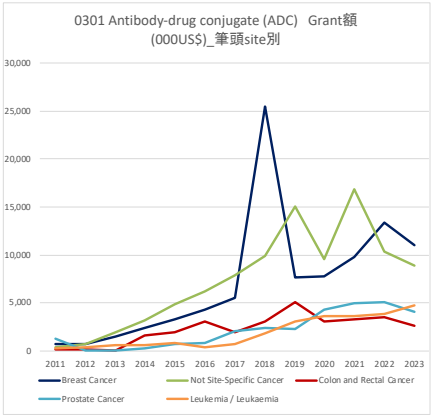




0301 Antibody-drug conjugate (ADC) Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,368	200	308	420	405	190	1,845	3,663	3,691	4,781	7,134	5,185	5,259	3,039	37,489
2 Etiology	0	0	79	222	222	342	199	1,014	1,014	1,014	1,014	815	695	695	7,323
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	208	208	208	625
4 Early Detection, Diagnosis, and Prognosis	30	151	196	482	899	2,303	3,030	3,440	4,232	5,355	6,642	7,238	5,921	4,641	44,562
5 Treatment	1,494	2,785	4,707	8,558	25,502	16,040	19,730	42,272	34,617	28,285	36,133	38,339	34,184	26,352	318,998
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
others	301	428	968	914	1,210	5,854	6,041	6,379	7,281	7,630	9,903	8,678	4,245	3,167	63,000
合計	3,193	3,563	6,258	10,597	28,238	24,729	30,846	56,768	50,835	47,066	60,825	60,464	50,513	38,103	471,997

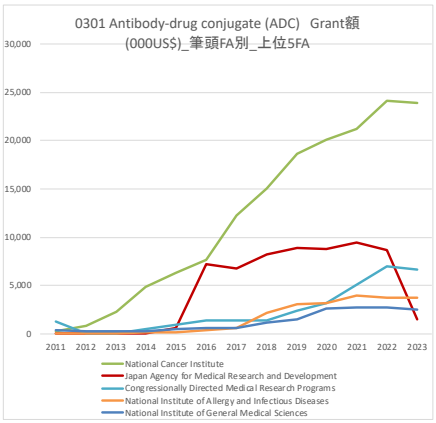
0301 Antibody-drug conjugate (ADC) Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	42.9%	5.6%	4.9%	4.0%	1.4%	0.8%	6.0%	6.5%	7.3%	10.2%	11.7%	8.6%	10.4%	8.0%	7.9%
2 Etiology	0.0%	0.0%	1.3%	2.1%	0.8%	1.4%	0.6%	1.8%	2.0%	2.2%	1.7%	1.3%	1.4%	1.8%	1.6%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%	0.5%	0.1%
4 Early Detection, Diagnosis, and Prognosis	0.9%	4.2%	3.1%	4.6%	3.2%	9.3%	9.8%	6.1%	8.3%	11.4%	10.9%	12.0%	11.7%	12.2%	9.4%
5 Treatment	46.8%	78.2%	75.2%	80.8%	90.3%	64.9%	64.0%	74.5%	68.1%	60.1%	59.4%	63.4%	67.7%	69.2%	67.6%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
others	9.4%	12.0%	15.5%	8.6%	4.3%	23.7%	19.6%	11.2%	14.3%	16.2%	16.3%	14.4%	8.4%	8.3%	13.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Antibody-drug conjugate (ADC)の臓器別の研究費配分額は、乳がんと Not Site-specific Cancer が最も多いと推計された。



0301 Antibody-drug conjugate (ADC) Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	710	716	1,472	2,384	3,300	4,327	5,553	25,440	7,710	7,752	9,832	13,387	10,982	9,401	102,966
Not Site-Specific Cancer	372	726	1,908	3,146	4,808	6,181	7,902	9,850	15,013	9,580	16,877	10,342	8,861	6,392	101,959
Colon and Rectal Cancer	129	129	30	1,551	1,961	3,013	1,899	3,023	5,046	3,095	3,280	3,531	2,645	900	30,231
Prostate Cancer	1,260	0	0	308	669	871	2,029	2,432	2,324	4,295	4,945	5,067	4,036	1,881	30,119
Leukemia / Leukaemia	279	389	654	654	768	425	727	1,863	3,019	3,627	3,608	3,893	4,710	3,725	28,340
Lung Cancer	0	0	0	51	12,993	566	1,683	2,072	1,607	1,454	1,457	1,796	1,801	795	26,276
Brain Tumor	26	378	373	453	884	1,739	1,896	1,430	2,105	2,256	3,599	2,064	1,503	1,030	19,735
Non-Hodgkin's Lymphoma	0	0	26	37	76	76	471	529	965	965	1,372	1,548	1,758	1,758	9,579
Neuroblastoma	0	0	0	0	0	0	827	995	995	1,086	1,185	1,185	1,138	938	8,349
Bladder Cancer	0	460	472	472	472	562	550	550	520	82	417	1,130	1,203	1,365	8,255

Antibody-drug conjugate (ADC)の FA 別の研究費配分額は、米国 NCI が最も多く研究費額の増加も多いと推計された。ついでわが国 AMED の順となっていた。



0301 Antibody-drug conjugate (ADC) Grant額 (000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	220	844	2,256	4,860	6,307	7,691	12,269	14,999	18,589	20,114	21,191	24,079	23,850	16,961	174,230	United States
Japan Agency for Medical Research and Development	0	0	0	0	552	7,200	6,766	8,220	8,931	8,803	9,402	8,611	1,465	1,237	61,187	Japan
Congressionally Directed Medical Research Programs	1,260	32	32	501	950	1,355	1,355	1,409	2,379	3,137	5,028	7,002	6,625	4,643	35,707	United States
National Institute of Allergy and Infectious Diseases	0	0	0	143	143	342	630	2,207	3,054	3,137	3,914	3,715	3,715	3,473	24,474	United States
National Institute of General Medical Sciences	340	240	240	240	476	588	588	1,130	1,523	2,563	2,676	2,769	2,517	1,130	17,020	United States
European Commission	0	0	435	435	1,494	1,161	1,105	1,180	300	1,021	947	1,006	2,029	1,850	12,963	Belgium
National Institute of Neurological Disorders and Stroke	0	336	336	336	336	336	573	237	640	640	1,036	1,036	1,064	685	7,591	United States
National Natural Science Foundation of China	15	153	219	468	824	919	1,111	1,110	962	804	645	285	0	0	7,518	China
Japan Society for the Promotion of Science	26	66	88	152	185	556	571	715	697	771	813	485	578	468	6,172	Japan
National Heart Lung and Blood Institute	0	0	0	0	0	0	0	0	551	551	551	651	900	900	4,104	United States

6.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0301 Antibody-drug conjugate (ADC)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Development of Antibody–Drug Conjugates: Future Perspective Towards Solid Tumor Treatment	Pramanik, Dipankar	Anti-Cancer Agents in Medicinal Chemistry	India	2023	1	Review Article
2	A Comparative Analysis of Fibroblast Activation Protein–Targeted Small Molecule–Drug, Antibody–Drug, and Peptide–Drug Conjugates	Zana, Aureliano; Puig-Moreno, Claudia; Bocci, Matilde; Gilardoni, Ettore; Di Nitto, Cesare; Principi, Lucrezia; Ravazza, Domenico; Rotta, Giulia; Prodi, Eleonora; De Luca, Roberto; Neri, Dario; Cazzamalli, Samuele	Bioconjugate Chemistry	Italy	2023	5	Research Article
3	Drug conjugate–based anticancer therapy – Current status and perspectives	Yang, Yuqi; Wang, Shuhang; Ma, Peiwen; Jiang, Yale; Cheng, Keman; Yu, Yue; Jiang, Ning; Miao, Huilei; Tang, Qiyu; Liu, Funan; Zha, Yan; Li, Ning	Cancer Letters	China	2022	32	Review Article
4	Current status and future prospects of antibody–drug conjugates in urological malignancies	Hayashi, Tetsutaro; Hinata, Nobuyuki	International Journal of Urology	Japan	2022	3	Review Article
5	Antibody–drug Conjugates for Breast Cancer Treatment	Sheikh, M. Saeed; Huang, Ying	Recent Patents on Anti-Cancer Drug Discovery		2022	2	Editorial
6	Peptide–drug conjugates: A new paradigm for targeted cancer therapy	Wang, Mo; Liu, Jiawei; Xia, Mingjing; Yin, Libinghan; Zhang, Ling; Liu, Xifu; Cheng, Yu	European Journal of Medicinal Chemistry	China	2024	4	Review Article
7	Antibody–drug conjugates: the new generation of biotechnological therapies against cancer	Melgarejo-Rubio, Guadalupe; Pérez-Tapia, Sonia M; Medina-Rivero, Emilio; Velasco-Velázquez, Marco A	Gaceta Médica de México	Mexico	2023	1	Review Article
8	An update on antibody–drug conjugates in urothelial carcinoma: state of the art strategies and what comes next	D' Angelo, Alberto; Chapman, Robert; Sirico, Marianna; Sobhani, Navid; Catalano, Martina; Mini, Enrico; Roviello, Giandomenico	Cancer Chemotherapy and Pharmacology	Italy	2022	5	Review Article
9	Learn from antibody–drug conjugates: consideration in the future construction of peptide–drug conjugates for cancer therapy	Wu, Mo; Huang, Wei; Yang, Nan; Liu, Yanyong	Experimental Hematology & Oncology	China	2022	17	Review Article
10	Peptide-Drug Conjugates: A New Hope for Cancer Management	Chavda, Vivek P; Solanki, Hetvi K; Davidson, Majid; Apostolopoulos, Vasso; Bojarska, Joanna	Molecules	India	2022	37	Review Article

＜引用＞

Citation: 0301 Antibody-drug conjugate (ADC)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Trastuzumab Deruxtecan in Previously Treated HER2-Low Advanced Breast Cancer	Modi, Shanu; Jacot, William; Yamashita, Toshinari; Sohn, Joohyuk; Vidal, Maria; Tokunaga, Eriko; Tsurutani, Junji; Ueno, Naoto T; Prat, Aleix; Chae, Yee Soo; Lee, Keun Seok; Niikura, Naoki; Park, Yeon Hee; Xu, Binghe; Wang, Xiaojia; Gil-Gil, Miguel; Li, Wei; Pierga, Jean-Yves; Im, Seock-Ah; Moore, Halle C F; Rugo, Hope S; Yerushalmi, Rinat; Zagouri, Flora; Gombos, Andrea; Kim, Sung-Bae; Liu, Qiang; Luo, Ting; Saura, Cristina; Schmid, Peter; Sun, Tao; Gambhire, Dhiraj; Yung, Lotus; Wang, Yibin; Singh, Jasmeet; Vitazka, Patrik; Meinhardt, Gerold; Harbeck, Nadia; Cameron, David A	New England Journal of Medicine	France	2022	1034	Research Article
2	Trastuzumab Emtansine for Residual Invasive HER2-Positive Breast Cancer	von Minckwitz, Gunter; Huang, Chiun-Sheng; Mano, Max S; Loibl, Sibylle; Mamounas, Eleftherios P; Untch, Michael; Wolmark, Norman; Rastogi, Priya; Schneeweiss, Andreas; Redondo, Andres; Fischer, Hans H; Jacot, William; Conlin, Alison K; Arce-Salinas, Claudia; Wapnir, Irene L; Jackisch, Christian; DiGiovanna, Michael P; Fasching, Peter A; Crown, John P; Wülfing, Pia; Shao, Zhimin; Rota Caremoli, Elena; Wu, Haiyan; Lam, Lisa H; Tesarowski, David; Smitt, Melanie; Douthwaite, Hannah; Singel, Stina M; Geyer, Charles E	New England Journal of Medicine	United States	2018	933	Research Article
3	Bladder Cancer	Lenis, Andrew T.; Lec, Patrick M.; Chamie, Karim; MD, MSHS	JAMA	United States	2020	841	Review Article
4	Trastuzumab Deruxtecan in Previously Treated HER2-Positive Breast Cancer	Modi, Shanu; Saura, Cristina; Yamashita, Toshinari; Park, Yeon Hee; Kim, Sung-Bae; Tamura, Kenji; Andre, Fabrice; Iwata, Hiroji; Ito, Yoshinori; Tsurutani, Junji; Sohn, Joohyuk; Denduluri, Neelima; Perrin, Christophe; Aogi, Kenjiro; Tokunaga, Eriko; Im, Seock-Ah; Lee, Keun Seok; Hurvitz, Sara A; Cortes, Javier; Lee, Caleb; Chen, Shuquan; Zhang, Lin; Shahidi, Javad; Yver, Antoine; Krop, Ian	New England Journal of Medicine	Japan	2019	800	Research Article
5	Sacituzumab Govitecan in Metastatic Triple-Negative Breast Cancer	Bardia, Aditya; Hurvitz, Sara A; Tolaney, Sara M; Loirat, Delphine; Punie, Kevin; Oliveira, Mafalda; Brufsky, Adam; Sardesai, Sagar D; Kalinsky, Kevin; Zelnak, Amelia B; Weaver, Robert; Traina, Tiffany; Dalenc, Florence; Aftimos, Philippe; Lynce, Filipa; Diab, Sami; Cortés, Javier; O'Shaughnessy, Joyce; Diéras, Véronique; Ferrario, Cristiano; Schmid, Peter; Carey, Lisa A; Gianni, Luca; Piccart, Martine J; Loibl, Sibylle; Goldenberg, David M; Hong, Quan; Olivo, Martin S; Itri, Loretta M; Rugo, Hope S	New England Journal of Medicine	United States	2021	635	Research Article
6	Trastuzumab Emtansine for HER2-Positive Advanced Breast Cancer	Verma, Sunil; Miles, David; Gianni, Luca; Krop, Ian E; Welslau, Manfred; Baselga, José; Pegram, Mark; Oh, Do-Youn; Diéras, Véronique; Guardino, Ellie; Fang, Liang; Lu, Michael W; Olsen, Steven; Blackwell, Kim	New England Journal of Medicine	Canada	2012	631	Research Article
7							
8	Trastuzumab Deruxtecan in Previously Treated HER2-Positive Gastric Cancer	Shitara, Kohei; Bang, Yung-Jue; Iwasa, Satoru; Sugimoto, Naotoshi; Ryu, Min-Hee; Sakai, Daisuke; Chung, Hyun-Cheol; Kawakami, Hisato; Yabusaki, Hiroshi; Lee, Jeeyun; Saito, Kaku; Kawaguchi, Yoshinori; Kamio, Takahiro; Kojima, Akihito; Sugihara, Masahiro; Yamaguchi, Kensei	New England Journal of Medicine		2020	571	Research Article
9	Trastuzumab Deruxtecan versus Trastuzumab Emtansine for Breast Cancer	Cortés, Javier; Kim, Sung-Bae; Chung, Wei-Pang; Im, Seock-Ah; Park, Yeon Hee; Hegg, Roberto; Kim, Min Hwan; Tseng, Ling-Ming; Petry, Vanessa; Chung, Chi-Feng; Iwata, Hiroji; Hamilton, Erika; Curigliano, Giuseppe; Xu, Binghe; Huang, Chiun-Sheng; Kim, Jee Hyun; Chiu, Joanne W Y; Pedrini, Jose Luiz; Lee, Caleb; Liu, Yali; Cathcart, Jillian; Bako, Emarjola; Verma, Sunil; Hurvitz, Sara A	New England Journal of Medicine	United States	2022	563	Research Article
10	Advanced targeted therapies in cancer: Drug nanocarriers, the future of chemotherapy	Pérez-Herrero, Edgar; Fernández-Medarde, Alberto	European Journal of Pharmaceutics and Biopharmaceutics	Spain	2015	546	Review Article

＜研究費＞

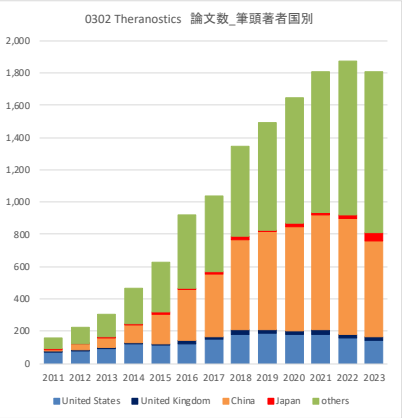
Grant: 0301 Antibody-drug conjugate (ADC)

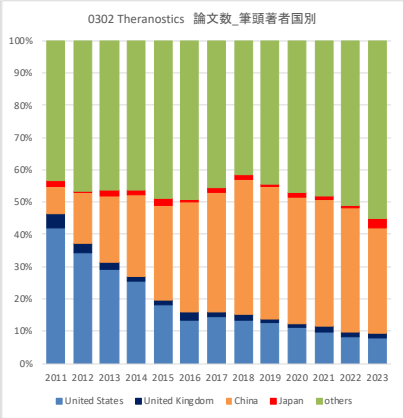
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Advanced technology support in next-generation cancer medicine creation research	Tetsuo Noda	Japan Agency for Medical Research and Development	Japan	34,107,348	2016	2022
2	Clinical Evaluation of AVID100, a Highly Potent Antibody-Drug Conjugate, Focusing on Cancer Indications With High Unmet Medical Need	Ilia Tikhomirov	Cancer Prevention and Research Institute of Texas	United States	18,850,000	2018	0
3	Thoracic and Gastrointestinal Malignancies Branch Clinical Core	RAFFIT HASSAN	National Cancer Institute	United States	15,513,850	2014	2023
4	Armada Pharmaceuticals Inc. New Company Formation for Development of Anti-Cancer Antibody-Drug Conjugate Therapeutics	Ilia Tikhomirov	Cancer Prevention and Research Institute of Texas	United States	12,750,000	2015	0
5	Leveraging DNA damage repair pathways as therapeutic targets in womens cancers	JUNG-MIN LEE	National Cancer Institute	United States	10,728,027	2013	2023
6	Construction and implementation of seamless drug efficacy evaluation system by fusion of technologies from different fields from the viewpoint of drug discovery utilizing imaging	Yasuyoshi Watanabe, Yasuyoshi Watanabe	Japan Agency for Medical Research and Development	Japan	9,291,323	2016	2022
7	Strategies to Overcome Immune Resistance in Head and Neck Cancers	SARA ISABEL PAI, MARK COBBOLD, MIKAEL PITTET, PETER M SADOW, RAMNIK J XAVIER, THORSTEN ROMAN MEMPEL, MAUREEN AGNES SARTOR	National Cancer Institute	United States	8,414,642	2019	2024
8	Mechanisms of pathogenesis in patient derived organoid models of prostate cancer	KATHLEEN KELLY, KATHLEEN SIEBENLIST	National Cancer Institute	United States	7,865,273	2017	2023
9	Applying Optical Approaches to the Drug Delivery Problem	MARTIN SCHNERMANN	National Cancer Institute	United States	7,759,242	2014	2023
10	International Study for Treatment of Childhood Relapsed ALL 2020	0	European Commission	Belgium	6,629,491	2023	2028

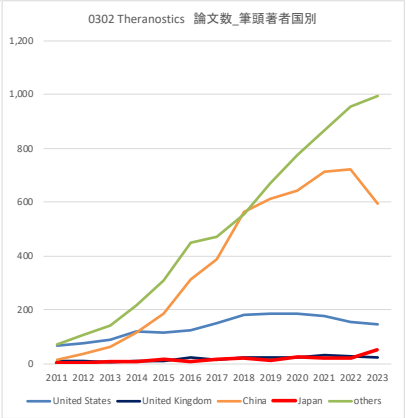
6.2. 0302 Theranostics

6.2.1. 論文数

Theranostics の論文数は経年的に大きく増加傾向があると推計された。国別の論文数は、その他の国を除くと、中国が最も多く、次いで米国の順と推計された。



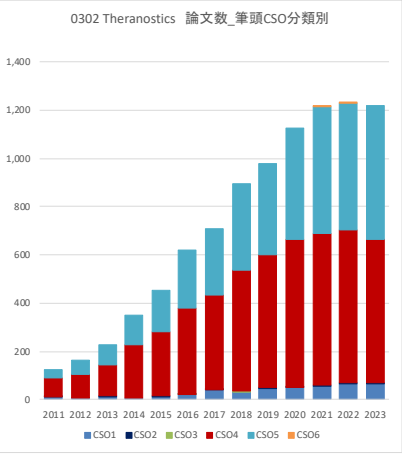


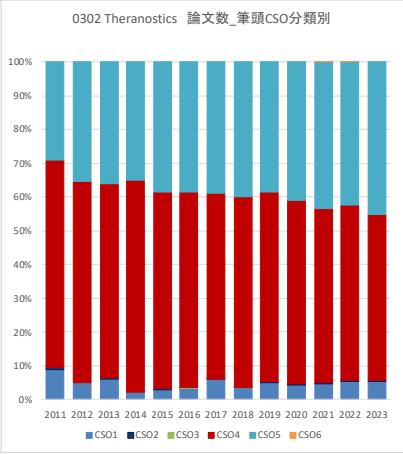


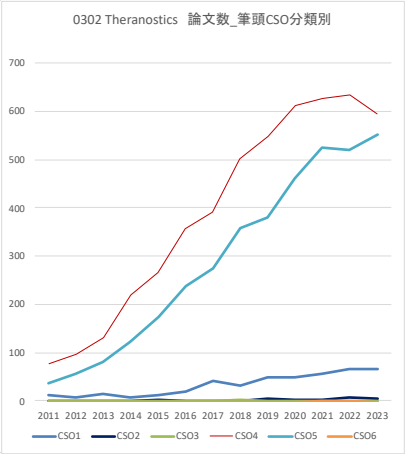
0302 Theranostics 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	67	77	90	118	114	124	152	182	187	183	177	155	144	85	1,855
United Kingdom	7	7	6	8	10	22	13	24	21	21	29	25	23	9	225
China	13	35	63	116	183	313	387	562	610	643	712	722	593	213	5,165
Japan	3	1	6	7	15	9	15	19	11	24	21	19	50	9	209
others	69	105	142	215	307	450	472	556	667	775	866	956	996	437	7,013
合計	159	225	307	464	629	918	1,039	1,343	1,496	1,646	1,805	1,877	1,806	753	14,467

0302 Theranostics 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	42.1%	34.2%	29.3%	25.4%	18.1%	13.5%	14.6%	13.6%	12.5%	11.1%	9.8%	8.3%	8.0%	11.3%	12.8%
United Kingdom	4.4%	3.1%	2.0%	1.7%	1.6%	2.4%	1.3%	1.8%	1.4%	1.3%	1.6%	1.3%	1.3%	1.2%	1.6%
China	8.2%	15.6%	20.5%	25.0%	29.1%	34.1%	37.2%	41.8%	40.8%	39.1%	39.4%	38.5%	32.8%	28.3%	35.7%
Japan	1.9%	0.4%	2.0%	1.5%	2.4%	1.0%	1.4%	1.4%	0.7%	1.5%	1.2%	1.0%	2.8%	1.2%	1.4%
others	43.4%	46.7%	46.3%	46.3%	48.8%	49.0%	45.4%	41.4%	44.6%	47.1%	48.0%	50.9%	55.1%	58.0%	48.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の CSO 分類別の論文数は CSO4 Early Detection, Diagnosis and Prognosis と CSO5 Treatment が最も多いと推計され、特に近年は CSO5 Treatment の増加傾向が顕著と推計された。



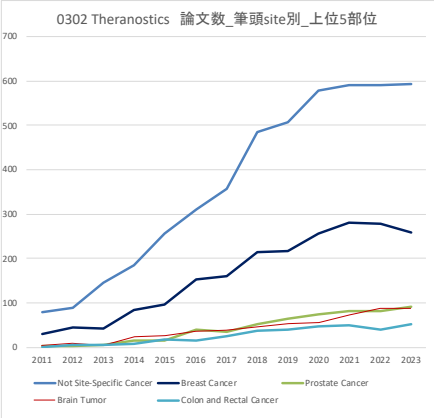




0302 Theranostics 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	11	8	14	8	13	20	42	32	48	50	57	66	67	19	455
2 Etiology	1	0	1	0	2	1	1	0	5	3	3	6	4	2	29
3 Prevention	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
4 Early Detection, Diagnosis, and Prognosis	76	97	130	219	266	358	390	502	549	613	627	634	596	275	5,332
5 Treatment	36	57	82	123	175	239	275	357	379	462	525	521	552	220	4,003
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	1	1	0	1	3
others	35	63	80	114	173	299	331	450	515	518	592	649	587	236	4,642
合計	159	225	307	464	629	918	1,039	1,343	1,496	1,646	1,805	1,877	1,806	753	14,467

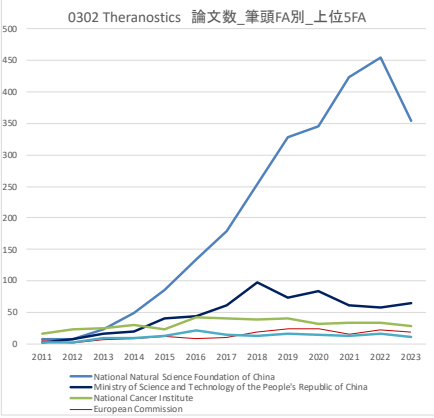
0302 Theranostics 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	6.9%	3.6%	4.6%	1.7%	2.1%	2.2%	4.0%	2.4%	3.2%	3.0%	3.2%	3.5%	3.7%	2.5%	3.1%
2 Etiology	0.6%	0.0%	0.3%	0.0%	0.3%	0.1%	0.1%	0.0%	0.3%	0.2%	0.2%	0.3%	0.2%	0.3%	0.2%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	47.8%	43.1%	42.3%	47.2%	42.3%	39.0%	37.5%	37.4%	36.7%	37.2%	34.7%	33.8%	33.0%	36.5%	36.9%
5 Treatment	22.6%	25.3%	26.7%	26.5%	27.8%	26.0%	26.5%	26.6%	25.3%	28.1%	29.1%	27.8%	30.6%	29.2%	27.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%
others	22.0%	28.0%	26.1%	24.6%	27.5%	32.6%	31.9%	33.5%	34.4%	31.5%	32.8%	34.6%	32.5%	31.3%	32.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の臓器別の論文数は Not Site-specific Cancer が最も多く経年的にも上昇傾向が強く、ついで乳がん、前立腺がんの順と推計された。



0302 Theranostics 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	79	88	145	184	255	310	358	486	506	579	591	591	592	231	4,995
Breast Cancer	31	44	42	83	97	153	160	214	218	255	280	279	258	107	2,221
Prostate Cancer	4	2	5	15	15	39	36	53	64	74	81	81	91	60	620
Brain Tumor	5	10	4	25	27	36	38	46	53	57	73	87	89	29	579
Colon and Rectal Cancer	1	5	6	7	17	15	25	38	40	46	50	39	53	24	366
Lung Cancer	1	7	10	6	15	17	24	30	42	50	41	31	36	17	327
Liver Cancer	0	2	4	10	8	15	12	17	27	25	35	42	35	14	246
Pancreatic Cancer	2	3	2	4	5	21	11	15	14	18	26	37	27	11	196
Melanoma	0	1	6	10	9	11	14	10	20	24	21	22	9	13	170
Ovarian Cancer	4	0	5	5	7	10	8	10	7	15	17	14	17	7	126

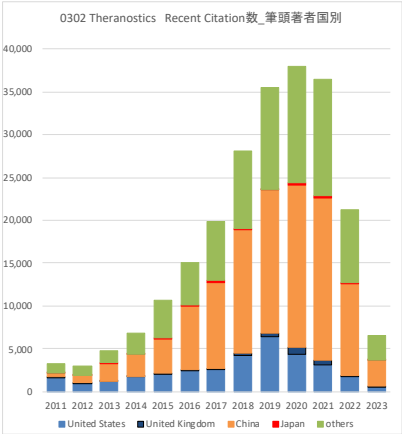
Theranostics の FA 別の論文数は、中国 NSFC が最も多く、ついで中国 Ministry of Science and Technology of the People's Republic of China、米国 NCI の順と推計された。

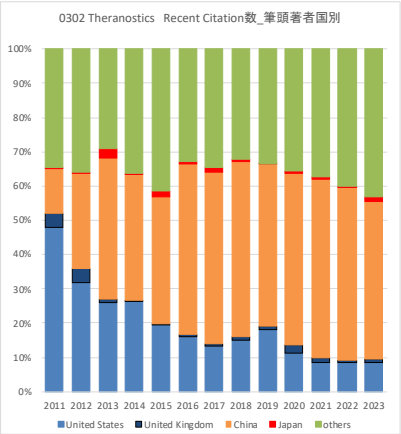


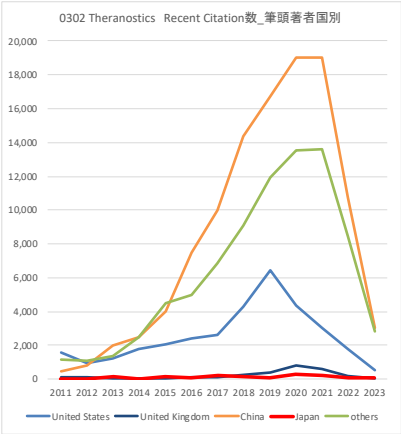
0302 Theranostics 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	7	8	24	49	85	134	180	253	329	346	424	455	355	126	2,775
Ministry of Science and Technology of the People's Republic of China	2	7	17	20	41	44	61	97	73	83	62	57	64	15	643
National Cancer Institute	16	24	25	30	23	43	40	38	40	31	33	34	29	8	414
European Commission	5	1	6	8	12	9	11	18	24	24	15	22	19	9	183
National Research Foundation of Korea	2	2	10	9	13	22	15	13	16	14	12	17	11	4	160
Department of Science and Technology	0	1	1	2	2	6	6	13	7	15	14	19	22	6	114
Deutsche Forschungsgemeinschaft	0	1	1	4	1	6	9	8	6	13	17	14	14	3	97
Japan Society for the Promotion of Science	1	2	6	4	8	6	8	12	8	13	5	9	6	3	91
Fundação para a Ciência e Tecnologia	1	0	0	2	6	3	7	4	7	11	13	9	13	4	80
Science and Engineering Research Board	0	0	0	1	3	4	11	7	10	7	9	8	9	11	80

6.2.2. Recent Citation 数

Theranostics の著者別の引用数は経年的に増加傾向にあり、国別の引用数で最も多いのは中国、ついで米国の順と推計された。



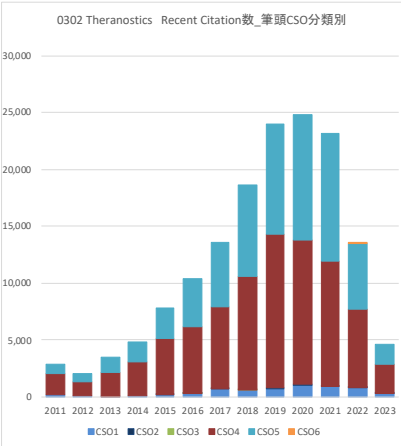


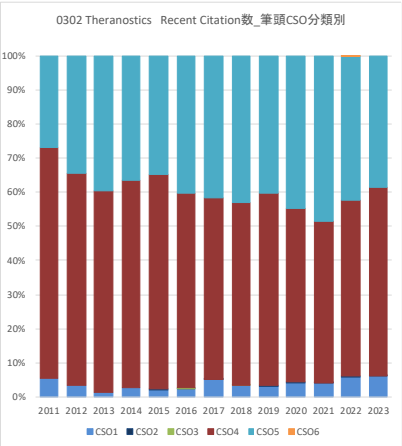


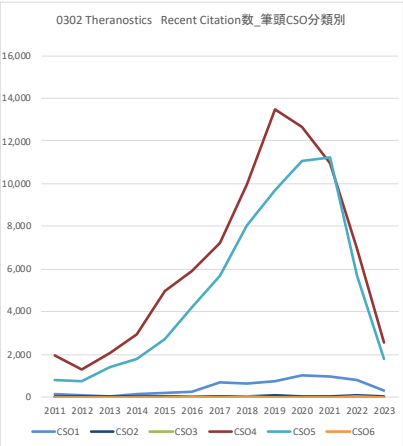
0302 Theranostics Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,583	950	1,236	1,778	2,087	2,422	2,648	4,254	6,406	4,329	3,060	1,770	563	18	33,104
United Kingdom	138	125	39	42	57	131	131	275	407	806	583	170	63	3	2,970
China	426	826	1,958	2,479	3,972	7,486	9,996	14,391	16,730	19,037	19,021	10,716	3,031	81	110,150
Japan	8	16	127	24	154	90	251	176	51	279	249	90	74	0	1,589
others	1,144	1,072	1,372	2,461	4,462	4,976	6,887	9,049	11,909	13,529	13,603	8,456	2,847	122	81,889
合計	3,299	2,989	4,732	6,784	10,732	15,105	19,913	28,145	35,503	37,980	36,516	21,202	6,578	224	229,702

0302 Theranostics Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	48.0%	31.8%	26.1%	26.2%	19.4%	16.0%	13.3%	15.1%	18.0%	11.4%	8.4%	8.3%	8.6%	8.0%	14.4%
United Kingdom	4.2%	4.2%	0.8%	0.6%	0.5%	0.9%	0.7%	1.0%	1.1%	2.1%	1.6%	0.8%	1.0%	1.3%	1.3%
China	12.9%	27.6%	41.4%	36.5%	37.0%	49.6%	50.2%	51.1%	47.1%	50.1%	52.1%	50.5%	46.1%	36.2%	48.0%
Japan	0.2%	0.5%	2.7%	0.4%	1.4%	0.6%	1.3%	0.6%	0.1%	0.7%	0.7%	0.4%	1.1%	0.0%	0.7%
others	34.7%	35.9%	29.0%	36.3%	41.6%	32.9%	34.6%	32.2%	33.5%	35.6%	37.3%	39.9%	43.3%	54.5%	35.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の CSO 分類別の引用数は、CSO4 Early Detection, Diagnosis and Prognosis と CSO5 Treatment が多いと推計された。



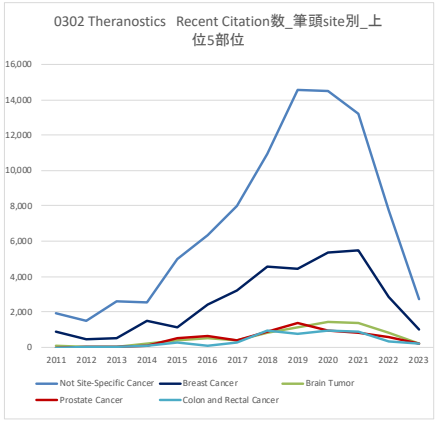




0302 Theranostics Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	157	74	46	140	168	262	691	611	757	1,030	950	770	290	4	5,950
2 Etiology	0	0	0	0	16	1	22	0	75	48	21	67	2	1	253
3 Prevention	0	0	0	0	0	15	0	39	0	0	0	0	0	0	54
4 Early Detection, Diagnosis, and Prognosis	1,947	1,299	2,075	2,937	4,948	5,907	7,222	9,975	13,476	12,667	10,979	6,924	2,561	100	83,017
5 Treatment	768	722	1,383	1,763	2,739	4,189	5,659	8,019	9,678	11,068	11,247	5,708	1,795	64	64,802
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
others	427	894	1,228	1,944	2,861	4,731	6,319	9,501	11,517	13,167	13,319	7,731	1,930	55	75,624
合計	3,299	2,989	4,732	6,784	10,732	15,105	19,913	28,145	35,503	37,980	36,516	21,202	6,578	224	229,702

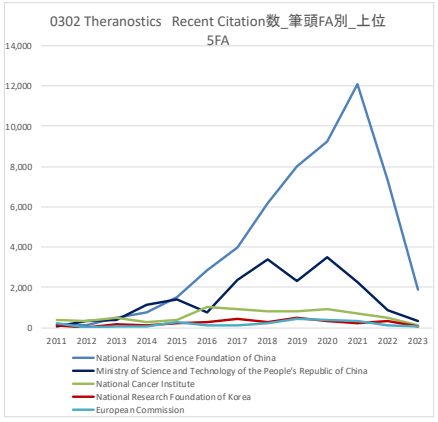
0302 Theranostics Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4.8%	2.5%	1.0%	2.1%	1.6%	1.7%	3.5%	2.2%	2.1%	2.7%	2.6%	3.6%	4.4%	1.8%	2.6%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.2%	0.1%	0.1%	0.3%	0.0%	0.4%	0.1%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	59.0%	43.5%	43.9%	43.3%	46.1%	39.1%	36.3%	35.4%	38.0%	33.4%	30.1%	32.7%	38.9%	44.6%	36.1%
5 Treatment	23.3%	24.2%	29.2%	26.0%	25.5%	27.7%	28.4%	28.5%	27.3%	29.1%	30.8%	26.9%	27.3%	28.6%	28.2%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
others	12.9%	29.9%	26.0%	28.7%	26.7%	31.3%	31.7%	33.8%	32.4%	34.7%	36.5%	36.5%	29.3%	24.6%	32.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の部位分類別の引用数は、Not Site-specific Cancer が最も多く、ついで乳がん、脳腫瘍の順と推計された。



0302 Theranostics Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,909	1,487	2,608	2,573	4,982	6,363	7,992	10,922	14,548	14,493	13,185	7,761	2,720	104	91,647
Breast Cancer	889	488	513	1,497	1,129	2,421	3,232	4,541	4,445	5,348	5,500	2,879	997	32	33,911
Brain Tumor	73	47	33	227	432	496	424	817	1,126	1,442	1,373	854	211	6	7,561
Prostate Cancer	2	17	34	100	522	625	378	911	1,407	968	843	587	232	11	6,637
Colon and Rectal Cancer	1	43	44	71	273	103	304	960	776	923	878	324	228	4	4,932
Lung Cancer	0	36	65	90	146	223	293	360	797	690	600	292	85	1	3,678
Melanoma	0	12	134	153	41	86	614	163	883	488	314	153	30	0	3,071
Liver Cancer	0	3	30	87	57	200	105	269	321	462	373	399	82	4	2,392
Pancreatic Cancer	42	27	49	12	64	151	85	184	250	160	360	365	66	1	1,816
Ovarian Cancer	7	0	7	35	42	78	68	98	138	281	285	58	32	0	1,129

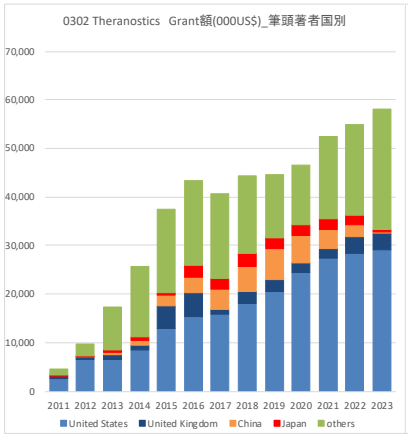
Theranostics の FA 別の引用数は、中国 NSFC が最も多く、ついで中国 Ministry of Science and Technology of the People's Republic of China、米国 NCI の順と推計された。

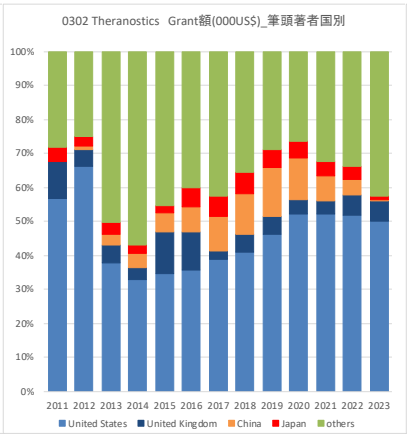


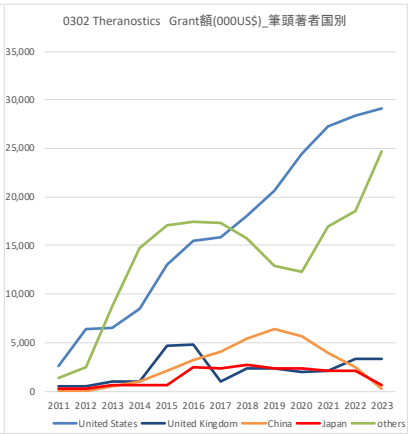
0302 Theranostics Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	195	105	522	784	1,512	2,853	4,000	6,193	7,986	9,225	12,066	7,335	1,899	53	54,728
Ministry of Science and Technology of the People's Republic of China	57	332	401	1,127	1,414	784	2,397	3,411	2,296	3,504	2,266	864	336	2	19,191
National Cancer Institute	387	327	518	295	364	1,011	903	820	802	915	718	485	99	1	7,645
National Research Foundation of Korea	96	17	180	119	245	282	469	260	509	355	229	329	91	1	3,182
European Commission	253	34	46	50	268	147	110	240	469	415	349	144	41	2	2,568
European Research Council	0	0	13	45	193	92	130	146	547	121	298	54	25	4	1,668
Ministry of Science and ICT	0	0	57	0	101	96	72	187	206	119	405	87	50	2	1,382
National Institute of General Medical Sciences	89	10	39	9	34	26	104	180	471	171	81	110	11	0	1,335
Japan Society for the Promotion of Science	8	16	132	23	53	57	196	148	165	315	69	59	19	0	1,260
National Institute of Allergy and Infectious Diseases	0	0	0	0	0	587	146	216	141	117	21	0	0	0	1,228

6.2.3. Grant(000US$)額

Theranostics の研究費総額は経年的に増加傾向にあり、国別の研究費配分額は米国が多く増加傾向にあり、次いで中国と推計された。



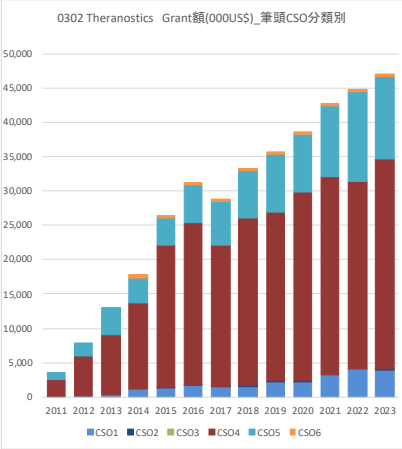


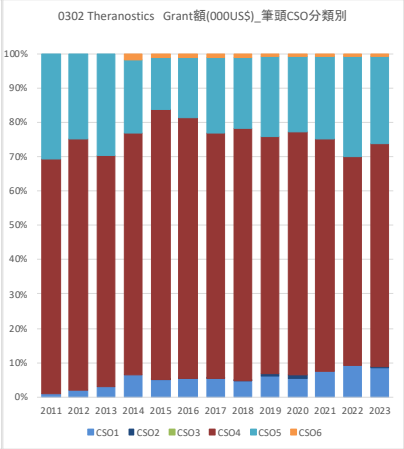


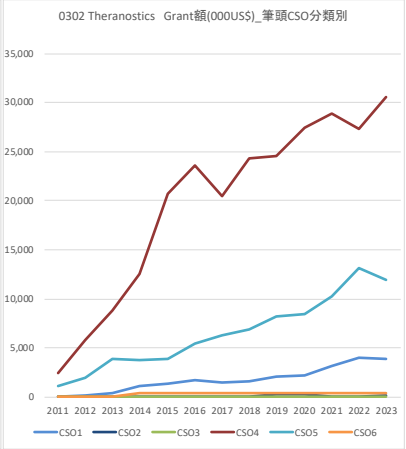
0302 Theranostics Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	2,651	6,415	6,516	8,467	13,002	15,450	15,827	18,087	20,609	24,387	27,288	28,434	29,144	26,226	242,503
United Kingdom	504	504	946	946	4,620	4,852	1,000	2,327	2,299	1,977	2,099	3,324	3,329	2,272	30,999
China	0	75	516	1,045	2,100	3,222	4,126	5,366	6,460	5,631	3,947	2,469	261	154	35,371
Japan	202	293	610	630	674	2,413	2,392	2,695	2,332	2,318	2,154	2,139	650	451	19,952
others	1,315	2,433	8,696	14,695	17,073	17,427	17,318	15,766	12,909	12,348	16,994	18,513	24,671	17,475	197,632
合計	4,671	9,720	17,283	25,783	37,469	43,364	40,663	44,242	44,609	46,661	52,481	54,877	58,055	46,578	526,456

0302 Theranostics Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	56.7%	66.0%	37.7%	32.8%	34.7%	35.6%	38.9%	40.9%	46.2%	52.3%	52.0%	51.8%	50.2%	56.3%	46.1%
United Kingdom	10.8%	5.2%	5.5%	3.7%	12.3%	11.2%	2.5%	5.3%	5.2%	4.2%	4.0%	6.1%	5.7%	4.9%	5.9%
China	0.0%	0.8%	3.0%	4.1%	5.6%	7.4%	10.1%	12.1%	14.5%	12.1%	7.5%	4.5%	0.5%	0.3%	6.7%
Japan	4.3%	3.0%	3.5%	2.4%	1.8%	5.6%	5.9%	6.1%	5.2%	5.0%	4.1%	3.9%	1.1%	1.0%	3.8%
others	28.1%	25.0%	50.3%	57.0%	45.6%	40.2%	42.6%	35.6%	28.9%	26.5%	32.4%	33.7%	42.5%	37.5%	37.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の CSO 分類別の研究費額は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く経年的な上昇傾向も強いと推計された。ついで CSO5 Treatment、CSO1 Biology が多いと推計された。



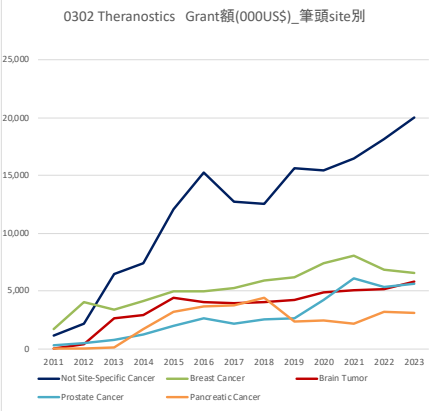




0302 Theranostics Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	30	168	370	1,116	1,333	1,683	1,530	1,567	2,127	2,146	3,202	4,059	3,925	3,876	27,133
2 Etiology	0	0	0	0	47	47	47	47	288	288	0	0	201	201	1,166
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	2,451	5,745	8,770	12,498	20,746	23,604	20,492	24,358	24,585	27,415	28,860	27,307	30,537	23,414	280,783
5 Treatment	1,103	1,975	3,848	3,760	3,907	5,492	6,331	6,925	8,249	8,408	10,236	13,079	11,935	9,526	94,775
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	358	358	358	358	358	358	358	358	358	358	358	3,933
others	1,086	1,831	4,294	8,052	11,077	12,180	11,906	10,987	9,003	8,047	9,825	10,075	11,100	9,204	118,667
合計	4,671	9,720	17,283	25,783	37,469	43,364	40,663	44,242	44,609	46,661	52,481	54,877	58,055	46,578	526,456

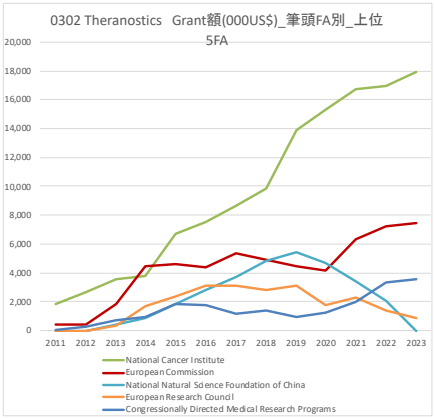
0302 Theranostics Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.7%	1.7%	2.1%	4.3%	3.6%	3.9%	3.8%	3.5%	4.8%	4.6%	6.1%	7.4%	6.8%	8.3%	5.2%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.6%	0.6%	0.0%	0.0%	0.3%	0.4%	0.2%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	52.5%	59.1%	50.7%	48.5%	55.4%	54.4%	50.4%	55.1%	55.1%	58.8%	55.0%	49.8%	52.6%	50.3%	53.3%
5 Treatment	23.6%	20.3%	22.3%	14.6%	10.4%	12.7%	15.6%	15.7%	18.5%	18.0%	19.5%	23.8%	20.6%	20.5%	18.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	1.4%	1.0%	0.8%	0.9%	0.8%	0.8%	0.8%	0.7%	0.7%	0.6%	0.8%	0.7%
others	23.2%	18.8%	24.8%	31.2%	29.6%	28.1%	29.3%	24.8%	20.2%	17.2%	18.7%	18.4%	19.1%	19.8%	22.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Theranostics の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く経年的に増加傾向が見られた。ついで、乳がん、脳腫瘍の順と推計された。



0302 Theranostics Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,123	2,215	6,507	7,432	12,060	15,277	12,765	12,525	15,617	15,437	16,473	18,181	20,001	12,755	168,367
Breast Cancer	1,724	4,004	3,408	4,145	5,026	4,981	5,261	5,888	6,223	7,417	8,092	6,821	6,570	6,084	75,644
Brain Tumor	0	382	2,660	2,914	4,385	4,038	3,929	4,042	4,189	4,854	5,054	5,192	5,777	4,084	51,500
Prostate Cancer	313	541	750	1,203	1,977	2,679	2,186	2,571	2,671	4,187	6,073	5,309	5,598	4,766	40,823
Pancreatic Cancer	0	0	90	1,737	3,169	3,640	3,793	4,406	2,403	2,471	2,176	3,180	3,086	3,109	33,260
Liver Cancer	0	159	159	577	590	951	1,021	1,369	2,084	1,487	1,257	1,116	676	791	12,236
Colon and Rectal Cancer	76	76	108	129	260	364	341	574	981	1,312	1,410	1,420	1,467	1,255	9,772
Ovarian Cancer	0	0	235	326	877	877	877	755	953	727	1,133	908	1,127	863	9,656
Lung Cancer	0	163	200	200	326	382	639	949	938	1,054	725	1,427	1,211	772	8,985
Melanoma	0	0	0	75	240	33	17	261	254	357	671	1,709	803	765	5,185

Theranostics の FA 別の研究費配分額は、米国 NCI が最も多く、ついで European Commission、中国 NSFC の順と推計された。



0302 Theranostics Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	1,874	2,656	3,551	3,786	6,669	7,554	8,620	9,825	13,909	15,305	16,761	16,955	17,922	16,690	142,077	United States
European Commission	386	386	1,861	4,487	4,617	4,403	5,340	4,901	4,430	4,178	6,304	7,222	7,479	6,783	62,776	Belgium
National Natural Science Foundation of China	0	0	426	874	1,863	2,817	3,699	4,824	5,433	4,675	3,420	2,100	0	0	30,130	China
European Research Council	0	0	360	1,696	2,356	3,121	3,121	2,818	3,095	1,759	2,299	1,355	873	1,277	24,131	Belgium
Congressionally Directed Medical Research Programs	30	258	711	934	1,827	1,730	1,133	1,378	961	1,203	1,975	3,303	3,559	2,996	21,999	United States
Japan Agency for Medical Research and Development	0	0	269	269	354	1,881	1,796	1,886	1,617	1,617	1,527	1,551	25	25	12,817	Japan
Medical Research Council	0	0	0	0	4,040	4,134	94	178	263	263	263	1,124	1,334	389	12,080	United Kingdom
National Institute of General Medical Sciences	0	0	0	0	200	258	258	702	801	1,091	1,401	1,202	1,144	547	7,604	United States
Japan Society for the Promotion of Science	202	293	340	361	320	532	596	809	715	731	664	637	640	441	7,280	Japan
Agence Nationale de la Recherche	0	262	404	610	739	739	477	130	0	0	563	886	886	886	6,583	France

6.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0302 Theranostics

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Current status of Cancer Nanotheranostics: Emerging strategies for cancer management	Chavda, Vivek P; Khadela, Avinash; Shah, Yasha; Postwala, Humzah; Balar, Pankti; Vora, Lalit	Nanotheranostics	India	2023	7	Review Article
2	Leveraging macrophages for cancer theranostics	Liu, Lu; Li, Hongjun; Wang, Jinqiang; Zhang, Jinchao; Liang, Xing-Jie; Guo, Weisheng; Gu, Zhen	Advanced Drug Delivery Reviews	China	2022	24	Review Article
3	A concise review on miRNAs as regulators of colon cancer stem cells and associated signalling pathways	Banerjee, Antara; Deka, Dikshita; Muralikumar, Makalakshmi; Sun-Zhang, Alexander; Bisgin, Atil; Christopher, Cynthia; Zhang, Hong; Sun, Xiao-Feng; Pathak, Surajit	Clinical and Translational Oncology	India	2023	2	Review Article
4	Radionuclide-based theranostics — a promising strategy for lung cancer	Zhu, Tianxing; Hsu, Jessica C.; Guo, Jingpei; Chen, Weiyu; Cai, Weibo; Wang, Kai	European Journal of Nuclear Medicine and Molecular Imaging	China	2023	1	Review Article
5	Receptor–Targeted Surface-Engineered Nanomaterials for Breast Cancer Imaging and Theranostic Applications	Ahmad, Javed; Rizwanullah, Md; Suthar, Teeja; Albarqi, Hassan A; Ahmad, Mohammad Zaki; Vuddanda, Parameswara Rao; Khan, Mohammad Ahmed; Jain, Keerti	Critical Reviews in Therapeutic Drug Carrier Systems	Saudi Arabia	2022	15	Review Article
6	Develop companion radiopharmaceutical YKL40 antibodies as potential theranostic agents for epithelial ovarian cancer	Chang, Ming-Cheng; Chiang, Ping-Fang; Kuo, Yu-Jen; Peng, Cheng-Liang; Chen, I-Chun; Huang, Chia-Yen; Chen, Chi-An; Chiang, Ying-Cheng	Biomedicine & Pharmacotherapy	Taiwan	2022	3	Research Article
7	Emulating interactions between microorganisms and tumor microenvironment to develop cancer theranostics	Jiang, Tongmeng; Yang, Tao; Chen, Yingfan; Miao, Yao; Xu, Yajing; Jiang, Honglin; Yang, Mingying; Mao, Chuanbin	Theranostics	China	2022	15	Review Article
8	CXCR4-targeted theranostics in oncology	Buck, Andreas K.; Serfling, Sebastian E.; Lindner, Thomas; Hänscheid, Heribert; Schirbel, Andreas; Hahner, Stefanie; Fassnacht, Martin; Einsele, Hermann; Werner, Rudolf A.	European Journal of Nuclear Medicine and Molecular Imaging	Germany	2022	56	Review Article
9	Concise Biothiol-Activatable HPQ-NBD Conjugate as a Targeted Theranostic Probe for Tumor Cells	Zhang, Yan; Liu, Caiyun; Sun, Weimin; Yu, Ziwen; Su, Meijun; Rong, Xiaodi; Wang, Xin; Wang, Kun; Li, Xiwei; Zhu, Hanchuang; Yu, Miaohui; Sheng, Wenlong; Zhu, Baocun	Analytical Chemistry	China	2022	10	Research Article
10	Biocompatible Polymer Nano-Constructs: A Potent Platform for Cancer Theranostics	Kalita, Himani; Patowary, Manoj	Technology in Cancer Research & Treatment	India	2023	2	Review Article

＜引用＞

Citation: 0302 Theranostics

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Photothermal therapy and photoacoustic imaging via nanotheranostics in fighting cancer	Liu, Yijing; Bhattarai, Pravin; Dai, Zhifei; Chen, Xiaoyuan	Chemical Society Reviews	United States	2019	1115	Review Article
2	New photosensitizers for photodynamic therapy.	Abrahamse, Heidi; Hamblin, Michael R	Biochemical Journal	United States	2016	587	Review Article
3	Upconversion Nanoparticles: Design, Nanochemistry, and Applications in Theranostics	Chen, Guanying; Qiu, Hailong; Prasad, Paras N.; Chen, Xiaoyuan	Chemical Reviews	United States	2014	514	Review Article
4	Hollow MnO2 as a tumor-microenvironment-responsive biodegradable nano-platform for combination therapy favoring antitumor immune responses	Yang, Guangbao; Xu, Ligeng; Chao, Yu; Xu, Jun; Sun, Xiaoqi; Wu, Yifan; Peng, Rui; Liu, Zhuang	Nature Communications	China	2017	464	Research Article
5	Second near-infrared photothermal materials for combinational nanotheranostics	Xu, Cheng; Pu, Kanyi	Chemical Society Reviews	Singapore	2021	459	Review Article
6	Iron oxide nanoparticles: Diagnostic, therapeutic and theranostic applications	Dadfar, Seyed Mohammadali; Roemhild, Karolin; Drude, Natascha I; von Stillfried, Saskia; Knüchel, Ruth; Kiessling, Fabian; Lammers, Twan	Advanced Drug Delivery Reviews	Netherlands	2019	458	Review Article
7	Synthesis of Iron Nanometallic Glasses and Their Application in Cancer Therapy by a Localized Fenton Reaction	Zhang, Chen; Bu, Wenbo; Ni, Dalong; Zhang, Shenjian; Li, Qing; Yao, Zhenwei; Zhang, Jiawen; Yao, Heliang; Wang, Zheng; Shi, Jianlin	Angewandte Chemie International Edition	China	2016	444	Research Article
8	Two-dimensional transition metal carbides and nitrides (MXenes) for biomedical applications	Huang, Kai; Li, Zhongjun; Lin, Jing; Han, Gang; Huang, Peng	Chemical Society Reviews	United States	2018	434	Review Article
9	Nanocatalytic Theranostics with Glutathione Depletion and Enhanced Reactive Oxygen Species Generation for Efficient Cancer Therapy	Fu, Lian-Hua; Wan, Yilin; Qi, Chao; He, Jin; Li, Chunying; Yang, Chen; Xu, Han; Lin, Jing; Huang, Peng	Advanced Materials	China	2021	426	Research Article
10	Dependence of Nanoparticle Toxicity on Their Physical and Chemical Properties	Sukhanova, Alyona; Bozrova, Svetlana; Sokolov, Pavel; Berestovoy, Mikhail; Karaulov, Alexander; Nabiev, Igor	Discover Nano	France	2018	419	Review Article

＜研究費＞

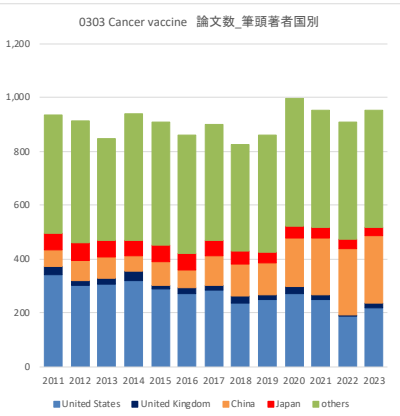
Grant: 0302 Theranostics

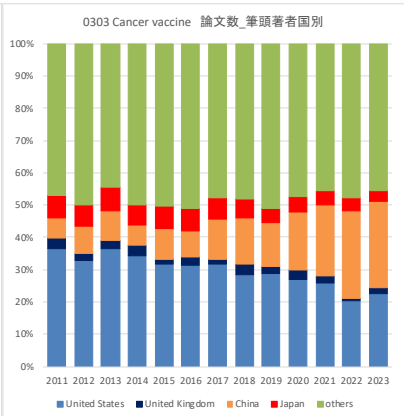
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	NCCR Bio-Inspired Materials: Center for Bio-Inspired Stimuli-Responsive Materials (phase I)	Christoph Weder, Michal Borkovec, Carole Bourquin, Joseph Brader, Nico Bruns, Alke Fink, Katharina M Fromm, Andreas Kilbinger, Marco Lattuada, Barbara Rothen-Rutishauser, Curzio Roberto Rüegg, Frank Scheffold, Francesco Stellacci, André Studart	Swiss National Science Foundation	Switzerland	12,416,202	2014	2018
2	Construction and implementation of seamless drug efficacy evaluation system by fusion of technologies from different fields from the viewpoint of drug discovery utilizing imaging	Yasuyoshi Watanabe, Yasuyoshi Watanabe	Japan Agency for Medical Research and Development	Japan	9,291,323	2016	2022
3	SIRIC- CAncer Research and PErsonalized Medicine (CARPEM)	Pierre LAURENT-PUIG	French National Cancer Institute	France	9,032,258	2013	2017
4	Centre for Image Guided Therapy – A Theranostic Approach to Patients with Cancer	Mark Emberton, Viviane Devauges, David Gadian, Xavier Golay, Ivan Gout, David Hawkes, Mark Lythgoe, Tony Tsz-Cheong Ng, Shonit Punwani, Manuel Rodriguez-Justo, Charles Swanton	Medical Research Council	United Kingdom	8,080,111	2015	2016
5	A National, Theranostic Cyclotron Resource to Drive Fundamental and Translational Medical Science	ROBERT NEAL GOLDEN	Office of the Director	United States	8,000,000	2023	2028
6	Raman Nanotheranostics – RaNT – developing the targeted diagnostics and therapeutics of the future by combining light and functionalised nanoparticles	Nicholas Stone, Jeremy Baumberg, Pavel Matousek, Julian Moger, Francesca Palombo, Oren A. Scherman, Andreas Schä tzlein, Ijeoma Uchegbu	Engineering and Physical Sciences Research Council	United Kingdom	7,670,990	2018	2024
7	Microbubble driven multimodal imaging and theranostics for gliomas	0	European Commission	Belgium	7,063,573	2013	2018
8	Personalized diagnosis and treatment of hyperinsulinemic hypoglycaemia caused by beta-cell pathology	0	European Commission	Belgium	6,951,023	2014	2018
9	Resource for Molecular Imaging Agents in Precision Medicine	MARTIN G POMPER, ZAVER M. BHUJWALLA, JEFF W. BULTE, MICHAEL T MCMAHON	National Institute of Biomedical Imaging and Bioengineering	United States	6,829,622	2017	2024
10	Next-generation theranostics of brain pathologies with autonomous externally controllable nanonetworks: a trans-disciplinary approach with bio-nanodevice interfaces	0	European Commission	Belgium	6,679,617	2019	2023

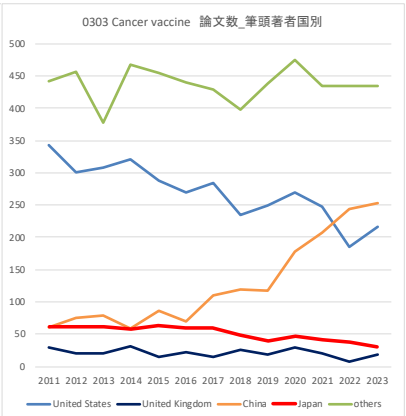
6.3. 0303 Cancer vaccine

6.3.1. 論文数

Cancer vaccine の論文数は経年的に横ばい傾向と推計された。国別の論文数は、その他の国を除くと米国が最も多く、次いで中国の順であったが、近年中国の増加傾向が多く米国を抜いたと推計された。次いで日本の順と推計された。



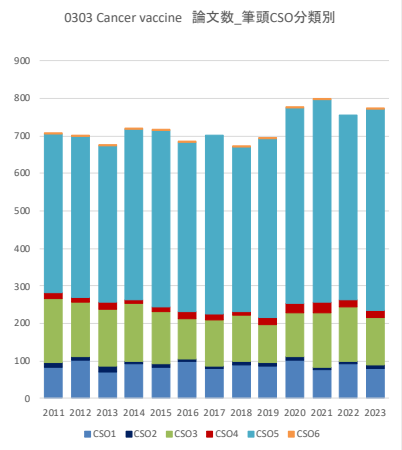


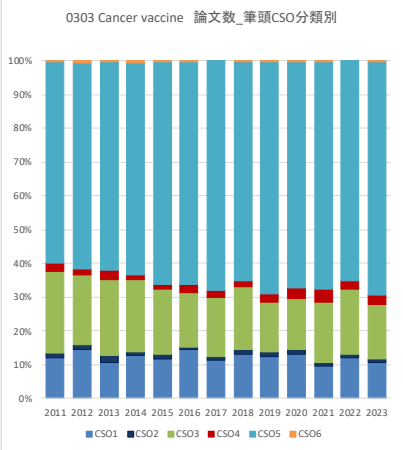


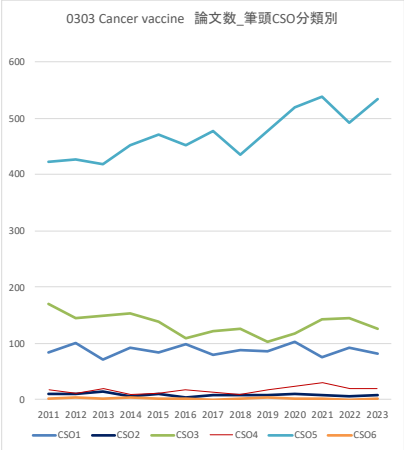
0303 Cancer vaccine　論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	342	301	308	321	288	270	285	235	249	269	247	186	216	99	3,616
United Kingdom	30	20	21	32	14	22	15	26	18	30	21	7	18	6	280
China	61	75	79	59	87	69	110	119	117	178	208	244	253	132	1,791
Japan	62	62	61	58	63	60	60	49	39	46	41	38	31	14	684
others	442	456	377	468	455	440	429	398	439	474	434	434	435	211	5,892
合計	937	914	846	938	907	861	899	827	862	997	951	909	953	462	12,263

0303 Cancer vaccine　論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	36.5%	32.9%	36.4%	34.2%	31.8%	31.4%	31.7%	28.4%	28.9%	27.0%	26.0%	20.5%	22.7%	21.4%	29.5%
United Kingdom	3.2%	2.2%	2.5%	3.4%	1.5%	2.6%	1.7%	3.1%	2.1%	3.0%	2.2%	0.8%	1.9%	1.3%	2.3%
China	6.5%	8.2%	9.3%	6.3%	9.6%	8.0%	12.2%	14.4%	13.6%	17.9%	21.9%	26.8%	26.5%	28.6%	14.6%
Japan	6.6%	6.8%	7.2%	6.2%	6.9%	7.0%	6.7%	5.9%	4.5%	4.6%	4.3%	4.2%	3.3%	3.0%	5.6%
others	47.2%	49.9%	44.6%	49.9%	50.2%	51.1%	47.7%	48.1%	50.9%	47.5%	45.6%	47.7%	45.6%	45.7%	48.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の CSO 分類別の論文数で最も多かったのは、CSO5 Treatment、ついで CSO3 Prevention、CSO1 Biology と推計された。



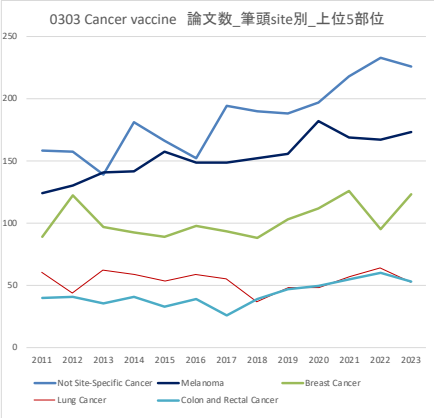




0303 Cancer vaccine　論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	84	101	72	93	83	99	79	89	87	102	76	92	81	32	1,170
2 Etiology	11	11	15	7	10	5	9	9	8	11	8	7	9	4	124
3 Prevention	171	146	150	153	139	110	122	125	103	117	143	145	126	59	1,809
4 Early Detection, Diagnosis, and Prognosis	17	12	19	10	11	18	14	10	17	23	31	20	20	15	237
5 Treatment	422	427	418	453	471	451	478	436	477	520	538	492	534	271	6,388
6 Cancer Control, Survivorship, and Outcomes Research	1	5	2	4	2	1	0	2	3	2	2	0	2	1	27
others	231	212	170	218	191	177	197	156	167	222	153	153	181	80	2,508
合計	937	914	846	938	907	861	899	827	862	997	951	909	953	462	12,263

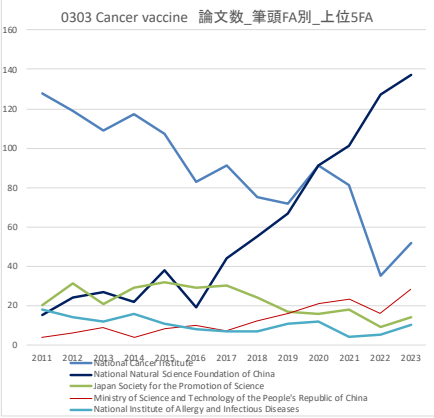
0303 Cancer vaccine　論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.0%	11.1%	8.5%	9.9%	9.2%	11.5%	8.8%	10.8%	10.1%	10.2%	8.0%	10.1%	8.5%	6.9%	9.5%
2 Etiology	1.2%	1.2%	1.8%	0.7%	1.1%	0.6%	1.0%	1.1%	0.9%	1.1%	0.8%	0.8%	0.9%	0.9%	1.0%
3 Prevention	18.2%	16.0%	17.7%	16.3%	15.3%	12.8%	13.6%	15.1%	11.9%	11.7%	15.0%	16.0%	13.2%	12.8%	14.8%
4 Early Detection, Diagnosis, and Prognosis	1.8%	1.3%	2.2%	1.1%	1.2%	2.1%	1.6%	1.2%	2.0%	2.3%	3.3%	2.2%	2.1%	3.2%	1.9%
5 Treatment	45.0%	46.7%	49.4%	48.3%	51.9%	52.4%	53.2%	52.7%	55.3%	52.2%	56.6%	54.1%	56.0%	58.7%	52.1%
6 Cancer Control, Survivorship, and Outcomes Research	0.1%	0.5%	0.2%	0.4%	0.2%	0.1%	0.0%	0.2%	0.3%	0.2%	0.2%	0.0%	0.2%	0.2%	0.2%
others	24.7%	23.2%	20.1%	23.2%	21.1%	20.6%	21.9%	18.9%	19.4%	22.3%	16.1%	16.8%	19.0%	17.3%	20.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の臓器別の論文数で最も多いのは Not Site-specific Cancer、ついでメラノーマ、脳腫瘍の順と推計された。



0303 Cancer vaccine 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	158	157	139	181	166	152	194	190	188	197	218	233	226	117	2,516
Melanoma	124	130	141	142	157	149	149	152	156	182	169	167	173	82	2,073
Breast Cancer	89	122	97	92	89	98	93	88	103	112	126	95	123	51	1,378
Lung Cancer	60	44	62	59	53	59	55	37	48	48	57	64	52	29	727
Colon and Rectal Cancer	40	41	35	41	33	39	26	39	47	49	55	60	53	33	591
Prostate Cancer	69	77	45	44	41	26	34	23	23	34	24	16	25	8	489
Brain Tumor	24	30	25	42	36	24	26	34	21	28	41	27	39	18	415
Cervical Cancer	35	20	38	28	24	27	19	24	17	32	29	21	19	20	353
Pancreatic Cancer	16	13	12	21	26	22	18	24	19	22	18	15	14	7	247
Liver Cancer	12	14	19	17	20	12	21	16	19	22	23	23	17	11	246

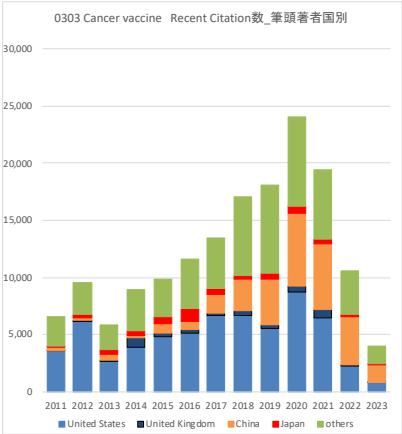
Cancer vaccine の FA 別の論文数で最も多いのは米国 NCI、ついで中国 NSFC、わが国の JSPS と推計され、特に中国 NSFC の増加傾向が顕著であった。

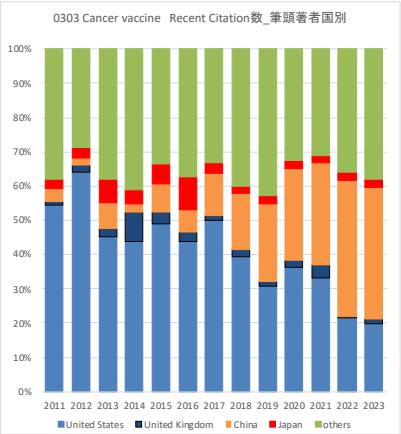


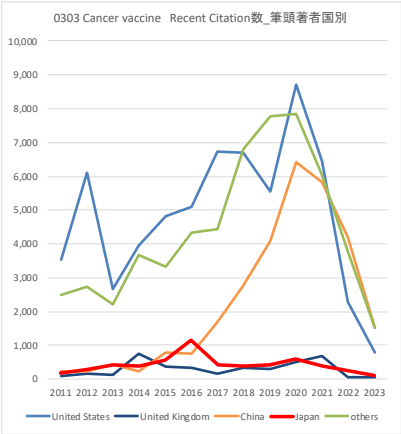
0303 Cancer vaccine 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	128	119	109	117	107	83	91	75	72	91	81	35	52	18	1,178
National Natural Science Foundation of China	15	24	27	22	38	19	44	55	67	91	101	127	137	67	834
Japan Society for the Promotion of Science	20	31	21	29	32	29	30	24	17	16	18	9	14	3	293
Ministry of Science and Technology of the People's Republic of China	4	6	9	4	8	10	7	12	16	21	23	16	28	16	180
National Institute of Allergy and Infectious Diseases	18	14	12	16	11	8	7	7	11	12	4	5	10	3	138
European Commission	3	8	4	8	9	9	7	10	12	9	9	11	11	8	118
Deutsche Forschungsgemeinschaft	8	6	6	8	7	6	7	8	6	6	7	6	3	2	86
Congressionally Directed Medical Research Programs	10	8	5	6	8	7	5	5	5	9	6	3	1	2	80
National Institute of General Medical Sciences	4	3	6	5	8	7	5	3	10	5	7	8	7	0	78
National Center for Advancing Translational Sciences	10	7	9	9	7	6	4	6	4	1	2	6	4	2	77

6.3.2. Recent Citation 数

Cancer vaccine の引用数は経年的に増加傾向が見られた。国別の引用数は、米国が多かったが近年は中国が多い傾向が見られた。



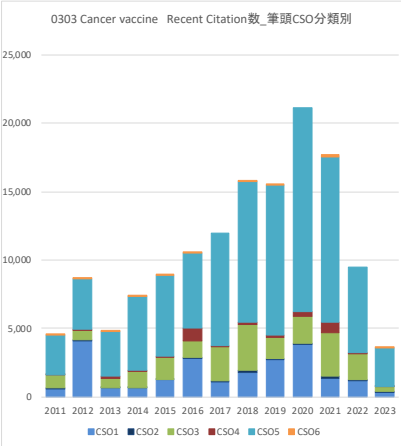


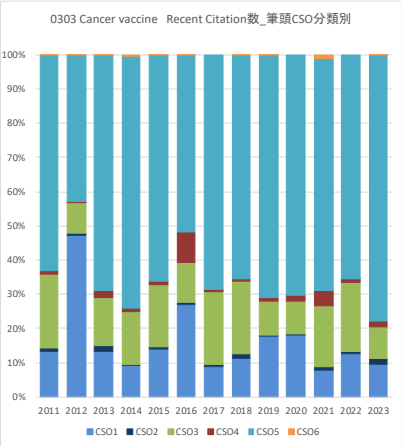


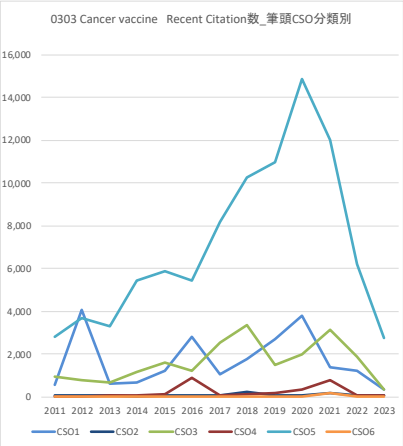
0303 Cancer vaccine Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	3,541	6,119	2,653	3,940	4,822	5,092	6,716	6,698	5,548	8,695	6,469	2,268	786	33	63,380
United Kingdom	87	169	136	745	352	337	164	347	283	517	685	45	53	11	3,931
China	226	213	437	233	795	735	1,673	2,775	4,077	6,403	5,822	4,201	1,532	45	29,167
Japan	188	298	411	372	569	1,146	437	375	436	578	379	262	98	1	5,550
others	2,480	2,731	2,223	3,674	3,312	4,334	4,443	6,814	7,756	7,843	6,052	3,786	1,520	29	56,997
合計	6,522	9,530	5,860	8,964	9,850	11,644	13,433	17,009	18,100	24,036	19,407	10,562	3,989	119	159,025

0303 Cancer vaccine Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	54.3%	64.2%	45.3%	44.0%	49.0%	43.7%	50.0%	39.4%	30.7%	36.2%	33.3%	21.5%	19.7%	27.7%	39.9%
United Kingdom	1.3%	1.8%	2.3%	8.3%	3.6%	2.9%	1.2%	2.0%	1.6%	2.2%	3.5%	0.4%	1.3%	9.2%	2.5%
China	3.5%	2.2%	7.5%	2.6%	8.1%	6.3%	12.5%	16.3%	22.5%	26.6%	30.0%	39.8%	38.4%	37.8%	18.3%
Japan	2.9%	3.1%	7.0%	4.1%	5.8%	9.8%	3.3%	2.2%	2.4%	2.4%	2.0%	2.5%	2.5%	0.8%	3.5%
others	38.0%	28.7%	37.9%	41.0%	33.6%	37.2%	33.1%	40.1%	42.9%	32.6%	31.2%	35.8%	38.1%	24.4%	35.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO1 Biology と推計された。



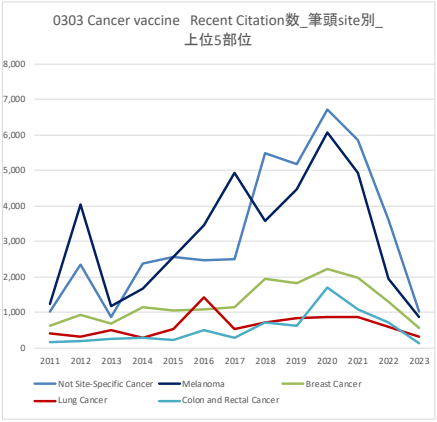




0303 Cancer vaccine Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	591	4,087	635	686	1,245	2,816	1,072	1,747	2,727	3,806	1,368	1,209	336	10	22,335
2 Etiology	58	56	79	10	63	82	77	227	72	84	192	59	59	1	1,119
3 Prevention	956	761	682	1,161	1,596	1,226	2,546	3,358	1,519	2,018	3,151	1,905	331	9	21,219
4 Early Detection, Diagnosis, and Prognosis	47	32	96	67	109	923	76	117	172	368	775	82	58	2	2,924
5 Treatment	2,837	3,694	3,294	5,460	5,861	5,437	8,199	10,290	10,993	14,845	12,027	6,216	2,768	73	91,994
6 Cancer Control, Survivorship, and Outcomes Research	2	5	9	28	4	7	0	1	11	0	196	0	4	11	278
others	2,031	895	1,065	1,552	972	1,153	1,463	1,269	2,606	2,915	1,698	1,091	433	13	19,156
合計	6,522	9,530	5,860	8,964	9,850	11,644	13,433	17,009	18,100	24,036	19,407	10,562	3,989	119	159,025

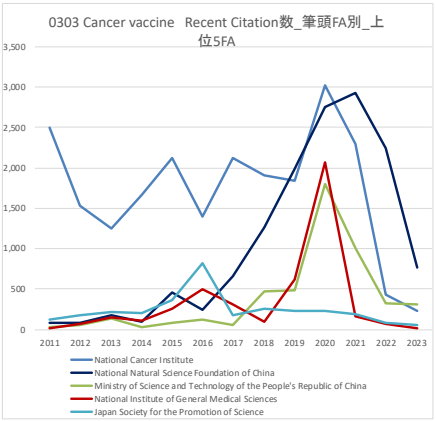
0303 Cancer vaccine Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.1%	42.9%	10.8%	7.7%	12.6%	24.2%	8.0%	10.3%	15.1%	15.8%	7.0%	11.4%	8.4%	8.4%	14.0%
2 Etiology	0.9%	0.6%	1.3%	0.1%	0.6%	0.7%	0.6%	1.3%	0.4%	0.3%	1.0%	0.6%	1.5%	0.8%	0.7%
3 Prevention	14.7%	8.0%	11.6%	13.0%	16.2%	10.5%	19.0%	19.7%	8.4%	8.4%	16.2%	18.0%	8.3%	7.6%	13.3%
4 Early Detection, Diagnosis, and Prognosis	0.7%	0.3%	1.6%	0.7%	1.1%	7.9%	0.6%	0.7%	1.0%	1.5%	4.0%	0.8%	1.5%	1.7%	1.8%
5 Treatment	43.5%	38.8%	56.2%	60.9%	59.5%	46.7%	61.0%	60.5%	60.7%	61.8%	62.0%	58.9%	69.4%	61.3%	57.8%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.1%	0.2%	0.3%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	1.0%	0.0%	0.1%	9.2%	0.2%
others	31.1%	9.4%	18.2%	17.3%	9.9%	9.9%	10.9%	7.5%	14.4%	12.1%	8.7%	10.3%	10.9%	10.9%	12.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の臓器別の引用数は、Not Site-specific Cancer が最も多く、ついでメラノーマ、乳がんの順と推計された。



0303 Cancer vaccine Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,012	2,334	876	2,367	2,548	2,483	2,513	5,498	5,170	6,722	5,864	3,607	1,013	26	42,033
Melanoma	1,227	4,051	1,171	1,660	2,547	3,442	4,925	3,581	4,461	6,077	4,928	1,948	867	16	40,901
Breast Cancer	611	941	679	1,137	1,046	1,091	1,148	1,933	1,815	2,208	1,970	1,309	550	13	16,451
Lung Cancer	414	307	515	292	535	1,409	531	710	848	878	869	583	304	6	8,201
Colon and Rectal Cancer	169	194	263	286	226	511	271	712	620	1,705	1,090	702	127	15	6,891
Brain Tumor	217	184	245	455	418	317	841	1,326	481	730	872	393	140	8	6,627
Pancreatic Cancer	135	83	119	296	574	161	167	572	456	628	410	127	319	0	4,047
Liver Cancer	406	88	62	83	224	75	272	279	381	420	567	313	68	3	3,241
Prostate Cancer	410	299	144	189	255	127	547	156	297	392	222	68	72	0	3,178
Cervical Cancer	108	66	177	202	346	288	173	203	186	369	327	112	46	15	2,618

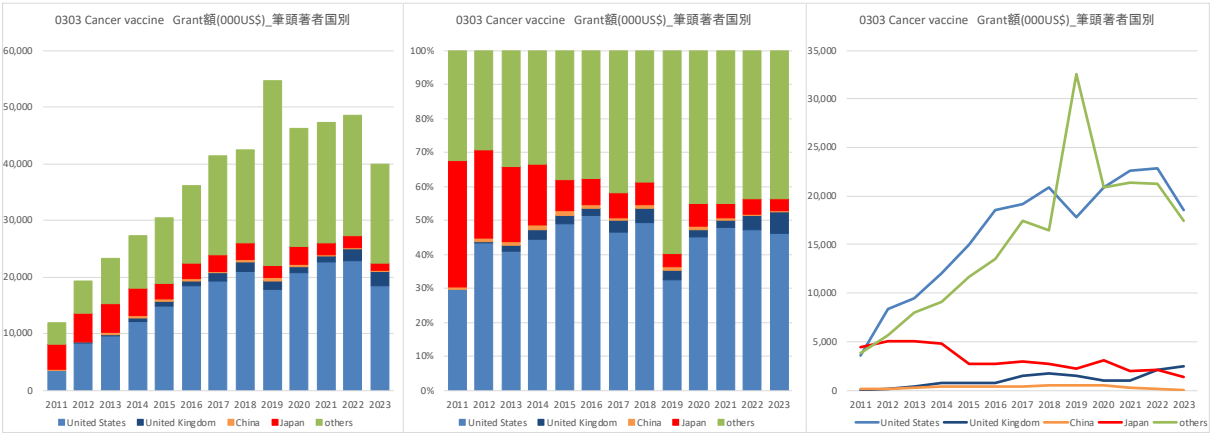
Cancer vaccine の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、中国 Ministry of Science and Technology of the People's Republic of China と推計された。



0303 Cancer vaccine Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	2,496	1,529	1,254	1,661	2,121	1,393	2,123	1,912	1,846	3,023	2,297	429	227	13	22,324
National Natural Science Foundation of China	78	76	182	97	460	243	656	1,263	1,991	2,758	2,925	2,238	764	28	13,759
Ministry of Science and Technology of the People's Republic of China	34	60	138	25	86	125	53	468	487	1,797	1,002	321	316	4	4,916
National Institute of General Medical Sciences	14	70	154	111	257	497	304	92	617	2,062	161	69	14	0	4,422
Japan Society for the Promotion of Science	121	177	222	206	362	822	181	263	229	236	188	85	59	0	3,151
European Commission	33	877	22	333	164	122	148	389	328	235	216	207	55	1	3,130
National Institute of Allergy and Infectious Diseases	155	117	208	698	373	161	57	102	312	451	118	149	81	0	2,982
National Heart Lung and Blood Institute	8	5	30	44	17	911	7	548	60	17	350	12	17	4	2,030
Deutsche Forschungsgemeinschaft	50	21	23	117	70	235	262	103	97	221	275	269	5	0	1,748
National Center for Advancing Translational Sciences	107	33	163	67	54	57	241	341	115	37	9	78	14	0	1,316

6.3.3. Grant(000US$)額

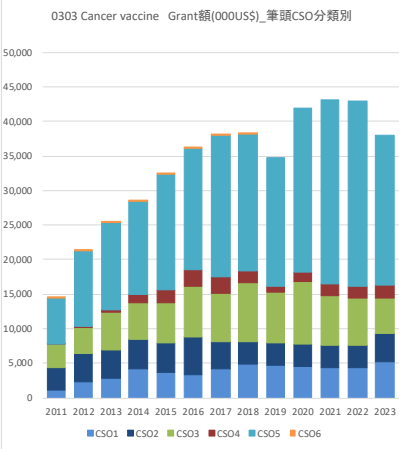
Cancer vaccine の研究費総額は経年的に増加傾向が見られたが、近年は横ばい傾向と推計された。国別の研究費配分額は、その他の国を除くと米国が多く経年的にも増加傾向が見られた。日本は 2011 年時点では最も研究費配分額が多かったが徐々に減少し、近年は米国と英国の方が研究費配分額が多いと推計された。

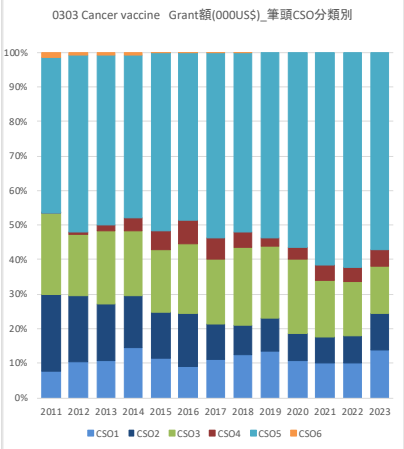


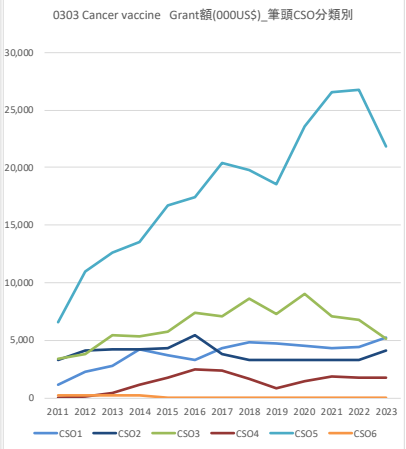
0303 Cancer vaccine Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	3,549	8,358	9,517	12,044	14,941	18,526	19,228	20,933	17,831	20,829	22,601	22,830	18,531	15,206	224,924
United Kingdom	0	104	399	805	805	805	1,439	1,764	1,460	977	1,051	2,155	2,525	1,747	16,037
China	90	182	314	408	425	441	399	480	526	444	309	134	51	51	4,254
Japan	4,428	5,009	5,082	4,808	2,697	2,760	2,947	2,772	2,259	3,070	1,979	2,110	1,414	1,209	42,543
others	3,854	5,635	8,009	9,146	11,660	13,572	17,408	16,429	32,602	20,901	21,320	21,248	17,466	10,877	210,125
合計	11,922	19,286	23,321	27,211	30,529	36,105	41,421	42,377	54,678	46,221	47,260	48,478	39,986	29,089	497,881

0303 Cancer vaccine Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	29.8%	43.3%	40.8%	44.3%	48.9%	51.3%	46.4%	49.4%	32.6%	45.1%	47.8%	47.1%	46.3%	52.3%	45.2%
United Kingdom	0.0%	0.5%	1.7%	3.0%	2.6%	2.2%	3.5%	4.2%	2.7%	2.1%	2.2%	4.4%	6.3%	6.0%	3.2%
China	0.8%	0.9%	1.3%	1.5%	1.4%	1.2%	1.0%	1.1%	1.0%	1.0%	0.7%	0.3%	0.1%	0.2%	0.9%
Japan	37.1%	26.0%	21.8%	17.7%	8.8%	7.6%	7.1%	6.5%	4.1%	6.6%	4.2%	4.4%	3.5%	4.2%	8.5%
others	32.3%	29.2%	34.3%	33.6%	38.2%	37.6%	42.0%	38.8%	59.6%	45.2%	45.1%	43.8%	43.7%	37.4%	42.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の CSO 分類別の研究費配分額は、CSO5 Treatment が最も多く経年的にも増加傾向が見られた。ついで CSO3 Prevention、CSO1 Biology が多く横ばいあるいは微増傾向と推計された。



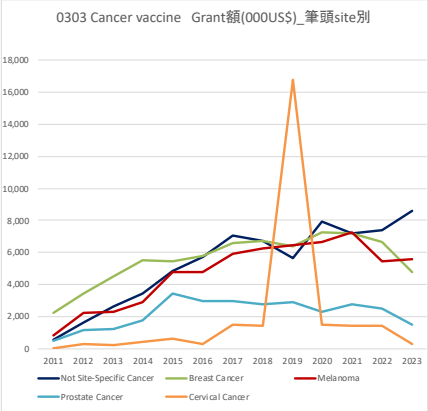




0303 Cancer vaccine Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,106	2,276	2,794	4,184	3,709	3,287	4,264	4,821	4,726	4,546	4,352	4,411	5,223	3,679	53,380
2 Etiology	3,283	4,117	4,162	4,237	4,323	5,479	3,796	3,239	3,270	3,252	3,252	3,252	4,122	298	50,080
3 Prevention	3,402	3,809	5,439	5,369	5,777	7,370	7,118	8,616	7,285	9,040	7,100	6,795	5,160	1,917	84,198
4 Early Detection, Diagnosis, and Prognosis	24	125	366	1,099	1,792	2,456	2,407	1,674	832	1,435	1,838	1,769	1,769	1,755	19,340
5 Treatment	6,601	11,001	12,598	13,521	16,700	17,450	20,368	19,801	18,602	23,598	26,556	26,761	21,779	18,222	253,557
6 Cancer Control, Survivorship, and Outcomes Research	193	193	205	184	11	23	11	11	0	0	0	0	0	0	831
others	341	794	786	1,561	1,051	4,067	6,324	7,080	22,825	7,194	7,005	8,334	4,778	3,218	75,357
合計	11,922	19,286	23,321	27,211	30,529	36,105	41,421	42,377	54,678	46,221	47,260	48,478	39,986	29,089	497,881

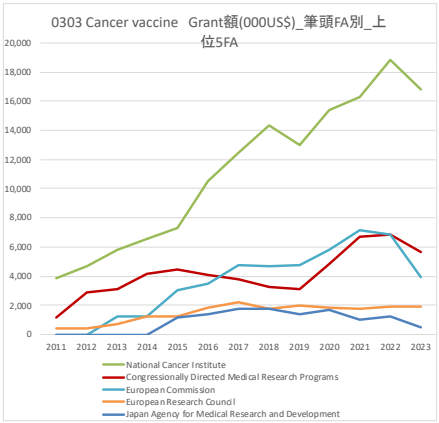
0303 Cancer vaccine Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.3%	11.8%	12.0%	15.4%	12.2%	9.1%	10.3%	11.4%	8.6%	9.8%	9.2%	9.1%	13.1%	12.6%	10.7%
2 Etiology	27.5%	21.3%	17.8%	15.6%	14.2%	15.2%	9.2%	7.6%	6.0%	7.0%	6.9%	6.7%	10.3%	1.0%	10.1%
3 Prevention	28.5%	19.7%	23.3%	19.7%	18.9%	20.4%	17.2%	20.3%	13.3%	19.6%	15.0%	14.0%	12.9%	6.6%	16.9%
4 Early Detection, Diagnosis, and Prognosis	0.2%	0.7%	1.6%	4.0%	5.9%	6.8%	5.8%	3.9%	1.5%	3.1%	3.9%	3.6%	4.4%	6.0%	3.9%
5 Treatment	55.4%	57.0%	54.0%	49.7%	54.7%	48.3%	49.2%	46.7%	34.0%	51.1%	56.2%	55.2%	54.5%	62.6%	50.9%
6 Cancer Control, Survivorship, and Outcomes Research	1.6%	1.0%	0.9%	0.7%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
others	2.9%	4.1%	3.4%	5.7%	3.4%	11.3%	15.3%	16.7%	41.7%	15.6%	14.8%	17.2%	11.9%	11.1%	15.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer vaccine の臓器別の研究費配分額は Not Site-specific Cancer が最も多く、ついで乳がん、メラノーマの順と推計された。



0303 Cancer vaccine Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	549	1,653	2,632	3,401	4,845	5,739	7,071	6,700	5,675	7,933	7,167	7,401	8,574	7,182	76,521
Breast Cancer	2,239	3,414	4,491	5,488	5,445	5,782	6,608	6,710	6,376	7,279	7,214	6,655	4,743	3,512	75,956
Melanoma	815	2,242	2,278	2,876	4,784	4,784	5,926	6,254	6,453	6,638	7,223	5,435	5,587	4,241	65,536
Prostate Cancer	511	1,135	1,235	1,754	3,454	2,938	2,941	2,759	2,915	2,269	2,778	2,513	1,460	1,460	30,122
Cervical Cancer	24	258	234	447	614	308	1,500	1,396	16,803	1,479	1,415	1,422	285	172	26,357
Colon and Rectal Cancer	85	383	1,158	1,150	1,492	2,674	2,213	2,408	2,119	2,394	3,088	2,799	2,568	870	25,400
Pancreatic Cancer	533	668	746	1,352	935	2,361	2,728	2,728	2,286	2,218	2,255	2,584	908	193	22,495
Lung Cancer	771	1,056	1,186	497	455	1,109	1,118	1,116	1,111	1,707	1,914	3,412	3,104	2,292	20,847
Ovarian Cancer	288	629	592	360	321	911	911	892	737	2,632	2,897	2,209	2,209	2,209	17,798
Brain Tumor	203	217	312	403	845	640	715	551	1,204	1,526	1,951	2,127	1,915	1,778	14,387

Cancer vaccine の FA 別の研究費配分額は米国 NCI が最も多く、ついで米国 Congressionally Directed Medical Research Programs、European Commission が多いと推計された。



0303 Cancer vaccine Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	3,836	4,657	5,816	6,588	7,333	10,511	12,501	14,324	13,024	15,418	16,271	18,823	16,824	11,204	157,130	United States
Congressionally Directed Medical Research Programs	1,188	2,881	3,143	4,160	4,481	4,083	3,781	3,270	3,129	4,860	6,729	6,887	5,661	3,743	57,998	United States
European Commission	0	0	1,203	1,203	3,072	3,451	4,769	4,691	4,752	5,796	7,181	6,850	3,963	4,038	50,968	Belgium
European Research Council	436	436	731	1,214	1,214	1,822	2,192	1,756	1,999	1,829	1,745	1,926	1,900	1,901	21,102	Belgium
Japan Agency for Medical Research and Development	0	0	0	0	1,198	1,421	1,763	1,763	1,362	1,695	996	1,241	498	498	12,436	Japan
Japan Society for the Promotion of Science	351	489	663	648	799	808	927	936	834	1,391	1,072	959	915	710	11,502	Japan
National Institute of Allergy and Infectious Diseases	168	267	865	714	714	818	1,530	1,666	1,178	961	716	819	317	440	11,175	United States
Medical Research Council	0	0	0	0	0	0	634	634	504	504	504	714	714	0	4,207	United Kingdom
National Natural Science Foundation of China	90	182	314	338	355	353	381	415	461	398	262	134	0	0	3,683	China
National Institute of Arthritis and Musculoskeletal and Skin Diseases	0	0	0	0	0	440	440	440	440	440	440	0	0	0	2,637	United States

6.3.4. 主要論文、引用、研究費

＜論文＞

Publication: 0303 Cancer vaccine

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Rethinking Antigen Source: Cancer Vaccines Based on Whole Tumor Cell/tissue Lysate or Whole Tumor Cell	Diao, Lu; Liu, Mi	Advanced Science	China	2023	20	Review Article
2	Self-assembled nanoparticles: A new platform for revolutionizing therapeutic cancer vaccines	Shi, Tianyu; Sun, Mengna; Lu, Changchang; Meng, Fanyan	Frontiers in Immunology	China	2023	1	Review Article
3	Cancer vaccines as promising immuno-therapeutics: platforms and current progress	Liu, Jian; Fu, Minyang; Wang, Manni; Wan, Dandan; Wei, Yuquan; Wei, Xiawei	Journal of Hematology & Oncology	China	2022	263	Review Article
4	Stereotactic ablative radiotherapy and FAP α-based cancer vaccine suppresses metastatic tumor growth in 4T1 mouse breast cancer	Chen, Meihua; Xiao, Ling; Jia, Hongyuan; Wang, Shubin; Jiang, Xiao; Lei, Xudan; Zhai, Qiming; Lang, Jinyi	Radiotherapy and Oncology	China	2023	1	Research Article
5	Hydrogel-guided strategies to stimulate an effective immune response for vaccine-based cancer immunotherapy	Lei, Lei; Huang, Dennis; Gao, Huile; He, Bin; Cao, Jun; Peppas, Nicholas A	Science Advances	United States	2022	33	Review Article
6	Recent Findings on Therapeutic Cancer Vaccines: An Updated Review	Sheikhlary, Sara; Lopez, David Humberto; Moghimi, Sophia; Sun, Bo	Biomolecules	United States	2024	0	Review Article
7	What's next for cancer vaccines	Adamik, Juraj; Butterfield, Lisa H	Science Translational Medicine	United States	2022	10	Review Article
8	Unlocking cancer vaccine potential: What are the key factors?	Grant, Michael; Lee, Lian Ni; Chinnakannan, Senthil; Tong, Orion; Kwok, Jonathan; Cianci, Nicole; Tillman, Luke; Saha, Abhishek; Almeida, Vinnycius Pereira; Leung, Carol	Human Vaccines & Immunotherapeutics	United Kingdom	2024	0	Review Article
9	Breast cancer vaccines; A comprehensive and updated review	Al-Hawary, Sulieman Ibraheem Shelash; Saleh, Ebraheem Abdu Musad; Mamajanov, Nodirjon Akhmetovich; S Gilmanova, Nataliya; Alsaab, Hashem O; Alghamdi, Adel; Ansari, Shakeel Ahmed; Alawady, Ahmed Hussien Radie; Alsaalamy, Ali Hashiem; Ibrahim, Ahmed Jaber	Pathology - Research and Practice	Iraq	2023	0	Review Article
10	Genetically modified cancer vaccines: Current status and future prospects	Hu, Xiaoyi; Zhou, Weilin; Pi, Ruyu; Zhao, Xia; Wang, Wei	Medicinal Research Reviews	China	2022	8	Review Article

＜引用＞

Citation: 0303 Cancer vaccine

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The blockade of immune checkpoints in cancer immunotherapy	Pardoll, Drew M.	Nature Reviews Cancer	United States	2012	2829	Review Article
2	A guide to cancer immunotherapy: from T cell basic science to clinical practice	Waldman, Alex D.; Fritz, Jill M.; Lenardo, Michael J.	Nature Reviews Immunology	United States	2020	1855	Review Article
3	mRNA vaccines — a new era in vaccinology	Pardi, Norbert; Hogan, Michael J.; Porter, Frederick W.; Weissman, Drew	Nature Reviews Drug Discovery	United States	2018	1684	Review Article
4	Approaches to treat immune hot, altered and cold tumours with combination immunotherapies	Galon, Jérôme; Bruni, Daniela	Nature Reviews Drug Discovery	France	2019	1237	Review Article
5	The history and advances in cancer immunotherapy: understanding the characteristics of tumor-infiltrating immune cells and their therapeutic implications	Zhang, Yuanyuan; Zhang, Zemin	Cellular & Molecular Immunology	China	2020	1176	Review Article
6	Comprehensive analyses of tumor immunity: implications for cancer immunotherapy	Li, Bo; Severson, Eric; Pignon, Jean-Christophe; Zhao, Haoquan; Li, Taiwen; Novak, Jesse; Jiang, Peng; Shen, Hui; Aster, Jon C.; Rodig, Scott; Signoretti, Sabina; Liu, Jun S.; Liu, X. Shirley	Genome Biology	United States	2016	842	Research Article
7	Immunogenic Cell Death in Cancer Therapy	Kroemer, Guido; Galluzzi, Lorenzo; Kepp, Oliver; Zitvogel, Laurence	Annual Review of Immunology	France	2012	822	Review Article
8	Cancer immunotherapy comes of age	Mellman, Ira; Coukos, George; Dranoff, Glenn	Nature	United States	2011	764	Review Article
9	An immunogenic personal neoantigen vaccine for patients with melanoma	Ott, Patrick A.; Hu, Zhuting; Keskin, Derin B.; Shukla, Sachet A.; Sun, Jing; Bozym, David J.; Zhang, Wandi; Luoma, Adrienne; Giobbie-Hurder, Anita; Peter, Lauren; Chen, Christina; Olive, Oriol; Carter, Todd A.; Li, Shuqiang; Lieb, David J.; Eisenhaure, Thomas; Gjini, Evisa; Stevens, Jonathan; Lane, William J.; Javeri, Indu; Nellaiappan, Kaliappanadar; Salazar, Andres M.; Daley, Heather; Seaman, Michael; Buchbinder, Elizabeth I.; Yoon, Charles H.; Harden, Maegan; Lennon, Niall; Gabriel, Stacey; Rodig, Scott J.; Barouch, Dan H.; Aster, Jon C.; Getz, Gad; Wucherpfennig, Kai; Neuberg, Donna; Ritz, Jerome; Lander, Eric S.; Fritsch, Edward F.; Hacohen, Nir; Wu, Catherine J.	Nature	United States	2017	732	Letter To Editor
10	Immune cells within the tumor microenvironment: Biological functions and roles in cancer immunotherapy	Lei, Xu; Lei, Yu; Li, Jin-Ke; Du, Wei-Xing; Li, Ru-Gui; Yang, Jing; Li, Jian; Li, Fang; Tan, Hua-Bing	Cancer Letters	China	2019	691	Review Article

＜研究費＞

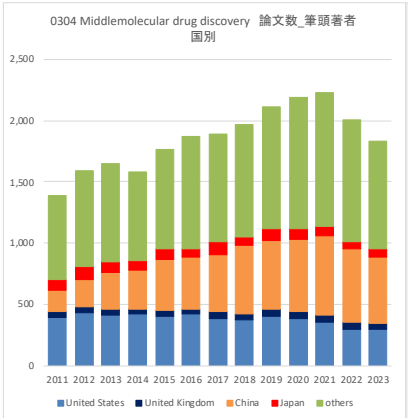
Grant: 0303 Cancer vaccine

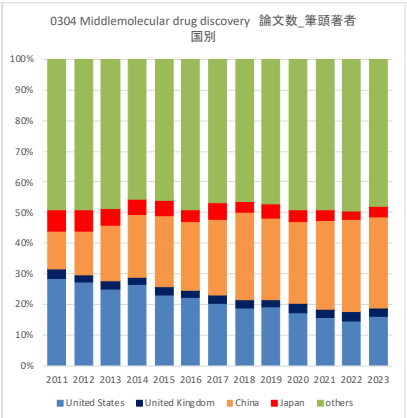
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	HPV Vaccine Trial	AIMEE KREIMER, ALLAN HILDESHEIM	National Cancer Institute	United States	36,871,844	2011	2023
2	Tumor specific T-cell activating cancer vaccines for immunotherapy of solid tumors including HPV	Kartik Krishnan	Cancer Prevention and Research Institute of Texas	United States	15,427,699	2019	0
3	Washington University SPORE in Pancreatic Cancer	WILLIAM G HAWKINS, RYAN C FIELDS, GRAHAM A. COLDITZ, ALBERT CRAIG LOCKHART, WILLIAM E. GILLANDERS, DAVID G DENARDO, ANDREA WANG-GILLAM	National Cancer Institute	United States	10,948,829	2016	2022
4	International Center for Cancer Vaccine (International Center for Cancer Vaccine Science (ICCVS))	Theodore Robert Hupp	Foundation for Polish Science	Poland	10,565,226	2017	2022
5	Dana Farber/Harvard Cancer Center Ovarian Cancer SPORE grant	ALAN D. D'ANDREA, CESAR M CASTRO, URSULA ANNE MATULONIS, DAVID R SPRIGGS, CHRISTOPHER PAUL CRUM, STEVEN J SKATES, GEOFFREY I SHAPIRO, PANAGIOTIS KONSTANTINOPOULOS, DAVID KOLIN	National Cancer Institute	United States	9,148,769	2020	2025
6	Proof of Principle of the best-in-class therapeutic mRNA cancer vaccine	0	European Commission	Belgium	7,554,282	2021	2025
7	Cancer Vaccine development for Hepatocellular Carcinoma	0	European Commission	Belgium	7,074,841	2013	2018
8	A Next Generation Immunotherapy for Human Papilloma Virus induced Cervical Cancer	0	European Commission	Belgium	6,815,556	2017	2022
9	Professional cross-priming for ovary and prostate cancer	0	European Commission	Belgium	6,523,210	2015	2021
10	Personalized Breast Cancer Vaccines Based On Genome Sequencing	William E Gillanders	Susan G. Komen Breast Cancer Foundation	United States	6,500,000	2011	2018

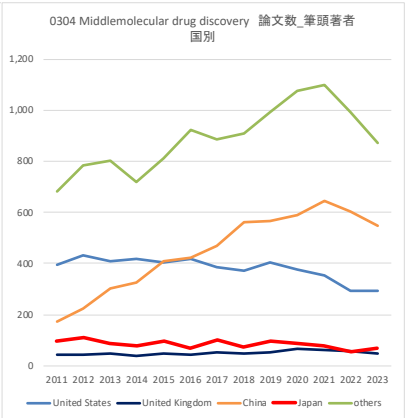
6.4. 0304 Middlemolecular drug discovery

6.4.1. 論文数

Middlemolecular drug discovery の論文数は緩やかに増加傾向にあると推計された。国別の論文数は、その他の国を除くと中国、米国、日本の順に多いと推計された。そのうち中国は増加傾向であったが、米国と日本は微減傾向と推計された。



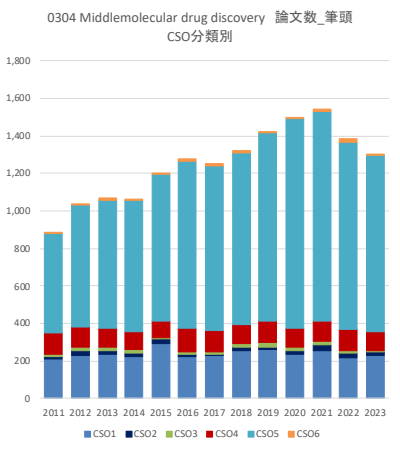


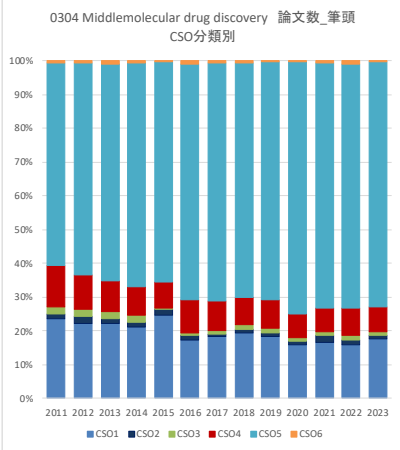


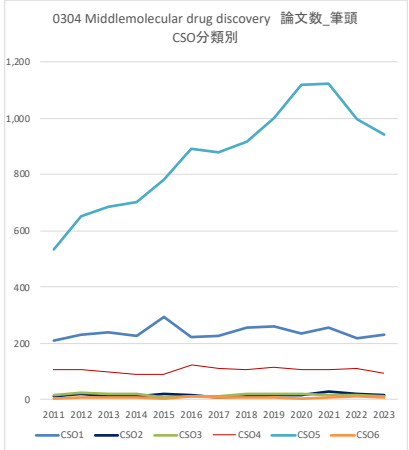
0304 Middlemolecular drug discovery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	394	434	411	418	406	417	386	372	403	378	355	295	292	144	5,105
United Kingdom	43	41	45	38	49	42	52	49	53	67	59	55	49	24	666
China	174	225	303	324	407	424	467	561	566	589	644	604	549	270	6,107
Japan	95	109	88	77	94	70	102	71	97	85	76	54	66	25	1,109
others	685	786	802	722	811	923	888	912	994	1,077	1,100	995	875	406	11,976
合計	1,391	1,595	1,649	1,579	1,767	1,876	1,895	1,965	2,113	2,196	2,234	2,003	1,831	869	24,963

0304 Middlemolecular drug discovery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28.3%	27.2%	24.9%	26.5%	23.0%	22.2%	20.4%	18.9%	19.1%	17.2%	15.9%	14.7%	15.9%	16.6%	20.5%
United Kingdom	3.1%	2.6%	2.7%	2.4%	2.8%	2.2%	2.7%	2.5%	2.5%	3.1%	2.6%	2.7%	2.7%	2.8%	2.7%
China	12.5%	14.1%	18.4%	20.5%	23.0%	22.6%	24.6%	28.5%	26.8%	26.8%	28.8%	30.2%	30.0%	31.1%	24.5%
Japan	6.8%	6.8%	5.3%	4.9%	5.3%	3.7%	5.4%	3.6%	4.6%	3.9%	3.4%	2.7%	3.6%	2.9%	4.4%
others	49.2%	49.3%	48.6%	45.7%	45.9%	49.2%	46.9%	46.4%	47.0%	49.0%	49.2%	49.7%	47.8%	46.7%	48.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Middlemolecular drug discovery の CSO 分類別の論文数は、CSO5 Treatment が最も多く経年的に増加傾向で、ついで CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis と推計された。



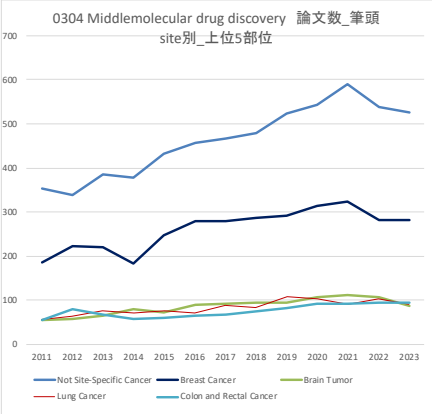




0304 Middlemolecular drug discovery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	210	232	238	226	294	222	228	258	261	236	258	218	229	89	3,199
2 Etiology	12	20	14	14	21	15	9	14	16	16	30	22	17	11	231
3 Prevention	17	24	21	22	8	13	14	19	21	19	16	18	12	5	229
4 Early Detection, Diagnosis, and Prognosis	108	105	99	91	90	123	112	105	117	106	106	113	95	44	1,414
5 Treatment	532	652	686	701	782	893	879	915	999	1,117	1,121	997	944	469	11,687
6 Cancer Control, Survivorship, and Outcomes Research	5	7	9	8	3	11	7	10	6	2	9	14	6	6	103
others	507	555	582	517	569	599	646	644	693	700	694	621	528	245	8,100
合計	1,391	1,595	1,649	1,579	1,767	1,876	1,895	1,965	2,113	2,196	2,234	2,003	1,831	869	24,963

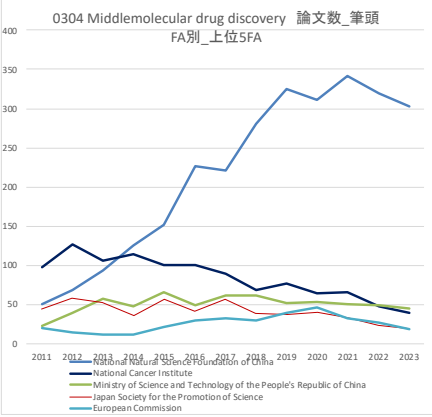
0304 Middlemolecular drug discovery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	15.1%	14.5%	14.4%	14.3%	16.6%	11.8%	12.0%	13.1%	12.4%	10.7%	11.5%	10.9%	12.5%	10.2%	12.8%
2 Etiology	0.9%	1.3%	0.8%	0.9%	1.2%	0.8%	0.5%	0.7%	0.8%	0.7%	1.3%	1.1%	0.9%	1.3%	0.9%
3 Prevention	1.2%	1.5%	1.3%	1.4%	0.5%	0.7%	0.7%	1.0%	1.0%	0.9%	0.7%	0.9%	0.7%	0.6%	0.9%
4 Early Detection, Diagnosis, and Prognosis	7.8%	6.6%	6.0%	5.8%	5.1%	6.6%	5.9%	5.3%	5.5%	4.8%	4.7%	5.6%	5.2%	5.1%	5.7%
5 Treatment	38.2%	40.9%	41.6%	44.4%	44.3%	47.6%	46.4%	46.6%	47.3%	50.9%	50.2%	49.8%	51.6%	54.0%	46.8%
6 Cancer Control, Survivorship, and Outcomes Research	0.4%	0.4%	0.5%	0.5%	0.2%	0.6%	0.4%	0.5%	0.3%	0.1%	0.4%	0.7%	0.3%	0.7%	0.4%
others	36.4%	34.8%	35.3%	32.7%	32.2%	31.9%	34.1%	32.8%	32.8%	31.9%	31.1%	31.0%	28.8%	28.2%	32.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Middlemolecular drug discovery の臓器別の論文数は、Not Site-specific Cancer が最も多く、ついで乳がん、脳腫瘍の順と推計された。



0304 Middlemolecular drug discovery 論文数_筆頭 site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	353	339	386	378	432	456	468	480	523	544	591	538	526	242	6,256
Breast Cancer	186	223	220	184	248	280	280	287	292	313	325	282	283	134	3,537
Brain Tumor	56	57	65	80	73	90	93	95	95	108	112	108	86	39	1,157
Lung Cancer	57	65	75	72	75	72	88	84	107	102	91	102	91	33	1,114
Colon and Rectal Cancer	55	80	67	58	60	64	68	75	83	91	92	95	94	42	1,024
Leukemia / Leukaemia	56	57	55	55	60	67	47	62	71	43	69	39	34	19	734
Liver Cancer	26	44	46	48	45	44	53	47	45	54	51	62	39	28	632
Prostate Cancer	31	32	51	41	42	58	47	43	39	41	50	37	39	20	571
Melanoma	28	41	46	32	42	38	40	49	55	55	50	35	34	19	564
Pancreatic Cancer	21	29	28	50	38	44	35	29	43	51	47	53	41	20	529

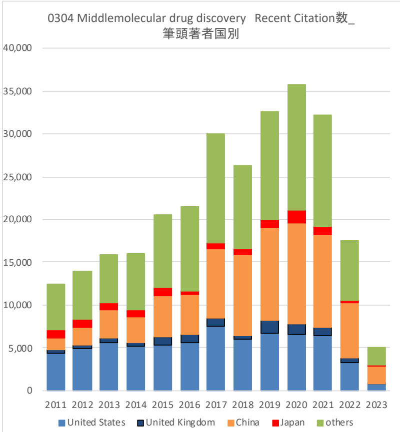
Middlemolecular drug discovery の FA 別の論文数は、中国 NSFC が最も多く経年的にも大きく、増加傾向が見られた。ついで、米国 NCI、中国 Ministry of Science and Technology of the People's Republic of China と推計された。

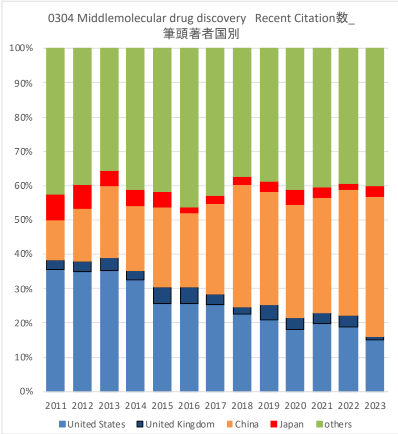


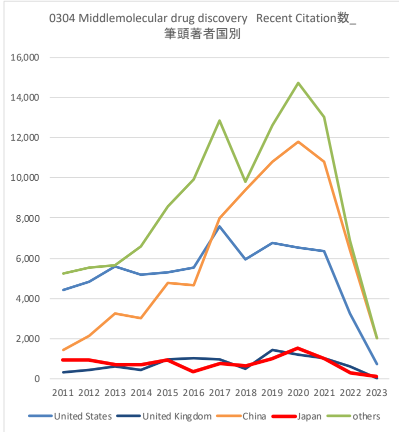
0304 Middlemolecular drug discovery 論文数_筆頭 FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	50	68	93	126	152	227	221	280	325	311	342	320	303	159	2,977
National Cancer Institute	98	127	106	114	101	100	89	69	77	64	65	48	40	10	1,108
Ministry of Science and Technology of the People's Republic of China	23	39	58	48	66	49	61	62	52	53	51	49	45	27	683
Japan Society for the Promotion of Science	44	58	52	36	56	41	57	39	37	40	33	23	19	4	539
European Commission	20	14	11	12	22	30	32	29	40	46	33	27	19	10	345
National Institute of General Medical Sciences	16	24	24	24	28	29	34	26	33	22	31	23	17	6	337
National Research Foundation of Korea	16	13	16	16	23	17	34	22	33	32	22	27	21	7	299
Deutsche Forschungsgemeinschaft	6	16	21	13	24	19	16	13	17	16	24	13	6	2	206
National Institute of Allergy and Infectious Diseases	16	17	15	11	17	12	7	11	6	9	8	6	5	1	141
National Center for Advancing Translational Sciences	13	19	19	21	9	16	7	4	5	7	4	5	3	1	133

6.4.2. Recent Citation 数

Middlemolecular drug discovery の引用数は経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと中国が多く、経年的にも増加傾向が見られた。ついで米国の順と推計された。



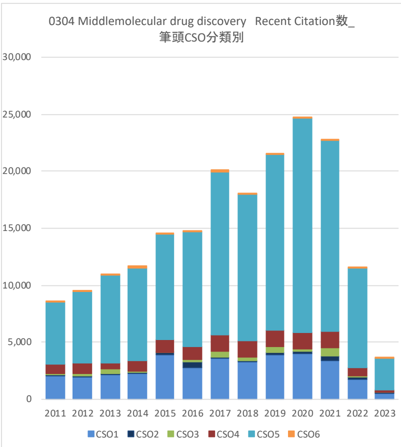


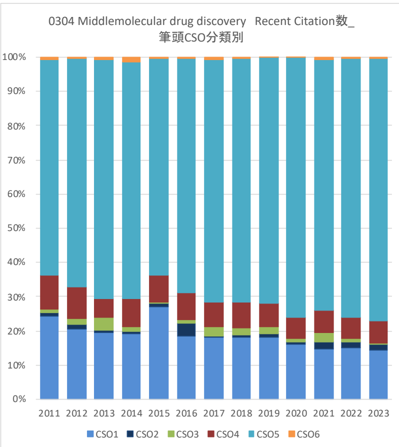


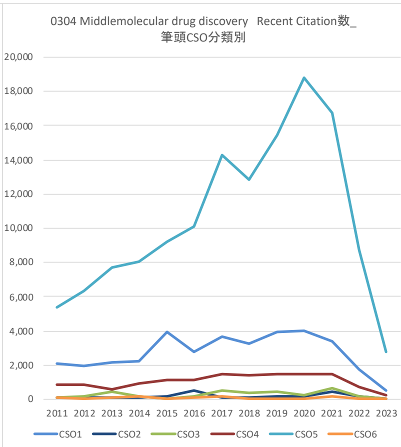
0304 Middlemolecular drug discovery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	4,423	4,843	5,589	5,180	5,313	5,546	7,583	5,954	6,761	6,526	6,363	3,267	763	56	68,167
United Kingdom	329	464	619	458	974	1,046	962	530	1,437	1,218	1,011	608	52	1	9,709
China	1,454	2,132	3,281	3,036	4,753	4,643	7,971	9,400	10,780	11,780	10,803	6,418	2,054	81	78,586
Japan	954	950	738	721	954	384	739	659	993	1,537	995	293	143	5	10,065
others	5,271	5,539	5,647	6,586	8,583	9,945	12,826	9,781	12,637	14,725	13,026	6,893	2,020	53	113,532
合計	12,431	13,928	15,874	15,981	20,577	21,564	30,081	26,324	32,608	35,786	32,198	17,479	5,032	196	280,059

0304 Middlemolecular drug discovery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	35.6%	34.8%	35.2%	32.4%	25.8%	25.7%	25.2%	22.6%	20.7%	18.2%	19.8%	18.7%	15.2%	28.6%	24.3%
United Kingdom	2.6%	3.3%	3.9%	2.9%	4.7%	4.9%	3.2%	2.0%	4.4%	3.4%	3.1%	3.5%	1.0%	0.5%	3.5%
China	11.7%	15.3%	20.7%	19.0%	23.1%	21.5%	26.5%	35.7%	33.1%	32.9%	33.6%	36.7%	40.8%	41.3%	28.1%
Japan	7.7%	6.8%	4.6%	4.5%	4.6%	1.8%	2.5%	2.5%	3.0%	4.3%	3.1%	1.7%	2.8%	2.6%	3.6%
others	42.4%	39.8%	35.6%	41.2%	41.7%	46.1%	42.6%	37.2%	38.8%	41.1%	40.5%	39.4%	40.1%	27.0%	40.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Middlemolecular drug discovery の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO1 Biology が多いと推計された。



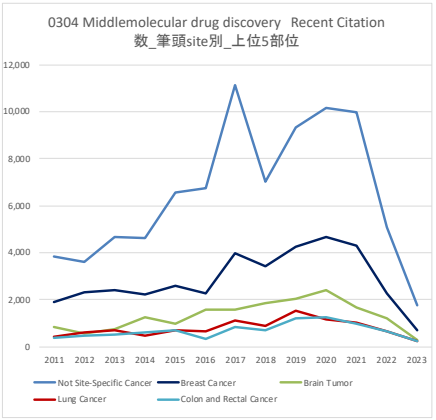




0304 Middlemolecular drug discovery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2,089	1,970	2,135	2,219	3,937	2,755	3,629	3,276	3,913	3,995	3,390	1,738	523	18	35,587
2 Etiology	67	114	87	95	140	541	111	102	192	177	413	184	55	11	2,289
3 Prevention	112	173	415	156	39	167	512	359	469	248	674	144	13	1	3,482
4 Early Detection, Diagnosis, and Prognosis	845	882	581	947	1,159	1,133	1,440	1,378	1,464	1,463	1,448	691	231	4	13,666
5 Treatment	5,378	6,337	7,680	8,075	9,221	10,107	14,269	12,843	15,439	18,793	16,724	8,710	2,760	84	136,420
6 Cancer Control, Survivorship, and Outcomes Research	74	48	78	166	63	74	164	64	41	4	174	49	18	3	1,020
others	3,866	4,404	4,898	4,323	6,018	6,791	9,956	8,302	11,090	11,106	9,375	5,963	1,432	75	87,595
合計	12,431	13,928	15,874	15,981	20,577	21,564	30,081	26,324	32,608	35,786	32,198	17,479	5,032	196	280,059

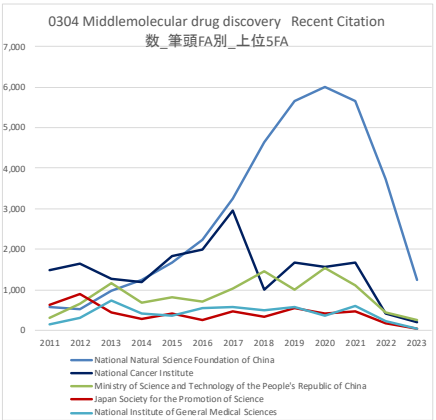
0304 Middlemolecular drug discovery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	16.8%	14.1%	13.4%	13.9%	19.1%	12.8%	12.1%	12.4%	12.0%	11.2%	10.5%	9.9%	10.4%	9.2%	12.7%
2 Etiology	0.5%	0.8%	0.5%	0.6%	0.7%	2.5%	0.4%	0.4%	0.6%	0.5%	1.3%	1.1%	1.1%	5.6%	0.8%
3 Prevention	0.9%	1.2%	2.6%	1.0%	0.2%	0.8%	1.7%	1.4%	1.4%	0.7%	2.1%	0.8%	0.3%	0.5%	1.2%
4 Early Detection, Diagnosis, and Prognosis	6.8%	6.3%	3.7%	5.9%	5.6%	5.3%	4.8%	5.2%	4.5%	4.1%	4.5%	4.0%	4.6%	2.0%	4.9%
5 Treatment	43.3%	45.5%	48.4%	50.5%	44.8%	46.9%	47.4%	48.8%	47.3%	52.5%	51.9%	49.8%	54.8%	42.9%	48.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.6%	0.3%	0.5%	1.0%	0.3%	0.3%	0.5%	0.2%	0.1%	0.0%	0.5%	0.3%	0.4%	1.5%	0.4%
others	31.1%	31.6%	30.9%	27.1%	29.2%	31.5%	33.1%	31.5%	34.0%	31.0%	29.1%	34.1%	28.5%	38.3%	31.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Middlemolecular drug discovery の臓器別の引用数は、Not Site-specific Cancer が最も多く、ついで乳がん、脳腫瘍の順と推計された。



0304 Middlemolecular drug discovery Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	3,828	3,616	4,696	4,615	6,561	6,727	11,156	7,043	9,332	10,165	10,001	5,094	1,786	49	84,669
Breast Cancer	1,885	2,300	2,433	2,225	2,573	2,262	3,971	3,446	4,238	4,652	4,283	2,279	722	21	37,290
Brain Tumor	850	584	758	1,278	960	1,595	1,565	1,872	2,027	2,411	1,680	1,214	272	12	17,078
Lung Cancer	443	617	720	491	722	660	1,119	910	1,536	1,182	1,043	643	256	4	10,346
Colon and Rectal Cancer	363	473	509	627	687	353	825	691	1,203	1,244	990	637	243	11	8,856
Melanoma	322	319	358	344	1,014	373	497	1,150	805	675	1,190	230	101	1	7,379
Liver Cancer	310	313	315	363	401	927	495	434	638	984	813	673	100	16	6,782
Pancreatic Cancer	258	128	198	394	488	339	406	443	1,049	1,246	600	312	106	1	5,968
Leukemia / Leukaemia	257	166	315	553	377	509	535	465	438	493	783	338	45	2	5,276
Prostate Cancer	133	189	280	213	498	302	324	472	364	502	516	238	91	4	4,126

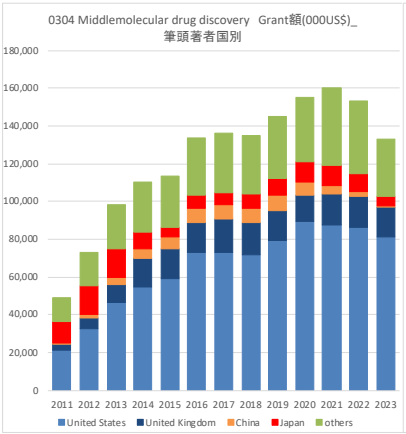
Middlemolecular drug discovery の FA 別の引用数は、中国 NSFC が最も多く経年的にも大きく増加していた。ついで米国 NCI、中国 Ministry of Science and Technology of the People's Republic of China の順と推計された。

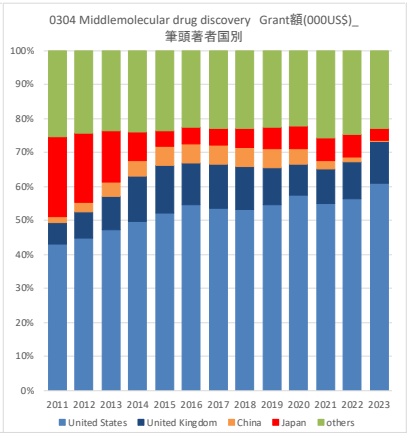


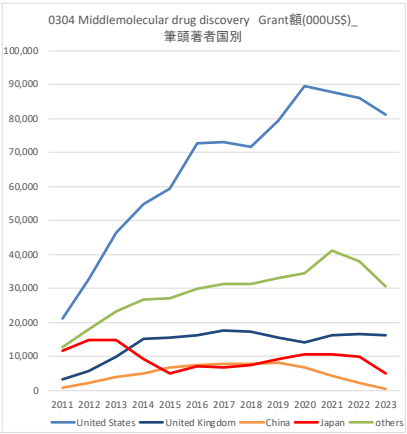
0304 Middlemolecular drug discovery Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	582	516	962	1,252	1,680	2,231	3,245	4,632	5,649	6,006	5,666	3,733	1,248	53	37,455
National Cancer Institute	1,495	1,644	1,261	1,181	1,838	1,999	2,953	995	1,662	1,563	1,667	407	192	1	18,858
Ministry of Science and Technology of the People's Republic of China	297	666	1,165	675	821	714	1,031	1,460	998	1,529	1,109	444	247	5	11,161
Japan Society for the Promotion of Science	639	886	452	268	403	260	468	331	538	420	478	169	42	0	5,354
National Institute of General Medical Sciences	146	314	741	408	349	554	562	489	571	352	599	222	29	1	5,337
European Commission	534	454	129	100	185	293	393	403	882	810	453	256	37	5	4,934
National Research Foundation of Korea	93	101	185	150	284	127	383	431	437	473	274	298	76	1	3,313
National Institute of Allergy and Infectious Diseases	201	140	163	254	116	568	103	167	253	621	128	53	23	0	2,790
Deutsche Forschungsgemeinschaft	58	77	167	104	258	244	179	174	276	374	317	149	12	0	2,389
National Heart Lung and Blood Institute	65	239	52	97	180	143	588	248	61	56	205	7	9	0	1,950

6.4.3. Grant(000US$)額

Middlemolecular drug discovery の研究費総額は増加傾向が見られたが、近年は横ばい傾向と推計された。国別の研究費配分額は米国が最も多く増加傾向が見られた。ついで英国の順と推計された。わが国は、かつては研究費配分額が多かったが、近年は横ばいあるいは減少傾向と推計された。



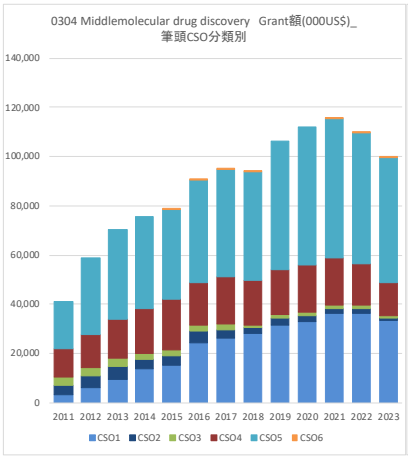


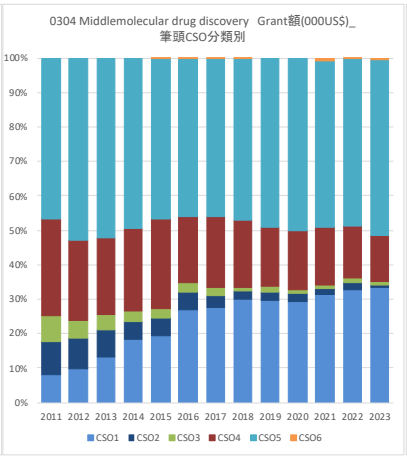


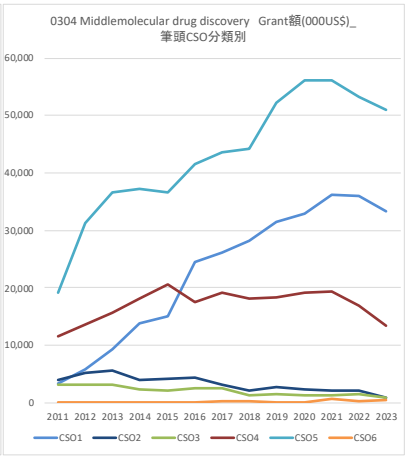
0304 Middlemolecular drug discovery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	21,226	32,748	46,187	54,757	59,212	72,746	72,868	71,593	79,398	89,407	87,751	86,143	81,016	66,623	921,673
United Kingdom	3,118	5,526	9,855	15,025	15,572	16,340	17,630	17,148	15,579	14,156	16,189	16,556	16,297	11,399	190,388
China	865	2,079	3,937	5,025	6,626	7,364	7,804	7,916	8,102	6,705	4,336	2,269	518	255	63,800
Japan	11,474	14,710	14,901	9,120	4,940	6,983	6,537	7,303	9,044	10,686	10,604	10,007	4,898	3,642	124,849
others	12,563	17,827	23,202	26,626	26,916	29,950	31,379	31,088	32,915	34,394	41,173	38,036	30,535	23,793	400,397
合計	49,246	72,890	98,081	110,552	113,266	133,383	136,218	135,048	145,038	155,348	160,052	153,011	133,264	105,712	1,701,108

0304 Middlemolecular drug discovery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	43.1%	44.9%	47.1%	49.5%	52.3%	54.5%	53.5%	53.0%	54.7%	57.6%	54.8%	56.3%	60.8%	63.0%	54.2%
United Kingdom	6.3%	7.6%	10.0%	13.6%	13.7%	12.3%	12.9%	12.7%	10.7%	9.1%	10.1%	10.8%	12.2%	10.8%	11.2%
China	1.8%	2.9%	4.0%	4.5%	5.9%	5.5%	5.7%	5.9%	5.6%	4.3%	2.7%	1.5%	0.4%	0.2%	3.8%
Japan	23.3%	20.2%	15.2%	8.2%	4.4%	5.2%	4.8%	5.4%	6.2%	6.9%	6.6%	6.5%	3.7%	3.4%	7.3%
others	25.5%	24.5%	23.7%	24.1%	23.8%	22.5%	23.0%	23.0%	22.7%	22.1%	25.7%	24.9%	22.9%	22.5%	23.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Middlemolecular drug discovery の CSO 分類別の研究費配分額は CSO5 Treatment が最も多く、次いで CSO1 Biology の順と推計され、どちらも経年的に増加傾向が見られた。なお、2011 年時点では CSO4 Early Detection, Diagnosis and Prognosis が 2 番目に多いと推計されたが、論文数はその後横ばいと推計された。

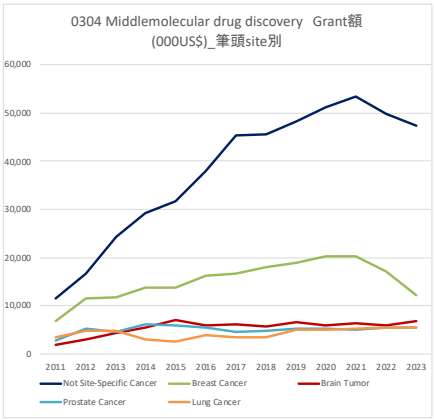






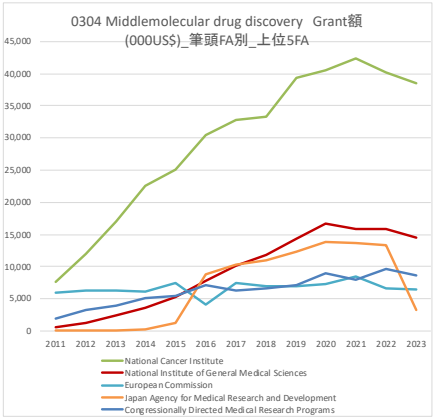
0304 Middlemolecular drug discovery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3,270	5,867	9,229	13,811	15,104	24,414	26,178	28,279	31,522	32,928	36,213	36,092	33,305	26,129	322,341
2 Etiology	3,996	5,175	5,592	3,939	4,066	4,445	3,211	2,110	2,677	2,388	2,177	2,132	936	936	43,781
3 Prevention	3,020	3,083	3,137	2,361	2,182	2,493	2,495	1,164	1,539	1,291	1,216	1,424	885	885	27,176
4 Early Detection, Diagnosis, and Prognosis	11,457	13,572	15,700	18,134	20,520	17,461	19,219	18,155	18,222	19,115	19,357	16,886	13,421	11,264	232,484
5 Treatment	19,124	31,233	36,508	37,137	36,632	41,558	43,678	44,244	52,262	56,131	56,207	53,322	50,943	41,950	600,929
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	12	16	166	154	0	0	750	200	361	361	2,020
others	9,888	15,533	29,487	35,681	35,264	43,508	41,784	41,455	39,440	43,606	44,443	43,264	33,753	24,527	481,632
合計	49,246	72,890	98,081	110,552	113,266	133,383	136,218	135,048	145,038	155,348	160,052	153,011	133,264	105,712	1,701,108

0304 Middlemolecular drug discovery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	6.6%	8.0%	9.4%	12.5%	13.3%	18.3%	19.2%	20.9%	21.7%	21.2%	22.6%	23.6%	25.0%	24.7%	18.9%
2 Etiology	8.1%	7.1%	5.7%	3.6%	3.6%	3.3%	2.4%	1.6%	1.8%	1.5%	1.4%	1.4%	0.7%	0.9%	2.6%
3 Prevention	6.1%	4.2%	3.2%	2.1%	1.9%	1.9%	1.8%	0.9%	1.1%	0.8%	0.8%	0.9%	0.7%	0.8%	1.6%
4 Early Detection, Diagnosis, and Prognosis	23.3%	18.6%	16.0%	16.4%	18.1%	13.1%	14.1%	13.4%	12.6%	12.3%	12.1%	11.0%	10.1%	10.7%	13.7%
5 Treatment	38.8%	42.8%	37.2%	33.6%	32.3%	31.2%	32.1%	32.8%	36.0%	36.1%	35.1%	34.8%	38.2%	39.7%	35.3%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.5%	0.1%	0.3%	0.3%	0.1%
others	20.1%	21.3%	30.1%	32.3%	31.1%	32.6%	30.7%	30.7%	27.2%	28.1%	27.8%	28.3%	25.3%	23.2%	28.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



0304 Middlemolecular drug discovery Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	11,420	16,671	24,301	29,120	31,742	37,987	45,455	45,615	48,292	51,084	53,459	49,786	47,405	36,000	528,338
Breast Cancer	6,862	11,507	11,736	13,706	13,828	16,173	16,721	18,061	18,928	20,282	20,153	17,156	12,218	9,447	206,778
Brain Tumor	1,782	3,048	4,399	5,402	7,130	6,000	6,093	5,579	6,560	5,994	6,288	5,963	6,905	6,363	77,507
Prostate Cancer	2,688	5,211	4,637	6,170	5,839	5,416	4,529	4,691	5,247	5,168	4,964	5,466	5,360	5,108	70,494
Lung Cancer	3,432	4,732	4,676	2,956	2,518	3,853	3,491	3,345	4,988	5,086	5,203	5,427	5,436	3,846	58,990
Leukemia / Leukaemia	698	1,279	1,804	2,016	2,725	2,662	2,789	3,474	4,033	5,055	5,363	6,065	6,386	5,948	50,299
Pancreatic Cancer	4,110	4,763	5,189	3,263	2,734	2,656	2,592	3,079	3,187	3,245	4,094	3,385	3,503	2,783	48,581
Colon and Rectal Cancer	1,152	1,311	1,764	2,103	1,306	2,390	2,368	2,757	2,957	2,942	4,171	3,320	3,490	3,149	35,180
Liver Cancer	786	2,254	2,941	2,182	2,602	2,675	1,452	1,839	1,536	1,508	1,338	1,157	814	941	24,026
Ovarian Cancer	1,972	718	834	836	1,299	1,166	1,112	786	1,797	2,534	2,445	2,427	2,363	1,809	22,099

Middlemolecular drug discovery の FA 別の研究費配分額は、米国 NCI が最も多く、ついで米国 National Institute of General Medical Sciences、European Commission の順と推計された。



0304 Middlemolecular drug discovery Grant額 (000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	7,677	11,958	17,027	22,533	25,138	30,500	32,889	33,307	39,382	40,470	42,364	40,121	38,485	33,409	415,260	United States
National Institute of General Medical Sciences	629	1,170	2,404	3,642	5,240	7,839	10,168	11,737	14,381	16,615	15,877	15,886	14,586	11,787	131,961	United States
European Commission	5,944	6,207	6,283	6,153	7,518	4,168	7,370	6,945	6,864	7,296	8,417	6,571	6,369	6,429	92,534	Belgium
Japan Agency for Medical Research and Development	49	49	113	223	1,177	8,797	10,328	10,924	12,298	13,780	13,669	13,333	3,295	2,802	90,837	Japan
Congressionally Directed Medical Research Programs	1,936	3,323	3,999	5,082	5,366	7,093	6,304	6,535	7,117	8,972	7,939	9,647	8,594	6,382	88,288	United States
Biotechnology and Biological Sciences Research Council	739	1,221	1,766	5,668	6,385	6,513	6,137	5,547	5,497	4,953	6,288	6,763	5,270	2,762	65,509	United Kingdom
National Natural Science Foundation of China	811	2,008	3,701	4,742	6,381	7,158	7,501	7,460	7,282	5,802	3,721	1,730	82	0	58,380	China
Medical Research Council	1,922	2,860	4,618	4,776	4,649	5,155	4,497	4,764	2,975	2,838	3,229	5,054	6,196	3,767	57,301	United Kingdom
National Institute of Diabetes and Digestive and Kidney Diseases	1,313	1,591	1,565	2,071	2,935	3,716	3,828	3,457	4,531	5,224	4,397	3,288	3,290	3,290	44,495	United States
European Research Council	0	865	865	2,336	2,336	4,477	4,108	3,669	3,827	3,010	2,585	3,627	2,327	3,010	37,043	Belgium

6.4.4. 主要論文、引用、研究費

＜論文＞

Publication: 0304 Middlemolecular drug discovery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Peptide Therapeutics: Unveiling the Potential against Cancer—A Journey through 1989	Musaimi, Othman Al	Cancers	United Kingdom	2024	0	Review Article
2	Peptide therapeutics in the management of metastatic cancers	Bose, Debopriya; Roy, Laboni; Chatterjee, Subhrangsu	RSC Advances	India	2022	10	Review Article
3	Peptidomimetics in cancer targeting	Gomari, Mohammad Mahmoudi; Abkhiz, Shadi; Pour, Taha Ghantab; Lotfi, Ehsan; Rostami, Neda; Monfared, Fatemeh Nafe; Ghobari, Babak; Mosavi, Mona; Alipour, Behruz; Dokholyan, Nikolay V.	Molecular Medicine	Iran	2022	7	Review Article
4	Peptide–Based Therapeutics for Oncology	Fisher, Elizaveta; Pavlenko, Kirill; Vlasov, Alexander; Ramenskaya, Galina	Pharmaceutical Medicine	Russia	2019	17	Research Article
5	Recent advances in peptide-based therapeutic strategies for breast cancer treatment	Li, Ling; Duns, Gregory J.; Dessie, Wubliker; Cao, Zhenmin; Ji, Xiaoyuan; Luo, Xiaofang	Frontiers in Pharmacology	China	2023	8	Review Article
6	Recent Advances in siRNA Delivery Systems for Prostate Cancer Therapy	Aghamiri, Shahin; Raee, Pourya; Shahmohamadnejad, Shiva; Shabani, Sasan; Ghorbani, Jaber; Sameni, Marzieh; Ebrahimi, Mohammad Taha	Current Pharmaceutical Biotechnology	Iran	2022	6	Review Article
7	Long-term delivery of protein and peptide therapeutics for cancer therapies	Sikder, Sadia; Gote, Vrinda; Alshamrani, Meshal; Sicotte, Jeff; Pal, Dhananjay	Expert Opinion on Drug Delivery	United States	2019	11	Review Article
8	Evolving therapeutic proteins to precisely kill cancer cells	Zaman, Rahela; Islam, Rowshan Ara; Chowdhury, Ezharul Hoque	Journal of Controlled Release	United Kingdom	2022	2	Review Article
9	Delivery of Small Molecules by Syndiotactic Peptides for Breast Cancer Therapy	Jerath, Gaurav; Darvin, Pramod; Christian, Yvonne; Trivedi, Vishal; Kumar, T. R. Santhosh; Ramakrishnan, Vibin	Molecular Pharmaceutics	India	2022	11	Research Article
10	Peptide Therapeutics and the Pharmaceutical Industry: Barriers Encountered Translating from the Laboratory to Patients.	Rafferty, John; Nagaraj, Hema; McCloskey, Alice P; Huwaitat, Rawan; Porter, Simon; Albadr, Alyaa; Laverty, Garry	Current Medicinal Chemistry	United Kingdom	2016	18	Review Article

＜引用＞

Citation: 0304 Middlemolecular drug discovery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Chemotherapy drugs induce pyroptosis through caspase-3 cleavage of a gasdermin	Wang, Yupeng; Gao, Wenqing; Shi, Xuyan; Ding, Jingjin; Liu, Wang; He, Huabin; Wang, Kun; Shao, Feng	Nature	China	2017	1211	Letter To Editor
2	LinkedOmics: analyzing multi-omics data within and across 32 cancer types	Vasaikar, Suhas V.; Straub, Peter; Wang, Jing; Zhang, Bing	Nucleic Acids Research	United States	2017	899	Research Article
3	Trends in peptide drug discovery	Muttenthaler, Markus; King, Glenn F.; Adams, David J.; Alewood, Paul F.	Nature Reviews Drug Discovery	Australia	2021	815	Review Article
4	A Placebo-Controlled Trial of Subcutaneous Semaglutide in Nonalcoholic Steatohepatitis	Newsome, Philip N; Buchholtz, Kristine; Cusi, Kenneth; Linder, Martin; Okanoue, Takeshi; Ratziu, Vlad; Sanyal, Arun J; Sejling, Anne-Sophie; Harrison, Stephen A	New England Journal of Medicine	Japan	2020	737	Research Article
5	The Next Generation of Platinum Drugs: Targeted Pt(II) Agents, Nanoparticle Delivery, and Pt(IV) Prodrugs	Johnstone, Timothy C.; Suntharalingam, Kogularamanan; Lippard, Stephen J.	Chemical Reviews	United Kingdom	2016	671	Review Article
6	Genomic correlates of response to CTLA-4 blockade in metastatic melanoma	Van Allen, Eliezer M; Miao, Diana; Schilling, Bastian; Shukla, Sachet A; Blank, Christian; Zimmer, Lisa; Sucker, Antje; Hillen, Uwe; Foppen, Marnix H Geukes; Goldinger, Simone M; Utikal, Jochen; Hassel, Jessica C; Weide, Benjamin; Kaehler, Katharina C; Loquai, Carmen; Mohr, Peter; Gutzmer, Ralf; Dummer, Reinhard; Gabriel, Stacey; Wu, Catherine J; Schadendorf, Dirk; Garraway, Levi A	Science	Germany	2015	634	Research Article
7	Cardiovascular, mortality, and kidney outcomes with GLP-1 receptor agonists in patients with type 2 diabetes: a systematic review and meta-analysis of cardiovascular outcome trials	Kristensen, Søren L; Rørth, Rasmus; Jhund, Pardeep S; Docherty, Kieran F; Sattar, Naveed; Preiss, David; Køber, Lars; Petrie, Mark C; McMurray, John J V	The Lancet Diabetes & Endocrinology	United Kingdom	2019	567	Research Article
8	YAP/TAZ at the Roots of Cancer	Zanconato, Francesca; Cordenonsi, Michelangelo; Piccolo, Stefano	Cancer Cell	Italy	2016	562	Review Article
9	Strategies and challenges for the next generation of antibody-drug conjugates	Beck, Alain; Goetsch, Liliane; Dumontet, Charles; Corvaïa, Nathalie	Nature Reviews Drug Discovery	France	2017	532	Review Article
10	The antimicrobial peptides and their potential clinical applications.	Lei, Jun; Sun, Lichun; Huang, Siyu; Zhu, Chenhong; Li, Ping; He, Jun; Mackey, Vienna; Coy, David H; He, Quanyong	American Journal of Translational Research	China	2019	516	Review Article

＜研究費＞

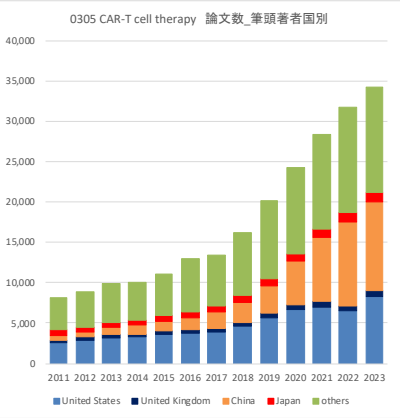
Grant: 0304 Middlemolecular drug discovery

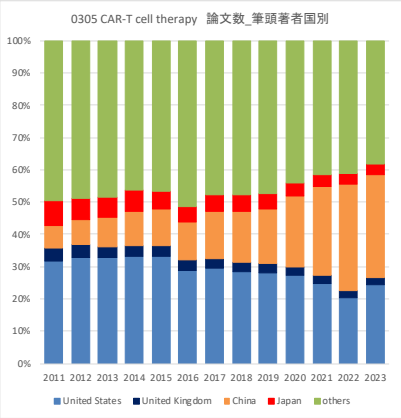
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Advanced technology support in next-generation cancer medicine creation research	Tetsuo Noda	Japan Agency for Medical Research and Development	Japan	34,107,348	2016	2022
2	BrisSynBio: Bristol Centre for Synthetic Biology	Dek Woolfson, Ross Anderson, Paula Booth, Ian Collinson, Matthew Crump, Mario Di Bernardo, Keith Edwards, Claire Grierson, Mike Jones, Tanniemola Liverpool, Stephen Mann, Chris Melhuish, Adrian Mulholland, Paul Race, Nicholas Roberts, Nigel Savery, Richard Sessions, Thomas Simpson, Ashley Toye, Chris Willis	Biotechnology and Biological Sciences Research Council	United Kingdom	25,928,994	2014	2022
3	Clinical Psychoneuroendocrinology and Neuropsychopharmacology (CPN)	LORENZO LEGGIO	National Institute on Alcohol Abuse and Alcoholism	United States	22,760,510	2013	2020
4	Michigan Prostate SPORE	ARUL M CHINNAIYAN, ELISABETH IIJAS HEATH, GANESH S PALAPATTU, EVAN T KELLER, SHAOMENG WANG, JOHN T WEI, ALEXANDER TSODIKOV, LAKSHMI PRIYA KUNJU, MAHA H HUSSAIN, KATHLEEN A COONEY, DIANE M. ROBINS, JOSHI JAMES ALUMKAL	National Cancer Institute	United States	20,552,424	2014	2024
5	Proteo-genomic Discovery, Prioritization and Verification of Cancer Biomarkers	STEVEN A CARR, AMANDA G PAULOVICH	National Cancer Institute	United States	16,181,409	2011	2017
6	Scanning Probe Microscopy for the Intramural Research Community	EMILIOS K DIMITRIADIS	National Institute of Biomedical Imaging and Bioengineering	United States	14,747,520	2013	2023
7	A Modular Nanosystems Platform for Advanced Cancer Management: Nano-vehicles; Tumor Targeting and Penetration Agents; Molecular Imaging, Degradome based Therapy	0	European Commission	Belgium	13,873,502	2011	2015
8	Imaging Biomarkers (IBs) for Safer Drugs: Validation of Translational Imaging Methods in Drug Safety Assessment - Sofia ref.: 116106	0	European Commission	Belgium	13,442,308	2017	2024
9	Multifunctional Nanotechnology for selective detection and Treatment of cancer	0	European Commission	Belgium	12,752,379	2011	2015
10	Head and Neck Cancer SPORE at the University of Wisconsin	PAUL M HARARI, DAVID T YANG, MENGGANG YU, SUSAN LYNN THIBEAULT, NADINE P CONNOR, PAUL F. LAMBERT, ALAN C RAPRAEGER, DERIC L WHEELER	National Institute of Dental and Craniofacial Research	United States	10,846,985	2016	2022

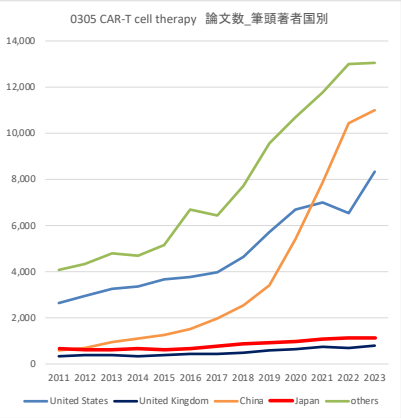
6.5. 0305 CAR-T cell therapy

6.5.1. 論文数

CAR-T cell therapy の論文数は近年大きく増加していると推計された。国別の論文数は、その他の国を除くと米国、中国が多く、特に中国は近年論文数で米国を抜いて大きく増加傾向にあると推計された。



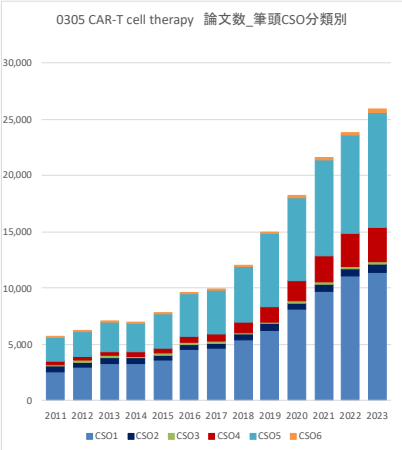


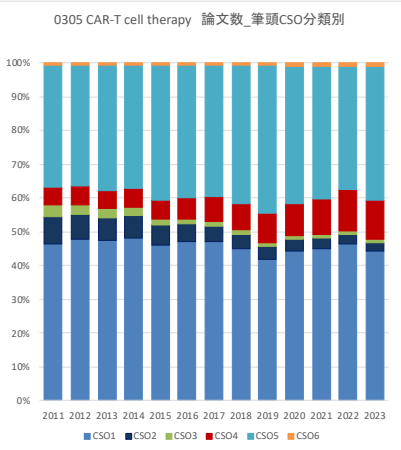


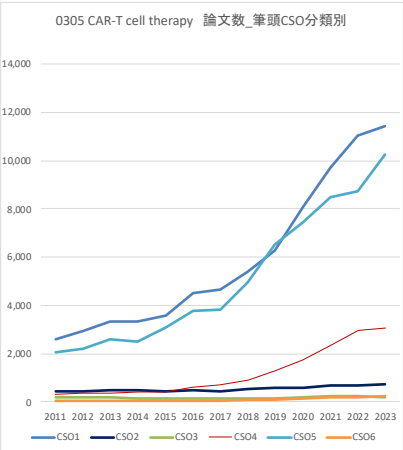
0305 CAR-T cell therapy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	2,602	2,915	3,234	3,327	3,657	3,766	3,956	4,629	5,679	6,656	7,007	6,501	8,302	3,874	66,105
United Kingdom	331	355	354	330	372	426	437	468	574	607	724	670	763	295	6,706
China	565	670	905	1,090	1,257	1,503	1,934	2,530	3,410	5,389	7,856	10,427	11,003	4,916	53,455
Japan	640	594	610	639	617	663	730	832	889	943	1,081	1,086	1,116	445	10,885
others	4,073	4,337	4,797	4,665	5,158	6,681	6,406	7,719	9,562	10,703	11,756	13,013	13,036	5,106	107,012
合計	8,211	8,871	9,900	10,051	11,061	13,039	13,463	16,178	20,114	24,298	28,424	31,697	34,220	14,636	244,163

0305 CAR-T cell therapy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	31.7%	32.9%	32.7%	33.1%	33.1%	28.9%	29.4%	28.6%	28.2%	27.4%	24.7%	20.5%	24.3%	26.5%	27.1%
United Kingdom	4.0%	4.0%	3.6%	3.3%	3.4%	3.3%	3.2%	2.9%	2.9%	2.5%	2.5%	2.1%	2.2%	2.0%	2.7%
China	6.9%	7.6%	9.1%	10.8%	11.4%	11.5%	14.4%	15.6%	17.0%	22.2%	27.6%	32.9%	32.2%	33.6%	21.9%
Japan	7.8%	6.7%	6.2%	6.4%	5.6%	5.1%	5.4%	5.1%	4.4%	3.9%	3.8%	3.4%	3.3%	3.0%	4.5%
others	49.6%	48.9%	48.5%	46.4%	46.6%	51.2%	47.6%	47.7%	47.5%	44.0%	41.4%	41.1%	38.1%	34.9%	43.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

CAR-T cell therapy の CSO 分類別の論文数は、CSO1 Biology と CSO5 Treatment が多く、経年的にも増加傾向が見られた。次いで CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



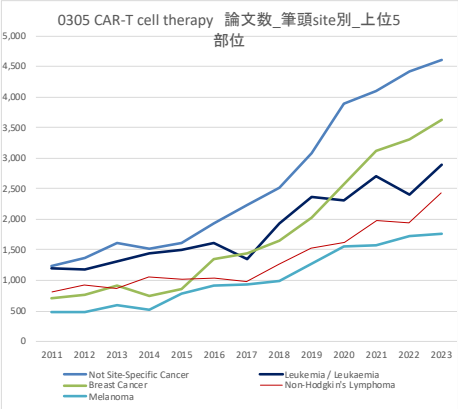




0305 CAR-T cell therapy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2,614	2,963	3,348	3,336	3,590	4,519	4,643	5,389	6,298	8,097	9,697	11,035	11,430	5,127	82,086
2 Etiology	447	456	468	467	455	486	442	516	582	594	666	676	713	294	7,262
3 Prevention	189	169	201	165	157	145	165	162	153	198	226	245	205	91	2,471
4 Early Detection, Diagnosis, and Prognosis	296	352	377	406	433	619	709	922	1,316	1,730	2,311	2,947	3,065	1,332	16,815
5 Treatment	2,043	2,202	2,604	2,519	3,107	3,760	3,845	4,935	6,539	7,440	8,470	8,735	10,234	4,445	70,878
6 Cancer Control, Survivorship, and Outcomes Research	32	45	49	42	47	51	57	91	111	166	200	208	239	92	1,430
others	2,590	2,684	2,853	3,116	3,272	3,459	3,602	4,163	5,115	6,073	6,854	7,851	8,334	3,255	63,221
合計	8,211	8,871	9,900	10,051	11,061	13,039	13,463	16,178	20,114	24,298	28,424	31,697	34,220	14,636	244,163

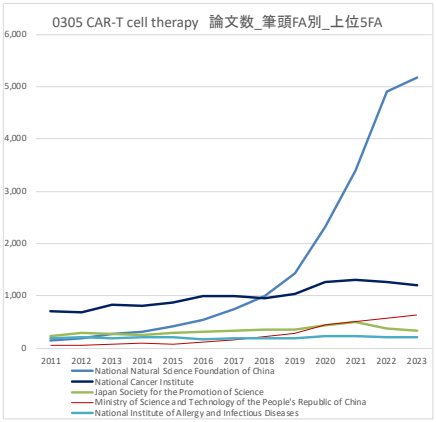
0305 CAR-T cell therapy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	31.8%	33.4%	33.8%	33.2%	32.5%	34.7%	34.5%	33.3%	31.3%	33.3%	34.1%	34.8%	33.4%	35.0%	33.6%
2 Etiology	5.4%	5.1%	4.7%	4.6%	4.1%	3.7%	3.3%	3.2%	2.9%	2.4%	2.3%	2.1%	2.1%	2.0%	3.0%
3 Prevention	2.3%	1.9%	2.0%	1.6%	1.4%	1.1%	1.2%	1.0%	0.8%	0.8%	0.8%	0.8%	0.6%	0.6%	1.0%
4 Early Detection, Diagnosis, and Prognosis	3.6%	4.0%	3.8%	4.0%	3.9%	4.7%	5.3%	5.7%	6.5%	7.1%	8.1%	9.3%	9.0%	9.1%	6.9%
5 Treatment	24.9%	24.8%	26.3%	25.1%	28.1%	28.8%	28.6%	30.5%	32.5%	30.6%	29.8%	27.6%	29.9%	30.4%	29.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.4%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%
others	31.5%	30.3%	28.8%	31.0%	29.6%	26.5%	26.8%	25.7%	25.4%	25.0%	24.1%	24.8%	24.4%	22.2%	25.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

CAR-T cell therapy の臓器別の論文数は、Not Site-specific Cancer が最も多く、ついで白血病、乳がんの順と推計された。



0305 CAR-T cell therapy 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,242	1,375	1,615	1,514	1,607	1,941	2,228	2,510	3,080	3,895	4,094	4,414	4,604	2,168	36,287
Leukemia / Leukaemia	1,198	1,184	1,314	1,442	1,499	1,617	1,341	1,929	2,367	2,303	2,698	2,403	2,893	1,030	25,218
Breast Cancer	704	766	915	745	865	1,346	1,451	1,650	2,023	2,581	3,114	3,309	3,632	1,780	24,881
Non-Hodgkin's Lymphoma	803	929	864	1,048	1,017	1,038	977	1,260	1,523	1,629	1,982	1,934	2,430	743	18,177
Melanoma	476	486	593	518	776	924	941	985	1,266	1,548	1,579	1,721	1,759	732	14,304
Colon and Rectal Cancer	325	367	415	426	529	663	675	865	1,012	1,288	1,607	1,935	2,033	968	13,108
Lung Cancer	244	280	323	303	407	565	663	799	1,049	1,332	1,705	2,116	2,095	979	12,860
Brain Tumor	144	156	183	299	230	419	522	627	774	932	1,257	1,475	1,655	622	9,295
Liver Cancer	170	202	215	259	266	338	336	390	537	767	997	1,358	1,445	602	7,882
Hodgkin's Disease	318	330	363	405	408	403	344	497	583	544	597	546	604	209	6,151

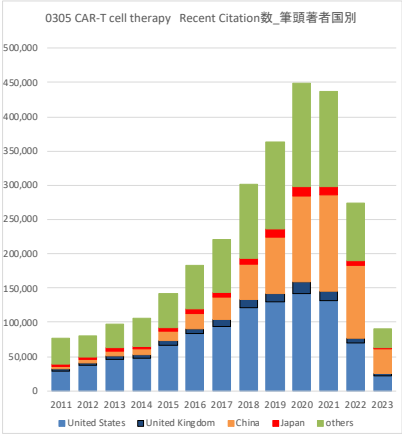
CAR-T cell therapy の FA 別の論文数は、中国 NSFC が最も多く経年的にも大幅な増加が見られた。ついで米国 NCI、わが国 JSPS を推計されたが、横ばい傾向と推計された。

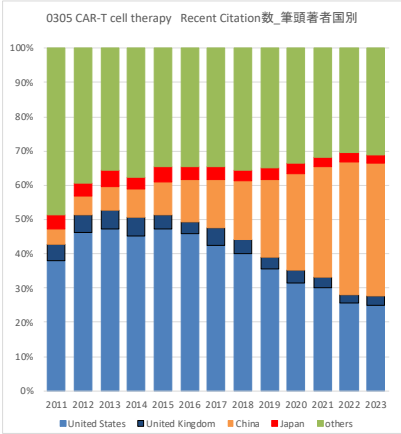


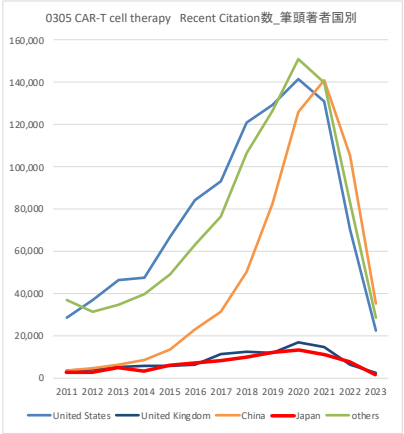
0305 CAR-T cell therapy 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	139	177	261	313	412	534	751	984	1,421	2,309	3,400	4,905	5,184	2,260	23,050
National Cancer Institute	710	680	823	807	874	987	1,003	960	1,041	1,269	1,303	1,270	1,197	499	13,423
Japan Society for the Promotion of Science	231	282	264	259	280	303	331	353	347	432	497	377	331	115	4,402
Ministry of Science and Technology of the People's Republic of China	42	47	75	89	74	109	148	223	289	443	509	565	629	287	3,529
National Institute of Allergy and Infectious Diseases	195	199	185	202	200	173	178	183	178	223	235	205	204	72	2,632
Deutsche Forschungsgemeinschaft	97	100	104	103	112	122	117	139	187	221	223	240	223	86	2,074
European Commission	49	66	57	71	80	115	118	127	183	200	252	269	244	118	1,949
National Institute of General Medical Sciences	52	52	56	85	93	106	122	146	133	162	168	158	171	61	1,565
National Research Foundation of Korea	30	43	44	56	57	69	80	101	125	177	179	190	173	67	1,391
Italian Association for Cancer Research	49	31	64	67	62	55	74	94	142	136	143	147	148	35	1,247

6.5.2. Recent Citation 数

CAR-T cell therapy の引用数は経年的に大幅な増加傾向が見られた。国別の引用数は、米国の引用数が多かったが、近年中国の引用数の増加が顕著と推計された。



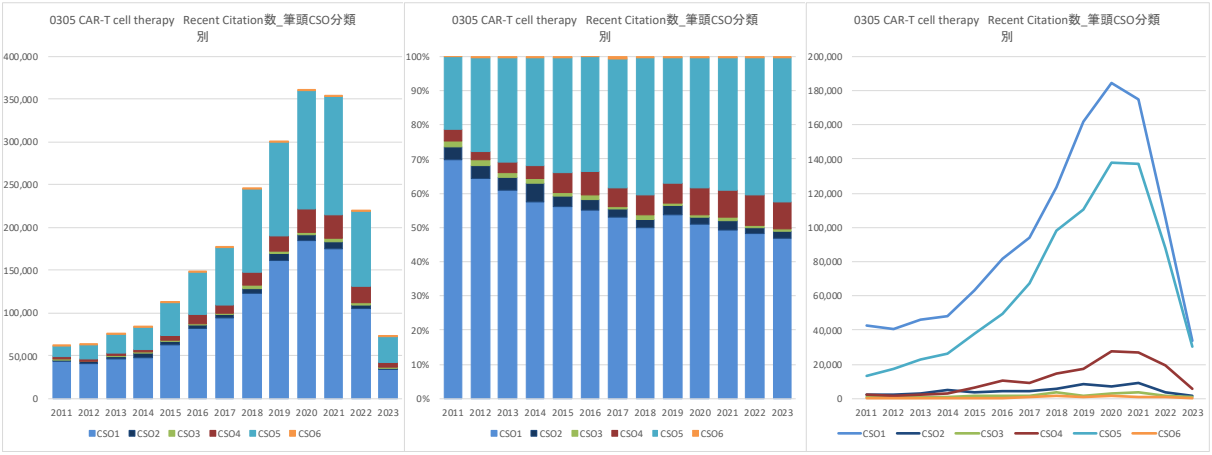




0305 CAR-T cell therapy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28,916	36,908	46,228	47,631	66,893	84,221	93,501	120,907	129,375	141,649	130,987	70,174	22,800	814	1,021,004
United Kingdom	3,726	4,144	5,373	5,810	5,800	6,201	11,332	12,488	12,286	16,930	14,542	6,475	2,488	65	107,660
China	3,472	4,528	6,518	8,580	13,648	22,908	31,340	50,605	82,850	125,967	141,079	105,637	35,394	1,227	633,753
Japan	3,106	3,033	4,861	3,641	6,248	7,058	8,281	10,062	12,419	13,433	10,974	7,589	1,955	73	92,733
others	36,950	31,448	34,580	39,641	49,261	63,389	76,390	106,766	126,629	150,906	139,779	83,355	28,469	938	968,501
合計	76,170	80,061	97,560	105,303	141,850	183,777	220,844	300,828	363,559	448,885	437,361	273,230	91,106	3,117	2,823,651

0305 CAR-T cell therapy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	38.0%	46.1%	47.4%	45.2%	47.2%	45.8%	42.3%	40.2%	35.6%	31.6%	29.9%	25.7%	25.0%	26.1%	36.2%
United Kingdom	4.9%	5.2%	5.5%	5.5%	4.1%	3.4%	5.1%	4.2%	3.4%	3.8%	3.3%	2.4%	2.7%	2.1%	3.8%
China	4.6%	5.7%	6.7%	8.1%	9.6%	12.5%	14.2%	16.8%	22.8%	28.1%	32.3%	38.7%	38.8%	39.4%	22.4%
Japan	4.1%	3.8%	5.0%	3.5%	4.4%	3.8%	3.7%	3.3%	3.4%	3.0%	2.5%	2.8%	2.1%	2.3%	3.3%
others	48.5%	39.3%	35.4%	37.6%	34.7%	34.5%	34.6%	35.5%	34.8%	33.6%	32.0%	30.5%	31.2%	30.1%	34.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

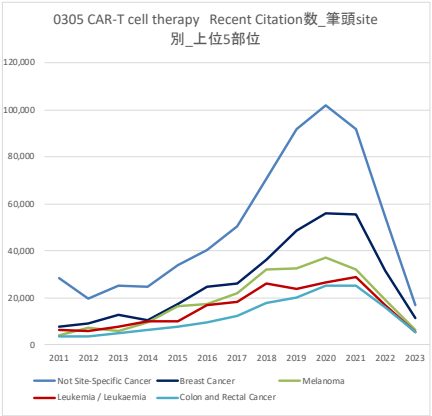
CAR-T cell therapy の CSO 分類別の引用数は、CSO1 Biology が最も多く、ついで CSO5 Treatment が多いと推計された。



0305 CAR-T cell therapy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	42,979	40,716	46,244	48,201	63,075	81,544	94,083	123,456	162,031	184,808	174,771	105,772	34,050	1,002	1,202,732
2 Etiology	2,414	2,514	2,888	4,772	3,479	4,593	4,375	5,486	8,241	6,980	9,071	3,959	1,477	52	60,301
3 Prevention	931	1,001	964	1,168	1,424	1,743	1,652	3,734	1,751	2,726	3,964	1,905	613	18	23,594
4 Early Detection, Diagnosis, and Prognosis	2,166	1,565	2,522	2,981	6,350	10,337	9,229	14,452	17,660	27,487	27,245	19,482	5,563	204	147,243
5 Treatment	13,009	17,324	23,074	26,553	37,946	49,297	67,522	98,217	110,218	137,942	137,556	87,743	30,670	1,120	838,191
6 Cancer Control, Survivorship, and Outcomes Research	114	237	314	414	414	331	1,110	1,362	882	1,507	1,008	1,020	252	13	8,978
others	14,557	16,704	21,554	21,214	29,162	35,932	42,897	54,121	62,776	87,435	83,746	53,397	18,482	708	542,612
合計	76,170	80,061	97,560	105,303	141,850	183,777	220,844	300,828	363,559	448,885	437,361	273,230	91,106	3,117	2,823,651

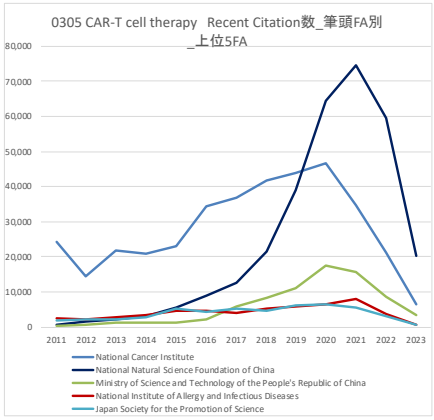
0305 CAR-T cell therapy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	56.4%	50.9%	47.4%	45.8%	44.5%	44.4%	42.6%	41.0%	44.6%	41.2%	40.0%	38.7%	37.4%	32.1%	42.6%
2 Etiology	3.2%	3.1%	3.0%	4.5%	2.5%	2.5%	2.0%	1.8%	2.3%	1.6%	2.1%	1.4%	1.6%	1.7%	2.1%
3 Prevention	1.2%	1.3%	1.0%	1.1%	1.0%	0.9%	0.7%	1.2%	0.5%	0.6%	0.9%	0.7%	0.7%	0.6%	0.8%
4 Early Detection, Diagnosis, and Prognosis	2.8%	2.0%	2.6%	2.8%	4.5%	5.6%	4.2%	4.8%	4.9%	6.1%	6.2%	7.1%	6.1%	6.5%	5.2%
5 Treatment	17.1%	21.6%	23.7%	25.2%	26.8%	26.8%	30.6%	32.6%	30.3%	30.7%	31.5%	32.1%	33.7%	35.9%	29.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.1%	0.3%	0.3%	0.4%	0.3%	0.2%	0.5%	0.5%	0.2%	0.3%	0.2%	0.4%	0.3%	0.4%	0.3%
others	19.1%	20.9%	22.1%	20.1%	20.6%	19.6%	19.4%	18.0%	17.3%	19.5%	19.1%	19.5%	20.3%	22.7%	19.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

CAR-T cell therapy の臓器別の引用数は、Not Site-specific Cancer が最も多く、ついで乳がん、メラノーマで多いと推計された。



0305 CAR-T cell therapy Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	28,471	19,923	25,291	24,923	33,795	40,346	50,402	70,685	91,919	102,019	91,933	54,601	16,922	571	651,801
Breast Cancer	7,651	9,359	12,778	10,321	17,300	24,779	26,281	36,243	48,793	55,905	55,428	31,867	11,236	394	348,335
Melanoma	4,124	7,436	6,061	9,419	16,446	17,456	22,176	31,944	32,585	37,293	31,908	19,457	6,221	175	242,701
Leukemia / Leukaemia	6,435	6,035	7,979	10,036	10,241	16,954	18,466	26,223	24,010	26,808	29,086	16,799	5,311	221	204,604
Colon and Rectal Cancer	3,531	3,437	5,189	6,409	7,776	9,516	12,553	17,723	20,326	25,063	25,219	16,254	5,615	185	158,796
Lung Cancer	2,228	2,264	2,777	3,340	6,637	10,770	9,685	19,451	17,396	23,196	24,825	15,997	5,123	152	143,841
Non-Hodgkin's Lymphoma	3,925	4,523	4,699	5,122	5,947	6,131	8,643	8,153	10,732	16,513	15,598	10,338	3,509	108	103,941
Brain Tumor	1,581	1,331	2,801	2,849	3,714	4,557	8,838	10,721	15,418	16,539	17,708	12,363	4,210	162	102,792
Liver Cancer	1,730	1,881	2,202	2,618	3,585	4,900	6,992	6,923	14,043	16,438	18,587	12,644	4,407	148	97,098
Pancreatic Cancer	820	1,620	2,729	2,419	2,504	5,604	5,793	6,176	10,054	14,793	11,929	9,580	3,060	77	77,158

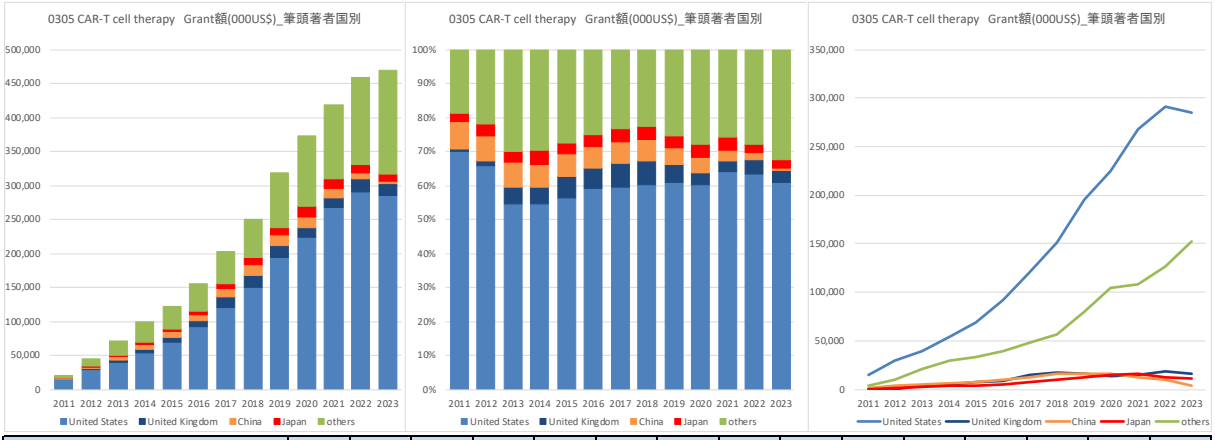
CAR-T cell therapy の FA 別の引用数は、米国 NCI が最も多かったが、2019 年以降は中国 NSFC が最も多いと推計された。



0305 CAR-T cell therapy Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	24,237	14,594	21,766	20,808	23,192	34,350	36,818	41,771	43,820	46,584	34,603	21,190	6,444	192	370,369
National Natural Science Foundation of China	805	1,537	2,046	3,013	5,683	8,895	12,636	21,425	38,988	64,583	74,512	59,434	20,320	637	314,514
Ministry of Science and Technology of the People's Republic of China	378	747	1,318	1,246	1,419	2,053	5,789	8,360	11,223	17,645	15,754	8,520	3,364	113	77,929
National Institute of Allergy and Infectious Diseases	2,466	2,212	2,814	3,443	4,680	4,797	3,881	5,286	5,848	6,379	8,141	3,754	793	31	54,525
Japan Society for the Promotion of Science	1,951	2,293	2,247	2,807	5,208	4,325	5,279	4,679	6,169	6,448	5,478	3,037	721	28	50,670
National Institute of General Medical Sciences	796	647	2,061	1,351	2,057	6,301	4,351	4,943	5,388	5,662	5,375	1,936	789	13	41,670
Deutsche Forschungsgemeinschaft	743	1,302	1,335	1,371	1,570	2,811	2,620	3,646	7,186	4,813	4,999	3,202	1,066	28	36,692
European Commission	368	1,485	937	1,982	1,350	1,794	3,479	4,608	5,668	5,298	5,289	2,492	779	50	35,579
National Center for Advancing Translational Sciences	834	2,146	1,450	2,518	1,624	3,734	3,112	4,146	3,582	3,719	2,381	1,272	306	23	30,847
European Research Council	55	675	211	491	1,346	1,328	1,438	5,526	5,307	4,512	2,425	1,276	699	30	25,319

6.5.3. Grant(000US$)額

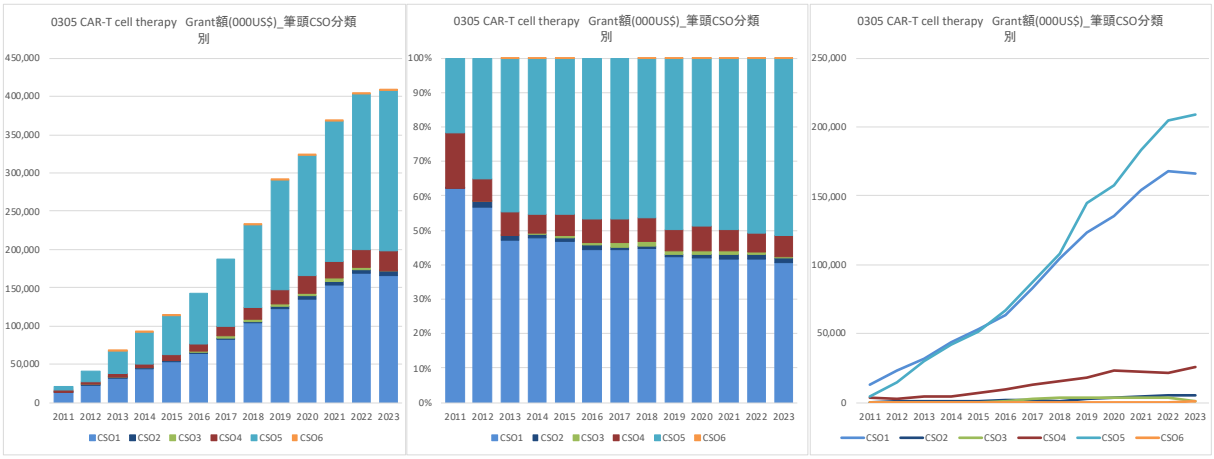
CAR-T cell therapy の研究費総額は顕著な増加傾向が見られた。国別の研究費配分額は米国が最も多く、ついで英国、中国の順と推計された。



0305 CAR-T cell therapy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	14,669	29,485	38,887	54,283	68,653	91,648	120,831	150,910	194,751	224,491	267,915	291,294	285,523	250,534	2,083,873
United Kingdom	115	665	3,646	4,794	7,757	9,160	14,536	17,213	16,000	13,525	14,271	18,003	16,614	15,170	151,469
China	1,727	3,247	5,173	6,732	8,004	9,732	12,639	15,771	15,838	15,975	12,912	9,480	3,414	2,545	123,189
Japan	549	1,574	2,261	4,024	3,974	5,340	7,617	10,102	11,804	14,878	15,530	12,802	11,589	7,547	109,590
others	3,893	9,779	21,447	29,592	33,540	38,932	47,746	56,318	80,520	104,052	108,208	127,083	152,450	98,913	912,472
合計	20,953	44,749	71,415	99,425	121,927	154,813	203,368	250,313	318,913	372,921	418,835	458,661	469,590	374,709	3,380,594

0305 CAR-T cell therapy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	70.0%	65.9%	54.5%	54.6%	56.3%	59.2%	59.4%	60.3%	61.1%	60.2%	64.0%	63.5%	60.8%	66.9%	61.6%
United Kingdom	0.5%	1.5%	5.1%	4.8%	6.4%	5.9%	7.1%	6.9%	5.0%	3.6%	3.4%	3.9%	3.5%	4.0%	4.5%
China	8.2%	7.3%	7.2%	6.8%	6.6%	6.3%	6.2%	6.3%	5.0%	4.3%	3.1%	2.1%	0.7%	0.7%	3.6%
Japan	2.6%	3.5%	3.2%	4.0%	3.3%	3.4%	3.7%	4.0%	3.7%	4.0%	3.7%	2.8%	2.5%	2.0%	3.2%
others	18.6%	21.9%	30.0%	29.8%	27.5%	25.1%	23.5%	22.5%	25.2%	27.9%	25.8%	27.7%	32.5%	26.4%	27.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

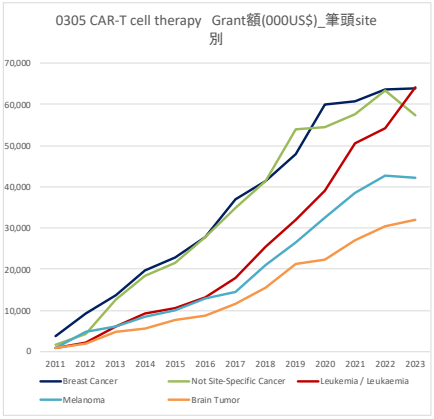
CAR-T cell therapy の CSO 分類別の研究費配分額は、CSO5 Treatment と CSO1 Biology が最も多く経年的にも増加傾向が見られた。



0305 CAR-T cell therapy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12,688	23,339	32,074	44,088	53,177	63,875	83,061	104,312	123,075	135,604	154,064	168,336	166,478	134,542	1,298,714
2 Etiology	9	681	860	951	1,133	1,679	1,440	1,372	2,318	3,712	4,704	5,354	4,855	4,486	33,553
3 Prevention	0	21	49	330	551	1,108	2,547	3,183	3,295	3,956	3,850	3,685	1,363	1,252	25,192
4 Early Detection, Diagnosis, and Prognosis	3,269	2,700	4,494	4,840	7,231	9,601	12,669	15,658	18,200	23,010	22,158	21,935	26,000	16,876	188,640
5 Treatment	4,445	14,338	30,302	41,753	51,122	67,060	87,114	107,837	144,562	157,557	183,546	204,677	209,329	164,440	1,468,083
6 Cancer Control, Survivorship, and Outcomes Research	0	0	38	38	38	0	0	128	129	129	128	468	906	906	2,908
others	542	3,671	3,636	7,463	8,713	11,489	16,538	17,823	27,334	48,955	50,384	54,205	60,657	52,208	363,617
合計	20,953	44,749	71,415	99,425	121,927	154,813	203,368	250,313	318,913	372,921	418,835	458,661	469,590	374,709	3,380,594

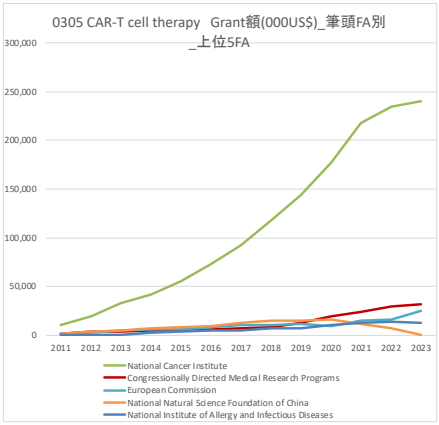
0305 CAR-T cell therapy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	60.6%	52.2%	44.9%	44.3%	43.6%	41.3%	40.8%	41.7%	38.6%	36.4%	36.8%	36.7%	35.5%	35.9%	38.4%
2 Etiology	0.0%	1.5%	1.2%	1.0%	0.9%	1.1%	0.7%	0.5%	0.7%	1.0%	1.1%	1.2%	1.0%	1.2%	1.0%
3 Prevention	0.0%	0.0%	0.1%	0.3%	0.5%	0.7%	1.3%	1.3%	1.0%	1.1%	0.9%	0.8%	0.3%	0.3%	0.7%
4 Early Detection, Diagnosis, and Prognosis	15.6%	6.0%	6.3%	4.9%	5.9%	6.2%	6.2%	6.3%	5.7%	6.2%	5.3%	4.8%	5.5%	4.5%	5.6%
5 Treatment	21.2%	32.0%	42.4%	42.0%	41.9%	43.3%	42.8%	43.1%	45.3%	42.2%	43.8%	44.6%	44.6%	43.9%	43.4%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.1%
others	2.6%	8.2%	5.1%	7.5%	7.1%	7.4%	8.1%	7.1%	8.6%	13.1%	12.0%	11.8%	12.9%	13.9%	10.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

CAR-T cell therapy の臓器別の研究費配分額は、乳がんが最も多く、ついで Not Site-specific Cancer、白血病の順と推計された。



0305 CAR-T cell therapy Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	3,700	9,163	13,585	19,762	22,930	27,907	36,861	41,489	47,873	59,919	60,825	63,704	63,953	46,058	517,730
Not Site-Specific Cancer	1,783	4,187	12,583	18,395	21,634	27,877	34,786	41,485	53,828	54,540	57,680	63,302	57,245	49,858	499,185
Leukemia / Leukaemia	865	2,109	6,133	9,126	10,519	13,174	17,780	25,460	31,986	38,938	50,648	54,298	64,181	41,032	366,248
Melanoma	836	4,898	6,206	8,410	10,024	12,784	14,412	20,885	26,468	32,527	38,650	42,786	42,185	38,394	299,465
Brain Tumor	770	1,995	4,832	5,587	7,597	8,796	11,664	15,484	21,258	22,297	26,993	30,476	31,948	30,076	219,774
Lung Cancer	1,236	3,562	3,386	4,158	6,351	8,094	10,695	14,078	17,768	22,057	23,359	27,766	23,671	19,008	185,190
Pancreatic Cancer	2,890	3,786	4,997	5,697	6,278	9,215	10,682	12,576	15,446	15,331	21,365	24,811	23,130	19,473	175,678
Non-Hodgkin's Lymphoma	410	886	2,317	2,618	3,399	6,444	6,647	7,754	14,461	17,993	22,789	24,930	23,544	22,461	156,652
Colon and Rectal Cancer	1,138	1,930	2,903	5,225	6,104	7,043	8,652	10,879	11,356	11,851	13,879	14,764	13,751	11,610	121,085
Ovarian Cancer	1,768	1,356	1,847	2,286	4,802	6,108	8,332	9,727	11,218	13,617	13,156	11,272	10,606	8,257	104,352

CAR-T cell therapy の FA 別の研究費配分額は、米国 NCI が大半を占めて経年的にも大幅に増加していた。



0305 CAR-T cell therapy Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	10,326	19,231	32,937	41,457	55,672	73,134	92,441	117,682	143,576	177,245	217,288	233,850	239,541	183,898	1,638,280	United States
Congressionally Directed Medical Research Programs	1,501	3,289	3,698	4,965	4,625	5,728	7,459	8,576	12,366	19,197	23,906	29,994	32,012	25,810	183,126	United States
European Commission	1,079	2,487	5,178	5,454	5,705	8,360	9,963	10,255	11,621	9,671	15,220	16,413	24,862	23,038	149,306	Belgium
National Natural Science Foundation of China	1,727	3,259	5,185	6,744	7,961	9,515	12,408	15,477	15,521	15,678	11,683	7,186	965	258	113,565	China
National Institute of Allergy and Infectious Diseases	150	370	370	2,387	3,754	5,116	5,325	6,631	6,765	10,778	13,268	14,077	13,169	13,332	95,490	United States
European Research Council	0	0	974	1,954	2,038	3,414	4,227	5,801	6,665	7,905	9,519	11,771	14,307	17,351	85,927	Belgium
Japan Agency for Medical Research and Development	0	0	0	583	1,041	1,908	3,147	4,900	10,841	13,600	14,720	12,954	11,456	8,499	83,651	Japan
Japan Society for the Promotion of Science	549	1,535	2,222	2,569	2,933	3,687	4,724	5,457	6,032	6,913	6,959	6,200	6,165	4,579	60,523	Japan
National Institute of Neurological Disorders and Stroke	238	482	589	1,020	2,081	2,661	3,586	4,199	5,266	6,386	8,577	8,922	7,240	6,803	58,051	United States
Canadian Institutes of Health Research	360	439	669	661	1,053	1,309	1,192	2,322	2,999	3,625	4,185	5,627	5,252	4,177	33,870	Canada

6.5.4. 主要論文、引用、研究費

＜論文＞

Publication: 0305 CAR-T cell therapy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Utility and Drawbacks of Chimeric Antigen Receptor T Cell (CAR-T) Therapy in Lung Cancer	Kandra, Prameela; Nandigama, Rajender; Eul, Bastian; Huber, Magdalena; Kobold, Sebastian; Seeger, Werner; Grimminger, Friedrich; Savai, Rajkumar	Frontiers in Immunology	Germany	2022	10	Review Article
2	Tumor Microenvironment Immunosuppression: A Roadblock to CAR T-Cell Advancement in Solid Tumors	Johnson, Abigail; Townsend, Michelle; O'Neill, Kim	Cells	United States	2022	12	Review Article
3	Challenges of chimeric antigen receptor T-cell therapy in chronic lymphocytic leukemia: lessons learned	Can, Ismail; Cox, Michelle J; Siegler, Elizabeth L; Sakemura, Reona; Kenderian, Saad S	Experimental Hematology	United States	2022	11	Review Article
4	The landscape of chimeric antigen receptor T cell therapy in breast cancer: Perspectives and outlook	Zhang, Hao; Zhu, Shuangli; Deng, Wanjun; Li, Rui; Zhou, Haiting; Xiong, Huihua	Frontiers in Immunology	China	2022	5	Review Article
5	Remodelling of tumour microenvironment by microwave ablation potentiates immunotherapy of AXL-specific CAR T cells against non-small cell lung cancer	Cao, Bihui; Liu, Manting; Wang, Lu; Zhu, Kangshun; Cai, Mingyue; Chen, Xiaopei; Feng, Yunfei; Yang, Shuo; Fu, Shengyu; Zhi, Cheng; Ye, Xiaodie; Zhang, Jian; Zhang, Zhiru; Yang, Xin; Zhao, Ming; Wu, Qingde; Xu, Linfeng; Yang, Lili; Lian, Hui; Zhao, Qi; Zhang, Zhenfeng	Nature Communications	China	2022	35	Research Article
6	CAR T-cells for colorectal cancer immunotherapy: Ready to go?	Ghazi, Bouchra; Ghanmi, Adil El; Kandoussi, Sarah; Ghouzlani, Amina; Badou, Abdallah	Frontiers in Immunology	Morocco	2022	11	Review Article
7	CXCL9-modified CAR T cells improve immune cell infiltration and antitumor efficacy	Tian, Yonggui; Wen, Chunli; Zhang, Zhen; Liu, Yanfen; Li, Feng; Zhao, Qitai; Yao, Chang; Ni, Kaiyuan; Yang, Shengli; Zhang, Yi	Cancer Immunology, Immunotherapy	China	2022	15	Research Article
8	Nanotechnology-based chimeric antigen receptor T-cell therapy in treating solid tumor	Zuo, Yi-Han; Zhao, Xiao-Ping; Fan, Xing-Xing	Pharmacological Research	United States	2022	11	Research Article
9	Overcome tumor relapse in CAR T cell therapy	Huo, Cheng-Dong; Yang, Jie; Gu, Yan-Mei; Wang, Dai-Jun; Zhang, Xiao-Xia; Li, Yu-Min	Clinical and Translational Oncology	China	2022	2	Review Article
10	Chimeric antigen receptor T cells applied to solid tumors	Zhou, Zhongguo; Tao, Can; Li, Jianting; Tang, Johnny Cheuk-on; Chan, Albert Sun-chi; Zhou, Yuanyuan	Frontiers in Immunology	China	2022	11	Review Article

＜引用＞

Citation: 0305 CAR-T cell therapy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Hallmarks of Cancer: The Next Generation	Hanahan, Douglas; Weinberg, Robert A.	Cell	Switzerland	2011	12189	Review Article
2	Hallmarks of Cancer: New Dimensions	Hanahan, Douglas	Cancer Discovery	Switzerland	2022	3740	Review Article
3	The blockade of immune checkpoints in cancer immunotherapy	Pardoll, Drew M.	Nature Reviews Cancer	United States	2012	2829	Review Article
4	The 2016 revision to the World Health Organization classification of myeloid neoplasms and acute leukemia	Arber, Daniel A; Orazi, Attilio; Hasserjian, Robert; Thiele, Jürgen; Borowitz, Michael J; Le Beau, Michelle M; Bloomfield, Clara D; Cazzola, Mario; Vardiman, James W	Blood	United States	2016	2622	Review Article
5	Signatures of T cell dysfunction and exclusion predict cancer immunotherapy response	Jiang, Peng; Gu, Shengqing; Pan, Deng; Fu, Jingxin; Sahu, Avinash; Hu, Xihao; Li, Ziyi; Traugh, Nicole; Bu, Xia; Li, Bo; Liu, Jun; Freeman, Gordon J.; Brown, Myles A.; Wucherpfennig, Kai W.; Liu, X. Shirley	Nature Medicine	United States	2018	2416	Research Article
6	TIMER2.0 for analysis of tumor-infiltrating immune cells	Li, Taiwen; Fu, Jingxin; Zeng, Zexian; Cohen, David; Li, Jing; Chen, Qianming; Li, Bo; Liu, X Shirley	Nucleic Acids Research	China	2020	2383	Research Article
7	Cancer immunotherapy using checkpoint blockade	Ribas, Antoni; Wolchok, Jedd D	Science	United States	2018	2117	Review Article
8	Understanding the tumor immune microenvironment (TIME) for effective therapy	Binnewies, Mikhail; Roberts, Edward W.; Kersten, Kelly; Chan, Vincent; Fearon, Douglas F.; Merad, Miriam; Coussens, Lisa M.; Gabrilovich, Dmitry I.; Ostrand-Rosenberg, Suzanne; Hedrick, Catherine C.; Vonderheide, Robert H.; Pittet, Mikael J.; Jain, Rakesh K.; Zou, Weiping; Howcroft, T. Kevin; Woodhouse, Elisa C.; Weinberg, Robert A.; Krummel, Matthew F.	Nature Medicine	United States	2018	2039	Review Article
9	Microenvironmental regulation of tumor progression and metastasis	Quail, Daniela F; Joyce, Johanna A	Nature Medicine	United States	2013	2027	Review Article
10	Oncology Meets Immunology: The Cancer-Immunity Cycle	Chen, Daniel S.; Mellman, Ira	Immunity	United States	2013	1947	Review Article

＜研究費＞

Grant: 0305 CAR-T cell therapy

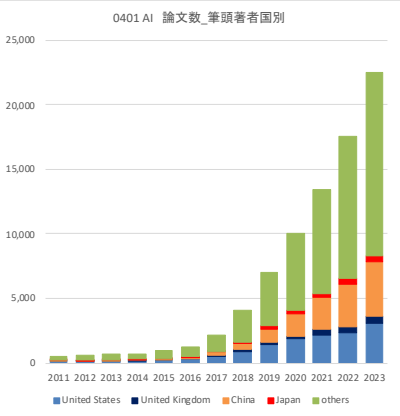
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Development of patient stratification marker search technology / Development of basic technology for patient stratification by cancer immunomonitoring	Ryuzo Ueda	Japan Agency for Medical Research and Development	Japan	28,887,788	2019	2024
2	Centre for Cancer Cell Reprogramming (CanCell)	Harald A. Stenmark	The Research Council of Norway	Norway	17,508,672	2017	2028
3	p53, Aging, and Cancer	CURTIS HARRIS	National Cancer Institute	United States	17,096,596	2013	2023
4	Thoracic and Gastrointestinal Malignancies Branch Clinical Core	RAFFIT HASSAN	National Cancer Institute	United States	15,513,850	2014	2023
5	Enhancing Chimeric Antigen Receptor T Cell Therapies for HematologicMalignancies: Beyond CART 19	CARL H. JUNE, DAVID L PORTER, SAAR GILL, EDWARD A STADTMAUER, BRUCE L. LEVINE, JAN J MELENHORST, DONALD LAWRENCE SIEGEL, SIMON F LACEY, JOSEPH ANTHONY FRAIETTA, MICHAEL C. MILONE, FRIEDERIKE HERBST-NOWROUZI	National Cancer Institute	United States	15,324,100	2017	2028
6	Applying precision MEdicine to optimize desensitization with novel bIOlogics or cellular theRApies in highly sensiTized kidney transplant patiEnts (AMELIORATE)	FLAVIO VINCENTI	National Institute of Allergy and Infectious Diseases	United States	15,179,927	2014	2024
7	PRIMA – Precision Immunotherapy Alliance	Karl-Johan Malmberg	The Research Council of Norway	Norway	14,887,474	2023	2033
8	(Attack)2: Genetic engineering of cellular and humoral immunity to cure HIV	SCOTT G KITCHEN, IRVIN S.Y. CHEN, OTTO O YANG, HANS-PETER KIEM, KOKI MORIZONO, DONG SUNG AN	National Institute of Allergy and Infectious Diseases	United States	14,264,142	2020	2025
9	CARGo: a CAR-T cell program targeting HLA-G – a novel immune checkpoint and tumor specific antigen for advanced clear cell renal and ovarian carcinomas	Qi Yang	Cancer Prevention and Research Institute of Texas	United States	14,196,990	2020	0
10	Pediatric Oncology Branch Behavioral Science Core	JOHN GLOD, MELINDA MERCHANT	National Cancer Institute	United States	12,694,644	2013	2023

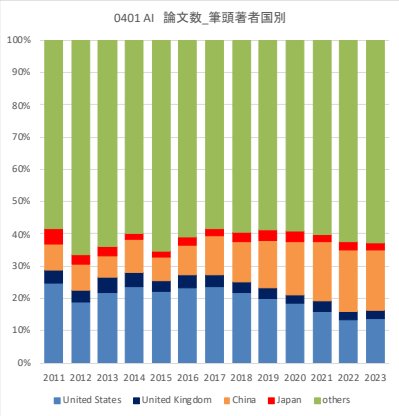
7. テーマ分析：領域 4

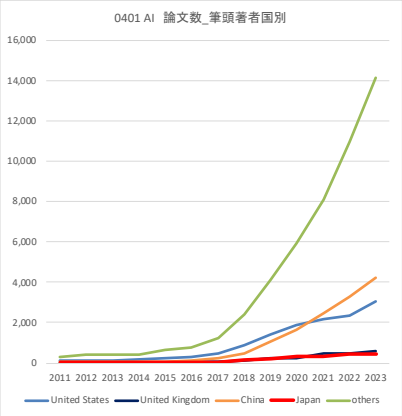
7.1. 0401 AI

7.1.1. 論文数

AI の論文数は近年大幅に増加していると推計された。国別の論文数は、他の国が最も多く、ついで中国、米国の順と推計された。



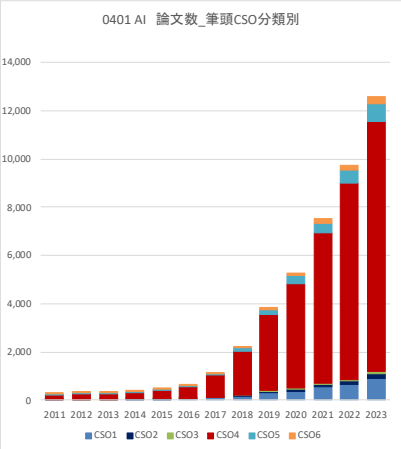


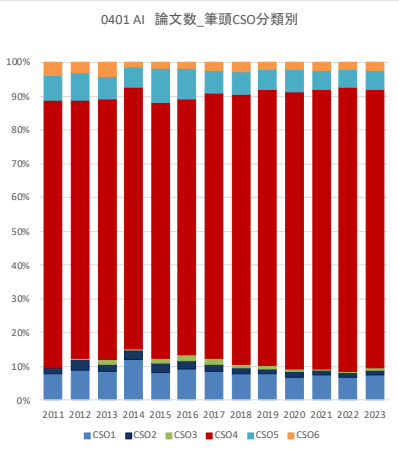


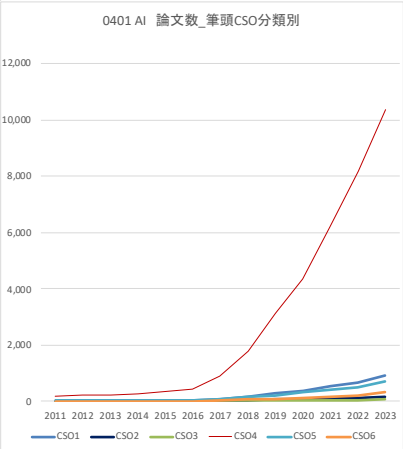
0401 AI 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	138	111	148	175	220	294	499	895	1,408	1,855	2,154	2,371	3,074	1,342	14,684
United Kingdom	22	21	33	33	33	49	80	134	216	259	445	452	592	241	2,610
China	45	46	46	74	73	118	256	502	1,033	1,665	2,469	3,300	4,206	2,018	15,851
Japan	27	18	20	14	19	30	45	125	226	311	313	449	471	180	2,248
others	323	387	435	441	651	770	1,237	2,411	4,107	5,915	8,082	10,960	14,165	5,632	55,516
合計	555	583	682	737	996	1,261	2,117	4,067	6,990	10,005	13,463	17,532	22,508	9,413	90,909

0401 AI 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	24.9%	19.0%	21.7%	23.7%	22.1%	23.3%	23.6%	22.0%	20.1%	18.5%	16.0%	13.5%	13.7%	14.3%	16.2%
United Kingdom	4.0%	3.6%	4.8%	4.5%	3.3%	3.9%	3.8%	3.3%	3.1%	2.6%	3.3%	2.6%	2.6%	2.6%	2.9%
China	8.1%	7.9%	6.7%	10.0%	7.3%	9.4%	12.1%	12.3%	14.8%	16.6%	18.3%	18.8%	18.7%	21.4%	17.4%
Japan	4.9%	3.1%	2.9%	1.9%	1.9%	2.4%	2.1%	3.1%	3.2%	3.1%	2.3%	2.6%	2.1%	1.9%	2.5%
others	58.2%	66.4%	63.8%	59.8%	65.4%	61.1%	58.4%	59.3%	58.8%	59.1%	60.0%	62.5%	62.9%	59.8%	61.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

AI の CSO 分類別の論文数は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く顕著に増加しており、ついで CSO1 Biology と推計された。



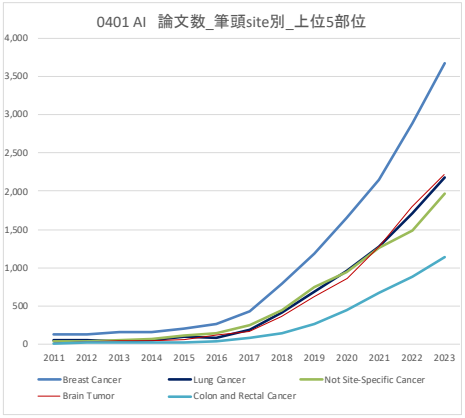




0401 AI 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	20	27	26	42	39	56	95	178	297	364	557	657	928	446	3,732
2 Etiology	4	10	7	10	14	14	24	34	62	94	102	134	180	87	776
3 Prevention	0	1	4	2	7	11	21	27	39	36	48	52	84	24	356
4 Early Detection, Diagnosis, and Prognosis	202	232	237	271	362	455	888	1,778	3,140	4,332	6,218	8,181	10,386	4,303	40,985
5 Treatment	18	25	20	21	48	53	77	147	225	343	418	510	707	385	2,997
6 Cancer Control, Survivorship, and Outcomes Research	10	9	13	5	8	11	26	61	82	113	171	198	318	127	1,152
others	301	279	375	386	518	661	986	1,842	3,145	4,723	5,949	7,800	9,905	4,041	40,911
合計	555	583	682	737	996	1,261	2,117	4,067	6,990	10,005	13,463	17,532	22,508	9,413	90,909

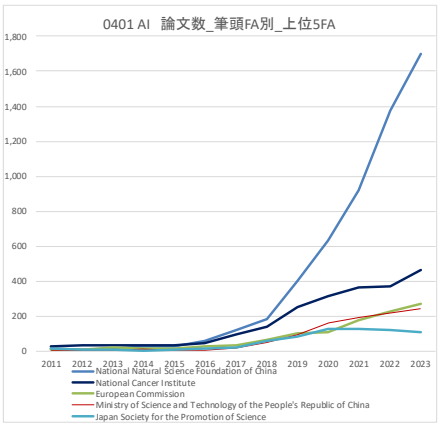
0401 AI 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3.6%	4.6%	3.8%	5.7%	3.9%	4.4%	4.5%	4.4%	4.2%	3.6%	4.1%	3.7%	4.1%	4.7%	4.1%
2 Etiology	0.7%	1.7%	1.0%	1.4%	1.4%	1.1%	1.1%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.9%	0.9%
3 Prevention	0.0%	0.2%	0.6%	0.3%	0.7%	0.9%	1.0%	0.7%	0.6%	0.4%	0.4%	0.3%	0.4%	0.3%	0.4%
4 Early Detection, Diagnosis, and Prognosis	36.4%	39.8%	34.8%	36.8%	36.3%	36.1%	41.9%	43.7%	44.9%	43.3%	46.2%	46.7%	46.1%	45.7%	45.1%
5 Treatment	3.2%	4.3%	2.9%	2.8%	4.8%	4.2%	3.6%	3.6%	3.2%	3.4%	3.1%	2.9%	3.1%	4.1%	3.3%
6 Cancer Control, Survivorship, and Outcomes Research	1.8%	1.5%	1.9%	0.7%	0.8%	0.9%	1.2%	1.5%	1.2%	1.1%	1.3%	1.1%	1.4%	1.3%	1.3%
others	54.2%	47.9%	55.0%	52.4%	52.0%	52.4%	46.6%	45.3%	45.0%	47.2%	44.2%	44.5%	44.0%	42.9%	45.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

AI の臓器別の論文数は、乳がんが最も多く、ついで肺がん、Not Site-specific Cancer と推計された。



0401 AI 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	134	132	162	164	204	265	427	787	1,191	1,646	2,156	2,885	3,669	1,506	15,328
Lung Cancer	52	48	43	55	98	91	189	410	682	957	1,271	1,710	2,177	884	8,667
Not Site-Specific Cancer	39	41	48	73	116	141	247	452	755	950	1,256	1,481	1,966	958	8,523
Brain Tumor	24	35	49	47	59	119	167	357	617	862	1,290	1,799	2,222	829	8,476
Colon and Rectal Cancer	15	25	22	19	27	34	87	144	272	453	674	881	1,139	512	4,304
Prostate Cancer	22	24	31	36	43	50	88	189	308	414	518	573	764	336	3,396
Melanoma	11	9	11	16	18	30	78	124	235	294	453	541	743	224	2,787
Liver Cancer	13	20	15	18	21	21	64	71	173	293	426	564	723	326	2,748
Cervical Cancer	4	8	3	11	23	10	39	64	132	182	266	370	415	179	1,706
Leukemia / Leukaemia	9	5	11	11	18	20	28	79	125	153	216	260	399	134	1,468

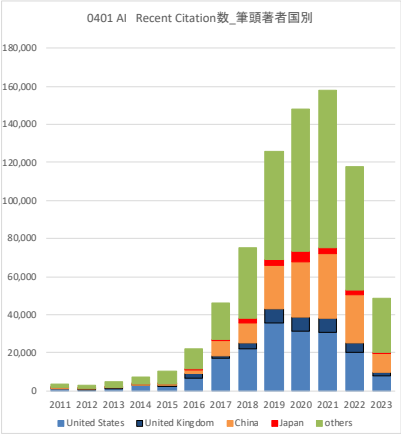
AI の FA 別の論文数は、中国 NSFC が最も多く経年的にも顕著に増加していた。ついで米国 NCI と推計された。

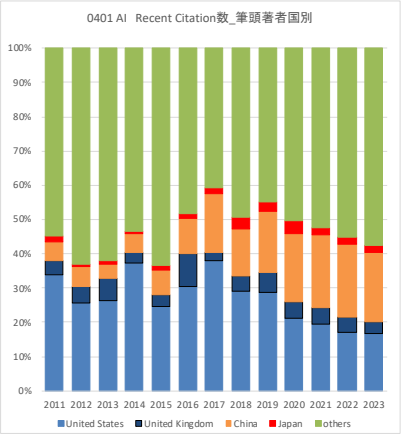


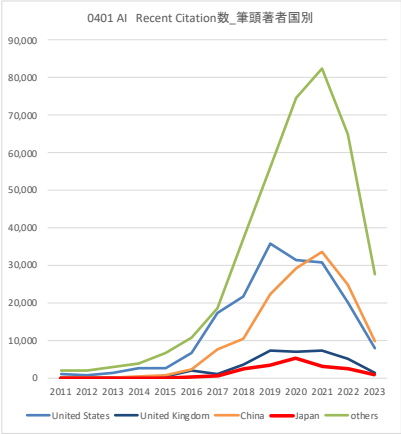
0401 AI 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	14	9	15	26	27	57	120	183	403	635	917	1,375	1,698	799	6,278
National Cancer Institute	26	31	33	36	31	49	93	142	252	314	367	370	464	180	2,388
European Commission	7	10	18	13	13	26	33	63	103	108	175	224	272	100	1,165
Ministry of Science and Technology of the People's Republic of China	4	8	5	10	3	8	16	47	91	163	191	220	245	122	1,133
Japan Society for the Promotion of Science	13	9	8	3	7	13	24	59	84	129	128	118	108	44	747
National Research Foundation of Korea	0	2	2	4	5	2	13	24	42	73	80	97	116	55	515
Ministry of Science and ICT	0	0	4	4	2	4	3	19	22	54	90	89	85	46	422
National Institute of General Medical Sciences	4	4	6	7	10	9	20	20	35	46	63	61	74	20	379
Natural Sciences and Engineering Research Council	1	2	2	7	13	6	9	24	31	46	48	65	62	16	332
Deutsche Forschungsgemeinschaft	1	2	0	3	4	4	3	11	22	36	44	69	71	27	297

7.1.2. Recent Citation 数

AI の引用数は経年的に大きく増加していることが推計された。国別の引用数は、その他の国を除くと、米国、中国、英国の順に多いと推計された。



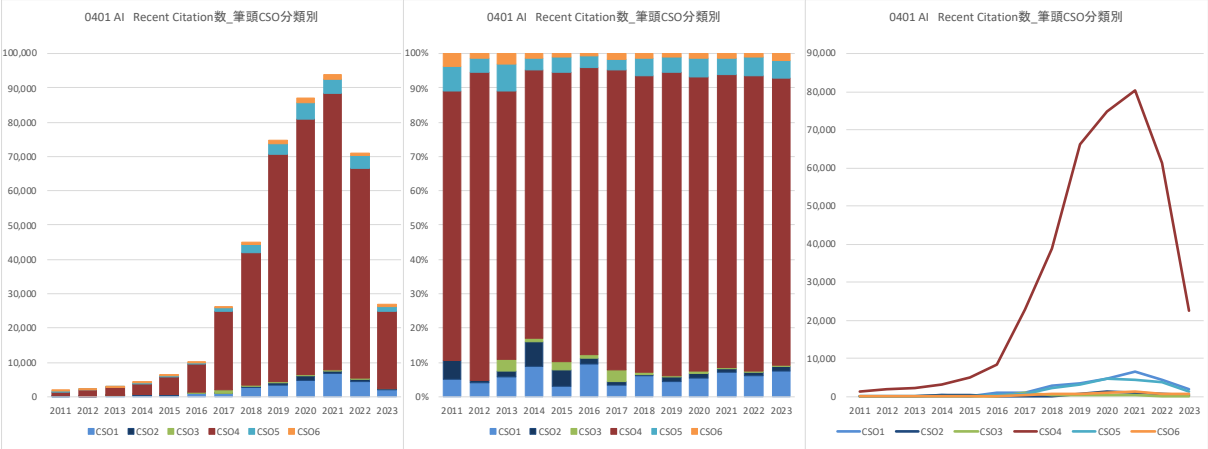




0401 AI Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,202	786	1,307	2,725	2,579	6,752	17,409	21,921	35,885	31,628	30,912	20,111	8,130	325	181,672
United Kingdom	137	146	328	218	363	2,151	1,182	3,494	7,381	7,021	7,436	5,312	1,599	60	36,828
China	200	172	200	417	742	2,292	7,792	10,364	22,391	29,345	33,661	25,040	9,875	409	142,900
Japan	60	29	57	31	120	250	763	2,536	3,628	5,349	3,246	2,519	931	31	19,550
others	1,939	1,919	3,075	3,911	6,620	10,716	18,763	37,155	56,218	74,728	82,383	65,022	27,823	1,281	391,553
合計	3,538	3,052	4,967	7,302	10,424	22,161	45,909	75,470	125,503	148,071	157,638	118,004	48,358	2,106	772,503

0401 AI Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.0%	25.8%	26.3%	37.3%	24.7%	30.5%	37.9%	29.0%	28.6%	21.4%	19.6%	17.0%	16.8%	15.4%	23.5%
United Kingdom	3.9%	4.8%	6.6%	3.0%	3.5%	9.7%	2.6%	4.6%	5.9%	4.7%	4.7%	4.5%	3.3%	2.8%	4.8%
China	5.7%	5.6%	4.0%	5.7%	7.1%	10.3%	17.0%	13.7%	17.8%	19.8%	21.4%	21.2%	20.4%	19.4%	18.5%
Japan	1.7%	1.0%	1.1%	0.4%	1.2%	1.1%	1.7%	3.4%	2.9%	3.6%	2.1%	2.1%	1.9%	1.5%	2.5%
others	54.8%	62.9%	61.9%	53.6%	63.5%	48.4%	40.9%	49.2%	44.8%	50.5%	52.3%	55.1%	57.5%	60.8%	50.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

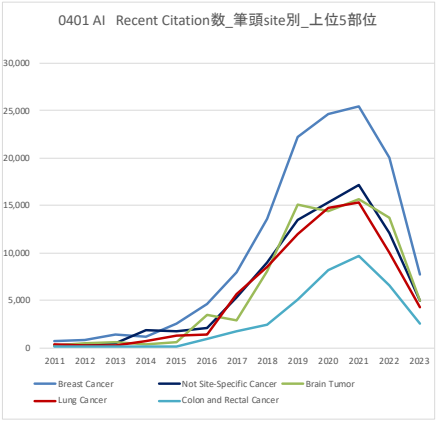
AI の CSO 分類別の引用数では、CSO4 Early Detection, Diagnosis and Prognosis が最も多いと推計された。



0401 AI Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	81	83	164	356	180	943	885	2,778	3,393	4,731	6,633	4,343	2,047	74	26,691
2 Etiology	88	15	45	293	285	172	223	161	800	1,250	892	753	293	16	5,286
3 Prevention	0	0	102	47	142	121	897	284	347	380	378	162	124	1	2,985
4 Early Detection, Diagnosis, and Prognosis	1,251	1,813	2,208	3,156	5,066	8,329	22,953	38,839	66,151	74,695	80,376	61,349	22,447	862	389,495
5 Treatment	116	83	225	143	259	346	852	2,241	3,185	4,796	4,404	3,678	1,373	85	21,786
6 Cancer Control, Survivorship, and Outcomes Research	58	28	81	56	63	73	437	661	855	1,076	1,369	803	569	26	6,155
others	1,958	1,030	2,146	3,251	4,433	12,177	19,677	30,604	50,788	61,198	63,817	46,996	21,669	1,043	320,105
合計	3,538	3,052	4,967	7,302	10,424	22,161	45,909	75,470	125,503	148,071	157,638	118,004	48,358	2,106	772,503

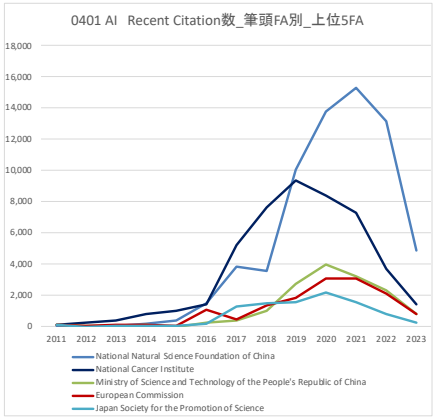
0401 AI Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2.3%	2.7%	3.3%	4.9%	1.7%	4.3%	1.9%	3.7%	2.7%	3.2%	4.2%	3.7%	4.2%	3.5%	3.5%
2 Etiology	2.5%	0.5%	0.9%	4.0%	2.7%	0.8%	0.5%	0.2%	0.6%	0.8%	0.6%	0.6%	0.6%	0.8%	0.7%
3 Prevention	0.0%	0.0%	2.1%	0.6%	1.4%	0.5%	2.0%	0.4%	0.3%	0.3%	0.2%	0.1%	0.3%	0.0%	0.4%
4 Early Detection, Diagnosis, and Prognosis	35.4%	59.4%	44.5%	43.2%	48.6%	37.6%	50.0%	51.5%	52.7%	50.4%	51.0%	52.0%	46.4%	40.9%	50.4%
5 Treatment	3.3%	2.7%	4.5%	2.0%	2.5%	1.6%	1.9%	3.0%	2.5%	3.2%	2.8%	3.1%	2.8%	4.0%	2.8%
6 Cancer Control, Survivorship, and Outcomes Research	1.6%	0.9%	1.6%	0.8%	0.6%	0.3%	1.0%	0.9%	0.7%	0.7%	0.9%	0.7%	1.2%	1.2%	0.8%
others	55.3%	33.7%	43.2%	44.5%	42.5%	54.9%	42.9%	40.6%	40.5%	41.3%	40.5%	39.8%	44.8%	49.5%	41.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

AI の筆頭著者の臓器別の引用数では、乳がん、Not Site-specific Cancer、脳腫瘍の順と推計された。



0401 AI Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	708	765	1,368	1,164	2,597	4,639	7,930	13,631	22,226	24,677	25,444	20,065	7,703	330	133,247
Not Site-Specific Cancer	219	314	442	1,810	1,687	2,050	5,250	8,966	13,487	15,344	17,110	12,136	4,978	201	83,994
Brain Tumor	255	452	538	408	566	3,511	2,903	8,022	15,087	14,364	15,707	13,724	5,000	193	80,730
Lung Cancer	337	195	286	644	1,258	1,358	5,660	8,504	11,953	14,708	15,283	10,006	4,259	148	74,599
Colon and Rectal Cancer	84	139	77	127	127	978	1,784	2,409	5,076	8,239	9,662	6,606	2,519	75	37,902
Melanoma	44	17	71	115	158	859	7,131	3,015	6,711	5,343	5,499	4,005	1,550	57	34,575
Prostate Cancer	135	104	125	154	396	317	911	2,846	4,653	6,347	5,920	3,406	1,393	54	26,761
Liver Cancer	66	91	162	95	296	332	1,127	2,040	2,532	4,734	4,678	3,445	1,430	44	21,072
Cervical Cancer	14	23	43	140	131	187	595	905	1,744	3,448	3,084	2,251	822	26	13,413
Leukemia / Leukaemia	29	20	48	22	88	135	324	934	1,476	1,702	1,892	1,662	615	21	8,968

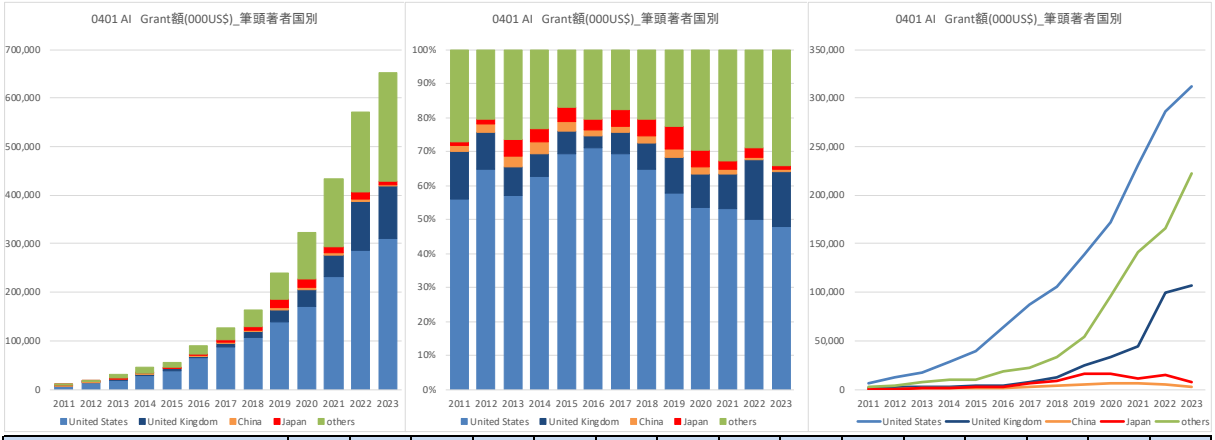
AI の FA 別の引用数では、中国 NSFC が最も多く近年の増加傾向も顕著で、ついで米国 NCI の順と推計された。



0401 AI Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	54	11	44	220	402	1,512	3,853	3,539	10,030	13,808	15,314	13,147	4,908	186	67,028
National Cancer Institute	147	250	369	834	985	1,459	5,218	7,642	9,362	8,373	7,305	3,714	1,459	59	47,176
Ministry of Science and Technology of the People's Republic of China	92	71	38	101	4	270	360	999	2,727	3,957	3,237	2,335	835	79	15,105
European Commission	89	53	102	99	74	1,101	440	1,377	1,837	3,062	3,059	2,109	775	31	14,208
Japan Society for the Promotion of Science	92	11	18	54	36	171	1,296	1,529	1,535	2,207	1,553	804	232	4	9,542
National Research Foundation of Korea	0	5	29	12	8	0	196	507	887	2,174	1,385	943	329	17	6,492
Ministry of Science and ICT	0	0	42	23	25	27	95	710	1,133	1,338	1,340	991	259	10	5,993
National Center for Advancing Translational Sciences	7	232	74	30	19	538	534	252	1,146	793	731	1,235	200	4	5,795
Natural Sciences and Engineering Research Council	0	4	22	28	110	216	135	664	1,213	917	619	1,101	240	18	5,287
National Institute of General Medical Sciences	28	8	179	230	201	72	377	546	579	1,019	825	809	278	5	5,156

7.1.3. Grant(000US$)額

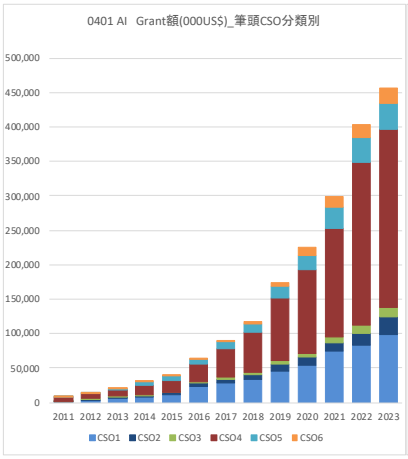
AI の研究費総額は経年的に大きく増加していると推計された。国別の研究費配分額は米国が最も多く、ついで英国、日本の順と推計された。

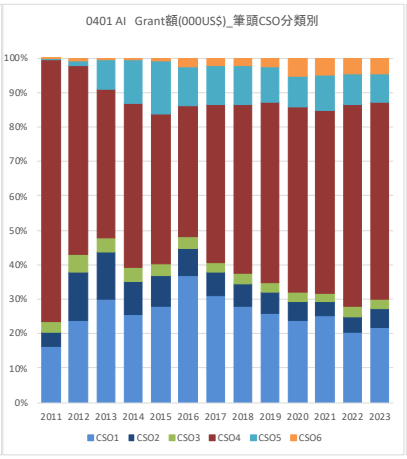


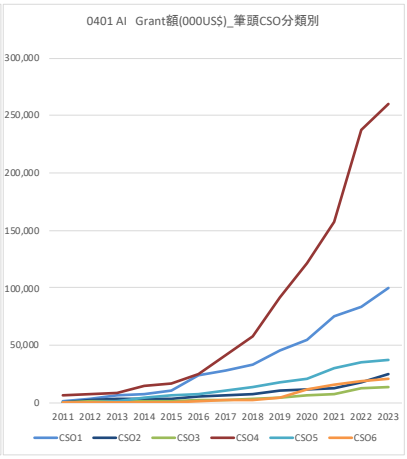
0401 AI Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	6,015	12,558	17,551	27,988	38,968	64,586	87,294	106,118	139,114	172,004	231,338	286,404	311,426	258,267	1,759,632
United Kingdom	1,512	2,142	2,539	2,968	3,867	3,439	7,827	12,640	25,228	32,696	44,716	100,046	106,832	97,146	443,597
China	174	487	988	1,470	1,585	1,457	2,325	3,356	5,238	6,194	5,884	4,903	3,008	3,023	40,093
Japan	109	266	1,507	1,699	2,302	2,957	5,892	8,192	16,191	15,995	11,013	14,444	8,087	5,484	94,140
others	2,918	3,954	8,091	10,444	9,547	18,620	22,315	33,655	54,519	95,424	141,814	166,060	221,783	192,132	981,277
合計	10,728	19,408	30,676	44,570	56,270	91,059	125,653	163,961	240,290	322,313	434,765	571,857	651,136	556,052	3,318,739

0401 AI Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	56.1%	64.7%	57.2%	62.8%	69.3%	70.9%	69.5%	64.7%	57.9%	53.4%	53.2%	50.1%	47.8%	46.4%	53.0%
United Kingdom	14.1%	11.0%	8.3%	6.7%	6.9%	3.8%	6.2%	7.7%	10.5%	10.1%	10.3%	17.5%	16.4%	17.5%	13.4%
China	1.6%	2.5%	3.2%	3.3%	2.8%	1.6%	1.9%	2.0%	2.2%	1.9%	1.4%	0.9%	0.5%	0.5%	1.2%
Japan	1.0%	1.4%	4.9%	3.8%	4.1%	3.2%	4.7%	5.0%	6.7%	5.0%	2.5%	2.5%	1.2%	1.0%	2.8%
others	27.2%	20.4%	26.4%	23.4%	17.0%	20.4%	17.8%	20.5%	22.7%	29.6%	32.6%	29.0%	34.1%	34.6%	29.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

AI の筆頭著者の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く経年的にも大幅に増加していた。ついで、CSO1 Biology と推計された。



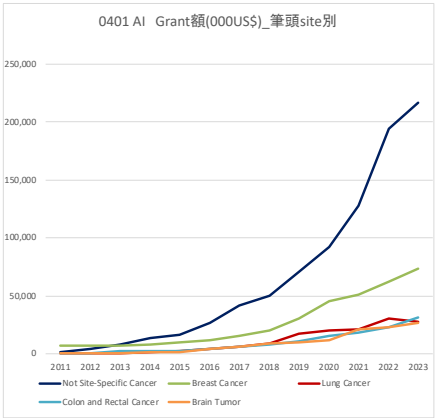




0401 AI Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,314	3,190	6,060	7,606	10,751	23,610	27,942	32,850	45,277	54,174	74,967	82,879	99,323	74,992	544,937
2 Etiology	319	1,908	2,748	2,837	3,374	5,049	6,190	7,581	10,485	11,906	12,292	17,208	24,957	23,202	130,055
3 Prevention	242	690	837	1,164	1,322	2,240	2,478	3,393	4,528	5,981	7,822	12,208	13,074	11,838	67,818
4 Early Detection, Diagnosis, and Prognosis	6,058	7,374	8,715	14,122	16,670	24,446	41,632	57,611	91,469	121,442	157,861	236,982	260,150	227,709	1,272,241
5 Treatment	29	194	1,689	3,827	5,930	7,216	10,256	13,162	17,534	20,515	30,274	35,519	37,197	34,368	217,710
6 Cancer Control, Survivorship, and Outcomes Research	17	97	97	90	252	1,697	1,945	2,560	4,634	11,736	15,120	19,004	21,194	15,050	93,495
others	2,749	6,482	11,187	15,581	18,844	28,398	37,093	50,331	71,588	105,926	146,949	179,290	208,497	179,719	1,062,635
合計	10,728	19,408	30,676	44,570	56,270	91,059	125,653	163,961	240,290	322,313	434,765	571,857	651,136	556,052	3,318,739

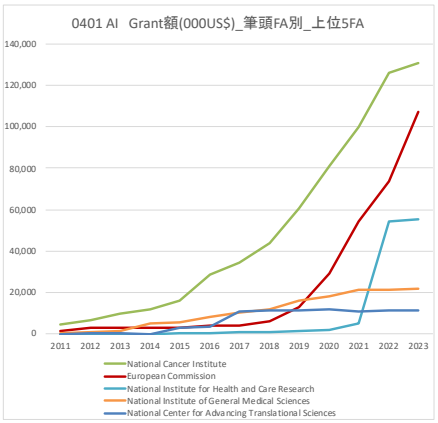
0401 AI Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12.3%	16.4%	19.8%	17.1%	19.1%	25.9%	22.2%	20.0%	18.8%	16.8%	17.2%	14.5%	15.3%	13.5%	16.4%
2 Etiology	3.0%	9.8%	9.0%	6.4%	6.0%	5.5%	4.9%	4.6%	4.4%	3.7%	2.8%	3.0%	3.8%	4.2%	3.9%
3 Prevention	2.3%	3.6%	2.7%	2.6%	2.3%	2.5%	2.0%	2.1%	1.9%	1.9%	1.8%	2.1%	2.0%	2.1%	2.0%
4 Early Detection, Diagnosis, and Prognosis	56.5%	38.0%	28.4%	31.7%	29.6%	26.8%	33.1%	35.1%	38.1%	37.7%	36.3%	41.4%	40.0%	41.0%	38.3%
5 Treatment	0.3%	1.0%	5.5%	8.6%	10.5%	7.9%	8.2%	8.0%	7.3%	6.4%	7.0%	6.2%	5.7%	6.2%	6.6%
6 Cancer Control, Survivorship, and Outcomes Research	0.2%	0.5%	0.3%	0.2%	0.4%	1.9%	1.5%	1.6%	1.9%	3.6%	3.5%	3.3%	3.3%	2.7%	2.8%
others	25.6%	33.4%	36.5%	35.0%	33.5%	31.2%	29.5%	30.7%	29.8%	32.9%	33.8%	31.4%	32.0%	32.3%	32.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

AI の筆頭著者の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く経年的にも増加しており、ついで乳がん、肺がんの順と推計された。



0401 AI Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,432	3,804	7,619	13,601	15,911	26,436	41,469	50,417	71,137	92,381	127,591	194,486	216,535	186,250	1,049,067
Breast Cancer	6,617	6,579	7,475	8,395	9,473	11,878	15,556	20,454	30,148	45,310	50,634	61,930	73,454	58,914	406,817
Lung Cancer	432	226	395	1,276	2,329	4,025	5,632	9,290	17,679	20,181	21,246	30,113	27,551	25,474	165,850
Colon and Rectal Cancer	71	83	1,927	2,106	2,274	4,617	6,313	7,751	10,305	15,033	18,181	22,959	31,466	28,958	152,045
Brain Tumor	101	213	447	1,000	1,610	3,947	5,764	8,607	10,214	12,079	21,449	22,475	27,028	26,939	141,873
Liver Cancer	0	8	8	210	2,730	4,049	4,454	5,899	9,568	10,423	13,833	16,882	21,206	19,679	108,950
Prostate Cancer	311	542	825	843	999	1,087	1,576	3,938	7,266	12,317	16,321	16,329	20,609	14,761	97,723
Melanoma	97	97	97	124	857	2,648	2,706	4,012	5,915	7,674	10,692	13,140	14,210	10,644	72,912
Pancreatic Cancer	0	30	79	79	490	2,720	3,271	3,381	3,576	4,448	7,991	9,988	12,765	12,191	61,011
Cervical Cancer	13	1,229	1,229	1,480	1,480	1,505	1,635	1,313	1,733	3,914	3,897	5,373	5,734	4,926	35,461

AI の筆頭著者の FA 別の研究費配分額は米国 NCI、ついで European Commission、英国英国 National Institute for Health and Care Research が最も多く経年的に大きく増加していた。



0401 AI Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	4,445	6,605	9,555	12,026	16,138	28,549	34,549	43,644	60,769	81,044	100,057	126,037	130,667	107,483	761,569	United States
European Commission	1,489	3,010	3,034	3,034	2,885	3,985	4,137	5,852	12,881	28,991	54,198	73,571	107,059	111,609	415,735	Belgium
National Institute for Health and Care Research	0	0	0	0	161	419	1,033	1,033	1,310	1,769	4,875	54,130	55,434	53,842	174,006	United Kingdom
National Institute of General Medical Sciences	362	826	1,183	4,861	5,500	8,187	10,238	12,077	16,202	18,358	21,381	21,096	21,764	20,804	162,839	United States
National Center for Advancing Translational Sciences	0	74	74	0	2,912	3,579	11,038	11,151	11,151	11,719	10,876	11,321	11,342	8,750	93,987	United States
Congressionally Directed Medical Research Programs	56	78	369	369	291	736	444	2,292	4,597	5,680	10,313	16,387	21,661	18,985	82,258	United States
European Research Council	574	833	833	833	833	833	259	889	2,496	4,621	8,284	9,192	14,012	17,054	61,548	Belgium
Medical Research Council	0	0	91	283	900	1,079	1,156	3,477	5,341	5,917	7,013	10,014	12,706	12,263	60,240	United Kingdom
Japan Agency for Medical Research and Development	0	0	0	0	0	3,129	5,841	7,905	10,025	8,382	5,728	5,093	3,723	3,132	52,959	Japan
National Institute on Aging	0	0	0	490	490	3,471	4,675	5,083	4,467	4,612	6,179	6,747	6,943	4,180	47,337	United States

7.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0401 AI

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Applications of artificial intelligence in urologic oncology	Pak, Sahyun; Park, Sung Gon; Park, Jeonghyun; Cho, Sung Tae; Lee, Young Goo; Ahn, Hanjong	Investigative and Clinical Urology	South Korea	2024	0	Review Article
2	Application of artificial intelligence for improving early detection and prediction of therapeutic outcomes for gastric cancer in the era of precision oncology	Wang, Zhe; Liu, Yang; Niu, Xing	Seminars in Cancer Biology	China	2023	17	Review Article
3	Novel Applications of Artificial Intelligence in Cancer Research	Tsuneki, Masayuki; Zhang, Yudong	Technology in Cancer Research & Treatment	Japan	2023	0	Editorial
4	Machine Learning and Deep Learning Applications in Multiple Myeloma Diagnosis, Prognosis, and Treatment Selection	Allegra, Alessandro; Tonacci, Alessandro; Sciaccotta, Raffaele; Genovese, Sara; Musolino, Caterina; Pioggia, Giovanni; Gangemi, Sebastiano	Cancers	Italy	2022	34	Review Article
5	Application of Deep Learning in Cancer Prognosis Prediction Model	Zhang, Heng; Xi, Qianyi; Zhang, Fan; Li, Qixuan; Jiao, Zhuqing; Ni, Xinye	Technology in Cancer Research & Treatment	China	2023	1	Review Article
6	Role of Artificial Intelligence and Machine Learning in Prediction, Diagnosis, and Prognosis of Cancer	Gaur, Kritika; Jagtap, Miheer M	Cureus	India	2022	7	Review Article
7	Interpreting Deep Machine Learning Models: An Easy Guide for Oncologists	Amorim, Jos P.; Abreu, Pedro H.; Fernndez, Alberto; Reyes, Mauricio; Santos, Joo; Abreu, Miguel H.	IEEE Reviews in Biomedical Engineering	Switzerland	2023	10	Review Article
8	Current status and prospects of artificial intelligence in breast cancer pathology: convolutional neural networks to prospective Vision Transformers	Katayama, Ayaka; Aoki, Yuki; Watanabe, Yukako; Horiguchi, Jun; Rakha, Emad A.; Oyama, Tetsunari	International Journal of Clinical Oncology	Japan	2024	0	Review Article
9	Prediction and Diagnosis of Breast Cancer Using Machine and Modern Deep Learning Models.	Devi, Seeta; Kaul Ghanekar, Ruchika; Pande, Jayshree Ashok; Dumbre, Dipali; Chavan, Ranjana; Gupta, Harshita	Asian Pacific Journal of Cancer Prevention	India	2024	0	Research Article
10	Artificial Intelligence for the Management of Breast Cancer: An Overview.	Kumar, Kapil; Gandhi, Harshita	Current Drug Discovery Technologies	India	2023	1	Research Article

＜引用＞

Citation: 0401 AI

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Dermatologist-level classification of skin cancer with deep neural networks	Esteva, Andre; Kuprel, Brett; Novoa, Roberto A.; Ko, Justin; Swetter, Susan M.; Blau, Helen M.; Thrun, Sebastian	Nature	United States	2017	3472	Letter To Editor
2	Computational Radiomics System to Decode the Radiographic Phenotype	van Griethuysen, Joost J M; Fedorov, Andriy; Parmar, Chintan; Hosny, Ahmed; Aucoin, Nicole; Narayan, Vivek; Beets-Tan, Regina G H; Fillion-Robin, Jean-Christophe; Pieper, Steve; Aerts, Hugo J W L	Cancer Research	United States	2017	2331	Research Article
3	Pan-cancer Immunogenomic Analyses Reveal Genotype-Immunophenotype Relationships and Predictors of Response to Checkpoint Blockade	Charoentong, Pornpimol; Finotello, Francesca; Angelova, Mihaela; Mayer, Clemens; Efremova, Mirjana; Rieder, Dietmar; Hackl, Hubert; Trajanoski, Zlatko	Cell Reports	Austria	2017	2086	Research Article
4	Radiomics: the bridge between medical imaging and personalized medicine	Lambin, Philippe; Leijenaar, Ralph T.H.; Deist, Timo M.; Peerlings, Jurgen; de Jong, Evelyn E.C.; van Timmeren, Janita; Sanduleanu, Sebastian; Larue, Ruben T.H.M.; Even, Aniek J.G.; Jochems, Arthur; van Wijk, Yvonka; Woodruff, Henry; van Soest, Johan; Lustberg, Tim; Roelofs, Erik; van Elmpt, Wouter; Dekker, Andre; Mottaghy, Felix M.; Wildberger, Joachim E.; Walsh, Sean	Nature Reviews Clinical Oncology	Germany	2017	1971	Review Article
5	Determining cell type abundance and expression from bulk tissues with digital cytometry	Newman, Aaron M.; Steen, Chloé B.; Liu, Chih Long; Gentles, Andrew J.; Chaudhuri, Aadel A.; Scherer, Florian; Khodadoust, Michael S.; Esfahani, Mohammad S.; Luca, Bogdan A.; Steiner, David; Diehn, Maximilian; Alizadeh, Ash A.	Nature Biotechnology	United States	2019	1811	Research Article
6	Artificial intelligence in radiology	Hosny, Ahmed; Parmar, Chintan; Quackenbush, John; Schwartz, Lawrence H.; Aerts, Hugo J. W. L.	Nature Reviews Cancer	United States	2018	1334	Review Article
7	Artificial intelligence in healthcare: past, present and future	Jiang, Fei; Jiang, Yong; Zhi, Hui; Dong, Yi; Li, Hao; Ma, Sufeng; Wang, Yilong; Dong, Qiang; Shen, Haipeng; Wang, Yongjun	Stroke and Vascular Neurology	China	2017	1273	Review Article
8	Machine Learning in Medicine	Rajkomar, Alvin; Dean, Jeffrey; Kohane, Isaac	New England Journal of Medicine	United States	2019	1157	Review Article
9	Survey on deep learning with class imbalance	Johnson, Justin M.; Khoshgoftaar, Taghi M.	Journal of Big Data	United States	2019	1048	Research Article
10	Classification and mutation prediction from non-small cell lung cancer histopathology images using deep learning	Coudray, Nicolas; Ocampo, Paolo Santiago; Sakellaropoulos, Theodore; Narula, Navneet; Snuderl, Matija; Fenyö, David; Moreira, Andre L.; Razavian, Narges; Tsirigos, Aristotelis	Nature Medicine	Greece	2018	1042	Research Article

＜研究費＞

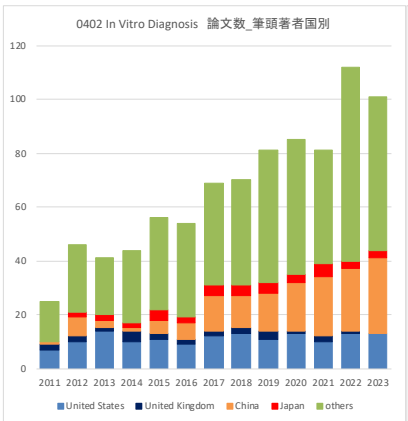
Grant: 0401 AI

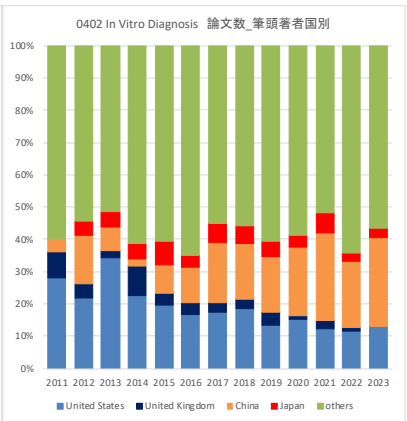
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	University College London Hospitals Biomedical Research Centre	Bryan Williams	National Institute for Health and Care Research	United Kingdom	#########	2022	2027
2	Cambridge	Miles Parkes	National Institute for Health and Care Research	United Kingdom	#########	2022	2027
3	Institute of Translational Health Sciences	JOHN K. AMORY, MARY L. DISIS	National Center for Advancing Translational Sciences	United States	78,681,832	2017	2027
4	Advancing Equitable Risk-based Breast Cancer Screening and Surveillance in Community Practice	DIANA L MIGLIORETTI, KARLA M KERLIKOWSKE, ANNA N. A. TOSTESON, CONSTANCE D LEHMAN, TRACY ONEGA, JANIE M LEE, CHRISTOPH I LEE	National Cancer Institute	United States	43,230,904	2011	2027
5	NHGRI/DIR Bioinformatics and Scientific Programming Core	ANDREAS BAXEVANIS	National Human Genome Research Institute	United States	36,784,408	2016	2023
6	NIHR Biomedical Research Centre at The Royal Marsden NHS Foundation Trust and The Institute of Cancer Research	David Cunningham	National Institute for Health and Care Research	United Kingdom	36,013,348	2022	2027
7	Leeds NIHR Biomedical Research Centre	Philip Conaghan	National Institute for Health and Care Research	United Kingdom	24,436,740	2022	2027
8	Drug Repurposing Screening for Rare and Neglected Diseases	WEI ZHENG	National Center for Advancing Translational Sciences	United States	21,672,240	2015	2023
9	Functional decoding of signaling dynamics in single immune cells	MYONG-HEE SUNG	National Institute on Aging	United States	20,212,204	2016	2023
10	Precision Medicine of Cancer	CURTIS HARRIS	National Cancer Institute	United States	20,025,220	2013	2023

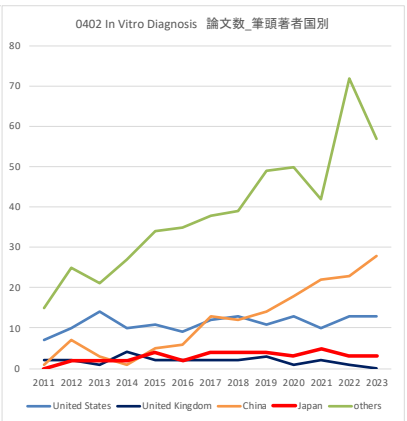
7.2. 0402 In Vitro Diagnosis

7.2.1. 論文数

In Vitro Diagnosis の論文数は経年的な増加傾向が見られると推計された。国別の論文数は、その他の国を除くと、中国、米国、日本の順に多いと推計された。経年的の論文数は、中国は増加、米国、日本は横ばいと推計された。



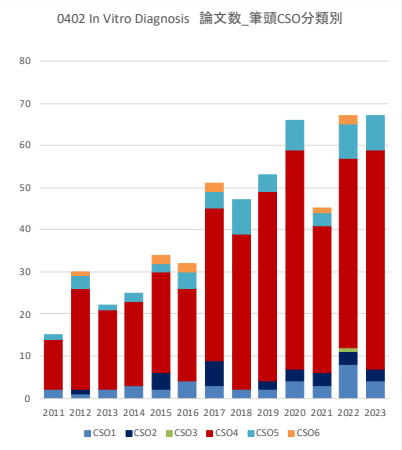


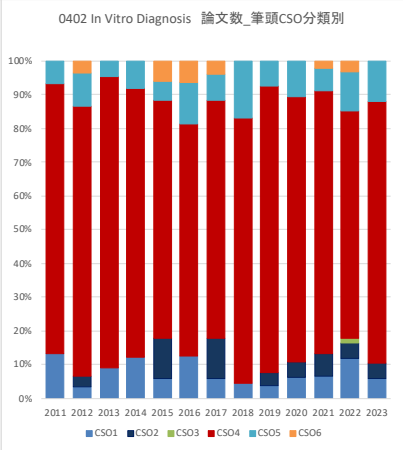


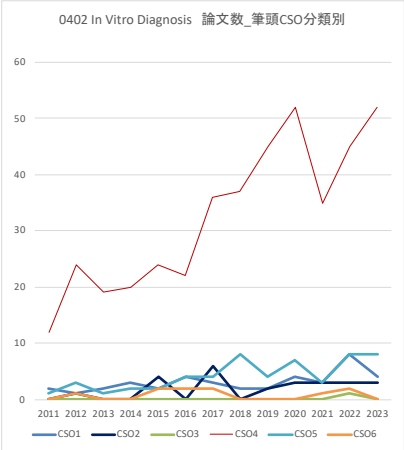
0402 In Vitro Diagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	7	10	14	10	11	9	12	13	11	13	10	13	13	13	159
United Kingdom	2	2	1	4	2	2	2	2	3	1	2	1	0	3	27
China	1	7	3	1	5	6	13	12	14	18	22	23	28	17	170
Japan	0	2	2	2	4	2	4	4	4	3	5	3	3	1	39
others	15	25	21	27	34	35	38	39	49	50	42	72	57	24	528
合計	25	46	41	44	56	54	69	70	81	85	81	112	101	58	923

0402 In Vitro Diagnosis 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28.0%	21.7%	34.1%	22.7%	19.6%	16.7%	17.4%	18.6%	13.6%	15.3%	12.3%	11.6%	12.9%	22.4%	17.2%
United Kingdom	8.0%	4.3%	2.4%	9.1%	3.6%	3.7%	2.9%	2.9%	3.7%	1.2%	2.5%	0.9%	0.0%	5.2%	2.9%
China	4.0%	15.2%	7.3%	2.3%	8.9%	11.1%	18.8%	17.1%	17.3%	21.2%	27.2%	20.5%	27.7%	29.3%	18.4%
Japan	0.0%	4.3%	4.9%	4.5%	7.1%	3.7%	5.8%	5.7%	4.9%	3.5%	6.2%	2.7%	3.0%	1.7%	4.2%
others	60.0%	54.3%	51.2%	61.4%	60.7%	64.8%	55.1%	55.7%	60.5%	58.8%	51.9%	64.3%	56.4%	41.4%	57.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の CSO 分類別の論文数は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く、経年的にも増加傾向が見られた。



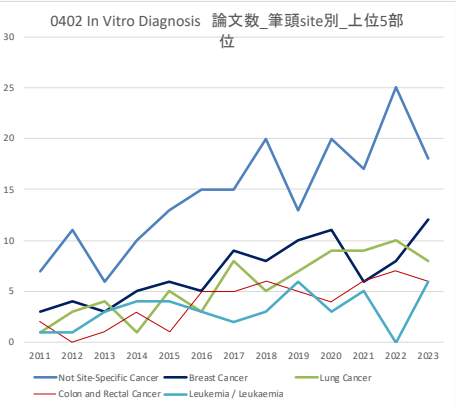




0402 In Vitro Diagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2	1	2	3	2	4	3	2	2	4	3	8	4	5	45
2 Etiology	0	1	0	0	4	0	6	0	2	3	3	3	3	1	26
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4 Early Detection, Diagnosis, and Prognosis	12	24	19	20	24	22	36	37	45	52	35	45	52	31	454
5 Treatment	1	3	1	2	2	4	4	8	4	7	3	8	8	2	57
6 Cancer Control, Survivorship, and Outcomes Research	0	1	0	0	2	2	2	0	0	0	1	2	0	1	11
others	10	16	19	19	22	22	18	23	28	19	36	45	34	18	329
合計	25	46	41	44	56	54	69	70	81	85	81	112	101	58	923

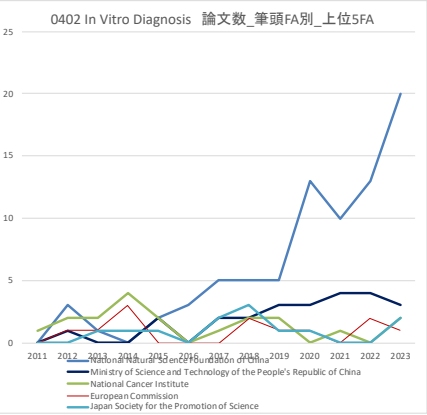
0402 In Vitro Diagnosis 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	8.0%	2.2%	4.9%	6.8%	3.6%	7.4%	4.3%	2.9%	2.5%	4.7%	3.7%	7.1%	4.0%	8.6%	4.9%
2 Etiology	0.0%	2.2%	0.0%	0.0%	7.1%	0.0%	8.7%	0.0%	2.5%	3.5%	3.7%	2.7%	3.0%	1.7%	2.8%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	48.0%	52.2%	46.3%	45.5%	42.9%	40.7%	52.2%	52.9%	55.6%	61.2%	43.2%	40.2%	51.5%	53.4%	49.2%
5 Treatment	4.0%	6.5%	2.4%	4.5%	3.6%	7.4%	5.8%	11.4%	4.9%	8.2%	3.7%	7.1%	7.9%	3.4%	6.2%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	2.2%	0.0%	0.0%	3.6%	3.7%	2.9%	0.0%	0.0%	0.0%	1.2%	1.8%	0.0%	1.7%	1.2%
others	40.0%	34.8%	46.3%	43.2%	39.3%	40.7%	26.1%	32.9%	34.6%	22.4%	44.4%	40.2%	33.7%	31.0%	35.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の臓器別の論文数は、Not Site-specific Cancer が最も多く、ついで乳がん、肺がんが多いと推計された。



0402 In Vitro Diagnosis 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	7	11	6	10	13	15	15	20	13	20	17	25	18	17	207
Breast Cancer	3	4	3	5	6	5	9	8	10	11	6	8	12	8	98
Lung Cancer	1	3	4	1	5	3	8	5	7	9	9	10	8	6	79
Colon and Rectal Cancer	2	0	1	3	1	5	5	6	5	4	6	7	6	1	52
Leukemia / Leukaemia	1	1	3	4	4	3	2	3	6	3	5	0	6	2	43
Ovarian Cancer	0	2	2	2	0	3	4	2	4	2	1	4	1	0	27
Prostate Cancer	0	0	1	4	2	1	2	0	3	1	0	7	4	0	25
Brain Tumor	0	2	1	1	1	0	1	2	2	2	1	1	4	2	20
Liver Cancer	0	0	0	1	3	1	1	0	1	0	4	3	4	0	18
Cervical Cancer	1	1	0	0	2	1	0	1	2	1	0	3	4	1	17

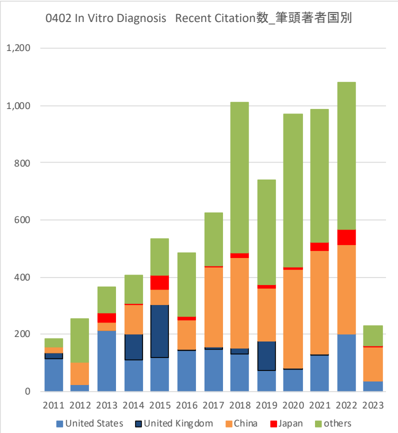
In Vitro Diagnosis の FA 別の論文数は、中国 NSFC が最も多く経年的にも顕著な増加が見られた。ついで、中国 Ministry of Science and Technology of the People's Republic of China、米国 NCI の順と推計された。

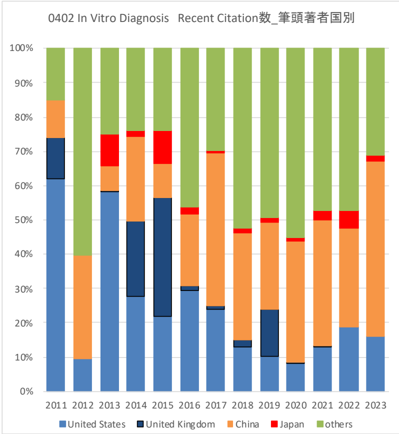


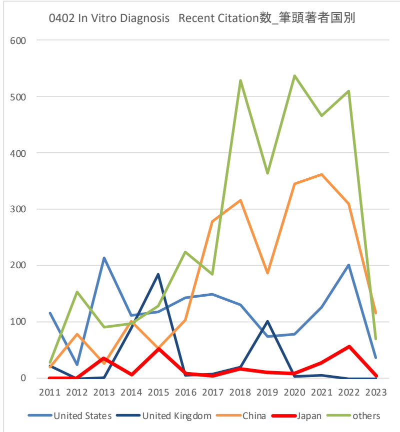
0402 In Vitro Diagnosis 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	0	3	1	0	2	3	5	5	5	13	10	13	20	11	91
Ministry of Science and Technology of the People's Republic of China	0	1	0	0	2	0	2	2	3	3	4	4	3	2	26
National Cancer Institute	1	2	2	4	2	0	1	2	2	0	1	0	2	1	20
European Commission	0	1	1	3	0	0	0	2	1	1	0	2	1	1	13
Japan Society for the Promotion of Science	0	0	1	1	1	0	2	3	1	1	0	0	2	0	12
National Research Foundation of Korea	0	1	1	0	0	2	0	0	0	0	1	1	3	1	10
Department of Science and Technology	0	0	0	0	1	0	1	0	0	0	0	4	0	1	7
Japan Agency for Medical Research and Development	0	0	0	1	0	0	0	0	0	1	1	1	1	1	6
Council of Scientific and Industrial Research	0	0	0	0	1	0	0	0	0	1	0	2	0	0	4
Russian Science Foundation	0	0	0	0	0	0	0	0	1	0	1	1	1	0	4

7.2.2. Recent Citation 数

In Vitro Diagnosis の引用数は経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと中国が最も多く、次いで米国、英国の順と推計された。



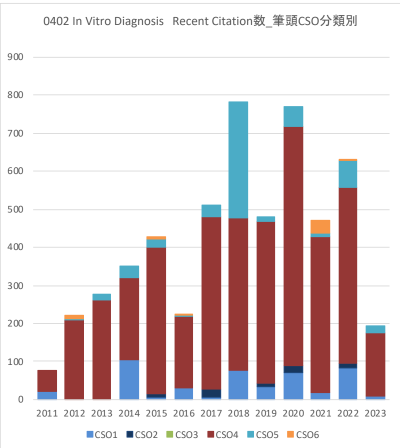


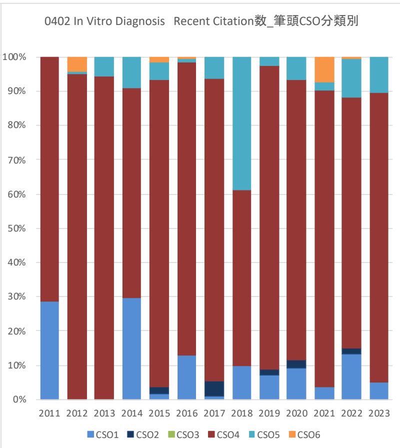


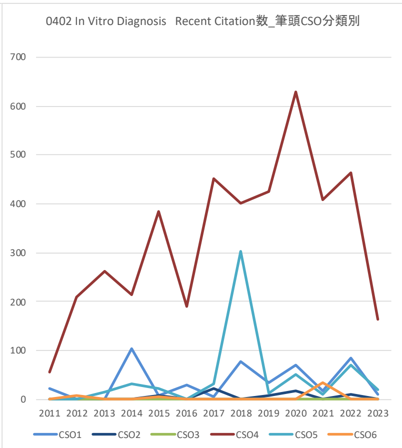
0402 In Vitro Diagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	115	24	214	112	118	143	149	131	75	78	127	202	37	2	1,527
United Kingdom	22	0	1	89	185	6	7	20	102	4	5	0	0	0	441
China	20	78	26	101	53	103	278	316	186	345	362	311	117	9	2,305
Japan	0	0	35	7	52	9	5	16	11	8	27	56	4	1	231
others	28	154	91	97	128	225	185	529	364	537	467	511	71	1	3,388
合計	185	256	367	406	536	486	624	1,012	738	972	988	1,080	229	13	7,892

0402 In Vitro Diagnosis Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	62.2%	9.4%	58.3%	27.6%	22.0%	29.4%	23.9%	12.9%	10.2%	8.0%	12.9%	18.7%	16.2%	15.4%	19.3%
United Kingdom	11.9%	0.0%	0.3%	21.9%	34.5%	1.2%	1.1%	2.0%	13.8%	0.4%	0.5%	0.0%	0.0%	0.0%	5.6%
China	10.8%	30.5%	7.1%	24.9%	9.9%	21.2%	44.6%	31.2%	25.2%	35.5%	36.6%	28.8%	51.1%	69.2%	29.2%
Japan	0.0%	0.0%	9.5%	1.7%	9.7%	1.9%	0.8%	1.6%	1.5%	0.8%	2.7%	5.2%	1.7%	7.7%	2.9%
others	15.1%	60.2%	24.8%	23.9%	23.9%	46.3%	29.6%	52.3%	49.3%	55.2%	47.3%	47.3%	31.0%	7.7%	42.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の CSO 分類別の引用数は、CSO4 Early Detection, Diagnosis and Prognosis が最も多いと推計された。



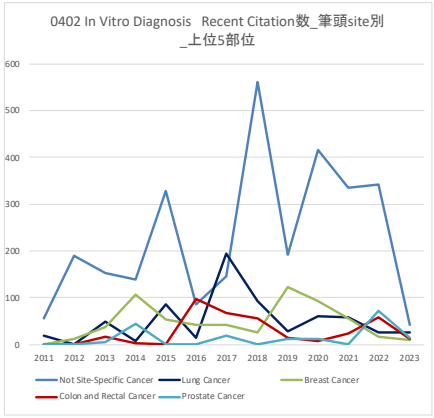




0402 In Vitro Diagnosis Recent Citation数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	22	0	0	105	7	29	5	78	34	71	18	84	10	0	463
2 Etiology	0	0	0	0	9	0	22	0	9	18	0	10	0	0	68
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	55	209	262	214	384	190	452	400	424	629	409	463	165	11	4,267
5 Treatment	0	2	15	32	22	2	31	303	12	51	11	71	20	0	572
6 Cancer Control, Survivorship, and Outcomes Research	0	9	0	0	6	1	0	0	0	0	34	2	0	0	52
others	108	36	90	55	108	264	114	231	259	203	516	450	34	2	2,470
合計	185	256	367	406	536	486	624	1,012	738	972	988	1,080	229	13	7,892

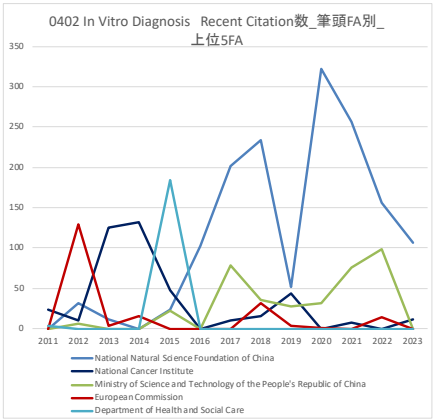
0402 In Vitro Diagnosis Recent Citation数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	11.9%	0.0%	0.0%	25.9%	1.3%	6.0%	0.8%	7.7%	4.6%	7.3%	1.8%	7.8%	4.4%	0.0%	5.9%
2 Etiology	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	3.5%	0.0%	1.2%	1.9%	0.0%	0.9%	0.0%	0.0%	0.9%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	29.7%	81.6%	71.4%	52.7%	71.6%	39.1%	72.4%	39.5%	57.5%	64.7%	41.4%	42.9%	72.1%	84.6%	54.1%
5 Treatment	0.0%	0.8%	4.1%	7.9%	4.1%	0.4%	5.0%	29.9%	1.6%	5.2%	1.1%	6.6%	8.7%	0.0%	7.2%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	3.5%	0.0%	0.0%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	3.4%	0.2%	0.0%	0.0%	0.7%
others	58.4%	14.1%	24.5%	13.5%	20.1%	54.3%	18.3%	22.8%	35.1%	20.9%	52.2%	41.7%	14.8%	15.4%	31.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の臓器別の引用数は、Not Site-specific Cancer が最も多く、肺がん、乳がんの順に多いと推計された。



0402 In Vitro Diagnosis Recent Citation数_筆頭 site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	55	190	154	139	328	87	147	561	193	416	335	342	43	8	2,998
Lung Cancer	18	0	49	7	85	14	195	93	28	60	59	27	26	0	661
Breast Cancer	1	13	37	106	53	41	41	26	122	93	56	16	10	2	617
Colon and Rectal Cancer	0	0	17	2	1	98	67	56	15	8	23	59	11	0	357
Prostate Cancer	0	0	5	45	0	0	18	0	13	12	0	71	14	0	178
Ovarian Cancer	0	11	0	15	0	1	20	14	27	17	3	49	3	0	160
Liver Cancer	0	0	0	1	16	0	0	0	9	0	9	29	61	0	125
Brain Tumor	0	5	14	32	0	0	6	12	9	8	7	13	4	0	110
Leukemia / Leukaemia	0	0	15	1	3	20	2	5	29	2	3	0	6	0	86
Pancreatic Cancer	0	0	0	0	5	4	0	11	0	59	3	0	0	1	83

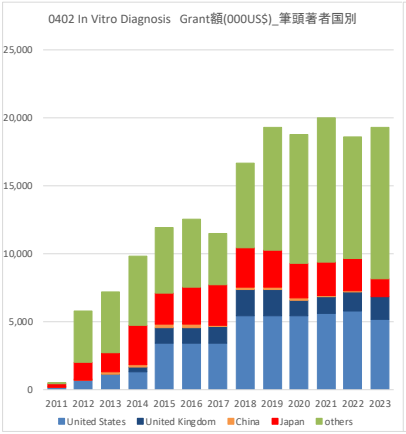
In Vitro Diagnosis の FA 別の引用数は、中国 NSFC が最も多く、ついで米国 NCI、中国 Ministry of Science and Technology of the People's Republic of China の順と推計された。

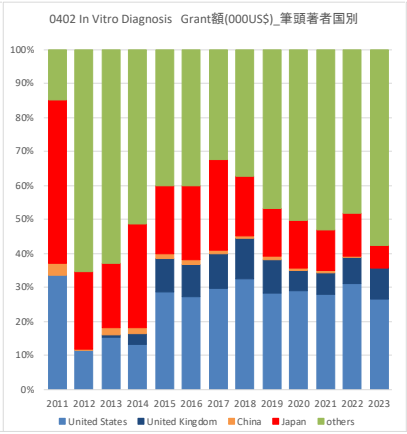


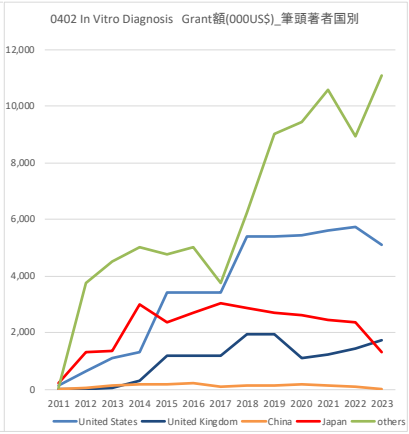
0402 In Vitro Diagnosis Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	0	31	12	0	23	103	201	234	51	322	257	156	106	7	1,503
National Cancer Institute	23	10	125	132	48	0	10	16	44	0	7	0	11	0	426
Ministry of Science and Technology of the People's Republic of China	0	6	0	0	22	0	78	36	28	31	76	98	0	0	375
European Commission	0	129	4	15	0	0	0	32	4	1	0	14	0	0	199
Department of Health and Social Care	3	0	0	0	184	0	0	0	0	0	0	0	0	0	187
National Institute of Neurological Disorders and Stroke	0	0	0	0	0	0	0	0	0	0	0	115	0	0	115
China Scholarship Council	0	0	0	0	0	0	0	47	0	0	0	53	0	0	100
Natural Sciences and Engineering Research Council	0	0	0	0	0	0	0	81	10	0	0	0	1	0	92
Cancer Research UK	0	0	0	82	0	0	0	0	0	4	0	0	0	0	86
Japan Society for the Promotion of Science	0	0	1	0	50	0	2	16	11	2	0	0	4	0	86

7.2.3. Grant(000US$)額

In Vitro Diagnosis の研究費総額は増加傾向にあるが、近年は横ばい傾向と推計された。国別の研究費配分額はその他の国を除くと米国、日本の順となっていた。わが国は、2014 年までは米国よりも研究費額が多いと推計されたが、その後米国が逆転したと推計された。



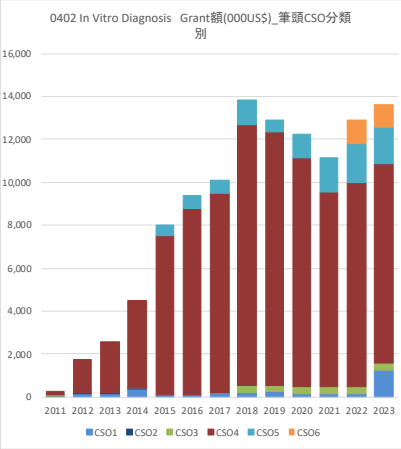


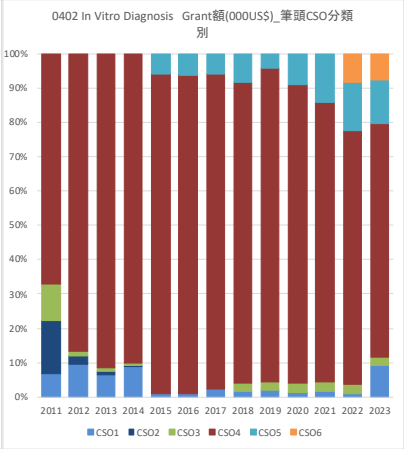


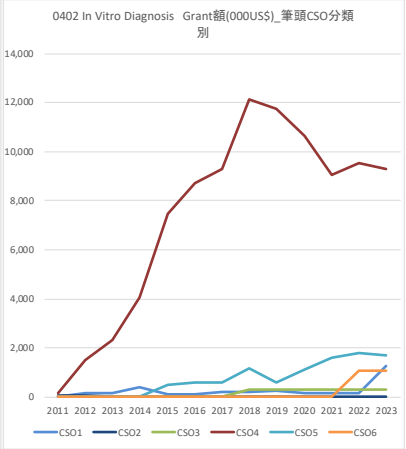
0402 In Vitro Diagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	150	645	1,098	1,305	3,397	3,402	3,417	5,413	5,404	5,417	5,597	5,730	5,113	4,397	50,485
United Kingdom	0	0	39	308	1,166	1,166	1,166	1,954	1,954	1,096	1,215	1,437	1,712	2,026	15,239
China	16	37	149	156	187	200	97	147	149	181	117	75	0	0	1,512
Japan	215	1,293	1,365	2,976	2,344	2,708	3,042	2,876	2,704	2,597	2,426	2,345	1,329	234	28,455
others	67	3,739	4,490	5,025	4,776	4,999	3,735	6,229	9,012	9,441	10,564	8,945	11,087	7,314	89,422
合計	448	5,714	7,140	9,769	11,871	12,474	11,456	16,618	19,224	18,732	19,919	18,532	19,242	13,972	185,112

0402 In Vitro Diagnosis Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	33.4%	11.3%	15.4%	13.4%	28.6%	27.3%	29.8%	32.6%	28.1%	28.9%	28.1%	30.9%	26.6%	31.5%	27.3%
United Kingdom	0.0%	0.0%	0.5%	3.1%	9.8%	9.3%	10.2%	11.8%	10.2%	5.8%	6.1%	7.8%	8.9%	14.5%	8.2%
China	3.6%	0.6%	2.1%	1.6%	1.6%	1.6%	0.8%	0.9%	0.8%	1.0%	0.6%	0.4%	0.0%	0.0%	0.8%
Japan	48.0%	22.6%	19.1%	30.5%	19.7%	21.7%	26.6%	17.3%	14.1%	13.9%	12.2%	12.7%	6.9%	1.7%	15.4%
others	14.9%	65.4%	62.9%	51.4%	40.2%	40.1%	32.6%	37.5%	46.9%	50.4%	53.0%	48.3%	57.6%	52.3%	48.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く経年的に増加傾向が見られた。



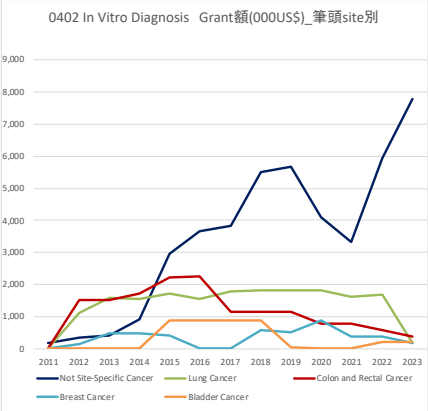




0402 In Vitro Diagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	16	167	167	391	89	89	223	221	242	168	168	134	1,240	1,240	4,556
2 Etiology	38	38	26	26	0	0	0	0	0	0	0	0	0	0	129
3 Prevention	26	26	26	26	0	0	0	321	321	321	321	321	321	321	2,353
4 Early Detection, Diagnosis, and Prognosis	165	1,493	2,327	4,051	7,440	8,698	9,268	12,141	11,766	10,653	9,045	9,551	9,289	9,436	105,323
5 Treatment	0	0	0	0	478	599	599	1,161	575	1,098	1,592	1,805	1,715	220	9,841
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	0	0	0	0	1,073	1,073	1,073	3,218
others	229	4,016	4,620	5,301	3,863	3,088	1,366	2,774	6,321	6,492	8,793	6,721	6,677	2,755	63,015
合計	448	5,714	7,140	9,769	11,871	12,474	11,456	16,618	19,224	18,732	19,919	18,532	19,242	13,972	185,112

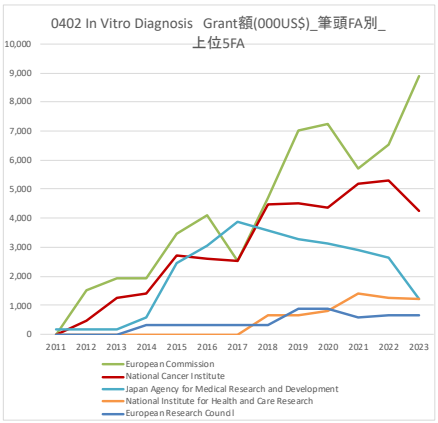
0402 In Vitro Diagnosis Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3.6%	2.9%	2.3%	4.0%	0.8%	0.7%	1.9%	1.3%	1.3%	0.9%	0.8%	0.7%	6.4%	8.9%	2.5%
2 Etiology	8.5%	0.7%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
3 Prevention	5.9%	0.5%	0.4%	0.3%	0.0%	0.0%	0.0%	1.9%	1.7%	1.7%	1.6%	1.7%	1.7%	2.3%	1.3%
4 Early Detection, Diagnosis, and Prognosis	36.8%	26.1%	32.6%	41.5%	62.7%	69.7%	80.9%	73.1%	61.2%	56.9%	45.4%	51.5%	48.3%	67.5%	56.9%
5 Treatment	0.0%	0.0%	0.0%	0.0%	4.0%	4.8%	5.2%	7.0%	3.0%	5.9%	8.0%	9.7%	8.9%	1.6%	5.3%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	5.6%	7.7%	1.7%
others	51.0%	70.3%	64.7%	54.3%	32.5%	24.8%	11.9%	16.7%	32.9%	34.7%	44.1%	36.3%	34.7%	19.7%	34.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In Vitro Diagnosis の臓器別の研究費額は、Not Site-specific Cancer が最も多く、ついで肺がん、大腸がんが多いと推計された。



0402 In Vitro Diagnosis Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	162	342	420	912	2,970	3,675	3,843	5,506	5,679	4,084	3,313	5,935	7,796	7,949	52,584
Lung Cancer	15	1,119	1,570	1,555	1,732	1,537	1,795	1,801	1,832	1,832	1,631	1,679	168	0	18,267
Colon and Rectal Cancer	0	1,510	1,510	1,727	2,213	2,256	1,143	1,143	1,150	783	791	569	371	232	15,399
Breast Cancer	0	139	471	471	399	11	11	564	514	874	370	359	184	191	4,559
Bladder Cancer	16	16	16	0	884	884	884	884	56	0	0	212	212	212	4,275
Brain Tumor	0	0	0	0	0	0	0	569	569	569	569	623	623	623	4,146
Pancreatic Cancer	0	12	12	941	421	421	421	0	19	29	125	131	285	1,302	4,118
Myeloma	0	0	0	0	0	673	673	673	673	673	0	0	0	0	3,363
Ovarian Cancer	0	0	0	0	347	347	347	347	347	347	347	267	267	267	3,229
Leukemia / Leukaemia	0	9	9	9	9	0	0	809	750	750	750	77	0	0	3,170

In Vitro Diagnosis の FA 別の研究費額は、European Commission が最も多く経年的に増加傾向が見られた。ついで、米国 NCI、わが国 AMED が多いと推計された。



0402 In Vitro Diagnosis Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
European Commission	0	1,510	1,942	1,942	3,460	4,083	2,518	4,698	7,013	7,247	5,727	6,515	8,880	6,442	61,975	Belgium
National Cancer Institute	0	481	1,244	1,412	2,730	2,595	2,546	4,490	4,521	4,344	5,174	5,306	4,268	2,820	41,932	United States
Japan Agency for Medical Research and Development	175	175	175	596	2,445	3,038	3,860	3,560	3,272	3,115	2,917	2,649	1,230	158	27,366	Japan
National Institute for Health and Care Research	0	0	0	0	0	0	0	667	667	799	1,396	1,264	1,221	667	6,682	United Kingdom
European Research Council	0	0	0	308	308	308	308	308	900	900	592	646	646	646	5,868	Belgium
Medical Research Council	0	0	0	0	859	859	859	859	859	0	0	0	0	0	4,293	United Kingdom
National Natural Science Foundation of China	16	37	149	156	187	200	97	147	149	181	117	75	0	0	1,512	China
Natural Sciences and Engineering Research Council	12	24	13	68	68	89	89	89	75	150	154	128	48	0	1,008	Canada
National Institute of General Medical Sciences	0	56	56	56	56	0	0	0	0	0	77	77	77	77	530	United States
Agence Nationale de la Recherche	0	129	129	129	129	0	0	0	0	0	0	0	0	0	516	France

7.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0402 In Vitro Diagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Isothermal amplification-mediated lateral flow biosensors for in vitro diagnosis of gastric cancer-related microRNAs	Seo, Seung Beom; Hwang, Jin-Seong; Kim, Eunjung; Kim, Kyujung; Roh, Seokbeom; Lee, Gyudo; Lim, Jaewoo; Kang, Byunghoon; Jang, Soojin; Son, Seong Uk; Kang, Taejoon; Jung, Juyeon; Kim, Jang-Seong; Keun-Hur; Han, Tae-Su; Lim, Eun-Kyung	Talanta	South Korea	2022	7	Research Article
2	Application of cancer-associated glycoforms and glycan-binding probes to an in vitro diagnostic multivariate index assay for precise diagnoses of cancer	Kang, Jeong Gu; Ko, Jeong-Heon; Kim, Yong-Sam	Proteomics	South Korea	2016	1	Review Article
3	Application of Metal-Based Nanomaterials in In Vitro Diagnosis of Tumor Markers: Summary and Prospect	Yang, Xiaobo; Zhang, Shaodian; Lin, Nong	Molecules	China	2023	1	Review Article
4	CRISPR/Cas-Based In Vitro Diagnostic Platforms for Cancer Biomarker Detection	Gong, Shaohua; Zhang, Shiqi; Lu, Fei; Pan, Wei; Li, Na; Tang, Bo	Analytical Chemistry	China	2021	55	Research Article
5	Comparison of two next-generation sequencing-based approaches for liquid biopsy analysis in patients with non-small cell lung cancer: a multicentre study	Bessi, Silvia; Pepe, Francesco; Russo, Gianluca; Pisapia, Pasquale; Ottaviantonio, Marco; Biancalani, Francesca; Iaccarino, Antonino; Russo, Maria; Biancalani, Mauro; Troncone, Giancarlo; Malapelle, Umberto	Journal of Clinical Pathology	Italy	2022	2	Research Article
6	Light on life: immunoscore immune-checkpoint, a predictor of immunotherapy response	Hijazi, Assia; Antoniotti, Carlotta; Cremolini, Chiara; Galon, Jérôme	OncoImmunology	Italy	2023	4	Review Article
7	Pan-Tumor Analytical Validation and Osimertinib Clinical Validation in EGFR Mutant Non-Small-Cell Lung Cancer, Supporting the First Next-Generation Sequencing Liquid Biopsy in Vitro Diagnostic	Gray, Jhanelle E; Han, Ji-Youn; Telaranta-Keerie, Aino; Huang, Xiangning; Kohlmann, Alexander; Hodge, Rachel; Rukazenkov, Yuri; Chmielecki, Juliann; Espenschied, Carin R; Lefterova, Martina; Wu, Yi-Long; Ramalingam, Suresh S; Barrett, J Carl; Odegaard, Justin I	Journal of Molecular Diagnostics	United States	2023	1	Research Article
8	A digital assay for programmed death-ligand 1 (22C3) quantification combined with immune cell recognition algorithms in non-small cell lung cancer	Paces, Will; Ergon, Elliott; Bueche, Elizabeth; Young, G. Dave; Adisetiyo, Vitria; Luengo, Cris; James, Meredith; Caldwell, Charles; Miller, Dannah; Wambaugh, Morgan; Metcalf, Geoffrey; Gianani, Roberto	Scientific Reports		2022	1	Research Article
9	Compared between support vector machine (SVM) and deep belief network (DBN) for multi-classification of Raman spectroscopy for cervical diseases	Wu, Guohua; Li, Chenchen; Yin, Longfei; Wang, Jing; Zheng, Xiangxiang	Photodiagnosis and Photodynamic Therapy	China	2023	5	Research Article
10	A Novel Anti-TRPV6 Antibody and Its Application in Cancer Diagnosis In Vitro	Haustrate, Aurélien; Mihalache, Adriana; Cordier, Clément; Gosset, Pierre; Prevarskaya, Natalia; Lehen' kyi, V' yacheslav	International Journal of Molecular Sciences	France	2022	6	Research Article

＜引用＞

Citation: 0402 In Vitro Diagnosis

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Raman spectroscopy for medical diagnostics — From in-vitro biofluid assays to in-vivo cancer detection	Kong, Kenny; Kendall, Catherine; Stone, Nicholas; Notingher, Ioan	Advanced Drug Delivery Reviews	United Kingdom	2015	184	Review Article
2	Recent advances in development of dendritic polymer-based nanomedicines for cancer diagnosis	Li, Haonan; Sun, Jiayu; Zhu, Hongyan; Wu, Haoxing; Zhang, Hu; Gu, Zhongwei; Luo, Kui	Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology	China	2020	165	Review Article
3							
4	Molecular nanomedicine towards cancer: 111In-labeled nanoparticles	Psimadas, Dimitrios; Georgoulias, Panagiotis; Valotassiou, Varvara; Loudos, George	Journal of Pharmaceutical Sciences	Greece	2012	129	Review Article
5	Metal-organic frameworks (MOFs) based electrochemical biosensors for early cancer diagnosis in vitro	Zhang, Shuai; Rong, Feilong; Guo, Chuanpan; Duan, Fenghe; He, Linghao; Wang, Minghua; Zhang, Zhihong; Kang, Mengmeng; Du, Miao	Coordination Chemistry Reviews	China	2021	127	Review Article
6	Semiconductor Quantum Dots for Bioimaging and Biodiagnostic Applications	Kairdolf, Brad A.; Smith, Andrew M.; Stokes, Todd H.; Wang, May D.; Young, Andrew N.; Nie, Shuming	Annual Review of Analytical Chemistry	United States	2013	120	Review Article
7	Visible-light and near-infrared fluorescence and surface-enhanced Raman scattering point-of-care sensing and bio-imaging: a review	Hang, Yingjie; Boryczka, Jennifer; Wu, Nianqiang	Chemical Society Reviews	United States	2022	115	Review Article
8	Aptamers in the Therapeutics and Diagnostics Pipelines	Kaur, Harleen; Bruno, John G.; Kumar, Amit; Sharma, Tarun Kumar	Theranostics	India	2018	112	Review Article
9	Fluorescent-based nanosensors for selective detection of a wide range of biological macromolecules: A comprehensive review	Sargazi, Saman; Fatima, Iqra; Hassan Kiani, Maria; Mohammadzadeh, Vahideh; Arshad, Rabia; Bilal, Muhammad; Rahdar, Abbas; Díez-Pascual, Ana M; Behzadmehr, Razieh	International Journal of Biological Macromolecules	Pakistan	2022	105	Review Article
10	Stimuli-responsive nanotherapeutics for precision drug delivery and cancer therapy	Qiao, Yiting; Wan, Jianqin; Zhou, Liqian; Ma, Wen; Yang, Yuanyuan; Luo, Weixuan; Yu, Zhiqiang; Wang, Hangxiang	Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology	China	2018	102	Review Article

＜研究費＞

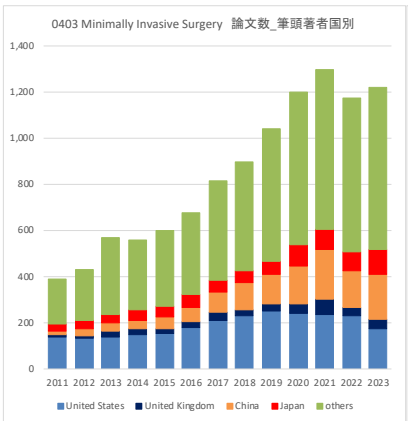
Grant: 0402 In Vitro Diagnosis

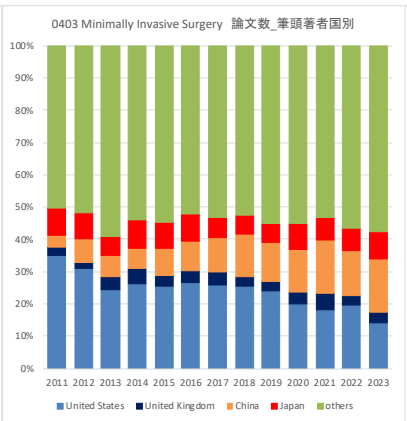
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	SAFETY TESTING IN THE LIFE CYCLE OF NANOTECHNOLOGY-ENABLED MEDICAL TECHNOLOGIES FOR HEALTH.	0	European Commission	Belgium	16,226,459	2019	2023
2	Biotechnology Resource Center of BioModular Multi-scale Systems (CBM2) for Precision Medicine	STEVEN ALLAN SOPER, FRANCIS BARANY, SUNGGOOK PARK, MICHAEL C. MURPHY	National Institute of Biomedical Imaging and Bioengineering	United States	9,686,952	2015	2026
3	Center for Cancer Nanotechnology Excellence for Translational Diagnostics (CCNE-TD)	JIANGHONG RAO, SHAN X. WANG, SANJIV S GAMBHIR, ROBERT SINCLAIR, ALICE CHEN FAN, DEMIR AKIN	National Cancer Institute	United States	9,649,362	2015	2022
4	Predictive Genomic Biomarkers Methods for Combination Bevacizumab (Avastin) Therapy in Metastatic Colorectal Cancer	0	European Commission	Belgium	7,550,423	2012	2016
5	Identification of sentinel lymph nodes by magnetic nanoparticles and development of rapid diagnostic method for cancer metastasis	Yumitsu Kitagawa, Moriaki Kusakabe, Masaki Sekino	Japan Agency for Medical Research and Development	Japan	6,854,511	2015	2019
6	Affordability and Sustainability improvements by using new pricing, Cost-Effectiveness and ReimbursemenT models to Appraise iNnovative health technologies	0	European Commission	Belgium	5,363,816	2022	2026
7	Biotechnology Development Center	0	Ministry of Industry and Trade	Czechia	4,544,244	2012	2014
8	Photonics for Healthcare: multiscAle cancer diagnosiS and Therapy	0	European Commission	Belgium	4,348,495	2020	2024
9	MICA: The Newcastle Proximity Laboratory	Andrew Hall, Nick J. Reynolds, Chris Bacon, John Brain, Steven Clifford, Julie Anne Elizabeth Irving, David Jones, Natalio Krasnogor, Christopher Lamb, Philip Manning, Anthony O'Neill, Max Robinson, John Simpson, Philip Sloan, Robert William Taylor, Dina Tiniakos, Deborah Tweddle, Josef Vormoor, Michael Wright	Medical Research Council	United Kingdom	4,292,700	2015	2019
10	Liquid Biopsy for treatment stratification of IDH1.R132H and EGFRvIII mutant gliomas	BOB S CARTER, JOHAN SKOG	National Cancer Institute	United States	3,984,889	2018	2024

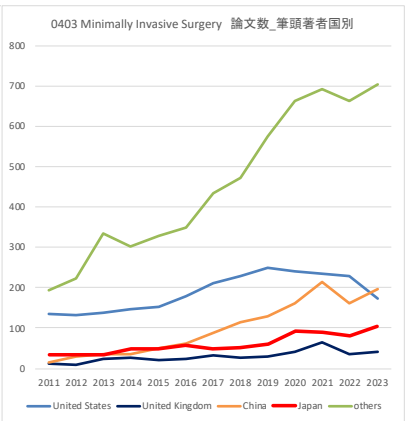
7.3. 0403 Minimally Invasive Surgery

7.3.1. 論文数

Minimally Invasive Surgery の論文数は経年的に増加傾向にあるが、2021 年以降は横ばい傾向と推計された。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。経年的には、中国と日本の増加傾向がやや強く、米国は横ばいからやや低下傾向と推計された。



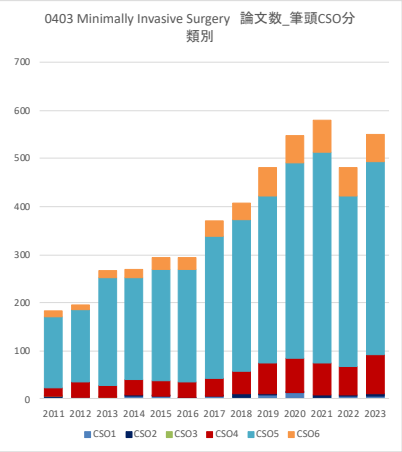


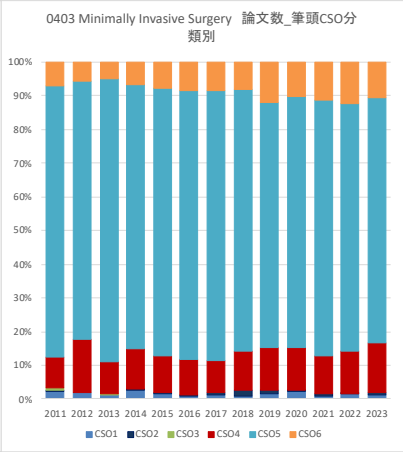


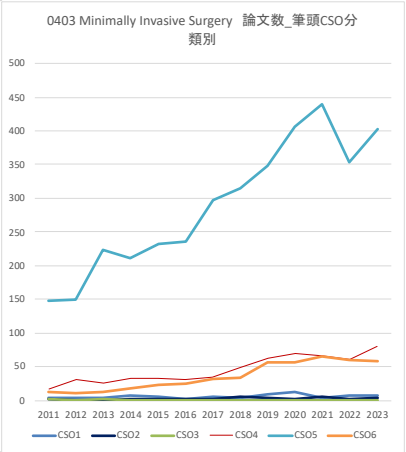
0403 Minimally Invasive Surgery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	135	132	139	146	152	179	210	228	249	240	236	229	172	108	2,555
United Kingdom	11	9	23	27	20	25	33	28	30	42	64	35	41	26	414
China	14	31	36	34	51	62	88	116	128	162	214	162	198	80	1,376
Japan	33	34	35	49	49	57	50	53	59	93	90	81	103	44	830
others	194	222	335	301	328	350	433	471	575	662	691	664	703	318	6,247
合計	387	428	568	557	600	673	814	896	1,041	1,199	1,295	1,171	1,217	576	11,422

0403 Minimally Invasive Surgery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.9%	30.8%	24.5%	26.2%	25.3%	26.6%	25.8%	25.4%	23.9%	20.0%	18.2%	19.6%	14.1%	18.8%	22.4%
United Kingdom	2.8%	2.1%	4.0%	4.8%	3.3%	3.7%	4.1%	3.1%	2.9%	3.5%	4.9%	3.0%	3.4%	4.5%	3.6%
China	3.6%	7.2%	6.3%	6.1%	8.5%	9.2%	10.8%	12.9%	12.3%	13.5%	16.5%	13.8%	16.3%	13.9%	12.0%
Japan	8.5%	7.9%	6.2%	8.8%	8.2%	8.5%	6.1%	5.9%	5.7%	7.8%	6.9%	6.9%	8.5%	7.6%	7.3%
others	50.1%	51.9%	59.0%	54.0%	54.7%	52.0%	53.2%	52.6%	55.2%	55.2%	53.4%	56.7%	57.8%	55.2%	54.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Minimally Invasive Surgery の CSO 分類別の論文数は、CSO5 Treatment が最も多く、ついで CSO4 Early Detection, Diagnosis and Prognosis、CSO6 Cancer Control, Survivorship, and Outcomes Research の順と推計された。



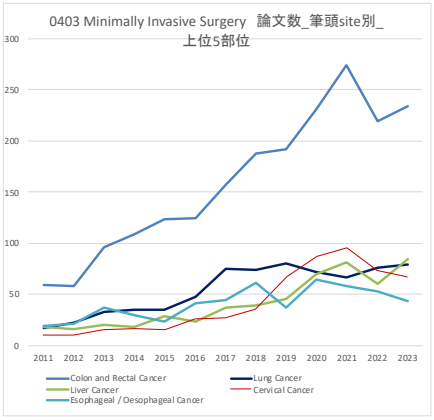




0403 Minimally Invasive Surgery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4	4	3	7	5	2	5	4	8	13	4	7	7	3	76
2 Etiology	1	0	0	1	1	2	2	6	4	1	5	1	4	2	30
3 Prevention	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4 Early Detection, Diagnosis, and Prognosis	17	31	25	32	32	31	35	48	62	70	66	60	80	33	622
5 Treatment	148	150	224	211	232	235	297	315	349	407	439	353	402	166	3,928
6 Cancer Control, Survivorship, and Outcomes Research	13	11	13	18	23	25	31	33	57	56	65	60	58	31	494
others	203	232	302	288	307	378	444	490	561	652	716	690	666	341	6,270
合計	387	428	568	557	600	673	814	896	1,041	1,199	1,295	1,171	1,217	576	11,422

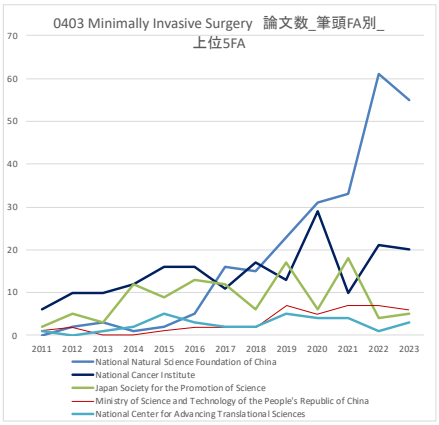
0403 Minimally Invasive Surgery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1.0%	0.9%	0.5%	1.3%	0.8%	0.3%	0.6%	0.4%	0.8%	1.1%	0.3%	0.6%	0.6%	0.5%	0.7%
2 Etiology	0.3%	0.0%	0.0%	0.2%	0.2%	0.3%	0.2%	0.7%	0.4%	0.1%	0.4%	0.1%	0.3%	0.3%	0.3%
3 Prevention	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	4.4%	7.2%	4.4%	5.7%	5.3%	4.6%	4.3%	5.4%	6.0%	5.8%	5.1%	5.1%	6.6%	5.7%	5.4%
5 Treatment	38.2%	35.0%	39.4%	37.9%	38.7%	34.9%	36.5%	35.2%	33.5%	33.9%	33.9%	30.1%	33.0%	28.8%	34.4%
6 Cancer Control, Survivorship, and Outcomes Research	3.4%	2.6%	2.3%	3.2%	3.8%	3.7%	3.8%	3.7%	5.5%	4.7%	5.0%	5.1%	4.8%	5.4%	4.3%
others	52.5%	54.2%	53.2%	51.7%	51.2%	56.2%	54.5%	54.7%	53.9%	54.4%	55.3%	58.9%	54.7%	59.2%	54.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Minimally Invasive Surgery の臓器別の論文数は、大腸がんが最も多く経年的にも増加傾向にあり、ついで肺がん、肝がんの順と推計された。



0403 Minimally Invasive Surgery 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	59	58	96	109	124	125	157	188	192	231	274	219	234	126	2,192
Lung Cancer	17	22	33	35	35	48	75	74	80	72	67	76	79	36	749
Liver Cancer	18	16	20	18	29	23	37	39	45	70	81	60	85	35	576
Cervical Cancer	10	10	16	17	16	26	27	35	67	87	96	73	67	27	574
Esophageal / Oesophageal Cancer	19	21	37	30	23	41	44	61	37	64	58	53	43	20	551
Endometrial Cancer	11	22	15	25	39	31	33	32	52	59	77	63	61	21	541
Pancreatic Cancer	18	15	14	24	19	35	43	49	45	60	57	49	60	30	518
Stomach Cancer	16	20	20	28	31	45	36	35	39	30	61	43	64	22	490
Kidney Cancer	17	19	20	17	15	19	13	25	29	37	17	40	29	12	309
Ovarian Cancer	9	8	37	6	9	11	9	25	33	42	29	30	35	12	295

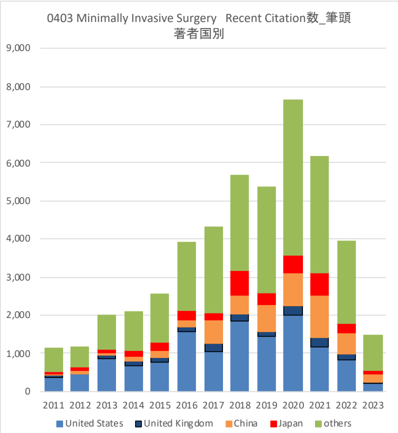
Minimally Invasive Surgery の FA 別の論文数は、中国 NSFC が最も多く経年的にも大きく増加しており、ついで米国 NCI、わが国の JSPS の順と推計された。

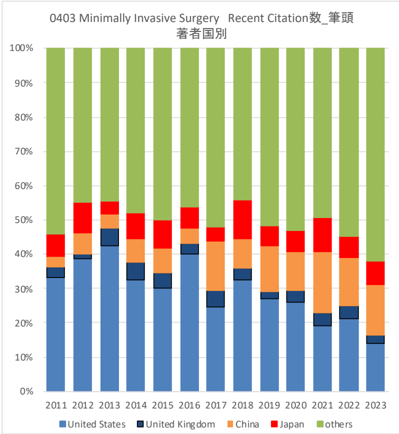


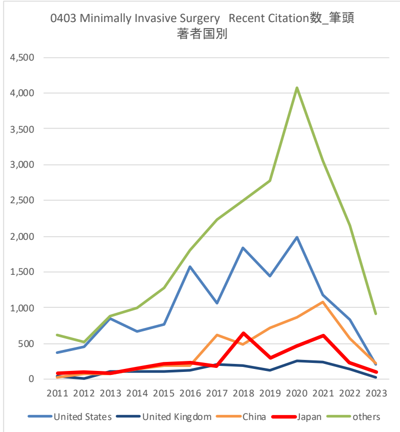
0403 Minimally Invasive Surgery 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	0	2	3	1	2	5	16	15	23	31	33	61	55	18	265
National Cancer Institute	6	10	10	12	16	16	11	17	13	29	10	21	20	7	198
Japan Society for the Promotion of Science	2	5	3	12	9	13	12	6	17	6	18	4	5	4	116
Ministry of Science and Technology of the People's Republic of China	1	2	0	0	1	2	2	2	7	5	7	7	6	1	43
National Center for Advancing Translational Sciences	1	0	1	2	5	3	2	2	5	4	4	1	3	1	34
Department of Health and Social Care	0	1	2	5	1	1	2	3	0	4	4	3	1	0	27
Deutsche Forschungsgemeinschaft	0	0	1	1	1	1	2	3	2	1	4	3	1	1	21
European Commission	2	1	0	0	0	1	0	1	3	2	3	3	3	1	20
Japan Agency for Medical Research and Development	0	0	0	0	1	1	0	2	2	2	10	0	1	1	20
Medical Research Council	2	0	5	3	1	1	0	0	0	2	1	0	2	1	18

7.3.2. Recent Citation 数

Minimally Invasive Surgery の引用数は、経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと米国、中国、日本の順と推計された。



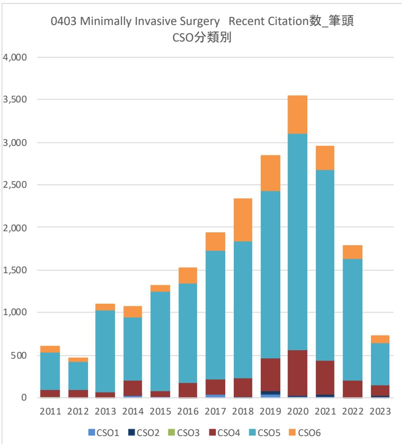


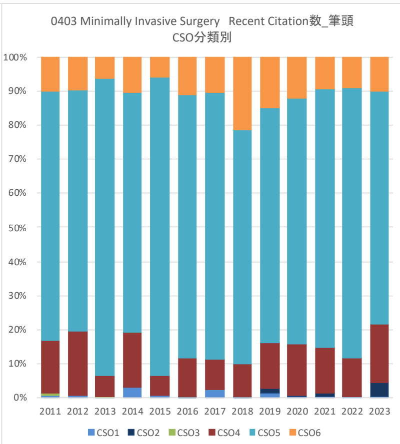


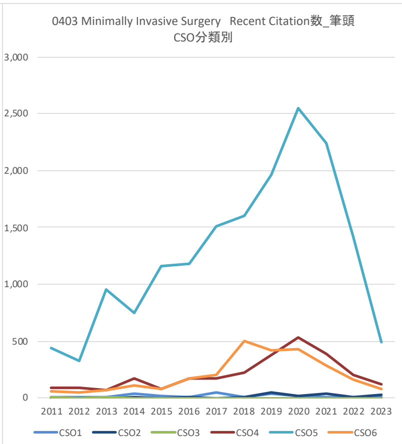
0403 Minimally Invasive Surgery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	376	454	844	675	772	1,568	1,057	1,843	1,438	1,985	1,176	836	208	20	13,252
United Kingdom	37	14	101	111	117	120	212	191	121	265	248	142	32	3	1,714
China	32	72	80	141	186	184	621	480	712	868	1,087	564	220	7	5,254
Japan	77	104	78	155	212	239	185	652	306	462	612	237	100	9	3,428
others	613	525	883	1,002	1,280	1,811	2,238	2,494	2,773	4,068	3,059	2,155	912	49	23,862
合計	1,135	1,169	1,986	2,084	2,567	3,922	4,313	5,660	5,350	7,648	6,182	3,934	1,472	88	47,510

0403 Minimally Invasive Surgery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	33.1%	38.8%	42.5%	32.4%	30.1%	40.0%	24.5%	32.6%	26.9%	26.0%	19.0%	21.3%	14.1%	22.7%	27.9%
United Kingdom	3.3%	1.2%	5.1%	5.3%	4.6%	3.1%	4.9%	3.4%	2.3%	3.5%	4.0%	3.6%	2.2%	3.4%	3.6%
China	2.8%	6.2%	4.0%	6.8%	7.2%	4.7%	14.4%	8.5%	13.3%	11.3%	17.6%	14.3%	14.9%	8.0%	11.1%
Japan	6.8%	8.9%	3.9%	7.4%	8.3%	6.1%	4.3%	11.5%	5.7%	6.0%	9.9%	6.0%	6.8%	10.2%	7.2%
others	54.0%	44.9%	44.5%	48.1%	49.9%	46.2%	51.9%	44.1%	51.8%	53.2%	49.5%	54.8%	62.0%	55.7%	50.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Minimally Invasive Surgery の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO6 Cancer Control, Survivorship, and Outcomes Research と CSO4 Early Detection, Diagnosis and Prognosis と推計された。



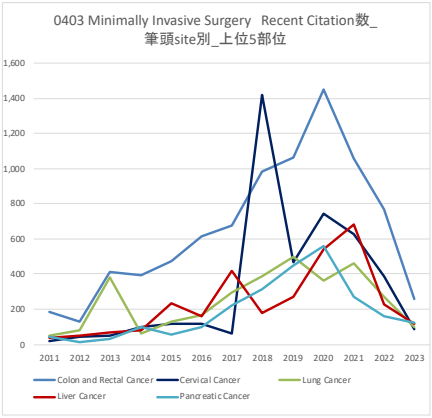




0403 Minimally Invasive Surgery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5	4	1	33	11	1	44	4	36	11	10	5	3	0	168
2 Etiology	0	0	0	1	0	4	0	6	46	17	34	1	30	1	140
3 Prevention	3	0	3	0	0	0	0	0	0	0	0	0	0	0	6
4 Early Detection, Diagnosis, and Prognosis	93	87	68	170	76	171	174	226	379	530	391	205	123	5	2,698
5 Treatment	441	330	957	751	1,158	1,175	1,514	1,603	1,967	2,552	2,241	1,418	494	28	16,629
6 Cancer Control, Survivorship, and Outcomes Research	60	45	67	112	79	169	201	501	421	431	280	161	73	8	2,608
others	533	703	890	1,017	1,243	2,402	2,392	3,320	2,501	4,107	3,226	2,144	749	46	25,261
合計	1,135	1,169	1,986	2,084	2,567	3,922	4,313	5,660	5,350	7,648	6,182	3,934	1,472	88	47,510

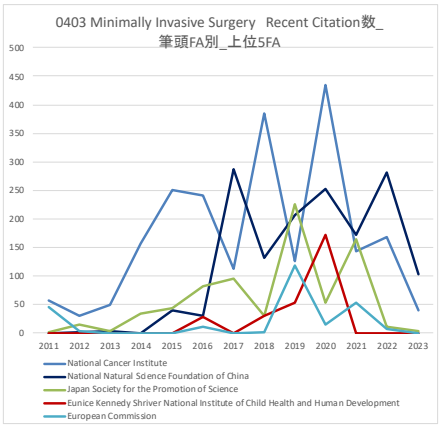
0403 Minimally Invasive Surgery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.4%	0.3%	0.1%	1.6%	0.4%	0.0%	1.0%	0.1%	0.7%	0.1%	0.2%	0.1%	0.2%	0.0%	0.4%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.9%	0.2%	0.5%	0.0%	2.0%	1.1%	0.3%
3 Prevention	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	8.2%	7.4%	3.4%	8.2%	3.0%	4.4%	4.0%	4.0%	7.1%	6.9%	6.3%	5.2%	8.4%	5.7%	5.7%
5 Treatment	38.9%	28.2%	48.2%	36.0%	45.1%	30.0%	35.1%	28.3%	36.8%	33.4%	36.3%	36.0%	33.6%	31.8%	35.0%
6 Cancer Control, Survivorship, and Outcomes Research	5.3%	3.8%	3.4%	5.4%	3.1%	4.3%	4.7%	8.9%	7.9%	5.6%	4.5%	4.1%	5.0%	9.1%	5.5%
others	47.0%	60.1%	44.8%	48.8%	48.4%	61.2%	55.5%	58.7%	46.7%	53.7%	52.2%	54.5%	50.9%	52.3%	53.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Minimally Invasive Surgery の臓器別の引用数は、大腸がんが最も多く、ついで子宮頸がん、肺がんの順と推計された。



0403 Minimally Invasive Surgery Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	182	127	410	392	472	612	678	985	1,060	1,451	1,055	769	258	12	8,463
Cervical Cancer	17	46	48	99	115	118	60	1,419	465	746	624	386	89	7	4,239
Lung Cancer	48	78	382	64	128	168	296	385	498	364	459	270	97	10	3,247
Liver Cancer	37	48	69	81	235	163	416	176	269	543	683	230	120	11	3,081
Pancreatic Cancer	46	14	30	98	56	99	223	315	451	559	272	161	126	6	2,456
Endometrial Cancer	30	91	70	188	151	177	191	192	213	371	237	174	50	5	2,140
Stomach Cancer	41	40	36	111	109	265	157	138	132	256	361	151	54	2	1,853
Esophageal / Oesophageal Cancer	64	17	124	82	76	236	309	122	83	196	214	91	44	5	1,663
Ovarian Cancer	30	11	33	49	52	67	53	91	226	198	86	56	46	0	998
Bladder Cancer	8	5	179	17	38	293	31	103	32	105	38	21	3	0	873

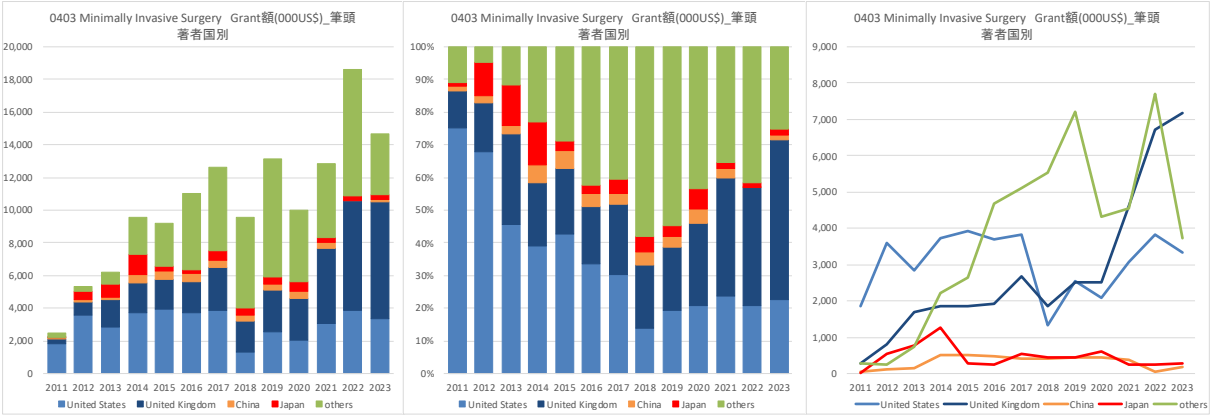
Minimally Invasive Surgery の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、日本 JSPS の順と推計された。



0403 Minimally Invasive Surgery Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	56	30	49	157	251	241	112	385	126	434	144	168	39	2	2,194
National Natural Science Foundation of China	0	2	4	0	40	31	287	131	207	252	171	281	103	3	1,512
Japan Society for the Promotion of Science	2	15	3	34	44	82	96	31	225	54	165	11	3	0	765
Eunice Kennedy Shriver National Institute of Child Health and Human Development	0	0	0	0	0	28	0	30	53	172	0	0	0	0	283
European Commission	45	3	0	0	0	10	0	2	119	14	54	8	0	0	255
Ministry of Science and Technology of the People's Republic of China	0	6	0	0	4	4	13	1	39	47	55	51	16	0	236
Department of Health and Social Care	0	4	15	13	11	12	13	65	0	37	25	16	3	0	214
National Center for Advancing Translational Sciences	8	0	3	18	27	7	20	7	29	63	8	2	0	0	192
Medical Research Council	11	0	33	19	61	13	0	0	0	11	2	0	5	0	155
National Institute of General Medical Sciences	0	29	0	0	9	9	0	3	89	0	5	5	0	0	149

7.3.3. Grant(000US$)額

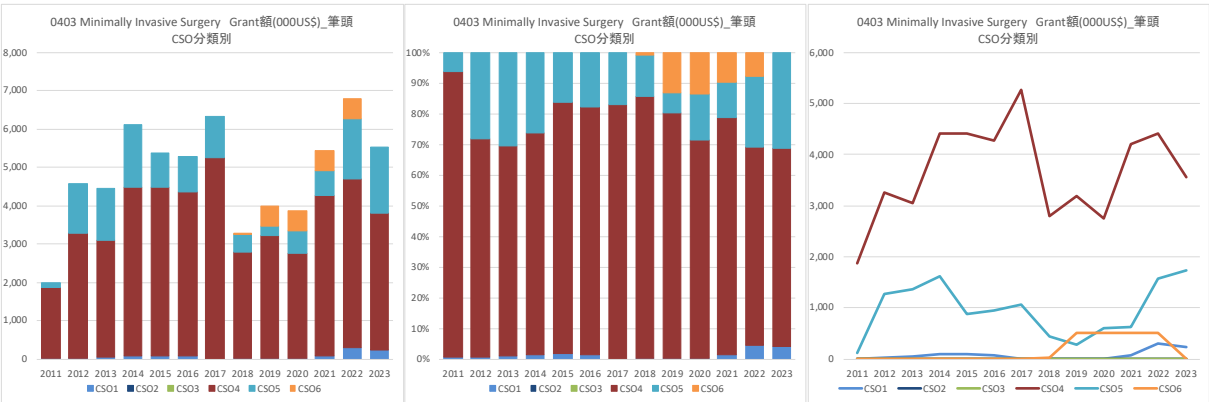
Minimally Invasive Surgery の筆頭著者の研究費総額は、経年的に増加傾向にあると推計された。国別の研究費配分額は、2011 年は米国の研究費配分額が大半を占めていたがその後横ばいで、英国の増加傾向が顕著と推計された。



0403 Minimally Invasive Surgery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,855	3,609	2,829	3,713	3,914	3,702	3,830	1,313	2,553	2,075	3,066	3,832	3,324	3,231	42,845
United Kingdom	276	795	1,704	1,859	1,849	1,932	2,686	1,860	2,519	2,511	4,623	6,719	7,184	6,808	43,325
China	36	108	161	502	502	463	413	409	428	441	365	58	180	154	4,220
Japan	26	552	771	1,258	271	261	555	457	442	610	251	258	266	50	6,026
others	271	251	724	2,202	2,638	4,685	5,107	5,547	7,195	4,334	4,554	7,716	3,723	3,158	52,106
合計	2,464	5,315	6,188	9,534	9,174	11,043	12,592	9,586	13,137	9,970	12,859	18,583	14,677	13,400	148,522

0403 Minimally Invasive Surgery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	75.3%	67.9%	45.7%	38.9%	42.7%	33.5%	30.4%	13.7%	19.4%	20.8%	23.8%	20.6%	22.6%	24.1%	28.8%
United Kingdom	11.2%	15.0%	27.5%	19.5%	20.2%	17.5%	21.3%	19.4%	19.2%	25.2%	35.9%	36.2%	48.9%	50.8%	29.2%
China	1.5%	2.0%	2.6%	5.3%	5.5%	4.2%	3.3%	4.3%	3.3%	4.4%	2.8%	0.3%	1.2%	1.1%	2.8%
Japan	1.1%	10.4%	12.5%	13.2%	3.0%	2.4%	4.4%	4.8%	3.4%	6.1%	2.0%	1.4%	1.8%	0.4%	4.1%
others	11.0%	4.7%	11.7%	23.1%	28.8%	42.4%	40.6%	57.9%	54.8%	43.5%	35.4%	41.5%	25.4%	23.6%	35.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

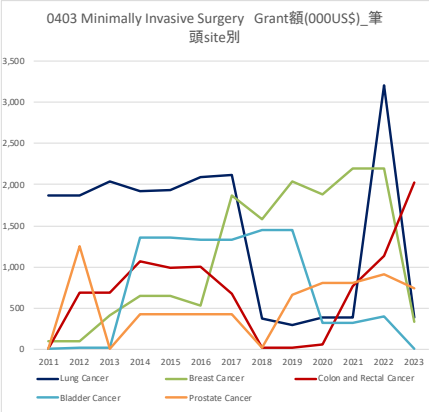
Minimally Invasive Surgery の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く、ついで CSO5 Treatment と推計された。



0403 Minimally Invasive Surgery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	10	32	41	88	86	64	0	10	10	10	71	295	234	0	950
2 Etiology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	1,865	3,253	3,058	4,403	4,411	4,283	5,265	2,785	3,197	2,750	4,211	4,404	3,566	3,297	50,749
5 Treatment	127	1,278	1,364	1,614	875	945	1,066	447	273	592	633	1,565	1,723	1,635	14,137
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	25	521	521	521	521	0	0	2,109
others	461	752	1,725	3,428	3,801	5,751	6,260	6,319	9,657	6,619	7,944	12,319	9,154	8,469	82,660
合計	2,464	5,315	6,188	9,534	9,174	11,043	12,592	9,586	13,137	9,970	12,859	18,583	14,677	13,400	148,522

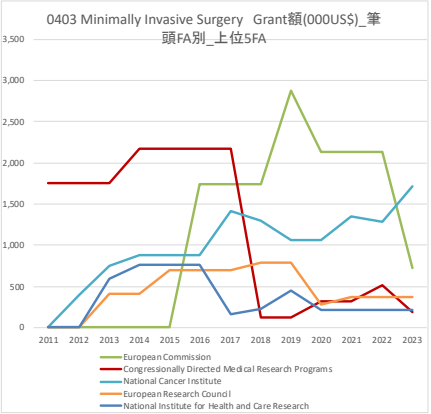
0403 Minimally Invasive Surgery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.4%	0.6%	0.7%	0.9%	0.9%	0.6%	0.0%	0.1%	0.1%	0.1%	0.6%	1.6%	1.6%	0.0%	0.6%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	75.7%	61.2%	49.4%	46.2%	48.1%	38.8%	41.8%	29.1%	24.3%	27.6%	32.7%	23.7%	24.3%	24.6%	34.2%
5 Treatment	5.2%	24.0%	22.0%	16.9%	9.5%	8.6%	8.5%	4.7%	2.1%	5.9%	4.9%	8.4%	11.7%	12.2%	9.5%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	4.0%	5.2%	4.1%	2.8%	0.0%	0.0%	1.4%
others	18.7%	14.2%	27.9%	36.0%	41.4%	52.1%	49.7%	65.9%	73.5%	66.4%	61.8%	66.3%	62.4%	63.2%	55.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Minimally Invasive Surgery の臓器別の研究費配分額は、肺がんが最も多く、ついで乳がん、子宮頸がんの順と推計された。



0403 Minimally Invasive Surgery Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Lung Cancer	1,865	1,865	2,036	1,920	1,928	2,086	2,116	377	293	390	390	3,207	390	273	19,137
Breast Cancer	101	101	407	644	644	532	1,870	1,584	2,042	1,878	2,202	2,192	333	289	14,819
Colon and Rectal Cancer	0	692	692	1,073	989	1,006	669	16	26	52	766	1,132	2,024	1,912	11,050
Bladder Cancer	0	23	23	1,353	1,353	1,331	1,331	1,452	1,452	323	323	406	7	0	9,375
Prostate Cancer	0	1,247	0	420	420	420	420	25	661	812	812	911	745	624	7,520
Not Site-Specific Cancer	10	110	533	424	415	420	420	420	420	76	724	1,267	1,206	966	7,413
Brain Tumor	0	41	361	361	361	385	385	385	461	445	488	411	403	395	4,880
Cervical Cancer	0	0	0	485	260	260	369	132	121	172	51	51	51	0	1,953
Stomach Cancer	26	26	24	329	35	22	308	308	297	297	12	12	12	0	1,708
Kidney Cancer	0	0	0	0	12	12	12	0	0	0	41	536	495	495	1,603

Minimally Invasive Surgery の FA 別の研究費配分額は、European Commission が最も多く、ついで米国 Congressionally Directed Medical Research Programs の順と推計された。



0403 Minimally Invasive Surgery Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
European Commission	0	0	0	0	0	1,742	1,742	1,742	2,883	2,139	2,139	2,139	723	723	15,972	Belgium
Congressionally Directed Medical Research Programs	1,758	1,758	1,758	2,179	2,179	2,179	2,179	122	122	323	323	509	186	186	15,760	United States
National Cancer Institute	0	391	751	885	885	885	1,410	1,292	1,062	1,062	1,346	1,285	1,710	1,808	14,774	United States
European Research Council	0	0	415	415	698	698	698	783	783	283	365	365	365	365	6,232	Belgium
National Institute for Health and Care Research	0	0	594	757	757	757	164	230	449	220	220	220	220	74	4,662	United Kingdom
Japan Agency for Medical Research and Development	0	0	0	99	99	99	505	406	406	565	159	173	173	15	2,699	Japan
National Natural Science Foundation of China	36	108	161	219	218	179	352	348	367	353	308	32	0	0	2,681	China
National Institute of Neurological Disorders and Stroke	0	0	0	0	107	107	107	107	76	471	471	394	394	394	2,628	United States
Agence Nationale de la Recherche	0	0	0	0	0	0	0	158	284	284	284	409	251	125	1,795	France
Natural Sciences and Engineering Research Council	48	102	102	48	10	10	77	111	107	222	254	401	297	0	1,788	Canada

7.3.4. 主要論文、引用、研究費

＜論文＞

Publication: 0403 Minimally Invasive Surgery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Association of Neighborhood Socioeconomic Disadvantage with Utilization of Minimally Invasive Resection for Non-Small Cell Lung Cancer	Sakowitz, Sara; Bakhtiyar, Syed Shahyan; Curry, Joanna; Ali, Konmal; Toste, Paul; Benharash, Peyman	Journal of Thoracic and Cardiovascular Surgery	United States	2023	0	Research Article
2	Minimally invasive surgery for clinical T4 non-small-cell lung cancer: national trends and outcomes	Rodriguez-Quintero, Jorge Humberto; Elbahrawy, Mostafa M; Montal, Anne Michelle; Jindani, Rajika; Vimolratana, Marc; Kamel, Mohamed K; Stiles, Brendon M; Chudgar, Neel P	European Journal of Cardio-Thoracic Surgery	United States	2024	2	Research Article
3	National differences in implementation of minimally invasive surgery for colorectal cancer and the influence on short-term outcomes	Warps, A. K.; Saraste, D.; Westerterp, M.; Detering, R.; Sjövall, A.; Martling, A.; Dekker, J. W. T.; Tollenaar, R. A. E. M.; Matthiessen, P.; Tanis, P. J.	Surgical Endoscopy	Netherlands	2022	10	Research Article
4	Maintaining oncologic integrity with minimally invasive resection of pediatric embryonal tumors	Phelps, Hannah M; Ayers, Gregory D; Ndolo, Josephine M; Dietrich, Hannah L; Watson, Katherine D; Hilmes, Melissa A; Lovvorn, Harold N	Surgery	United States	2018	10	Research Article
5	Minimally Invasive Surgery for Early-Stage Nasopharyngeal Carcinoma	Liu, Jinping; Zeng, Zesheng; Wang, Dingting; Qin, Gang	Journal of Craniofacial Surgery	China	2022	1	Review Article
6	Use of Near-Infrared Fluorescence Techniques in Minimally Invasive Surgery for Colorectal Liver Metastases	Patel, Ishaan; Rehman, Saad; McKay, Siobhan; Bartlett, David; Mirza, Darius	Journal of Clinical Medicine	United Kingdom	2023	1	Review Article
7	Minimally invasive surgery for abdominal and thoracic neuroblastic tumors: A systematic review by the APSA Cancer committee	Gurria, Juan P; Malek, Marcus M; Heaton, Todd E; Gehred, Alison; Lautz, Timothy B; Rhee, Daniel S; Tracy, Elisabeth T; Grant, Christa N; Baertshiger, Reto M; Bruny, Jennifer; Christison-Lagay, Emily R; Rodeberg, David A; Ehrlich, Peter F; Dasgupta, Roshni; Aldrink, Jennifer H	Journal of Pediatric Surgery	United States	2020	14	Review Article
8	Efficacy of transperineal minimally invasive surgery with laparoscopic abdominoperineal excision for lower rectal cancer	Yoshioka, Takahiro; Hasegawa, Hiro; Ikeda, Koji; Teramura, Koichi; Tsukada, Yuichiro; Nishizawa, Yuji; Ito, Masaaki	Surgery Today	Japan	2022	0	Research Article
9	Evaluation of survival outcomes between minimally invasive and open surgery in the treatment of early-stage endometrial cancer: a population-based study in Osaka Japan	Sasano, Tomoyuki; Mabuchi, Seiji; Komura, Naoko; Maeda, Michihide; Kamiura, Shoji; Morishima, Toshitaka; Miyashiro, Isao	Japanese Journal of Clinical Oncology	Japan	2023	1	Research Article
10	The role of minimally invasive surgery in epithelial ovarian cancer treatment: a narrative review	Generali, Matteo; Annunziata, Gianluca; Pirillo, Debora; D'Ippolito, Giovanni; Ciarlini, Gino; Aguzzoli, Lorenzo; Mandato, Vincenzo Dario	Frontiers in Medicine		2023	0	Review Article

＜引用＞

Citation: 0403 Minimally Invasive Surgery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Minimally Invasive versus Abdominal Radical Hysterectomy for Cervical Cancer	Ramirez, Pedro T; Frumovitz, Michael; Pareja, Rene; Lopez, Aldo; Vieira, Marcelo; Ribeiro, Reitan; Buda, Alessandro; Yan, Xiaojian; Shuzhong, Yao; Chetty, Naven; Isla, David; Tamura, Mariano; Zhu, Tao; Robledo, Kristy P; Gebski, Val; Asher, Rebecca; Behan, Vanessa; Nicklin, James L; Coleman, Robert L; Obermair, Andreas	New England Journal of Medicine	Colombia	2018	607	Research Article
2	Cancer of the cervix uteri	Bhatla, Neerja; Aoki, Daisuke; Sharma, Daya Nand; Sankaranarayanan, Rengaswamy	International Journal of Gynecology & Obstetrics	Japan	2018	441	Review Article
3	The American Association of Endocrine Surgeons Guidelines for Definitive Management of Primary Hyperparathyroidism	Wilhelm, Scott M.; Wang, Tracy S.; Ruan, Daniel T.; Lee, James A.; Asa, Sylvia L.; Duh, Quan-Yang; Doherty, Gerard M.; Herrera, Miguel F.; Pasieka, Janice L.; Perrier, Nancy D.; Silverberg, Shonni J.; Solórzano, Carmen C.; Sturgeon, Cord; Tublin, Mitchell E.; Udelsman, Robert; Carty, Sally E.	JAMA Surgery	United States	2016	389	0
4	Trends in the Adoption of Robotic Surgery for Common Surgical Procedures	Sheetz, Kyle H.; Claflin, Jake; Dimick, Justin B.	JAMA Network Open	United States	2020	357	Research Article
5	Treatment of Stage I and II Non-small Cell Lung Cancer Diagnosis and Management of Lung Cancer, 3rd ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines	Howington, John A.; Blum, Matthew G.; Chang, Andrew C.; Balekian, Alex A.; Murthy, Sudish C.	CHEST Journal	United States	2013	331	Research Article
6	Updated 2016 EAU Guidelines on Muscle-invasive and Metastatic Bladder Cancer	Witjes, J. Alfred; Lebret, Thierry; Compérat, Eva M.; Cowan, Nigel C.; De Santis, Maria; Bruins, Harman Maxim; Hernández, Virginia; Espinós, Estefania Linares; Dunn, James; Rouanne, Mathieu; Neuzillet, Yann; Veskimäe, Erik; van der Heijden, Antoine G.; Gakis, Georgios; Ribal, Maria J.	European Urology	Spain	2016	263	0
7	Cancer of the cervix uteri: 2021 update	Bhatla, Neerja; Aoki, Daisuke; Sharma, Daya Nand; Sankaranarayanan, Rengaswamy	International Journal of Gynecology & Obstetrics	Japan	2021	219	0
8	Survival after Minimally Invasive Radical Hysterectomy for Early-Stage Cervical Cancer	Melamed, Alexander; Margul, Daniel J; Chen, Ling; Keating, Nancy L; Del Carmen, Marcela G; Yang, Junhua; Seagle, Brandon-Luke L; Alexander, Amy; Barber, Emma L; Rice, Laurel W; Wright, Jason D; Kocherginsky, Masha; Shahabi, Shohreh; Rauh-Hain, J Alejandro	New England Journal of Medicine	United States	2018	216	Research Article
9	Effect of Multimodal Prehabilitation vs Postoperative Rehabilitation on 30-Day Postoperative Complications for Frail Patients Undergoing Resection of Colorectal Cancer	Carli, Francesco; Bousquet-Dion, Guillaume; Awasthi, Rashami; Elsherbini, Noha; Liberman, Sender; Boutros, Marylise; Stein, Barry; Charlebois, Patrick; Ghitulescu, Gabriela; Morin, Nancy; Jagoe, Thomas; Scheede-Bergdahl, Celena; Minnella, Enrico Maria; Fiore, Julio F.	JAMA Surgery	Canada	2020	205	Research Article
10	pH-responsive self-healing injectable hydrogel based on N-carboxyethyl chitosan for hepatocellular carcinoma therapy	Qu, Jin; Zhao, Xin; X., Peter; Guo, Baolin	Acta Biomaterialia	China	2017	200	Research Article

＜研究費＞

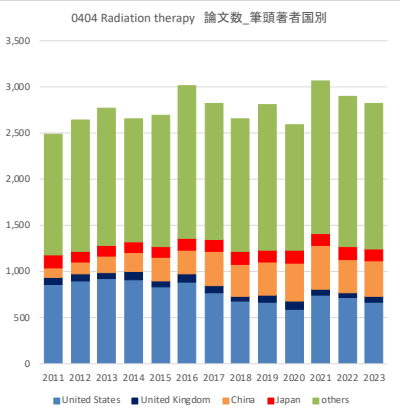
Grant: 0403 Minimally Invasive Surgery

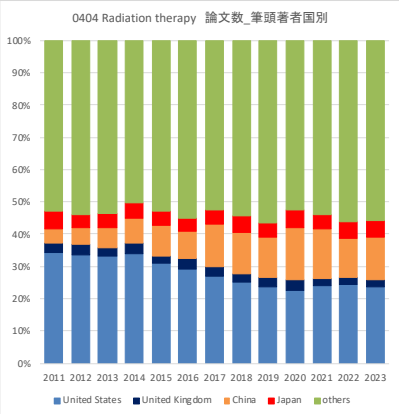
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Detection of Early Lung Cancer among Military Personnel (DECAMP)	Avrum E Spira	Congressionally Directed Medical Research Programs	United States	12,308,921	2011	2017
2	emPOWER: in-body artificial muscles for physical augmentation, function restoration, patient empowerment and future healthcare	Jonathan Rossiter, Martin Birchall, Ashley Blom, Andrew Conn, Marcus Drake, Charles Faul, Emily Henderson, Adam Hexter, Richard Huxtable, Avril McCarthy, Nazia Mehrban, Fabio Parmeggiani, Adam Perriman, Fabrizio Scarpa, Molly Stevens, Bo Su	Engineering and Physical Sciences Research Council	United Kingdom	8,444,460	2021	2026
3	Micro-Robotics for Surgery	Guang-Zhong Yang, Eric Yeatman, Ara Darzi, Daniel Leff, Pallav Shah, Celia Theodoreli - Riga	Engineering and Physical Sciences Research Council	United Kingdom	8,028,144	2017	2022
4	Modern prosthesis drain urine of patients with bladder cancer treated contactless minimally invasive surgery oncology notch bladder (acronym Smart car)	Tomasz Adam Drewa	National Centre for Research and Development	Poland	7,983,483	2014	2019
5	Oncological Engineering - A new concept in the treatment of bone metastases	Richard Hall, Vishal Borse, Michael Bryant, Gregory De Boer, Alejandro Frangi, Robert Hewson, Connor Myant, Nicholas Ovenden, Anthony Redmond, Paul Robinson, Matthew Santer, Rebecca Shipley, Jake Timothy, Simon Walker-Samuel	Engineering and Physical Sciences Research Council	United Kingdom	6,913,096	2022	2027
6	Advancing Smart Optical Imaging and Sensing for Health	0	European Commission	Belgium	6,718,484	2016	2019
7	Self-propelled soft robotic endoscopes for next-generation gastrointestinal surgery and beyond	Ferdinando Rodriguez Y Baena, Alessandro Astolfi, Ara Darzi, Daniele Dini, Daniel Elson, Enrico Franco, Stamatia Giannarou, George Mylonas, Nisha Patel, Zoltan Takats, Julian Teare, Burak Temelkuran	Engineering and Physical Sciences Research Council	United Kingdom	5,923,371	2023	2028
8	Advancing molecular fluorescence-guided surgery platform	KEITH D. PAULSEN, KIMBERLEY SAMKOE, BRIAN W. POGUE	National Cancer Institute	United States	5,048,491	2013	2026
9	Real-time Digital Twin Assisted Surgery	Will Wenmiao Shu, Patricia Connolly, Asimina Kazakidi, Xichun Luo, Kevin O'Neill, Grant Stewart, Sotirios Tsaftaris	Engineering and Physical Sciences Research Council	United Kingdom	4,959,824	2023	2027
10	EndoMapper: Real-time mapping from endoscopic video	0	European Commission	Belgium	4,093,388	2019	2024

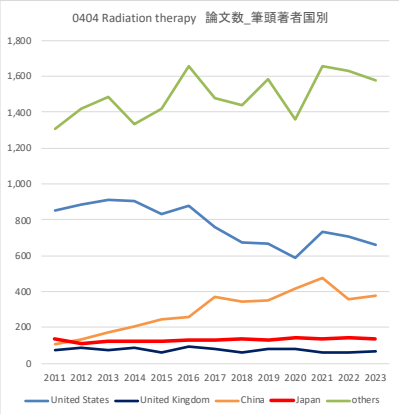
7.4. 0404 Radiation therapy

7.4.1. 論文数

Radiation therapy の論文数は、経年的に横ばい傾向と推計された。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。経年的には、中国は増加傾向が見られたが、米国と日本は横ばいあるいは減少傾向と推計された。



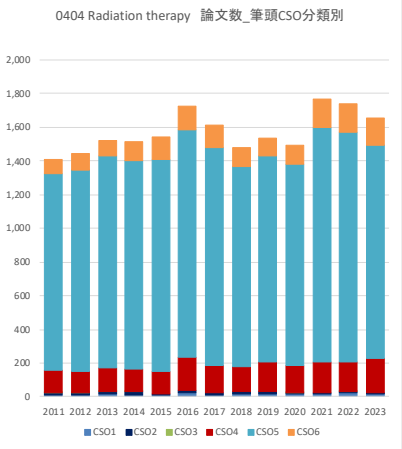


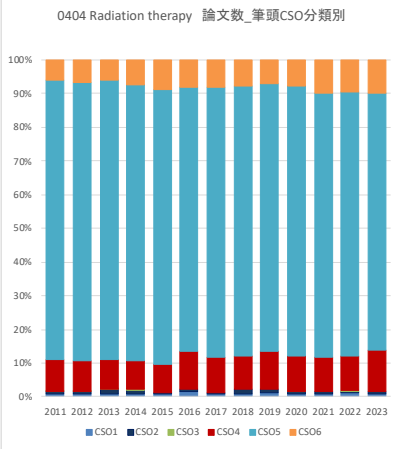


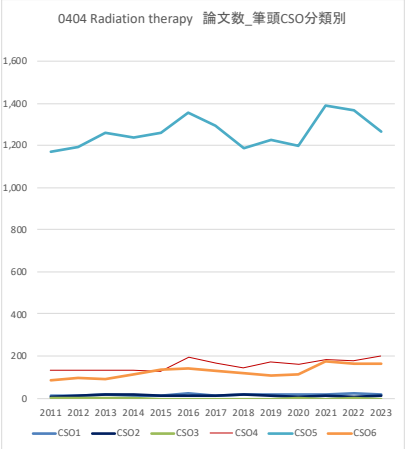
0404 Radiation therapy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	855	888	914	904	834	880	761	671	668	587	736	707	663	150	10,218
United Kingdom	70	84	75	86	62	92	78	60	77	82	63	60	67	26	982
China	109	131	170	205	247	257	371	345	353	417	474	359	375	103	3,916
Japan	139	112	122	124	121	126	129	137	127	142	137	144	136	44	1,740
others	1,307	1,421	1,482	1,332	1,421	1,654	1,477	1,439	1,582	1,358	1,655	1,628	1,576	465	19,797
合計	2,480	2,636	2,763	2,651	2,685	3,009	2,816	2,652	2,807	2,586	3,065	2,898	2,817	788	36,653

0404 Radiation therapy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	34.5%	33.7%	33.1%	34.1%	31.1%	29.2%	27.0%	25.3%	23.8%	22.7%	24.0%	24.4%	23.5%	19.0%	27.9%
United Kingdom	2.8%	3.2%	2.7%	3.2%	2.3%	3.1%	2.8%	2.3%	2.7%	3.2%	2.1%	2.1%	2.4%	3.3%	2.7%
China	4.4%	5.0%	6.2%	7.7%	9.2%	8.5%	13.2%	13.0%	12.6%	16.1%	15.5%	12.4%	13.3%	13.1%	10.7%
Japan	5.6%	4.2%	4.4%	4.7%	4.5%	4.2%	4.6%	5.2%	4.5%	5.5%	4.5%	5.0%	4.8%	5.6%	4.7%
others	52.7%	53.9%	53.6%	50.2%	52.9%	55.0%	52.5%	54.3%	56.4%	52.5%	54.0%	56.2%	55.9%	59.0%	54.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の CSO 分類別の論文数は、CSO5 Treatment が最も多いと推計された。



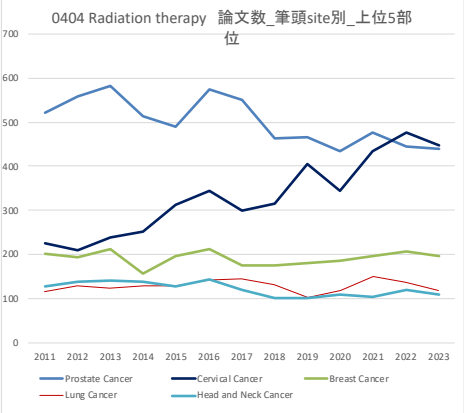




0404 Radiation therapy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	13	12	15	13	11	25	12	15	19	15	18	22	16	9	215
2 Etiology	8	9	18	18	9	13	9	16	14	8	9	8	11	3	153
3 Prevention	1	1	1	1	0	0	0	0	0	1	0	1	0	0	6
4 Early Detection, Diagnosis, and Prognosis	135	130	135	132	129	195	167	146	172	159	181	177	200	53	2,111
5 Treatment	1,170	1,193	1,263	1,238	1,261	1,354	1,292	1,188	1,224	1,196	1,389	1,366	1,266	362	16,762
6 Cancer Control, Survivorship, and Outcomes Research	85	98	92	113	135	140	132	117	108	115	174	165	161	54	1,689
others	1,068	1,193	1,239	1,136	1,140	1,282	1,204	1,170	1,270	1,092	1,294	1,159	1,163	307	15,717
合計	2,480	2,636	2,763	2,651	2,685	3,009	2,816	2,652	2,807	2,586	3,065	2,898	2,817	788	36,653

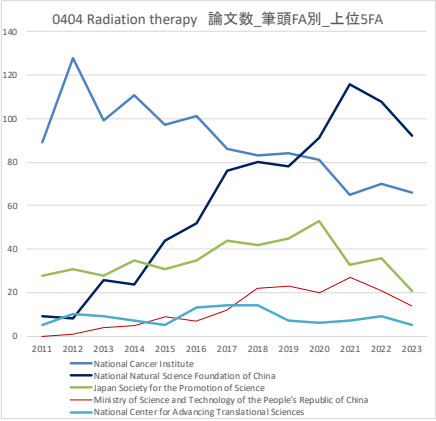
0404 Radiation therapy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.5%	0.5%	0.5%	0.5%	0.4%	0.8%	0.4%	0.6%	0.7%	0.6%	0.6%	0.8%	0.6%	1.1%	0.6%
2 Etiology	0.3%	0.3%	0.7%	0.7%	0.3%	0.4%	0.3%	0.6%	0.5%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	5.4%	4.9%	4.9%	5.0%	4.8%	6.5%	5.9%	5.5%	6.1%	6.1%	5.9%	6.1%	7.1%	6.7%	5.8%
5 Treatment	47.2%	45.3%	45.7%	46.7%	47.0%	45.0%	45.9%	44.8%	43.6%	46.2%	45.3%	47.1%	44.9%	45.9%	45.7%
6 Cancer Control, Survivorship, and Outcomes Research	3.4%	3.7%	3.3%	4.3%	5.0%	4.7%	4.7%	4.4%	3.8%	4.4%	5.7%	5.7%	5.7%	6.9%	4.6%
others	43.1%	45.3%	44.8%	42.9%	42.5%	42.6%	42.8%	44.1%	45.2%	42.2%	42.2%	40.0%	41.3%	39.0%	42.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の臓器別の論文数は、前立腺がん、子宮頸がん、乳がんの順に多いと推計された。経年的には、子宮頸がんの論文数が増加傾向にみられた。



0404 Radiation therapy 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Prostate Cancer	521	559	583	513	490	575	550	463	465	435	476	445	440	110	6,625
Cervical Cancer	225	210	240	253	314	344	301	316	405	344	435	477	447	114	4,425
Breast Cancer	202	194	212	156	198	212	175	177	182	185	196	208	197	71	2,565
Lung Cancer	117	129	123	130	129	142	145	133	102	119	151	138	120	34	1,712
Head and Neck Cancer	128	139	142	140	127	145	119	101	102	111	105	121	111	55	1,646
Not Site-Specific Cancer	131	123	118	118	126	137	97	106	104	103	121	126	129	46	1,585
Brain Tumor	69	71	71	80	69	71	74	78	94	91	111	110	111	27	1,127
Genital System, Male	105	77	96	92	68	86	97	57	65	40	57	33	30	4	907
Endometrial Cancer	45	60	53	73	65	57	71	57	92	64	90	84	72	14	897
Colon and Rectal Cancer	34	50	38	60	62	55	60	64	63	63	68	69	68	15	769

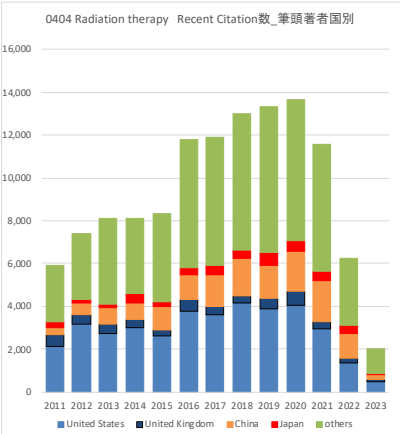
Radiation therapy の FA 別の論文数は、米国 NCI が最も多く、ついで中国 NSFC、わが国の JSPS の順と推計された。経年的には、中国 NSFC は増加傾向が見られた。

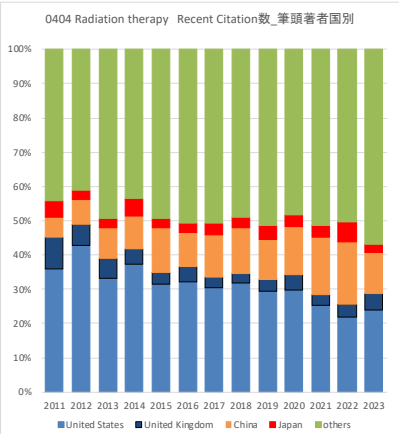


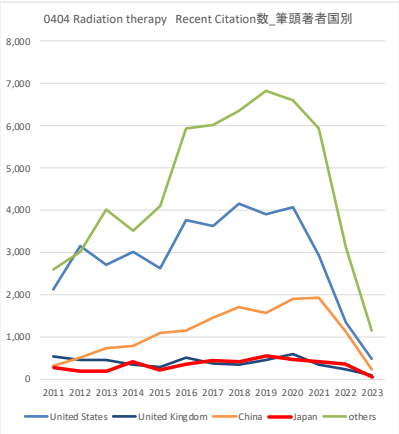
0404 Radiation therapy 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	89	128	99	111	97	101	86	83	84	81	65	70	66	17	1,177
National Natural Science Foundation of China	9	8	26	24	44	52	76	80	78	91	116	108	92	30	834
Japan Society for the Promotion of Science	28	31	28	35	31	35	44	42	45	53	33	36	21	8	470
Ministry of Science and Technology of the People's Republic of China	0	1	4	5	9	7	12	22	23	20	27	21	14	6	171
National Center for Advancing Translational Sciences	5	10	9	7	5	13	14	14	7	6	7	9	5	1	112
Cancer Research UK	7	10	9	13	10	12	5	4	7	5	5	7	7	2	103
Natural Sciences and Engineering Research Council	8	5	3	4	4	5	9	8	7	11	7	14	9	4	98
European Commission	10	9	5	7	5	7	6	5	4	6	8	11	4	1	88
Dutch Cancer Society	5	2	3	3	8	8	6	5	3	11	8	7	6	2	77
National Research Foundation of Korea	4	3	2	2	3	4	4	16	10	3	10	5	2	1	69

7.4.2. Recent Citation 数

Radiation therapy の筆頭著者の引用数は、経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと米国、中国の順に多いと推計された。



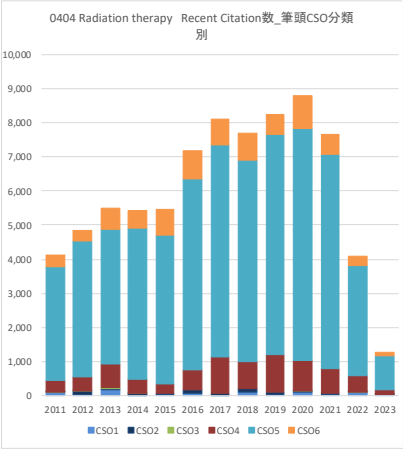


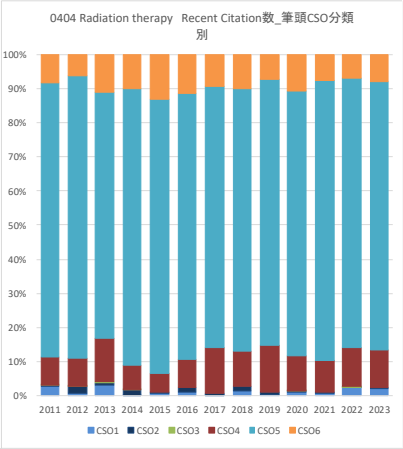


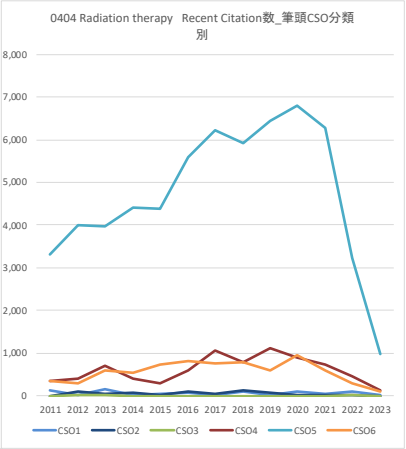
0404 Radiation therapy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	2,131	3,167	2,708	3,012	2,621	3,781	3,636	4,153	3,907	4,076	2,927	1,357	483	9	37,968
United Kingdom	550	457	474	360	286	527	367	353	458	608	352	250	94	0	5,136
China	329	530	732	793	1,096	1,154	1,450	1,719	1,569	1,901	1,939	1,126	243	8	14,589
Japan	293	192	202	418	226	361	436	429	562	481	407	368	48	3	4,426
others	2,609	3,029	4,019	3,510	4,115	5,946	6,015	6,351	6,818	6,605	5,935	3,137	1,144	62	59,295
合計	5,912	7,375	8,135	8,093	8,344	11,769	11,904	13,005	13,314	13,671	11,560	6,238	2,012	82	121,414

0404 Radiation therapy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	36.0%	42.9%	33.3%	37.2%	31.4%	32.1%	30.5%	31.9%	29.3%	29.8%	25.3%	21.8%	24.0%	11.0%	31.3%
United Kingdom	9.3%	6.2%	5.8%	4.4%	3.4%	4.5%	3.1%	2.7%	3.4%	4.4%	3.0%	4.0%	4.7%	0.0%	4.2%
China	5.6%	7.2%	9.0%	9.8%	13.1%	9.8%	12.2%	13.2%	11.8%	13.9%	16.8%	18.1%	12.1%	9.8%	12.0%
Japan	5.0%	2.6%	2.5%	5.2%	2.7%	3.1%	3.7%	3.3%	4.2%	3.5%	3.5%	5.9%	2.4%	3.7%	3.6%
others	44.1%	41.1%	49.4%	43.4%	49.3%	50.5%	50.5%	48.8%	51.2%	48.3%	51.3%	50.3%	56.9%	75.6%	48.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の CSO 分類別の引用数は、CSO5 Treatment が最も多いと推計された。



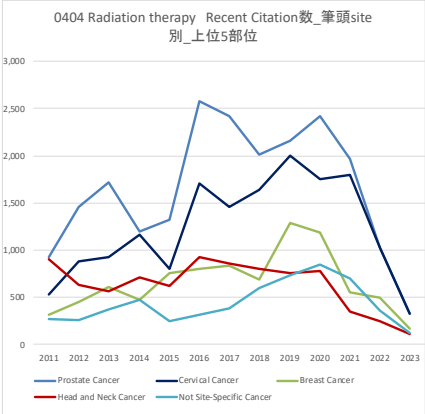




0404 Radiation therapy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	119	31	163	10	38	71	18	104	30	106	48	96	27	1	862
2 Etiology	4	105	47	78	19	104	49	116	61	24	28	10	2	3	650
3 Prevention	2	5	21	2	0	0	0	0	0	1	0	5	0	0	36
4 Early Detection, Diagnosis, and Prognosis	339	399	695	397	292	600	1,069	774	1,118	900	730	464	141	3	7,921
5 Treatment	3,310	3,994	3,962	4,417	4,375	5,587	6,215	5,909	6,437	6,799	6,279	3,230	990	40	61,544
6 Cancer Control, Survivorship, and Outcomes Research	345	300	599	538	723	814	749	778	586	953	589	290	101	6	7,371
others	1,793	2,541	2,648	2,659	2,897	4,593	3,804	5,324	5,090	4,888	3,886	2,143	751	29	43,030
合計	5,912	7,375	8,135	8,093	8,344	11,769	11,904	13,005	13,314	13,671	11,560	6,238	2,012	82	121,414

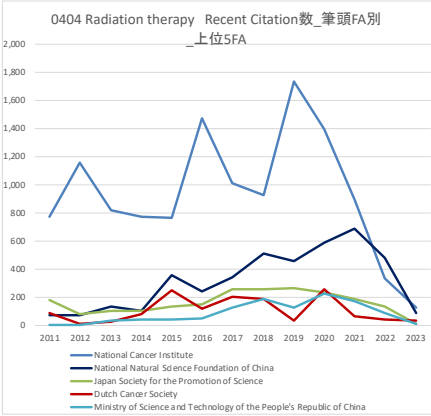
0404 Radiation therapy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2.0%	0.4%	2.0%	0.1%	0.5%	0.6%	0.2%	0.8%	0.2%	0.8%	0.4%	1.5%	1.3%	1.2%	0.7%
2 Etiology	0.1%	1.4%	0.6%	1.0%	0.2%	0.9%	0.4%	0.9%	0.5%	0.2%	0.2%	0.2%	0.1%	3.7%	0.5%
3 Prevention	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	5.7%	5.4%	8.5%	4.9%	3.5%	5.1%	9.0%	6.0%	8.4%	6.6%	6.3%	7.4%	7.0%	3.7%	6.5%
5 Treatment	56.0%	54.2%	48.7%	54.6%	52.4%	47.5%	52.2%	45.4%	48.3%	49.7%	54.3%	51.8%	49.2%	48.8%	50.7%
6 Cancer Control, Survivorship, and Outcomes Research	5.8%	4.1%	7.4%	6.6%	8.7%	6.9%	6.3%	6.0%	4.4%	7.0%	5.1%	4.6%	5.0%	7.3%	6.1%
others	30.3%	34.5%	32.6%	32.9%	34.7%	39.0%	32.0%	40.9%	38.2%	35.8%	33.6%	34.4%	37.3%	35.4%	35.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の臓器別の引用数は、前立腺がん、子宮頸がん、乳がんの順と推計された。



0404 Radiation therapy Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Prostate Cancer	928	1,455	1,721	1,197	1,323	2,583	2,421	2,010	2,159	2,424	1,963	1,026	326	17	21,553
Cervical Cancer	535	885	928	1,170	804	1,709	1,463	1,638	1,996	1,750	1,797	1,033	326	18	16,052
Breast Cancer	313	449	613	469	752	804	835	685	1,285	1,182	548	502	171	5	8,613
Head and Neck Cancer	900	631	569	710	616	925	859	802	753	778	354	250	113	5	8,265
Not Site-Specific Cancer	274	254	374	475	251	313	385	600	732	847	700	363	119	5	5,692
Lung Cancer	323	265	223	391	398	660	500	668	531	638	592	317	70	0	5,576
Liver Cancer	251	259	270	229	183	215	456	929	519	313	647	295	49	3	4,618
Brain Tumor	165	358	424	318	279	254	291	400	552	490	424	237	68	1	4,261
Endometrial Cancer	119	179	163	276	328	166	331	267	394	495	187	104	46	2	3,057
Pharyngeal Cancer	122	231	259	144	402	195	394	191	277	204	474	67	14	0	2,974

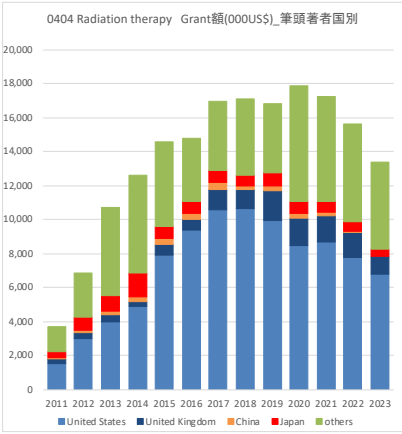
Radiation therapy の FA 別の引用数は、米国 NCI、中国 NSFC、わが国の JSPS の順に多いと推計された。

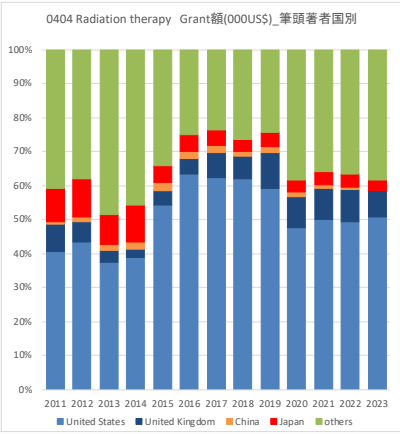


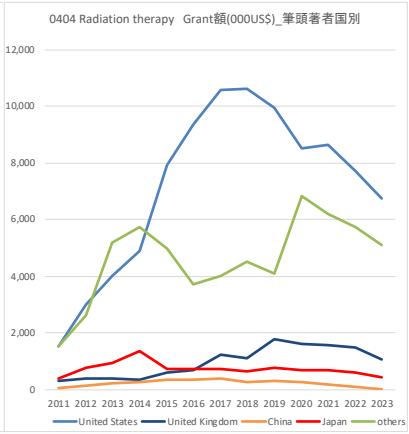
0404 Radiation therapy Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	768	1,156	817	771	761	1,473	1,013	922	1,735	1,396	897	330	128	5	12,172
National Natural Science Foundation of China	71	72	132	101	358	243	339	513	457	589	687	478	87	4	4,131
Japan Society for the Promotion of Science	180	82	102	106	130	147	256	254	262	233	189	136	11	1	2,089
Dutch Cancer Society	84	9	27	78	250	118	200	188	30	253	64	39	35	1	1,376
Ministry of Science and Technology of the People's Republic of China	0	1	37	39	42	47	122	185	122	225	172	90	10	0	1,092
Cancer Research UK	15	40	298	105	68	96	53	58	116	50	56	32	9	0	996
European Commission	56	11	24	16	12	25	46	446	91	72	80	42	3	0	924
National Center for Advancing Translational Sciences	41	72	39	49	34	96	103	117	36	20	19	28	8	0	662
Canadian Institutes of Health Research	19	22	149	25	14	101	66	16	99	55	3	20	2	0	591
FWF Austrian Science Fund	103	21	7	2	9	0	9	244	0	113	8	16	20	0	552

7.4.3. Grant(000US$)額

Radiation therapy の研究費総額は、経年的に増加傾向が見られたが、近年は横ばい傾向と推計された。国別の研究費配分額は、米国が最も多く、ついで英国、日本の順と推計された。



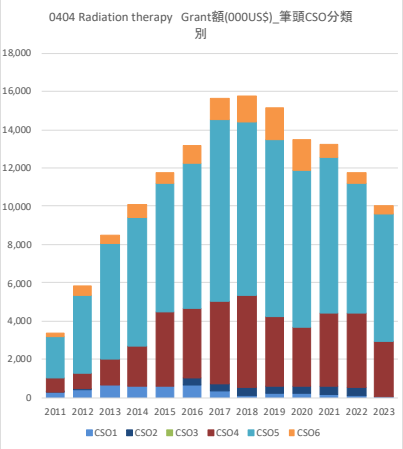


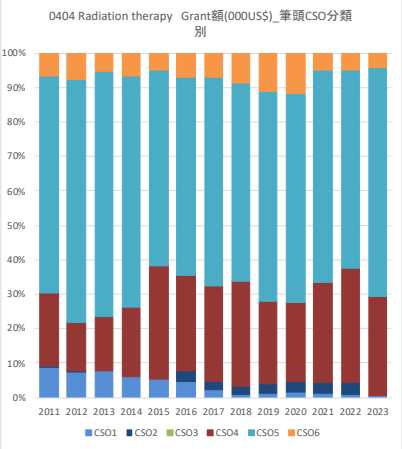


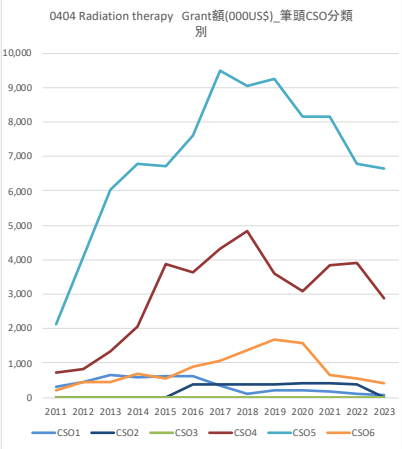
0404 Radiation therapy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,507	2,979	3,995	4,873	7,929	9,354	10,566	10,617	9,930	8,489	8,652	7,727	6,751	6,201	99,569
United Kingdom	307	391	392	322	607	671	1,220	1,114	1,775	1,615	1,579	1,478	1,056	897	13,425
China	30	111	202	261	347	332	389	257	280	251	166	98	0	0	2,723
Japan	366	753	936	1,373	721	731	734	624	752	677	684	587	424	227	9,588
others	1,517	2,608	5,191	5,741	4,971	3,700	4,017	4,505	4,071	6,829	6,182	5,751	5,116	2,227	62,426
合計	3,726	6,842	10,716	12,569	14,575	14,788	16,926	17,117	16,808	17,861	17,263	15,642	13,347	9,551	187,731

0404 Radiation therapy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	40.4%	43.5%	37.3%	38.8%	54.4%	63.3%	62.4%	62.0%	59.1%	47.5%	50.1%	49.4%	50.6%	64.9%	53.0%
United Kingdom	8.2%	5.7%	3.7%	2.6%	4.2%	4.5%	7.2%	6.5%	10.6%	9.0%	9.1%	9.5%	7.9%	9.4%	7.2%
China	0.8%	1.6%	1.9%	2.1%	2.4%	2.2%	2.3%	1.5%	1.7%	1.4%	1.0%	0.6%	0.0%	0.0%	1.5%
Japan	9.8%	11.0%	8.7%	10.9%	4.9%	4.9%	4.3%	3.6%	4.5%	3.8%	4.0%	3.8%	3.2%	2.4%	5.1%
others	40.7%	38.1%	48.4%	45.7%	34.1%	25.0%	23.7%	26.3%	24.2%	38.2%	35.8%	36.8%	38.3%	23.3%	33.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の CSO 分類別の研究費配分額は、CSO5 Treatment が最も多く、ついで CSO4 Early Detection, Diagnosis and Prognosis の順と推計された。



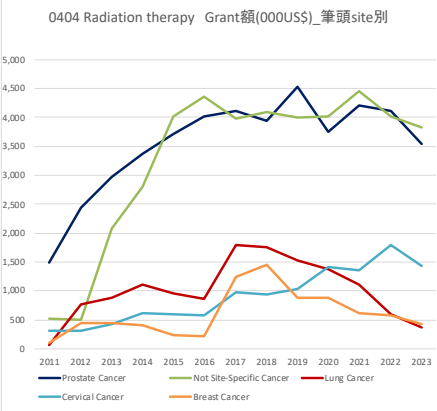




0404 Radiation therapy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	298	441	646	597	619	631	337	121	210	199	167	110	60	70	4,505
2 Etiology	11	11	0	0	0	395	395	395	395	411	411	395	0	0	2,817
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	717	824	1,339	2,066	3,869	3,638	4,321	4,831	3,610	3,098	3,831	3,896	2,872	2,578	41,491
5 Treatment	2,142	4,091	6,045	6,776	6,724	7,594	9,488	9,051	9,245	8,156	8,141	6,770	6,659	5,382	96,266
6 Cancer Control, Survivorship, and Outcomes Research	222	453	453	680	567	895	1,080	1,389	1,698	1,584	665	564	417	403	11,068
others	411	1,304	2,516	2,917	3,142	1,937	1,777	1,775	2,056	4,818	4,048	3,907	3,338	1,118	35,065
合計	3,726	6,842	10,716	12,569	14,575	14,788	16,926	17,117	16,808	17,861	17,263	15,642	13,347	9,551	187,731

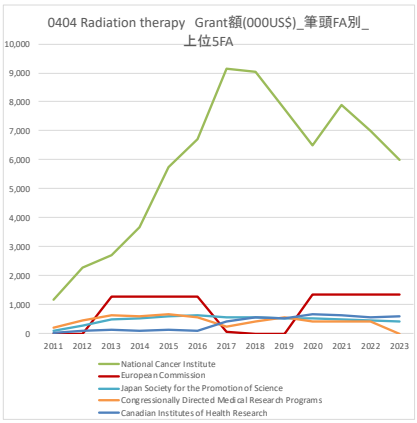
0404 Radiation therapy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	8.0%	6.4%	6.0%	4.7%	4.2%	4.3%	2.0%	0.7%	1.3%	1.1%	1.0%	0.7%	0.5%	0.7%	2.4%
2 Etiology	0.3%	0.2%	0.0%	0.0%	0.0%	2.7%	2.3%	2.3%	2.3%	2.3%	2.4%	2.5%	0.0%	0.0%	1.5%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	19.2%	12.0%	12.5%	16.4%	26.5%	24.6%	25.5%	28.2%	21.5%	17.3%	22.2%	24.9%	21.5%	27.0%	22.1%
5 Treatment	57.5%	59.8%	56.4%	53.9%	46.1%	51.4%	56.1%	52.9%	55.0%	45.7%	47.2%	43.3%	49.9%	56.3%	51.3%
6 Cancer Control, Survivorship, and Outcomes Research	6.0%	6.6%	4.2%	5.4%	3.9%	6.1%	6.4%	8.1%	10.1%	8.9%	3.9%	3.6%	3.1%	4.2%	5.9%
others	11.0%	19.1%	23.5%	23.2%	21.6%	13.1%	10.5%	10.4%	12.2%	27.0%	23.4%	25.0%	25.0%	11.7%	18.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Radiation therapy の臓器別の研究費配分額は、前立腺がんと Not Site-specific Cancer が最も多く、経年的に増加傾向が見られた。



0404 Radiation therapy Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Prostate Cancer	1,494	2,437	2,971	3,372	3,717	4,023	4,111	3,944	4,531	3,758	4,205	4,117	3,550	2,888	49,119
Not Site-Specific Cancer	520	502	2,075	2,793	4,024	4,358	3,981	4,094	3,996	4,017	4,455	4,009	3,825	2,375	45,024
Lung Cancer	55	769	880	1,111	954	869	1,802	1,764	1,536	1,384	1,108	588	367	29	13,215
Cervical Cancer	302	302	429	615	600	586	975	933	1,036	1,413	1,352	1,802	1,427	1,167	12,939
Breast Cancer	102	442	442	404	241	218	1,251	1,447	887	886	617	568	427	448	8,380
Head and Neck Cancer	524	638	643	762	409	718	645	620	419	603	314	285	698	428	7,705
Pancreatic Cancer	0	0	0	27	27	409	409	594	594	594	594	594	594	594	5,031
Liver Cancer	0	17	17	27	483	483	677	655	643	643	643	201	201	194	4,885
Oral Cavity and Lip Cancer	0	152	152	137	137	439	496	461	478	477	469	491	121	105	4,114
Esophageal / Oesophageal Cancer	0	0	1,182	107	393	393	393	393	0	0	0	0	0	0	2,861

Radiation therapy の FA 別の研究費配分額は、米国 NCI が最も多く、ついで European Commission、わが国の JSPS の順と推計された。



0404 Radiation therapy Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	1,160	2,285	2,699	3,669	5,743	6,707	9,152	9,033	7,735	6,505	7,902	6,989	5,989	5,106	80,675	United States
European Commission	0	0	1,272	1,272	1,272	1,272	56	0	0	1,342	1,342	1,342	1,342	0	10,514	Belgium
Japan Society for the Promotion of Science	117	296	478	523	611	621	582	561	528	515	485	447	424	227	6,416	Japan
Congressionally Directed Medical Research Programs	206	476	650	586	657	579	231	428	553	418	418	418	0	0	5,619	United States
Canadian Institutes of Health Research	31	106	147	97	139	114	430	566	521	673	634	574	594	436	5,062	Canada
Ministry of Science and Higher Education	0	0	1,081	1,181	1,115	0	15	15	15	15	0	0	0	0	3,436	Poland
Agence Nationale de la Recherche	0	278	278	278	278	219	219	219	360	142	354	354	212	212	3,402	France
National Institute for Health and Care Research	168	168	168	168	377	377	377	86	279	279	279	279	193	193	3,394	United Kingdom
Natural Sciences and Engineering Research Council	94	166	190	162	280	292	315	442	538	404	197	201	97	0	3,378	Canada
Japan Agency for Medical Research and Development	0	0	0	169	169	169	288	145	281	473	354	295	192	0	2,535	Japan

7.4.4. 主要論文、引用、研究費

＜論文＞

Publication: 0404 Radiation therapy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Reduced Risk of Lymphedema With Intensity-modulated Radiation Therapy Compared With 3-dimensional Conformal Radiation Therapy in Patients With Cervical Cancer Who Received Postoperative Pelvic Radiation Therapy	Uezono, Haruka; Tsujino, Kayoko; Miyazaki, Shuichiro; Marudai, Mitsuru; Bessyo, Ryosuke; Takabayashi, Hatamei; Yamaguchi, Satoshi; Ota, Yosuke	American Journal of Clinical Oncology	Japan	2023	0	Research Article
2	A comparison of the incidence of ≥ grade 2 radiation pneumonitis between intensity-modulated radiotherapy and three-dimensional conformal radiotherapy in patients with unresectable non-small cell lung cancer treated with durvalumab after concurrent chemoradiotherapy	Masuo, Masahiro; Shinohara, Eiko; Kitano, Masataka; Maruta, Ryusuke; Chonabayashi, Satoshi; Endo, Shun; Matumoto, Suhei; Nishiyama, Naoki; Machitori, Yumiko; Kobayashi, Masayoshi	Japanese Journal of Clinical Oncology	Japan	2023	1	Research Article
3	Longitudinal Costs of Image-Guided Intensity-Modulated Radiation Therapy Versus Three-Dimensional Conformal Radiation: Lessons From Phase III PARCER Trial for Shaping Resource-Stratified Guidelines in Low- and Middle-Income Countries	Hande, Varsha; Ranjan, Nilesh; Chopra, Supriya; Sinha, Shwetabh; Mittal, Prachi; Gupta, Ankita; Maheshwari, Amita; Gupta, Sudeep	JCO Global Oncology	India	2024	0	Research Article
4	Treatment Related Acute Toxicities Between Treatment with 3D-CRT and IMRT in Localised Prostate Cancer.	Hanif, Shoaib; Osmani, Asif Husain; Mallick, Jawaid	Journal of College of Physicians And Surgeons Pakistan	Pakistan	2024	0	Research Article
5	A Retrospective Comparison of Toxicity, Response and Survival of Intensity-Modulated Radiotherapy Versus Three-Dimensional Conformal Radiation Therapy in the Treatment of Rectal Carcinoma	Kouklidis, Georgios; Nikolopoulos, Manolis; Ahmed, Omer; Eskander, Boulos; Masters, Ben	Cureus		2023	0	Research Article
6	Radiation-induced cancer after treatment for nasopharyngeal carcinoma: a study from a high prevalence area.	Cao, X; Wang, C; Lin, Z C; Lyu, X	Rhinology	China	2023	1	Research Article
7	Cardiorespiratory dose comparison among six radiotherapy regimens for patients with left-sided breast cancer	Lu, Yongkai; Ma, Yanfang; Yang, Di; Li, Yi; Yuan, Wei; Tang, Fengwen; Xu, Lei; Zhou, Luping; Lin, Hao; Li, Binglin; Chen, Rujiuan; He, Chenchen; Zhao, Dongli	Scientific Reports	China	2023	1	Research Article
8	Estimating cancer risks due to whole lungs low dose radiotherapy with different techniques for treating COVID-19 pneumonia	Banaei, Amin; Hashemi, Bijan; Bakhshandeh, Mohsen	Radiation Oncology	Iran	2022	2	Research Article
9	Hybrid planning techniques for early-stage left-sided breast cancer: dose distribution analysis and estimation of projected secondary cancer-relative risk	Racka, Iga; Majewska, Karolina; Winiecki, Janusz; Kiluk, Karolina	Acta Oncologica	Poland	2023	0	Research Article
10	Gastrointestinal/genitourinary adverse event after intensity modulated versus three-dimensional primary radiation therapy in the treatment of prostate cancer: systematic review and meta-analysis	Guo, Wei; Sun, Yun-Chuan; Zhang, Li-Yuan; Yin, Xiao-Ming	Journal of Cancer	China	2023	0	Review Article

＜引用＞

Citation: 0404 Radiation therapy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	EAU-ESTRO-SIOG Guidelines on Prostate Cancer. Part 1: Screening, Diagnosis, and Local Treatment with Curative Intent	Mottet, Nicolas; Bellmunt, Joaquim; Bolla, Michel; Briers, Erik; Cumberbatch, Marcus G.; De Santis, Maria; Fossati, Nicola; Gross, Tobias; Henry, Ann M.; Joniau, Steven; Lam, Thomas B.; Mason, Malcolm D.; Matveev, Vsevolod B.; Moldovan, Paul C.; van den Bergh, Roderick C.N.; Van den Broeck, Thomas; van der Poel, Henk G.; van der Kwast, Theo H.; Rouvière, Olivier; Schoots, Ivo G.; Wiegel, Thomas; Cornford, Philip	European Urology	Italy	2016	520	Review Article
2	Cervical Cancer, Version 3.2019, NCCN Clinical Practice Guidelines in Oncology.	Koh, Wui-Jin; Abu-Rustum, Nadeem R; Bean, Sarah; Bradley, Kristin; Campos, Susana M; Cho, Kathleen R; Chon, Hye Sook; Chu, Christina; Clark, Rachel; Cohn, David; Crispens, Marta Ann; Damast, Shari; Dorigo, Oliver; Eifel, Patricia J; Fisher, Christine M; Frederick, Peter; Gaffney, David K; Han, Ernest; Huh, Warner K; Lurain, John R; Mariani, Andrea; Mutch, David; Nagel, Christa; Nekhlyudov, Larissa; Fader, Amanda Nickles; Remmenga, Steven W; Reynolds, R Kevin; Tillmanns, Todd; Ueda, Stefanie; Wyse, Emily; Yashar, Catheryn M; McMillian, Nicole R; Scavone, Jillian L	Journal of the National Comprehensive Cancer Network		2019	395	Research Article
3	Hepatocellular carcinoma: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up † † Footnotes Approved by the ESMO Guidelines Committee: August 2018.	Vogel, A.; Cervantes, A.; Chau, I.; Daniele, B.; Llovet, J.M.; Meyer, T.; Nault, J -C; Neumann, U.; Ricke, J.; Sangro, B.; Schirmacher, P.; Verslype, C.; Zech, C.J.; Arnold, D.; Martinelli, E.; Committee, ESMO Guidelines	Annals of Oncology	Spain	2018	387	Research Article
4	Tolerance limits and methodologies for IMRT measurement-based verification QA: Recommendations of AAPM Task Group No. 218	Miften, Moyed; Olch, Arthur; Mihailidis, Dimitris; Moran, Jean; Pawlicki, Todd; Molineu, Andrea; Li, Harold; Wijesooriya, Krishni; Shi, Jie; Xia, Ping; Papanikolaou, Nikos; Low, Daniel A.	Medical Physics	United States	2018	383	Review Article
5	Cervical cancer: A global health crisis	Small, William; Bacon, Monica A.; Bajaj, Amishi; Chuang, Linus T.; Fisher, Brandon J.; Harkenrider, Matthew M.; Jhingran, Anuja; Kitchener, Henry C.; Mileshkin, Linda R.; Viswanathan, Akila N.; Gaffney, David K.	Cancer	Australia	2017	373	Review Article
6	MRI-guided adaptive brachytherapy in locally advanced cervical cancer (EMBRACE-I): a multicentre prospective cohort study	Pötter, Richard; Tanderup, Kari; Schmid, Maximilian Paul; Jürgenliemk-Schulz, Ina; Haie-Meder, Christine; Fokdal, Lars Ulrik; Sturdza, Alina Emiliana; Hoskin, Peter; Mahantshetty, Umesh; Segedin, Barbara; Bruheim, Kjersti; Huang, Fleur; Rai, Bhavana; Cooper, Rachel; van der Steen-Banasik, Elzbieta; Van Limbergen, Erik; Pieters, Bradley Rumwell; Tan, Li-Tee; Nout, Remi Abubakar; De Leeuw, Astrid Agatha Catharina; Ristl, Robin; Petric, Primoz; Nesvacil, Nicole; Kirchheiner, Kathrin; Kirisits, Christian; Lindegaard, Jacob Christian; Group, EMBRACE Collaborative; Chargari, Cyrus; Dumas, Isabelle; Lowe, Gerry; Swamidas, Jamema;	The Lancet Oncology	Austria	2021	273	Research Article
7	EAU-ESTRO-SIOG Guidelines on Prostate Cancer. Part II: Treatment of Relapsing, Metastatic, and Castration-Resistant Prostate Cancer	Cornford, Philip; Bellmunt, Joaquim; Bolla, Michel; Briers, Erik; De Santis, Maria; Gross, Tobias; Henry, Ann M.; Joniau, Steven; Lam, Thomas B.; Mason, Malcolm D.; van der Poel, Henk G.; van der Kwast, Theo H.; Rouvière, Olivier; Wiegel, Thomas; Mottet, Nicolas	European Urology	Netherlands	2016	261	Review Article
8	Parotid-sparing intensity modulated versus conventional radiotherapy in head and neck cancer (PARSPORT): a phase 3 multicentre randomised controlled trial	Nutting, Christopher M; Morden, James P; Harrington, Kevin J; Urbano, Teresa Guerrero; Bhide, Shreerang A; Clark, Catharine; Miles, Elizabeth A; Miah, Aisha B; Newbold, Kate; Tanay, MaryAnne; Adab, Fawzi; Jefferies, Sarah J; Scrase, Christopher; Yap, Beng K; A'Hern, Roger P; Sydenham, Mark A; Emson, Marie; Hall, Emma; group, on behalf of the PARSPORT trial management	The Lancet Oncology	United Kingdom	2011	244	Research Article
9	The EMBRACE II study: The outcome and prospect of two decades of evolution within the GEC-ESTRO GYN working group and the EMBRACE studies	Pötter, Richard; Tanderup, Kari; Kirisits, Christian; de Leeuw, Astrid; Kirchheiner, Kathrin; Nout, Remi; Tan, Li Tee; Haie-Meder, Christine; Mahantshetty, Umesh; Segedin, Barbara; Hoskin, Peter; Bruheim, Kjersti; Rai, Bhavana; Huang, Fleur; Van Limbergen, Erik; Schmid, Max; Nesvacil, Nicole; Sturdza, Alina; Fokdal, Lars; Jensen, Nina Boje Kibsgaard; Georg, Dietmar; Assenholt, Marianne; Seppenwoolde, Yvette; Nomden, Christel; Fortin, Israel; Chopra, Supriya; van der Heide, Uulke; Rumpold, Tamara; Lindegaard, Jacob Christian; Jürgenliemk-Schulz, Ina; Group, the EMBRACE Collaborative	Clinical and Translational Radiation Oncology	India	2018	243	Review Article
10	Uveal melanoma: relatively rare but deadly cancer	Kaliki, S; Shields, C L	Eye	United States	2016	222	Review Article

＜研究費＞

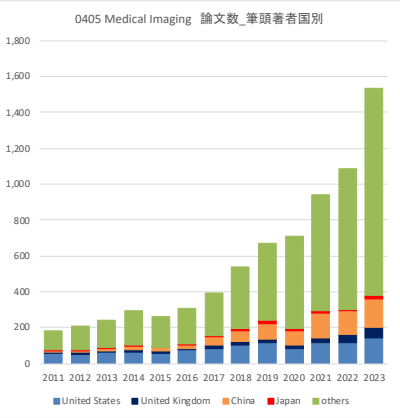
Grant: 0404 Radiation therapy

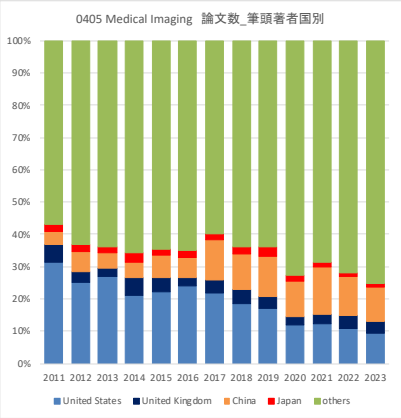
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Optical Fibre Dose Imaging for Adaptive Brachytherapy	0	European Commission	Belgium	5,367,487	2020	2023
2	A Generic Open-end Simulation Environment for Minimally Invasive Cancer Treatment	0	European Commission	Belgium	5,089,978	2013	2016
3	Commercializing CivaSheet for Pancreatic Cancer Patients	KRISTY PEREZ	National Cancer Institute	United States	4,199,065	2016	2026
4	OpenIGTLink: a network communication interface for closed-loop image-guided interventions	JUNICHI TOKUDA, MARK FUGE, AXEL KRIEGER, SIMON LEONARD	National Institute of Biomedical Imaging and Bioengineering	United States	4,100,515	2015	2025
5	A randomised controlled trial of Partial prostate Ablation versus Radical Treatment (PART) in intermediate risk, unilateral clinically localised prostate cancer	Freddie Hamdy, Richard Bryant	NIHR Evaluation Trials and Studies Coordinating Centre	United Kingdom	3,416,712	2019	2026
6	Real-time Tumor Localization and Guidance for Radiotherapy Using US and MRI	BRYAN PATRICK BEDNARZ, THOMAS K FOO	National Cancer Institute	United States	3,088,776	2015	2021
7	Molecular Mechanisms of Tumor Behavior and Response to Therapy in HPV-positive Oropharyngeal Cancer	THOMAS E. CAREY	National Cancer Institute	United States	2,762,593	2016	2022
8	The Role of Opioid Adherence Profiles in Cancer Pain Self-Management and Outcomes	SALIMAH H. MEGHANI	National Institute of Nursing Research	United States	2,700,209	2019	2025
9	Changing brachytherapy with MRI remnant-tumor segmentation and active-catheter placement	AKILA VISWANATHAN	National Cancer Institute	United States	2,625,438	2020	2025
10	PSMA-targeted AuNPs for MR guided radiotherapy and radiosensitization	JAMES PETER BASILION, BULENT AYDOGAN, THOMAS J MEADE	National Cancer Institute	United States	2,622,473	2021	2025

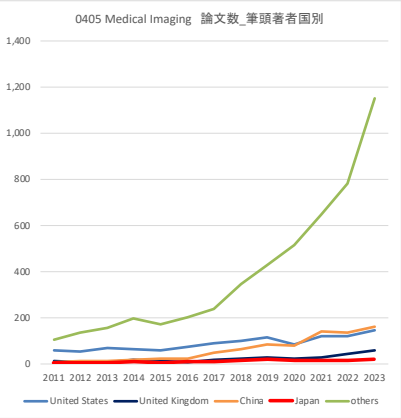
7.5. 0405 Medical Imaging

7.5.1. 論文数

Medical Imaging の論文数は経年的に大幅な増加が見られた。国別の論文数は、その他の国を除くと、米国、中国、英国の順で、近年は中国が米国を上回っていると推計された。



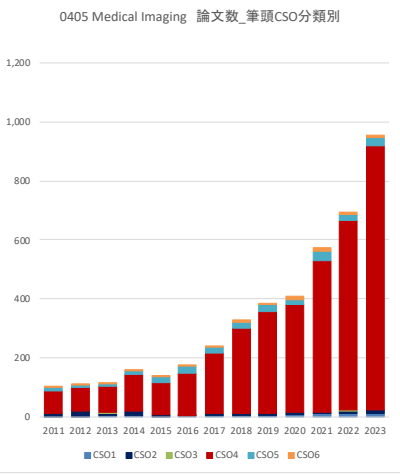


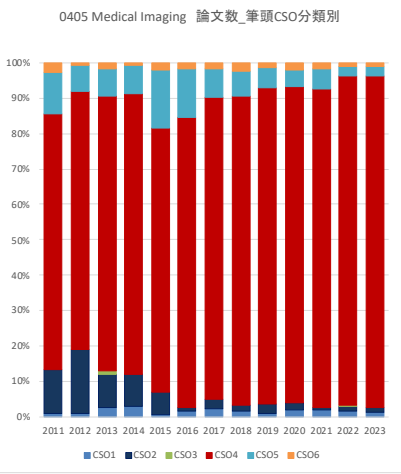


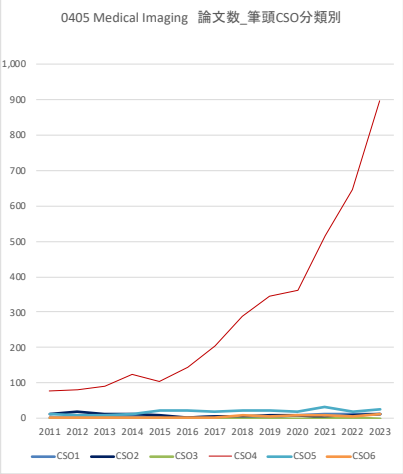
0405 Medical Imaging 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	56	53	65	63	58	74	86	100	115	84	117	117	145	68	1,201
United Kingdom	10	7	6	16	11	8	15	23	24	19	25	44	55	14	277
China	7	13	11	14	19	20	49	60	83	78	139	132	162	78	865
Japan	4	5	5	9	4	7	8	12	19	12	14	11	20	3	133
others	102	133	153	195	169	201	235	343	427	514	645	779	1,151	512	5,559
合計	179	211	240	297	261	310	393	538	668	707	940	1,083	1,533	675	8,035

0405 Medical Imaging 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	31.3%	25.1%	27.1%	21.2%	22.2%	23.9%	21.9%	18.6%	17.2%	11.9%	12.4%	10.8%	9.5%	10.1%	14.9%
United Kingdom	5.6%	3.3%	2.5%	5.4%	4.2%	2.6%	3.8%	4.3%	3.6%	2.7%	2.7%	4.1%	3.6%	2.1%	3.4%
China	3.9%	6.2%	4.6%	4.7%	7.3%	6.5%	12.5%	11.2%	12.4%	11.0%	14.8%	12.2%	10.6%	11.6%	10.8%
Japan	2.2%	2.4%	2.1%	3.0%	1.5%	2.3%	2.0%	2.2%	2.8%	1.7%	1.5%	1.0%	1.3%	0.4%	1.7%
others	57.0%	63.0%	63.8%	65.7%	64.8%	64.8%	59.8%	63.8%	63.9%	72.7%	68.6%	71.9%	75.1%	75.9%	69.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Medical Imaging の CSO 分類別の論文数は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く、経年的に増加傾向が見られた。



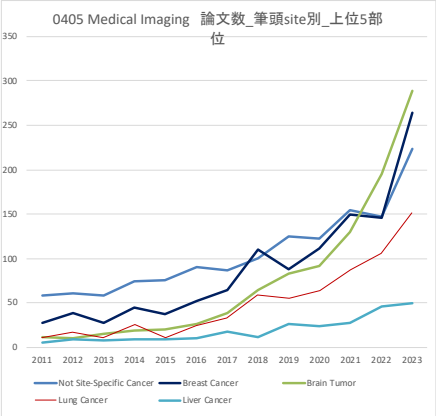




0405 Medical Imaging 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1	1	3	5	1	3	6	6	4	8	12	11	14	4	79
2 Etiology	13	20	11	14	9	2	6	5	10	9	3	10	11	0	123
3 Prevention	0	0	1	0	0	0	0	0	0	0	0	2	0	0	3
4 Early Detection, Diagnosis, and Prognosis	76	81	90	124	105	144	206	288	344	363	514	644	895	402	4,276
5 Treatment	12	8	9	13	23	24	20	23	22	19	33	19	25	13	263
6 Cancer Control, Survivorship, and Outcomes Research	3	1	2	1	3	3	4	8	5	9	10	7	11	6	73
others	74	100	124	140	120	134	151	208	283	299	368	390	577	250	3,218
合計	179	211	240	297	261	310	393	538	668	707	940	1,083	1,533	675	8,035

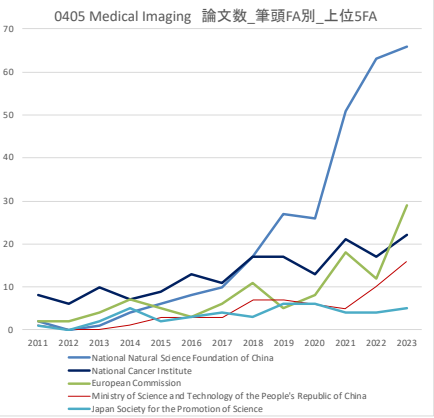
0405 Medical Imaging 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.6%	0.5%	1.3%	1.7%	0.4%	1.0%	1.5%	1.1%	0.6%	1.1%	1.3%	1.0%	0.9%	0.6%	1.0%
2 Etiology	7.3%	9.5%	4.6%	4.7%	3.4%	0.6%	1.5%	0.9%	1.5%	1.3%	0.3%	0.9%	0.7%	0.0%	1.5%
3 Prevention	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	42.5%	38.4%	37.5%	41.8%	40.2%	46.5%	52.4%	53.5%	51.5%	51.3%	54.7%	59.5%	58.4%	59.6%	53.2%
5 Treatment	6.7%	3.8%	3.8%	4.4%	8.8%	7.7%	5.1%	4.3%	3.3%	2.7%	3.5%	1.8%	1.6%	1.9%	3.3%
6 Cancer Control, Survivorship, and Outcomes Research	1.7%	0.5%	0.8%	0.3%	1.1%	1.0%	1.0%	1.5%	0.7%	1.3%	1.1%	0.6%	0.7%	0.9%	0.9%
others	41.3%	47.4%	51.7%	47.1%	46.0%	43.2%	38.4%	38.7%	42.4%	42.3%	39.1%	36.0%	37.6%	37.0%	40.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Medical Imaging の臓器別の論文数は、Not Site-specific Cancer、乳がん、脳腫瘍が最も多く経年的にも増加傾向が見られた。



0405 Medical Imaging 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	58	61	58	75	76	90	87	100	125	122	154	147	224	74	1,451
Breast Cancer	28	39	27	45	38	52	64	110	88	112	149	146	264	112	1,274
Brain Tumor	12	10	15	19	20	26	39	65	83	92	130	195	289	133	1,128
Lung Cancer	11	17	11	26	11	25	33	59	55	64	87	106	151	83	739
Liver Cancer	5	9	8	9	9	10	18	12	26	24	27	46	50	19	272
Prostate Cancer	2	2	9	8	8	6	12	20	26	10	25	23	45	16	212
Colon and Rectal Cancer	4	3	12	5	6	8	7	6	6	16	33	28	32	26	192
Pancreatic Cancer	1	1	1	4	3	2	11	4	21	11	12	19	24	3	117
Melanoma	0	1	4	4	0	1	7	6	7	11	11	15	12	9	88
Kidney Cancer	1	2	2	2	3	2	2	5	7	7	12	11	10	11	77

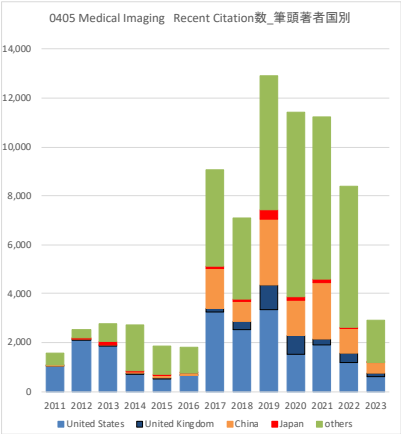
Medical Imaging の FA 別の論文数は、中国 NSFC が最も多く経年的にも大きく増加していた。ついで米国 NCI、European Commission が多いと推計された。

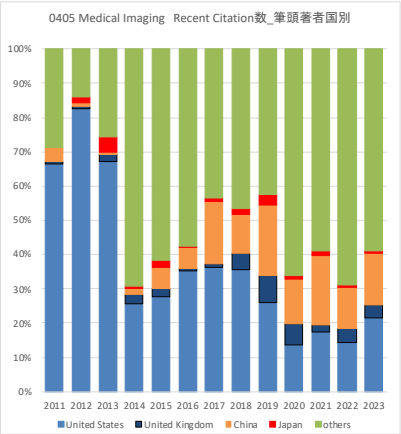


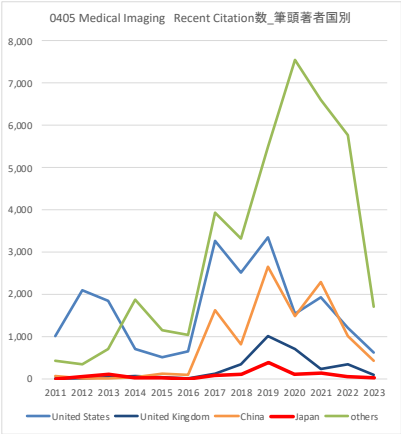
0405 Medical Imaging 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	2	0	1	4	6	8	10	17	27	26	51	63	66	29	310
National Cancer Institute	8	6	10	7	9	13	11	17	17	13	21	17	22	8	179
European Commission	2	2	4	7	5	3	6	11	5	8	18	12	29	8	120
Ministry of Science and Technology of the People's Republic of China	1	0	0	1	3	3	3	7	7	6	5	10	16	4	66
Japan Society for the Promotion of Science	1	0	2	5	2	3	4	3	6	6	4	4	5	1	46
Natural Sciences and Engineering Research Council	3	1	1	1	0	0	4	4	5	5	2	6	3	1	36
Ministry of Science and ICT	0	0	0	1	0	0	1	2	2	3	4	6	9	2	30
National Research Foundation of Korea	0	1	1	3	0	0	0	4	2	4	8	1	3	1	28
Fundação para a Ciência e Tecnologia	0	1	0	0	0	1	1	2	1	3	5	5	3	0	22
National Institute of General Medical Sciences	1	1	0	0	0	1	1	4	2	1	2	5	3	1	22

7.5.2. Recent Citation 数

Medical Imaging の引用数は、2017 年以降に大きく増加傾向がみられた。国別の引用数は、その他の国を除くと、米国、中国、英国の順と推計された。



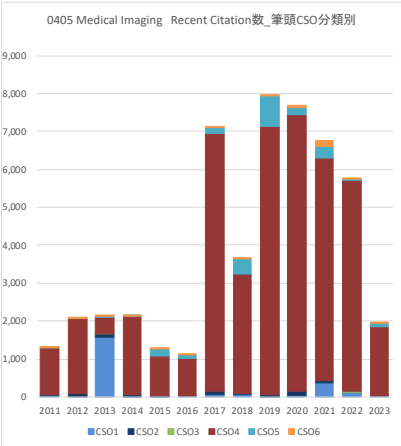


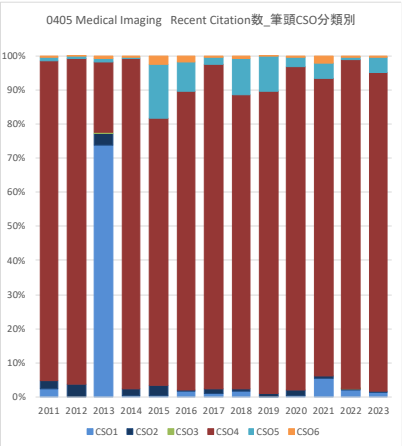


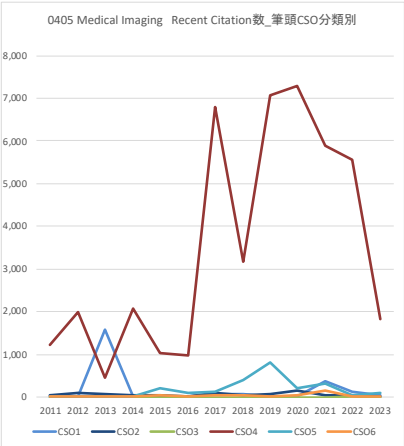
0405 Medical Imaging Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,030	2,108	1,856	703	520	644	3,272	2,527	3,349	1,549	1,934	1,206	627	18	21,343
United Kingdom	13	22	58	74	46	14	115	340	1,028	725	231	350	109	3	3,128
China	62	24	21	45	115	109	1,633	817	2,656	1,483	2,296	1,007	443	26	10,737
Japan	0	46	119	21	35	9	99	111	400	102	139	64	19	0	1,164
others	446	353	708	1,893	1,154	1,047	3,936	3,319	5,495	7,560	6,605	5,765	1,724	85	40,090
合計	1,551	2,553	2,762	2,736	1,870	1,823	9,055	7,114	12,928	11,419	11,205	8,392	2,922	132	76,462

0405 Medical Imaging Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	66.4%	82.6%	67.2%	25.7%	27.8%	35.3%	36.1%	35.5%	25.9%	13.6%	17.3%	14.4%	21.5%	13.6%	27.9%
United Kingdom	0.8%	0.9%	2.1%	2.7%	2.5%	0.8%	1.3%	4.8%	8.0%	6.3%	2.1%	4.2%	3.7%	2.3%	4.1%
China	4.0%	0.9%	0.8%	1.6%	6.1%	6.0%	18.0%	11.5%	20.5%	13.0%	20.5%	12.0%	15.2%	19.7%	14.0%
Japan	0.0%	1.8%	4.3%	0.8%	1.9%	0.5%	1.1%	1.6%	3.1%	0.9%	1.2%	0.8%	0.7%	0.0%	1.5%
others	28.8%	13.8%	25.6%	69.2%	61.7%	57.4%	43.5%	46.7%	42.5%	66.2%	58.9%	68.7%	59.0%	64.4%	52.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Medical Imaging の CSO 分類別の引用数は、CSO4 Early Detection, Diagnosis and Prognosis が最も多いと推計された。



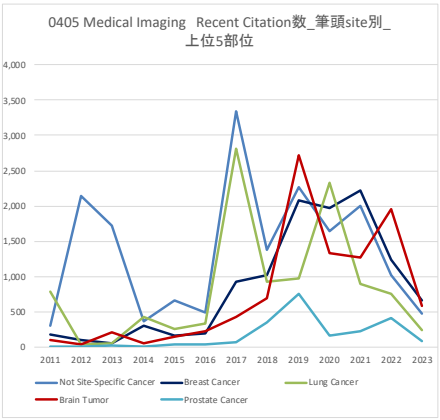




0405 Medical Imaging Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	30	0	1,583	8	3	18	71	61	1	24	363	109	28	0	2,299
2 Etiology	33	82	72	41	40	4	95	29	68	138	54	29	6	0	691
3 Prevention	0	0	3	0	0	0	0	0	0	0	0	3	0	0	6
4 Early Detection, Diagnosis, and Prognosis	1,232	1,984	448	2,067	1,023	984	6,789	3,160	7,057	7,276	5,885	5,566	1,828	73	45,372
5 Treatment	15	18	21	7	209	95	136	390	812	195	317	38	85	4	2,342
6 Cancer Control, Survivorship, and Outcomes Research	7	1	15	8	32	22	40	28	21	45	139	19	10	0	387
others	234	468	620	605	563	700	1,940	3,451	4,969	3,747	4,447	2,628	965	55	25,365
合計	1,551	2,553	2,762	2,736	1,870	1,823	9,055	7,114	12,928	11,419	11,205	8,392	2,922	132	76,462

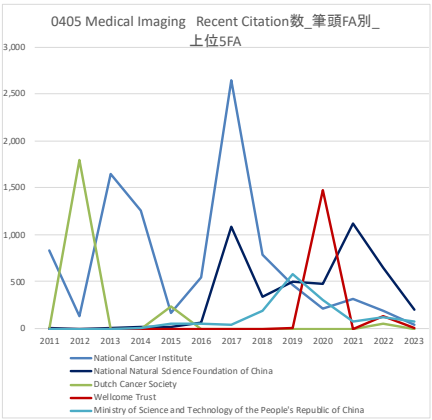
0405 Medical Imaging Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1.9%	0.0%	57.3%	0.3%	0.2%	1.0%	0.8%	0.9%	0.0%	0.2%	3.2%	1.3%	1.0%	0.0%	3.0%
2 Etiology	2.1%	3.2%	2.6%	1.5%	2.1%	0.2%	1.0%	0.4%	0.5%	1.2%	0.5%	0.3%	0.2%	0.0%	0.9%
3 Prevention	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	79.4%	77.7%	16.2%	75.5%	54.7%	54.0%	75.0%	44.4%	54.6%	63.7%	52.5%	66.3%	62.6%	55.3%	59.3%
5 Treatment	1.0%	0.7%	0.8%	0.3%	11.2%	5.2%	1.5%	5.5%	6.3%	1.7%	2.8%	0.5%	2.9%	3.0%	3.1%
6 Cancer Control, Survivorship, and Outcomes Research	0.5%	0.0%	0.5%	0.3%	1.7%	1.2%	0.4%	0.4%	0.2%	0.4%	1.2%	0.2%	0.3%	0.0%	0.5%
others	15.1%	18.3%	22.4%	22.1%	30.1%	38.4%	21.4%	48.5%	38.4%	32.8%	39.7%	31.3%	33.0%	41.7%	33.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Medical Imaging の臓器別の引用数は、Not Site-specific Cancer が最も多く、ついで乳がん、肺がんが多いと推計された。



0405 Medical Imaging Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	300	2,143	1,726	369	664	491	3,345	1,370	2,261	1,645	2,003	1,015	464	8	17,804
Breast Cancer	180	100	48	302	162	187	929	1,011	2,079	1,968	2,222	1,239	665	21	11,113
Lung Cancer	778	26	48	427	260	332	2,818	930	970	2,328	895	745	231	17	10,805
Brain Tumor	89	41	201	52	149	224	420	696	2,711	1,327	1,269	1,953	581	22	9,735
Prostate Cancer	0	0	13	9	26	27	58	345	746	152	225	415	87	1	2,104
Head and Neck Cancer	28	0	4	1,218	82	0	105	1	16	118	170	156	93	0	1,991
Liver Cancer	10	4	23	52	28	32	71	107	248	181	148	157	68	3	1,132
Colon and Rectal Cancer	10	21	114	6	27	104	16	23	62	150	280	188	32	4	1,037
Melanoma	0	0	1	32	0	14	164	33	133	189	185	98	8	2	859
Pancreatic Cancer	2	0	11	9	32	5	59	18	116	324	117	107	50	0	850

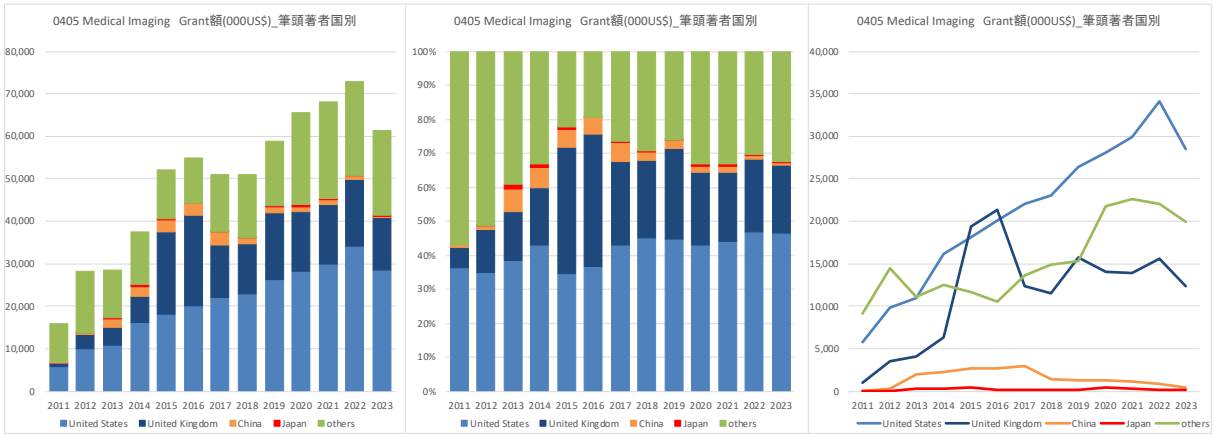
Medical Imaging の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、Dutch Cancer Society の順と推計された。



0405 Medical Imaging Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	836	129	1,642	1,251	171	544	2,648	782	470	216	312	185	44	1	9,231
National Natural Science Foundation of China	3	0	1	18	12	67	1,088	334	500	473	1,123	644	199	2	4,464
Dutch Cancer Society	0	1,791	0	0	236	0	0	0	0	0	0	57	0	0	2,084
Wellcome Trust	0	0	0	0	0	0	0	0	9	1,470	0	134	11	0	1,624
Ministry of Science and Technology of the People's Republic of China	0	0	0	7	50	53	40	187	575	307	69	122	73	14	1,497
European Commission	2	1	16	175	26	26	115	107	37	298	454	139	51	1	1,448
Natural Sciences and Engineering Research Council	13	46	103	2	0	0	42	70	768	82	30	47	34	1	1,238
National Center for Advancing Translational Sciences	0	21	5	161	0	15	5	21	430	46	0	15	10	0	729
Japan Society for the Promotion of Science	0	0	10	44	32	9	147	16	248	79	43	9	6	0	643
Medical Research Council	0	0	0	0	0	0	0	0	289	0	342	8	0	0	639

7.5.3. Grant(000US$)額

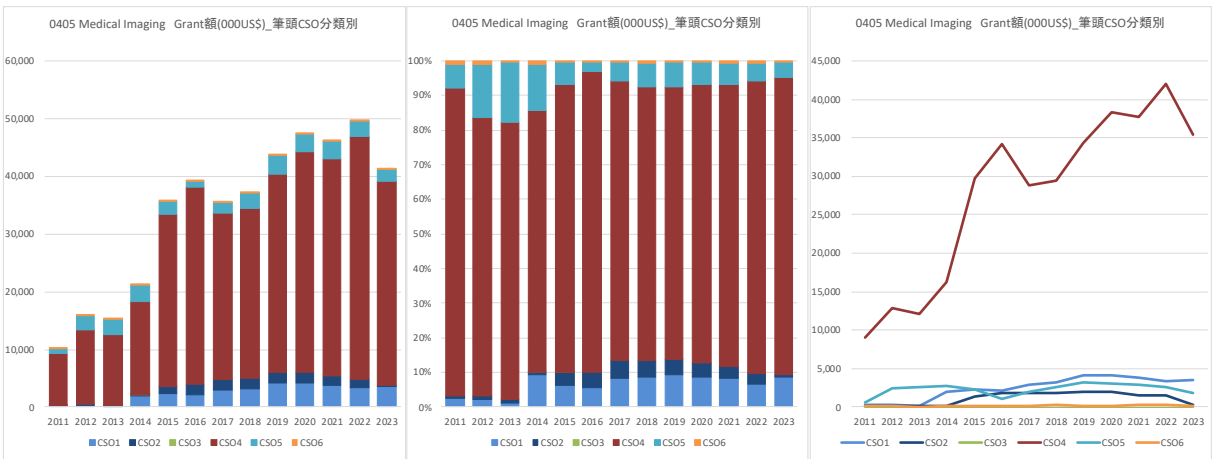
Medical Imaging の研究費総額は経年的に増加傾向が見られた。国別の研究費配分額は、米国が最も多く経年的にも増加傾向が見られた。ついで英国、中国の順と推計された。



0405 Medical Imaging Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	5,794	9,908	10,970	16,112	18,124	20,110	22,035	23,035	26,346	28,133	29,961	34,152	28,525	23,631	296,835
United Kingdom	960	3,549	4,080	6,345	19,413	21,317	12,421	11,566	15,736	14,043	13,908	15,640	12,312	6,840	158,130
China	81	312	1,948	2,258	2,632	2,677	2,923	1,364	1,334	1,270	1,197	805	384	416	19,601
Japan	0	11	340	358	406	98	101	153	174	398	366	111	100	34	2,650
others	9,102	14,489	11,146	12,466	11,612	10,602	13,609	14,879	15,269	21,701	22,666	22,102	19,976	18,992	218,613
合計	15,938	28,268	28,484	37,538	52,188	54,805	51,089	50,996	58,859	65,545	68,099	72,811	61,297	49,914	695,829

0405 Medical Imaging Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	36.4%	35.0%	38.5%	42.9%	34.7%	36.7%	43.1%	45.2%	44.8%	42.9%	44.0%	46.9%	46.5%	47.3%	42.7%
United Kingdom	6.0%	12.6%	14.3%	16.9%	37.2%	38.9%	24.3%	22.7%	26.7%	21.4%	20.4%	21.5%	20.1%	13.7%	22.7%
China	0.5%	1.1%	6.8%	6.0%	5.0%	4.9%	5.7%	2.7%	2.3%	1.9%	1.8%	1.1%	0.6%	0.8%	2.8%
Japan	0.0%	0.0%	1.2%	1.0%	0.8%	0.2%	0.2%	0.3%	0.3%	0.6%	0.5%	0.2%	0.2%	0.1%	0.4%
others	57.1%	51.3%	39.1%	33.2%	22.3%	19.3%	26.6%	29.2%	25.9%	33.1%	33.3%	30.4%	32.6%	38.0%	31.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

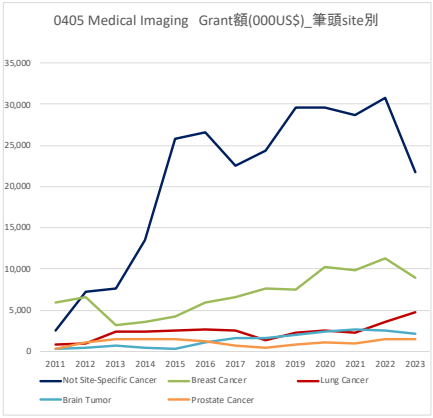
Medical Imaging の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis が最も多く経年的に増加傾向が見られた。



0405 Medical Imaging Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	251	362	187	1,987	2,239	2,147	2,952	3,240	4,084	4,126	3,836	3,372	3,552	3,314	35,647
2 Etiology	84	134	134	146	1,372	1,753	1,781	1,781	1,925	1,907	1,519	1,479	232	232	14,479
3 Prevention	0	0	0	8	8	0	0	0	0	0	0	0	0	0	16
4 Early Detection, Diagnosis, and Prognosis	9,003	12,892	12,167	16,164	29,714	34,146	28,845	29,469	34,372	38,262	37,748	42,023	35,418	29,723	389,946
5 Treatment	671	2,425	2,628	2,816	2,286	1,071	1,969	2,546	3,186	3,075	2,904	2,633	1,900	1,879	31,989
6 Cancer Control, Survivorship, and Outcomes Research	121	184	64	216	184	184	96	230	152	152	277	277	124	124	2,385
others	5,809	12,322	13,356	16,252	16,405	15,523	15,504	13,922	15,292	18,175	21,967	23,179	20,071	14,640	222,415
合計	15,938	28,268	28,484	37,538	52,188	54,805	51,089	50,996	58,859	65,545	68,099	72,811	61,297	49,914	695,829

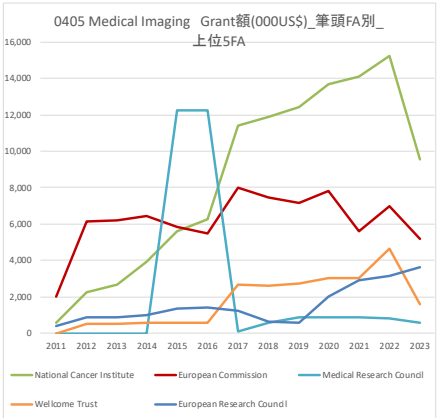
0405 Medical Imaging Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1.6%	1.3%	0.7%	5.3%	4.3%	3.9%	5.8%	6.4%	6.9%	6.3%	5.6%	4.6%	5.8%	6.6%	5.1%
2 Etiology	0.5%	0.5%	0.5%	0.4%	2.6%	3.2%	3.5%	3.5%	3.3%	2.9%	2.2%	2.0%	0.4%	0.5%	2.1%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	56.5%	45.6%	42.7%	43.1%	56.9%	62.3%	56.5%	57.8%	58.4%	58.4%	55.4%	57.7%	57.8%	59.5%	56.0%
5 Treatment	4.2%	8.6%	9.2%	7.5%	4.4%	2.0%	3.9%	5.0%	5.4%	4.7%	4.3%	3.6%	3.1%	3.8%	4.6%
6 Cancer Control, Survivorship, and Outcomes Research	0.8%	0.7%	0.2%	0.6%	0.4%	0.3%	0.2%	0.5%	0.3%	0.2%	0.4%	0.4%	0.2%	0.2%	0.3%
others	36.4%	43.6%	46.9%	43.3%	31.4%	28.3%	30.3%	27.3%	26.0%	27.7%	32.3%	31.8%	32.7%	29.3%	32.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Medical Imaging の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く、ついで乳がん、肺がんの順と推計された。



0405 Medical Imaging Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	2,564	7,212	7,645	13,536	25,830	26,550	22,590	24,365	29,585	29,527	28,711	30,786	21,790	18,940	289,632
Breast Cancer	5,937	6,558	3,168	3,594	4,223	5,907	6,627	7,575	7,493	10,299	9,847	11,292	8,945	7,970	99,435
Lung Cancer	817	942	2,335	2,454	2,523	2,637	2,498	1,296	2,223	2,543	2,261	3,588	4,689	4,227	35,031
Brain Tumor	272	387	663	478	265	1,048	1,569	1,615	2,029	2,375	2,712	2,561	2,106	1,403	19,482
Prostate Cancer	258	1,143	1,432	1,547	1,478	1,174	761	454	873	1,025	936	1,512	1,465	1,236	15,294
Liver Cancer	70	70	70	534	546	480	1,063	1,389	1,447	1,498	1,599	1,543	1,795	1,886	13,990
Colon and Rectal Cancer	0	0	59	59	59	173	810	761	1,314	940	993	993	2,063	1,992	10,218
Leukemia / Leukaemia	0	0	0	0	1,247	1,247	1,247	1,247	1,247	1,247	1,247	1,247	0	139	10,116
Pancreatic Cancer	125	125	0	0	8	605	605	605	738	764	840	243	141	141	4,940
Head and Neck Cancer	0	0	0	0	497	497	497	497	497	497	632	170	170	170	4,125

Medical Imaging の FA 別の研究費配分額は、米国 NCI、European Commission、英国 Medical Research Council の順に多いと推計された。



0405 Medical Imaging Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	545	2,264	2,680	3,943	5,588	6,267	11,407	11,881	12,450	13,666	14,108	15,222	9,557	8,452	118,030	United States
European Commission	1,988	6,138	6,207	6,451	5,828	5,473	7,978	7,452	7,152	7,821	5,630	6,966	5,168	7,725	87,976	Belgium
Medical Research Council	0	0	0	0	12,227	12,227	103	557	860	860	860	819	553	159	29,227	United Kingdom
Wellcome Trust	0	542	542	552	552	552	2,647	2,636	2,745	3,054	3,054	4,632	1,578	1,578	24,665	United Kingdom
European Research Council	384	893	893	982	1,364	1,388	1,228	663	549	2,019	2,895	3,162	3,612	3,882	23,913	Belgium
National Natural Science Foundation of China	64	294	1,915	2,224	2,599	2,630	2,876	1,317	1,254	1,167	864	421	0	0	17,625	China
National Eye Institute	2,854	2,854	2,854	2,854	2,854	2,854	0	0	0	0	0	0	0	0	17,124	United States
Canadian Institutes of Health Research	4,787	4,947	322	434	353	345	561	569	678	696	823	751	518	518	16,302	Canada
Congressionally Directed Medical Research Programs	234	346	679	931	1,009	1,293	1,394	1,380	1,622	1,616	1,030	840	775	358	13,509	United States
Natural Sciences and Engineering Research Council	152	271	599	854	987	929	1,218	1,288	1,565	1,749	1,527	1,505	727	0	13,370	Canada

7.5.4. 主要論文、引用、研究費

＜論文＞

Publication: 0405 Medical Imaging

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Novel genetic assessments for cancer patients: where does medical imaging stand in the future of personalised medicine?	Ayesa, Sally L.	Journal of Medical Radiation Sciences	Australia	2024	0	Editorial
2	Cancer Immunotherapy and Medical Imaging Research Trends from 2003 to 2023: A Bibliometric Analysis	Tang, Shuli; Fan, Tiantian; Wang, Xinxin; Yu, Can; Zhang, Chunhui; Zhou, Yang	Journal of Multidisciplinary Healthcare	China	2024	0	Review Article
3	IONPs-Based Medical Imaging in Cancer Care: Moving Beyond Traditional Diagnosis and Therapeutic Assessment	Yan, Xiaolin; Li, Shanshan; Yan, Haiyin; Yu, Chungang; Liu, Fengxi	International Journal of Nanomedicine	China	2023	1	Review Article
4	A review of deep learning and radiomics approaches for pancreatic cancer diagnosis from medical imaging	Yao, Lanhong; Zhang, Zheyuan; Keles, Elif; Yazici, Cemal; Tirkes, Temel; Bagci, Ulas	Current Opinion in Gastroenterology	United States	2023	6	Review Article
5	Deep Learning Techniques to Diagnose Lung Cancer	Wang, Lulu	Cancers	China	2022	42	Review Article
6	Machine learning and deep learning techniques for breast cancer diagnosis and classification: a comprehensive review of medical imaging studies	Radak, Mehran; Lafta, Haider Yabr; Fallahi, Hossein	Journal of Cancer Research and Clinical Oncology	Iran	2023	20	Review Article
7	Editorial: Recent Advances in Deep Learning and Medical Imaging for Cancer Treatment	Ijaz, Muhammad Fazal; Woźniak, Marcin	Cancers	Australia	2024	1	Editorial
8	A Review of Machine Learning Techniques for the Classification and Detection of Breast Cancer from Medical Images	Jalloul, Reem; Chethan, H. K.; Alkhatib, Ramez	Diagnostics	India	2023	6	Review Article
9	Quantifying cancer risk from exposures to medical imaging in the Risk of Pediatric and Adolescent Cancer Associated with Medical Imaging (RIC) Study: research methods and cohort profile	Kwan, Marilyn L.; Miglioretti, Diana L.; Bowles, Erin J. A.; Weinmann, Sheila; Greenlee, Robert T.; Stout, Natasha K.; Rahm, Alanna Kulchak; Alber, Susan A.; Pequeno, Priscila; Moy, Lisa M.; Stewart, Carly; Fong, Cindy; Jenkins, Charisma L.; Kohnhorst, Diane; Luce, Casey; Mor, Joanne M.; Munneke, Julie R.; Prado, Yolanda; Buth, Glen; Cheng, Stephanie Y.; Deosaransingh, Kamala A.; Francisco, Melanie; Lakoma, Matthew; Martinez, Yannica Theda; Theis, Mary Kay; Marlow, Emily C.; Kushi, Lawrence H.; Duncan, James R.; Bolch, Wesley E.; Pole, Jason D.; Smith-Bindman, Rebecca	Cancer Causes & Control	United States	2022	5	Research Article
10	From patterns to patients: Advances in clinical machine learning for cancer diagnosis, prognosis, and treatment	Swanson, Kyle; Wu, Eric; Zhang, Angela; Alizadeh, Ash A; Zou, James	Cell	United States	2023	81	Review Article

＜引用＞

Citation: 0405 Medical Imaging

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Computational Radiomics System to Decode the Radiographic Phenotype	van Griethuysen, Joost J M; Fedorov, Andriy; Parmar, Chintan; Hosny, Ahmed; Aucoin, Nicole; Narayan, Vivek; Beets-Tan, Regina G H; Fillion-Robin, Jean-Christophe; Pieper, Steve; Aerts, Hugo J W L	Cancer Research	United States	2017	2331	Research Article
2	Radiomics: the bridge between medical imaging and personalized medicine	Lambin, Philippe; Leijenaar, Ralph T.H.; Deist, Timo M.; Peerlings, Jurgen; de Jong, Evelyn E.C.; van Timmeren, Janita; Sanduleanu, Sebastian; Larue, Ruben T.H.M.; Even, Aniek J.G.; Jochems, Arthur; van Wijk, Yvonka; Woodruff, Henry; van Soest, Johan; Lustberg, Tim; Roelofs, Erik; van Elmpt, Wouter; Dekker, Andre; Mottaghy, Felix M.; Wildberger, Joachim E.; Walsh, Sean	Nature Reviews Clinical Oncology	Germany	2017	1971	Review Article
3	Radiomics: Extracting more information from medical images using advanced feature analysis	Lambin, Philippe; Rios-Velazquez, Emmanuel; Leijenaar, Ralph; Carvalho, Sara; van Stiphout, Ruud G.P.M.; Granton, Patrick; Zegers, Catharina M.L.; Gillies, Robert; Boellard, Ronald; Dekker, André; Aerts, Hugo J.W.L.	European Journal of Cancer	United States	2012	1791	Research Article
4	The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository	Clark, Kenneth; Vendt, Bruce; Smith, Kirk; Freymann, John; Kirby, Justin; Koppel, Paul; Moore, Stephen; Phillips, Stanley; Maffitt, David; Pringle, Michael; Tarbox, Lawrence; Prior, Fred	Journal of Digital Imaging	United States	2013	1579	Research Article
5	The Image Biomarker Standardization Initiative: Standardized Quantitative Radiomics for High-Throughput Image-based Phenotyping	Zwanenburg, Alex; Vallières, Martin; Abdalah, Mahmoud A; Aerts, Hugo J W L; Andrearczyk, Vincent; Apte, Aditya; Ashrafinia, Saeed; Bakas, Spyridon; Beukinga, Roelof J; Boellaard, Ronald; Bogowicz, Marta; Boldrini, Luca; Buvat, Irène; Cook, Gary J R; Davatzikos, Christos; Depeursinge, Adrien; Desseroit, Marie-Charlotte; Dinapoli, Nicola; Dinh, Cuong Viet; Echegaray, Sebastian; El Naqa, Issam; Fedorov, Andriy Y; Gatta, Roberto; Gillies, Robert J; Goh, Vicky; Götz, Michael; Guckenberger, Matthias; Ha, Sung Min; Hatt, Mathieu; Isensee, Fabian; Lambin, Philippe; Leger, Stefan; Leijenaar, Ralph T H; Lenkowicz, Jacopo; Lippert, Fiona; Losnegård, Are; Maier-Hein, Klaus H; Morin, Olivier; Müller, Henning; Napel, Sandy; Nioche, Christophe; Orlhac, Fanny; Pati, Sarthak; Pfaehler, Elisabeth A G; Rahmim, Arman;	Radiology		2020	1470	Research Article
6	Decoding tumour phenotype by noninvasive imaging using a quantitative radiomics approach	Aerts, Hugo J. W. L.; Velazquez, Emmanuel Rios; Leijenaar, Ralph T. H.; Parmar, Chintan; Grossmann, Patrick; Carvalho, Sara; Bussink, Johan; Monshouwer, René; Haibe-Kains, Benjamin; Rietveld, Derek; Hoebers, Frank; Rietbergen, Michelle M.; Leemans, C. René; Dekker, Andre; Quackenbush, John; Gillies, Robert J.; Lambin, Philippe	Nature Communications	Netherlands	2014	1217	Research Article
7	An overview of deep learning in medical imaging focusing on MRI	Lundervold, Alexander Selvikvåg; Lundervold, Arvid	Zeitschrift für Medizinische Physik	Norway	2018	781	Review Article
8	The Lung Image Database Consortium (LIDC) and Image Database Resource Initiative (IDRI): A Completed Reference Database of Lung Nodules on CT Scans	Armato, Samuel G.; McLennan, Geoffrey; Bidaut, Luc; McNitt-Gray, Michael F.; Meyer, Charles R.; Reeves, Anthony P.; Zhao, Binsheng; Aberle, Denise R.; Henschke, Claudia I.; Hoffman, Eric A.; Kazerooni, Ella A.; MacMahon, Heber; van Beek, Edwin J. R.; Yankelevitz, David; Biancardi, Alberto M.; Bland, Peyton H.; Brown, Matthew S.; Engelmann, Roger M.; Laderach, Gary E.; Max, Daniel; Pais, Richard C.; Qing, David P.-Y.; Roberts, Rachael Y.; Smith, Amanda R.; Starkey, Adam; Batra, Poonam; Caligiuri, Philip;	Medical Physics	United States	2011	771	Research Article
9	Artificial intelligence in cancer imaging: Clinical challenges and applications	Bi, Wenya Linda; Hosny, Ahmed; Schabath, Matthew B.; Giger, Maryellen L.; Birkbak, Nicolai J.; Mehrtash, Alireza; Allison, Tavis; Arnaout, Omar; Abbosh, Christopher; Dunn, Ian F.; Mak, Raymond H.; Tamimi, Rulla M.; Tempany, Clare M.; Swanton, Charles; Hoffmann, Udo; Schwartz, Lawrence H.; Gillies, Robert J.; Huang, Raymond Y.; Aerts, Hugo J. W. L.	CA A Cancer Journal for Clinicians	United Kingdom	2019	682	Review Article
10	Low-Dose CT With a Residual Encoder-Decoder Convolutional Neural Network	Chen, Hu; Zhang, Yi; Kalra, Mannudeep K.; Lin, Feng; Chen, Yang; Liao, Peixi; Zhou, Jiliu; Wang, Ge	IEEE Transactions on Medical Imaging	China	2017	613	Research Article

＜研究費＞

Grant: 0405 Medical Imaging

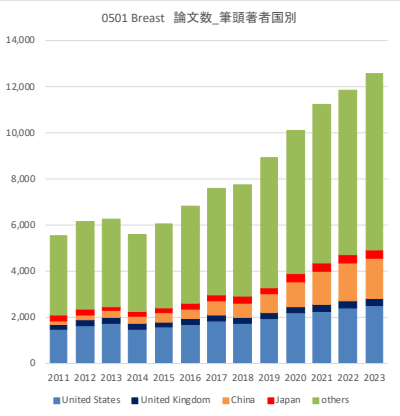
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	IGF::OT::IGF High-plex Pharmacodynamic Biomarker Assay	RALPH PARCHMENT	National Cancer Institute	United States	25,266,648	2017	2022
2	Construction of an Imaging Centre of Excellence (ICE) at the new South Glasgow University Hospital	Anna Dominiczak, Carol Clugston	Medical Research Council	United Kingdom	24,453,980	2015	2016
3	London Medical Imaging & Artificial Intelligence Centre for Value-Based Healthcare	Raj Chitnavis	Department for Business, Energy and Industrial Strategy	United Kingdom	15,906,193	2019	2023
4	King's College London Medical Engineering Centre of Research Excellence	Sebastien Ourselin	Wellcome Trust	United Kingdom	15,818,358	2017	2022
5	Center for Advanced Imaging Innovation and Research (CAI2R)	DANIEL K SODICKSON, RICARDO OTAZO, CHRISTOPHER M COLLINS, FERNANDO E BOADA, RICCARDO LATTANZI, FLORIAN KNOLL, ELS FIEREMANS, DANIEL SODICKSON, HERSH CHANDARANA, DMITRY S NOVIKOV	National Institute of Biomedical Imaging and Bioengineering	United States	14,024,966	2014	2024
6	Implications of Medical Low Dose Radiation Exposure	0	European Commission	Belgium	11,478,596	2017	2022
7	A multimodal AI-based toolbox and an interoperable health imaging repository for the empowerment of imaging analysis related to the diagnosis, prediction and follow-up of cancer	0	European Commission	Belgium	11,051,528	2020	2024
8	Quantum hyperpolarisation for ultrasensitive nuclear magnetic resonance and imaging	Fedor JELEZKO, Jan Henrik Ardenkjaer-Larsen, Martin Plenio	European Research Council	Belgium	10,290,535	2020	2026
9	Risk of Pediatric and Adolescent Cancer Associated with Medical Imaging	REBECCA SMITH-BINDMAN, MARILYN L KWAN, DIANA L MIGLIORETTI	National Cancer Institute	United States	9,976,976	2015	2022
10	EPSRC Centre for Doctoral Training in Medical Imaging	Sebastien Ourselin, Hui Zhang, David Hawkes, Mark Lythgoe, Geraint Rees	Engineering and Physical Sciences Research Council	United Kingdom	9,546,923	2014	2023

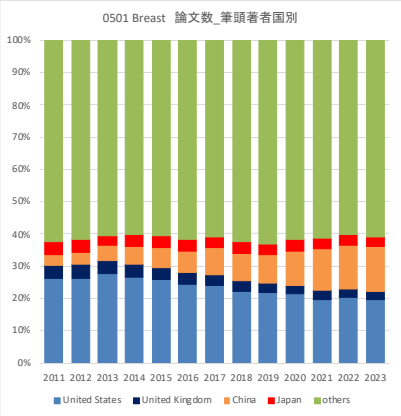
8. テーマ分析：領域 5

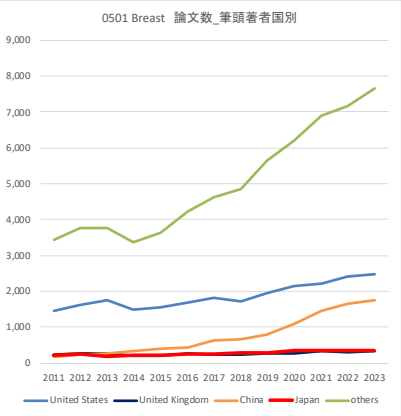
8.1. 0501 Breast

8.1.1. 論文数

Breast の論文数は近年大きく増加傾向にあると推計された。国別の論文数は、その他の国を除くと、米国、中国、日本の順で、経年的には中国の近年の増加傾向が顕著と推計された。



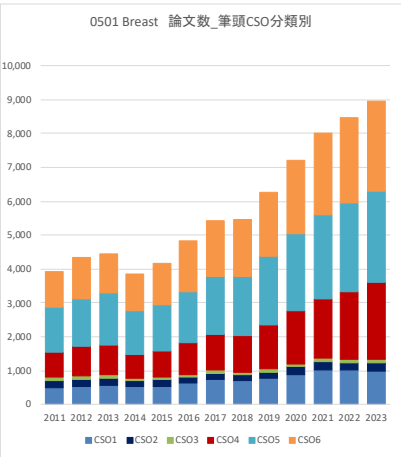


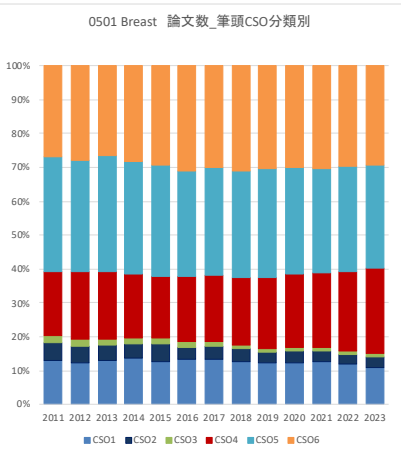


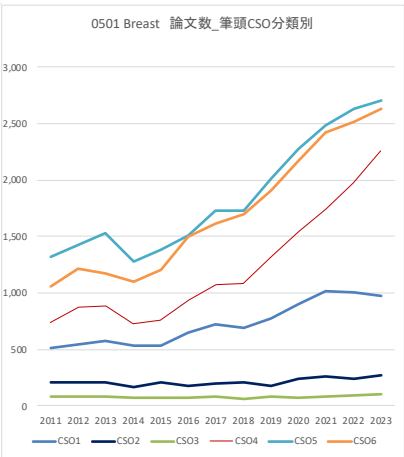
0501 Breast 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,446	1,613	1,735	1,490	1,563	1,669	1,815	1,731	1,939	2,163	2,213	2,411	2,491	1,567	25,846
United Kingdom	222	258	252	212	211	260	249	239	268	254	331	295	323	205	3,579
China	183	225	282	317	386	431	634	650	787	1,094	1,451	1,639	1,737	1,025	10,841
Japan	228	257	193	213	222	260	263	278	284	360	352	365	357	208	3,840
others	3,425	3,760	3,771	3,355	3,633	4,210	4,608	4,846	5,654	6,216	6,882	7,146	7,663	4,136	69,305
合計	5,504	6,113	6,233	5,587	6,015	6,830	7,569	7,744	8,932	10,087	11,229	11,856	12,571	7,141	113,411

0501 Breast 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	26.3%	26.4%	27.8%	26.7%	26.0%	24.4%	24.0%	22.4%	21.7%	21.4%	19.7%	20.3%	19.8%	21.9%	22.8%
United Kingdom	4.0%	4.2%	4.0%	3.8%	3.5%	3.8%	3.3%	3.1%	3.0%	2.5%	2.9%	2.5%	2.6%	2.9%	3.2%
China	3.3%	3.7%	4.5%	5.7%	6.4%	6.3%	8.4%	8.4%	8.8%	10.8%	12.9%	13.8%	13.8%	14.4%	9.6%
Japan	4.1%	4.2%	3.1%	3.8%	3.7%	3.8%	3.5%	3.6%	3.2%	3.6%	3.1%	3.1%	2.8%	2.9%	3.4%
others	62.2%	61.5%	60.5%	60.1%	60.4%	61.6%	60.9%	62.6%	63.3%	61.6%	61.3%	60.3%	61.0%	57.9%	61.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Breast の CSO 分類別の論文数は、CSO5 Treatment が最も多く、次いで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO4 Early Detection, Diagnosis and Prognosis の順に多いと推計された。



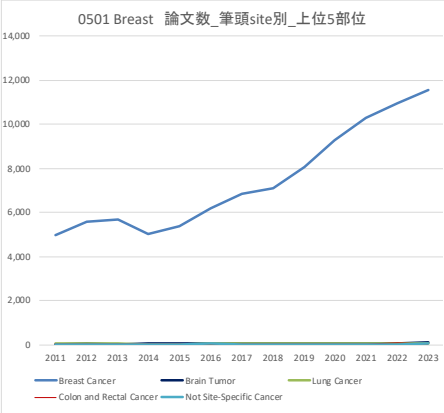




0501 Breast 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	511	540	578	530	530	645	725	689	779	898	1,020	1,005	972	592	10,014
2 Etiology	204	208	208	161	208	177	199	208	181	239	260	243	276	167	2,939
3 Prevention	84	85	78	72	73	71	80	58	79	76	78	96	98	54	1,082
4 Early Detection, Diagnosis, and Prognosis	738	879	881	724	754	932	1,071	1,084	1,314	1,548	1,749	1,975	2,255	1,286	17,190
5 Treatment	1,323	1,422	1,533	1,279	1,379	1,511	1,726	1,728	2,013	2,270	2,487	2,636	2,709	1,570	25,586
6 Cancer Control, Survivorship, and Outcomes Research	1,054	1,210	1,176	1,096	1,209	1,494	1,616	1,697	1,907	2,165	2,419	2,519	2,633	1,501	23,696
others	1,590	1,769	1,779	1,725	1,862	2,000	2,152	2,280	2,659	2,891	3,216	3,382	3,628	1,971	32,904
合計	5,504	6,113	6,233	5,587	6,015	6,830	7,569	7,744	8,932	10,087	11,229	11,856	12,571	7,141	113,411

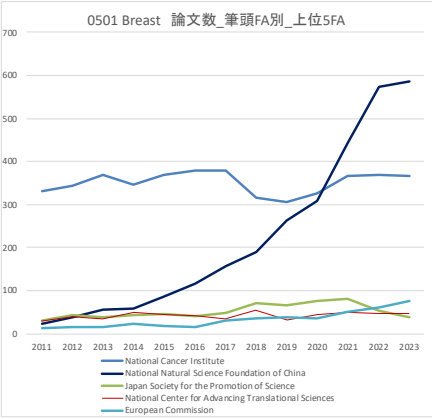
0501 Breast 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.3%	8.8%	9.3%	9.5%	8.8%	9.4%	9.6%	8.9%	8.7%	8.9%	9.1%	8.5%	7.7%	8.3%	8.8%
2 Etiology	3.7%	3.4%	3.3%	2.9%	3.5%	2.6%	2.6%	2.7%	2.0%	2.4%	2.3%	2.0%	2.2%	2.3%	2.6%
3 Prevention	1.5%	1.4%	1.3%	1.3%	1.2%	1.0%	1.1%	0.7%	0.9%	0.8%	0.7%	0.8%	0.8%	0.8%	1.0%
4 Early Detection, Diagnosis, and Prognosis	13.4%	14.4%	14.1%	13.0%	12.5%	13.6%	14.1%	14.0%	14.7%	15.3%	15.6%	16.7%	17.9%	18.0%	15.2%
5 Treatment	24.0%	23.3%	24.6%	22.9%	22.9%	22.1%	22.8%	22.3%	22.5%	22.5%	22.1%	22.2%	21.5%	22.0%	22.6%
6 Cancer Control, Survivorship, and Outcomes Research	19.1%	19.8%	18.9%	19.6%	20.1%	21.9%	21.4%	21.9%	21.4%	21.5%	21.5%	21.2%	20.9%	21.0%	20.9%
others	28.9%	28.9%	28.5%	30.9%	31.0%	29.3%	28.4%	29.4%	29.8%	28.7%	28.6%	28.5%	28.9%	27.6%	29.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Breast の臓器別の論文数は、乳がんが大半を占めていた。



0501 Breast 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	4,960	5,552	5,664	5,006	5,389	6,188	6,861	7,071	8,044	9,248	10,286	10,924	11,570	6,675	103,438
Brain Tumor	27	30	24	45	38	38	57	37	55	52	65	62	83	27	640
Lung Cancer	31	40	30	28	23	33	33	38	55	48	70	66	55	28	578
Colon and Rectal Cancer	15	16	22	19	24	26	26	26	35	39	50	55	42	27	422
Not Site-Specific Cancer	13	15	23	18	14	31	24	16	25	16	23	24	35	16	293
Leukemia / Leukaemia	12	8	10	13	20	15	11	13	32	34	24	15	20	12	239
Prostate Cancer	11	12	13	15	9	15	15	17	14	20	21	33	25	11	231
Ovarian Cancer	6	8	11	11	5	7	9	9	16	12	23	27	19	18	181
Bladder Cancer	5	7	7	11	12	10	7	15	9	11	18	13	18	9	152
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	4	10	12	11	7	6	15	9	15	9	15	14	9	3	139

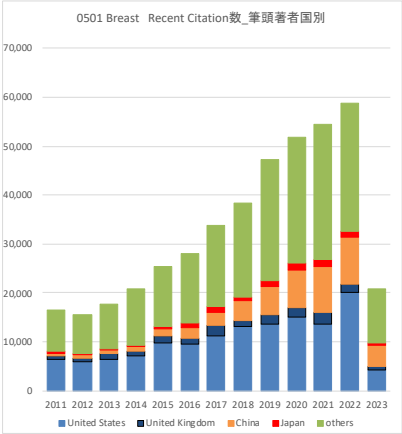
Breast の FA 別の論文数は、米国 NCI が最も多いが、近年は中国 NSFC の論文数の増加が顕著で、米国 NCI を逆転している。

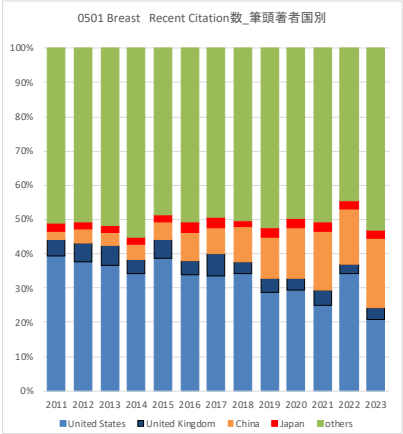


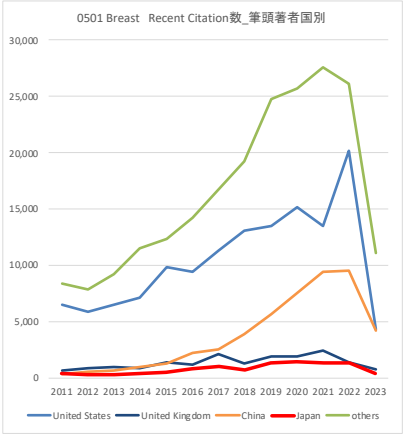
0501 Breast 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	332	344	370	347	370	378	379	315	306	326	366	370	367	186	4,756
National Natural Science Foundation of China	23	37	55	59	87	117	158	190	262	309	442	574	587	330	3,230
Japan Society for the Promotion of Science	30	44	39	44	45	40	48	71	67	77	82	54	38	15	694
National Center for Advancing Translational Sciences	30	39	34	50	44	41	34	55	31	44	49	48	47	11	557
European Commission	14	15	15	22	17	16	30	36	39	36	52	61	77	32	462
National Research Foundation of Korea	9	10	13	19	22	28	27	34	43	47	48	68	37	20	425
Ministry of Science and Technology of the People's Republic of China	4	4	9	9	16	29	23	28	32	57	50	57	41	26	385
Cancer Research UK	22	25	28	24	25	30	17	14	20	31	21	18	22	9	306
American Cancer Society	12	25	15	17	19	14	21	18	22	34	23	26	36	8	290
Canadian Institutes of Health Research	19	11	24	17	22	19	23	22	32	33	21	17	16	10	286

8.1.2. Recent Citation 数

Breast の引用数は、経年的に大きく増加傾向にあると推計された。国別の引用数は、その他の国を除くと米国、中国、英国の順と推計された。



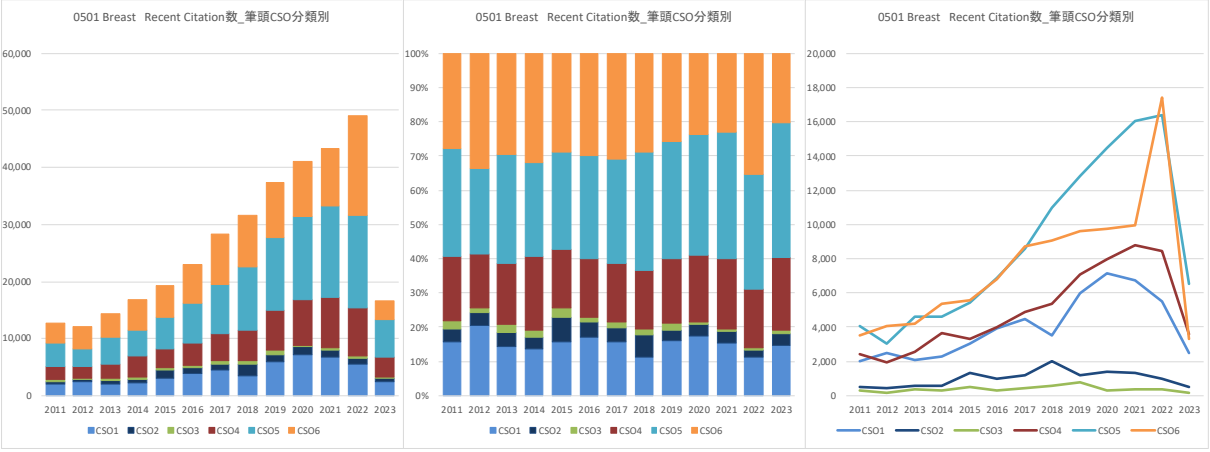




0501 Breast Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	6,490	5,869	6,497	7,123	9,825	9,471	11,342	13,101	13,526	15,177	13,537	20,238	4,340	335	136,871
United Kingdom	734	868	1,030	883	1,380	1,208	2,170	1,362	1,959	1,915	2,419	1,460	758	56	18,202
China	405	625	719	952	1,358	2,301	2,569	3,948	5,743	7,571	9,433	9,589	4,213	311	49,737
Japan	424	349	345	400	492	825	1,042	756	1,369	1,460	1,352	1,404	470	34	10,722
others	8,362	7,911	9,195	11,544	12,364	14,260	16,736	19,301	24,743	25,730	27,615	26,177	11,114	705	215,757
合計	16,415	15,622	17,786	20,902	25,419	28,065	33,859	38,468	47,340	51,853	54,356	58,868	20,895	1,441	431,289

0501 Breast Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	39.5%	37.6%	36.5%	34.1%	38.7%	33.7%	33.5%	34.1%	28.6%	29.3%	24.9%	34.4%	20.8%	23.2%	31.7%
United Kingdom	4.5%	5.6%	5.8%	4.2%	5.4%	4.3%	6.4%	3.5%	4.1%	3.7%	4.5%	2.5%	3.6%	3.9%	4.2%
China	2.5%	4.0%	4.0%	4.6%	5.3%	8.2%	7.6%	10.3%	12.1%	14.6%	17.4%	16.3%	20.2%	21.6%	11.5%
Japan	2.6%	2.2%	1.9%	1.9%	1.9%	2.9%	3.1%	2.0%	2.9%	2.8%	2.5%	2.4%	2.2%	2.4%	2.5%
others	50.9%	50.6%	51.7%	55.2%	48.6%	50.8%	49.4%	50.2%	52.3%	49.6%	50.8%	44.5%	53.2%	48.9%	50.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

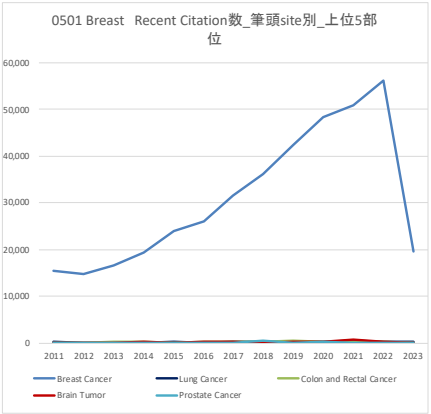
Breast の CSO 分類別の引用数は、CSO5 Treatment が多く経年的にも増加傾向にあるが、2021 年に CSO6 Cancer Control, Survivorship, and Outcomes Research の引用数が大幅に伸びたと推計された。



0501 Breast Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	1,983	2,489	2,078	2,307	3,031	3,953	4,447	3,531	5,963	7,159	6,724	5,536	2,459	132	51,792
2 Etiology	516	458	572	573	1,360	991	1,168	2,029	1,189	1,406	1,348	955	518	50	13,133
3 Prevention	290	185	362	317	520	295	458	606	785	299	395	383	184	17	5,096
4 Early Detection, Diagnosis, and Prognosis	2,410	1,919	2,549	3,671	3,336	3,969	4,870	5,397	7,052	7,972	8,812	8,422	3,565	302	64,246
5 Treatment	4,035	3,037	4,588	4,625	5,430	6,899	8,608	10,977	12,819	14,469	16,077	16,415	6,529	418	114,926
6 Cancer Control, Survivorship, and Outcomes Research	3,527	4,076	4,233	5,359	5,540	6,818	8,702	9,066	9,613	9,766	9,963	17,392	3,343	186	97,584
others	3,677	3,461	3,405	4,078	6,220	5,204	5,624	6,893	9,983	10,805	11,073	9,790	4,318	336	84,512
合計	16,415	15,622	17,786	20,902	25,419	28,065	33,859	38,468	47,340	51,853	54,356	58,868	20,895	1,441	431,289

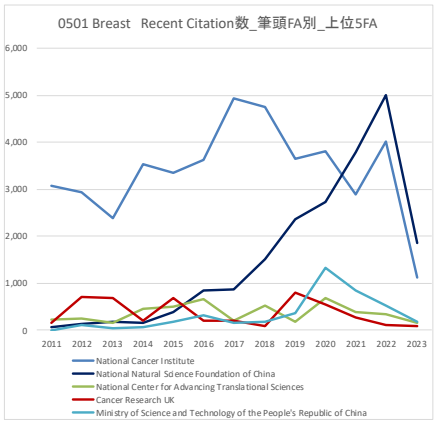
0501 Breast Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12.1%	15.9%	11.7%	11.0%	11.9%	14.1%	13.1%	9.2%	12.6%	13.8%	12.4%	9.4%	11.8%	9.2%	12.0%
2 Etiology	3.1%	2.9%	3.2%	2.7%	5.4%	3.5%	3.4%	5.3%	2.5%	2.7%	2.5%	1.6%	2.5%	3.5%	3.0%
3 Prevention	1.8%	1.2%	2.0%	1.5%	2.0%	1.1%	1.4%	1.6%	1.7%	0.6%	0.7%	0.7%	0.9%	1.2%	1.2%
4 Early Detection, Diagnosis, and Prognosis	14.7%	12.3%	14.3%	17.6%	13.1%	14.1%	14.4%	14.0%	14.9%	15.4%	16.2%	14.3%	17.1%	21.0%	14.9%
5 Treatment	24.6%	19.4%	25.8%	22.1%	21.4%	24.6%	25.4%	28.5%	27.1%	27.9%	29.6%	27.9%	31.2%	29.0%	26.6%
6 Cancer Control, Survivorship, and Outcomes Research	21.5%	26.1%	23.8%	25.6%	21.8%	24.3%	25.7%	23.6%	20.3%	18.8%	18.3%	29.5%	16.0%	12.9%	22.6%
others	22.4%	22.2%	19.1%	19.5%	24.5%	18.5%	16.6%	17.9%	21.1%	20.8%	20.4%	16.6%	20.7%	23.3%	19.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Breast の臓器別の引用数は、乳がんが大半と推計された。



0501 Breast Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	15,526	14,789	16,487	19,330	24,004	26,128	31,571	36,162	42,445	48,471	50,841	56,197	19,543	1,358	402,852
Lung Cancer	213	101	83	65	192	119	217	192	224	292	531	341	269	6	2,845
Colon and Rectal Cancer	40	36	205	261	47	304	324	141	504	283	233	359	72	5	2,814
Brain Tumor	88	127	95	163	133	144	275	102	356	313	624	244	119	8	2,791
Prostate Cancer	55	24	50	50	14	57	93	463	82	210	86	72	47	1	1,304
Cervical Cancer	0	4	2	34	8	13	17	78	904	28	78	26	29	1	1,222
Not Site-Specific Cancer	39	30	35	54	54	121	112	51	227	128	74	82	48	1	1,056
Ovarian Cancer	39	34	13	88	8	60	21	59	49	67	87	164	50	2	741
Bladder Cancer	19	4	91	112	34	17	20	30	21	80	30	24	45	2	529
Leukemia / Leukaemia	4	0	38	10	33	93	15	15	91	44	52	49	24	26	494

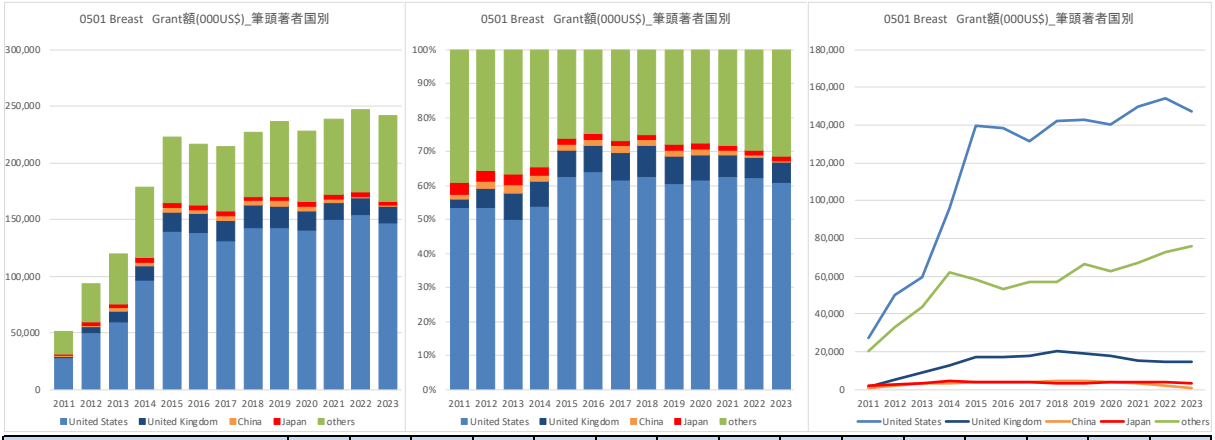
Breast の FA 別の引用数は、米国 NCI が最も多く、次いで中国 NSFC が多いと推計された。



0501 Breast Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	3,069	2,938	2,392	3,543	3,353	3,617	4,940	4,750	3,639	3,808	2,898	4,026	1,119	75	44,167
National Natural Science Foundation of China	63	134	174	168	386	839	860	1,508	2,361	2,720	3,776	4,997	1,847	139	19,972
National Center for Advancing Translational Sciences	225	252	155	469	513	670	200	535	193	689	400	352	167	0	4,820
Cancer Research UK	152	711	689	209	679	212	212	94	791	549	265	104	87	9	4,763
Ministry of Science and Technology of the People's Republic of China	5	106	56	69	187	331	158	193	371	1,327	856	529	185	7	4,380
Japan Society for the Promotion of Science	103	127	133	135	336	360	210	414	855	371	386	185	68	3	3,686
European Commission	61	95	87	72	121	70	366	478	565	374	317	371	283	13	3,273
Department of Health and Social Care	5	49	169	96	259	220	283	99	130	471	1,000	327	36	0	3,144
National Research Foundation of Korea	102	40	53	109	77	216	143	181	322	251	374	474	109	4	2,455
Medical Research Council	454	107	180	142	65	94	218	124	296	128	211	65	42	0	2,126

8.1.3. Grant(000US$)額

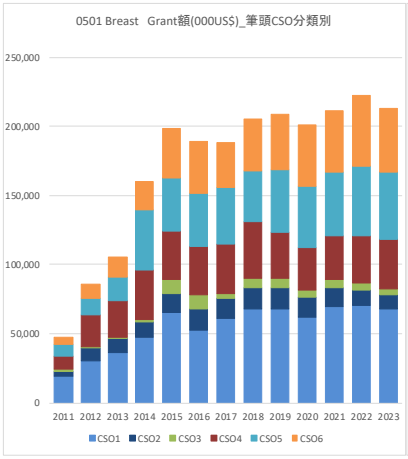
Breast の研究費総額は、2015 年以降横ばい傾向であると推計された。国別の研究費配分額は、米国が最も多いと推計され、次いで英国の順と推計された。

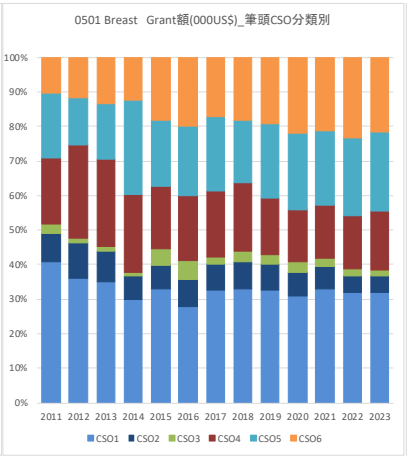


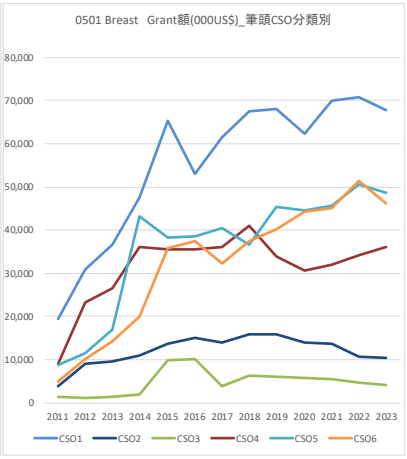
0501 Breast Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	27,521	49,746	59,671	96,104	139,843	138,213	131,623	142,438	142,824	140,379	149,792	154,278	147,111	134,101	1,653,646
United Kingdom	1,324	5,342	9,145	13,009	16,974	16,827	17,510	20,006	19,201	17,489	15,374	14,321	14,824	11,481	192,825
China	797	1,831	3,035	3,274	3,924	3,931	4,093	4,232	4,396	3,945	3,001	1,900	814	599	39,773
Japan	1,695	2,750	3,424	4,317	3,835	3,851	3,733	3,158	3,486	3,789	3,601	3,618	3,227	1,998	46,482
others	20,175	33,193	43,776	61,643	58,365	53,304	57,028	57,019	66,128	62,866	67,229	72,953	75,920	62,285	791,885
合計	51,512	92,863	119,051	178,347	222,941	216,125	213,986	226,854	236,035	228,468	238,997	247,071	241,897	210,464	2,724,610

0501 Breast Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	53.4%	53.6%	50.1%	53.9%	62.7%	64.0%	61.5%	62.8%	60.5%	61.4%	62.7%	62.4%	60.8%	63.7%	60.7%
United Kingdom	2.6%	5.8%	7.7%	7.3%	7.6%	7.8%	8.2%	8.8%	8.1%	7.7%	6.4%	5.8%	6.1%	5.5%	7.1%
China	1.5%	2.0%	2.5%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	1.7%	1.3%	0.8%	0.3%	0.3%	1.5%
Japan	3.3%	3.0%	2.9%	2.4%	1.7%	1.8%	1.7%	1.4%	1.5%	1.7%	1.5%	1.5%	1.3%	0.9%	1.7%
others	39.2%	35.7%	36.8%	34.6%	26.2%	24.7%	26.7%	25.1%	28.0%	27.5%	28.1%	29.5%	31.4%	29.6%	29.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Breast の CSO 分類別の研究費配分額は、CSO1 Biology が分析年度を通じて最も多く、次いで CSO5 Treatment と CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



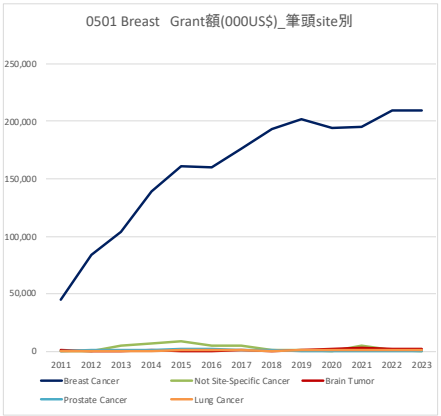




0501 Breast Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	19,286	30,763	36,747	47,569	65,450	52,962	61,514	67,608	67,934	62,314	69,897	70,864	67,844	58,454	779,206
2 Etiology	3,766	8,901	9,642	10,984	13,552	14,910	13,886	15,989	15,779	13,931	13,613	10,719	10,397	9,171	165,241
3 Prevention	1,366	1,105	1,330	1,854	9,861	10,198	3,862	6,298	6,106	5,692	5,412	4,706	3,994	3,836	65,620
4 Early Detection, Diagnosis, and Prognosis	8,979	23,195	26,474	36,067	35,654	35,446	35,983	41,090	33,837	30,569	31,929	34,232	36,165	32,035	441,655
5 Treatment	8,854	11,516	17,010	43,304	38,331	38,450	40,441	36,736	45,343	44,435	45,771	50,595	48,725	44,260	513,772
6 Cancer Control, Survivorship, and Outcomes Research	4,848	10,063	14,170	19,963	35,840	37,384	32,264	37,448	40,178	44,307	45,006	51,506	46,228	37,794	456,998
others	5,687	9,627	16,809	23,911	40,960	42,913	30,836	29,848	33,989	35,192	35,583	35,804	38,967	34,311	414,438
合計	51,512	92,863	119,051	178,347	222,941	216,125	213,986	226,854	236,035	228,468	238,997	247,071	241,897	210,464	2,724,610

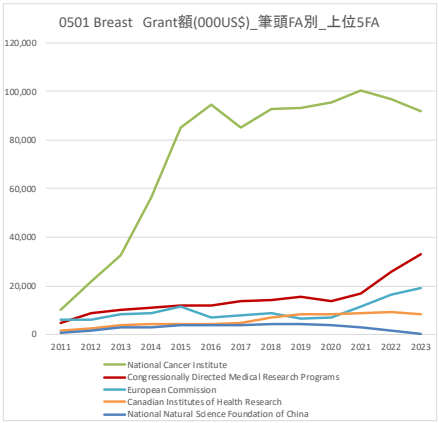
0501 Breast Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	37.4%	33.1%	30.9%	26.7%	29.4%	24.5%	28.7%	29.8%	28.8%	27.3%	29.2%	28.7%	28.0%	27.8%	28.6%
2 Etiology	7.3%	9.6%	8.1%	6.2%	6.1%	6.9%	6.5%	7.0%	6.7%	6.1%	5.7%	4.3%	4.3%	4.4%	6.1%
3 Prevention	2.7%	1.2%	1.1%	1.0%	4.4%	4.7%	1.8%	2.8%	2.6%	2.5%	2.3%	1.9%	1.7%	1.8%	2.4%
4 Early Detection, Diagnosis, and Prognosis	17.4%	25.0%	22.2%	20.2%	16.0%	16.4%	16.8%	18.1%	14.3%	13.4%	13.4%	13.9%	15.0%	15.2%	16.2%
5 Treatment	17.2%	12.4%	14.3%	24.3%	17.2%	17.8%	18.9%	16.2%	19.2%	19.4%	19.2%	20.5%	20.1%	21.0%	18.9%
6 Cancer Control, Survivorship, and Outcomes Research	9.4%	10.8%	11.9%	11.2%	16.1%	17.3%	15.1%	16.5%	17.0%	19.4%	18.8%	20.8%	19.1%	18.0%	16.8%
others	11.0%	10.4%	14.1%	13.4%	18.4%	19.9%	14.4%	13.2%	14.4%	15.4%	14.9%	14.5%	16.1%	16.3%	15.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Breast の臓器別の研究費配分額は、乳がんが大半と推計された。



0501 Breast Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	45,225	84,393	104,000	139,436	160,932	159,672	175,678	193,232	201,867	194,162	195,506	209,819	209,032	180,108	2,253,061
Not Site-Specific Cancer	570	739	4,609	7,091	8,493	4,666	4,721	877	1,089	681	5,266	1,031	804	1,426	42,064
Brain Tumor	906	730	755	1,162	673	739	1,029	804	1,519	1,975	3,168	2,707	2,594	2,838	21,601
Prostate Cancer	458	1,499	1,544	1,585	1,798	1,774	1,723	822	480	279	757	177	104	325	13,325
Lung Cancer	504	593	588	645	1,004	1,008	938	787	976	1,176	971	971	835	591	11,587
Pancreatic Cancer	0	133	258	930	1,314	1,190	1,256	1,256	1,431	1,014	795	70	41	0	9,689
Colon and Rectal Cancer	0	0	94	1,173	194	272	299	522	334	947	992	945	1,726	1,686	9,184
Leukemia / Leukaemia	1,453	150	428	428	228	332	718	718	556	990	990	924	820	434	9,168
Ovarian Cancer	0	134	510	518	598	683	764	1,005	848	402	333	1,394	391	145	7,726
Kidney Cancer	0	0	0	820	827	714	707	707	707	713	713	713	713	6	7,343

Breast の FA 別の研究費配分額は、米国 NCI が最も多く、次いで米国 Congressionally Directed Medical Research Programs、European Commission の順と推計された。



0501 Breast Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	10,139	21,766	32,533	56,383	85,096	94,646	84,968	92,527	93,084	95,646	100,544	96,959	92,075	78,992	1,035,358	United States
Congressionally Directed Medical Research Programs	4,583	8,874	10,210	10,952	11,743	11,855	13,676	14,349	15,364	13,542	16,732	25,634	32,871	32,780	223,167	United States
European Commission	5,991	5,991	8,247	8,965	11,330	7,059	7,922	8,829	6,615	7,017	11,626	16,311	19,317	20,221	145,440	Belgium
Canadian Institutes of Health Research	1,756	2,594	3,816	4,375	4,222	4,192	4,836	7,111	8,416	8,505	8,781	9,029	8,536	5,434	81,604	Canada
National Natural Science Foundation of China	662	1,631	2,847	3,096	3,785	3,789	4,007	4,189	4,173	3,763	2,810	1,487	296	0	36,536	China
National Institute on Aging	472	472	698	698	669	985	1,081	1,254	4,037	4,783	5,437	5,378	5,238	5,106	36,309	United States
Cancer Research UK	0	0	0	0	0	0	3,541	5,306	5,306	4,566	4,566	3,751	3,475	0	30,510	United Kingdom
Medical Research Council	324	704	704	1,297	1,067	1,102	1,274	2,165	2,916	3,074	2,719	2,486	2,478	2,884	25,194	United Kingdom
European Research Council	0	547	842	1,041	1,503	1,785	2,109	1,865	1,773	2,140	2,366	2,335	3,426	2,983	24,715	Belgium
National Institute of General Medical Sciences	392	443	760	709	1,210	1,751	2,004	1,506	1,545	2,146	3,459	2,999	2,437	2,437	23,799	United States

8.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0501 Breast

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	New hopes for the breast cancer treatment: perspectives on the oncolytic virus therapy	Chowaniec, Hanna; Ślubowska, Antonina; Mroczek, Magdalena; Borowczyk, Martyna; Braszka, Małgorzata; Dworacki, Grzegorz; Dobosz, Paula; Wichtowski, Mateusz	Frontiers in Immunology	Switzerland	2024	1	Review Article
2	Radiation therapy of the primary tumour and oligometastatic sites in patients with breast cancer with synchronous metastases: A literature review	Le Scodan, R.; Ghannam, Y.; Kirova, Y.; Bourgier, C.; Tallet, A. Richard	Cancer/Radiothérapie	France	2023	0	Review Article
3	Breast Cancer—Epidemiology, Classification, Pathogenesis and Treatment (Review of Literature)	Smolarz, Beata; Nowak, Anna Zadrożna; Romanowicz, Hanna	Cancers	Poland	2022	133	Review Article
4	Early breast cancer: concept and therapeutic review	Bastos, Maria Carolina Soliani; de Almeida, Aline Prado; Bagnoli, Fábio; de Oliveira, Vilmar Marques	Revista da Associação Médica Brasileira	Brazil	2023	2	Review Article
5	Research Status of Systemic Adjuvant Therapy for Early Breast Cancer	Hu, Wenyu; Xu, Dongdong; Li, Nanlin	Cancer Control	China	2023	3	Review Article
6	AIRO Breast Cancer Group Best Clinical Practice 2022 Update	Ciabattoni, Antonella; Gregucci, Fabiana; De Rose, Fiorenza; Falivene, Sara; Fozza, Alessandra; Daidone, Antonio; Morra, Anna; Smaniotto, Daniela; Barbara, Raffaele; Lozza, Laura; Vidali, Cristiana; Borghesi, Simona; Palumbo, Isabella; Huscher, Alessandra; Perrucci, Elisabetta; Baldissera, Antonella; Tolento, Giorgio; Rovea, Paolo; Franco, Pierfrancesco; De Santis, Maria Carmen; Di Grazia, Alfio; Marino, Lorenza; Meduri, Bruno; Cucciarelli, Francesca; Aristei, Cynthia; Bertoni, Filippo; Guenzi, Marina; Leonardi, Maria Cristina; Livi, Lorenzo; Nardone, Luigia; De Felice, Francesca; Rosetto, Maria Elena; Mazzuoli, Lidia; Anselmo,	Tumori Journal	Italy	2022	12	0
7	Percutaneous Management of Breast Cancer: a Systematic Review	Dai, Yuqing; Liang, Ping; Yu, Jie	Current Oncology Reports	China	2022	10	Review Article
8	Development of an International Virtual Multidisciplinary Tumor Board for Breast Cancer in Mongolia	Brownson, Kirstyn E; Flores-Huidobro Martinez, Angel; Ganbayar, Javkhlan; Sorensen, Leif M; Darelli-Anderson, Anna M; Prathibha, Saranya; Hoven, Noelle; Nansalmaa, Erdenekhuu; Mahlow, Jonathon; Pushkin, Batsukh; Potter, David; Tuttle, Todd; Price, Raymond R	Journal of Surgical Research	United States	2023	0	Research Article
9	Trastuzumab, leuprorelin, letrozole, and palbociclib as first-line therapy in HER2-positive and hormone receptor-positive metastatic breast cancer: A case report	Sun, Maoben; Cai, Liangzhen; Chen, Min	Medicine		2023	1	Research Article
10	Tailoring Treatment for Patients with Inflammatory Breast Cancer	Newman, Alexandra B.; Lynce, Filipa	Current Treatment Options in Oncology	United States	2023	9	Review Article

＜引用＞

Citation: 0501 Breast

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Cancer statistics, 2022	Siegel, Rebecca L.; Miller, Kimberly D.; Fuchs, Hannah E.; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2022	9260	Research Article
2	Global cancer statistics, 2012	Torre, Lindsey A.; Bray, Freddie; Siegel, Rebecca L.; Ferlay, Jacques; Lortet-Tieulent, Joannie; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2015	1429	Review Article
3	Breast Cancer Treatment	Waks, Adrienne G.; Winer, Eric P.	JAMA	United States	2019	1246	Review Article
4	Breast Cancer Statistics, 2022	Giaquinto, Angela N.; Sung, Hyuna; Miller, Kimberly D.; Kramer, Joan L.; Newman, Lisa A.; Minihan, Adair; Jemal, Ahmedin; Siegel, Rebecca L.	CA A Cancer Journal for Clinicians	United States	2022	959	Review Article
5	Trastuzumab Deruxtecan in Previously Treated HER2-Low Advanced Breast Cancer	Modi, Shanu; Jacot, William; Yamashita, Toshinari; Sohn, Joohyuk; Vidal, Maria; Tokunaga, Eriko; Tsurutani, Junji; Ueno, Naoto T; Prat, Aleix; Chae, Yee Soo; Lee, Keun Seok; Nikkura, Naoki; Park, Yeon Hee; Xu, Binghe; Wang, Xiaojia; Gil-Gil, Miguel; Li, Wei; Pierga, Jean-Yves; Im, Seock-Ah; Moore, Halle C F; Rugo, Hope S; Yerushalmi, Rinat; Zagouri, Flora; Gombos, Andrea; Kim, Sung-Bae; Liu, Qiang; Luo, Ting; Saura, Cristina; Schmid, Peter; Sun, Tao; Gambhire, Dhiraj; Yung, Lotus; Wang, Yibin; Singh, Jasmeet; Vitazka, Patrik; Meinhardt, Gerold; Harbeck, Nadia; Cameron, David A	New England Journal of Medicine	Israel	2022	949	Research Article
6	Global cancer statistics	Jemal, Ahmedin; Bray, Freddie; Center, Melissa M.; Ferlay, Jacques; Ward, Elizabeth; Forman, David	CA A Cancer Journal for Clinicians	France	2011	895	Review Article
7	Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis	Arbyn, Marc; Weiderpass, Elisabete; Bruni, Laia; de Sanjosé, Silvia; Saraiya, Mona; Ferlay, Jacques; Bray, Freddie	The Lancet Global Health	Spain	2019	861	Research Article
8	Triple-negative breast cancer molecular subtyping and treatment progress	Yin, Li; Duan, Jiang-Jie; Bian, Xiu-Wu; Yu, Shi-cang	Breast Cancer Research	China	2020	757	Review Article
9	Pembrolizumab for Early Triple-Negative Breast Cancer	Schmid, Peter; Cortes, Javier; Pusztai, Lajos; McArthur, Heather; Kümmel, Sherko; Bergh, Jonas; Denkert, Carsten; Park, Yeon Hee; Hui, Rina; Harbeck, Nadia; Takahashi, Masato; Foukakis, Theodoros; Fasching, Peter A; Cardoso, Fatima; Untch, Michael; Jia, Liyi; Karantza, Vassiliki; Zhao, Jing; Aktan, Gursel; Dent, Rebecca; O'Shaughnessy, Joyce	New England Journal of Medicine	United States	2020	740	Research Article
10	Atezolizumab and Nab-Paclitaxel in Advanced Triple-Negative Breast Cancer	Schmid, Peter; Adams, Sylvia; Rugo, Hope S; Schneeweiss, Andreas; Barrios, Carlos H; Iwata, Hiroji; Diéras, Véronique; Hegg, Roberto; Im, Seock-Ah; Shaw Wright, Gail; Henschel, Volkmar; Molinero, Luciana; Chui, Stephen Y; Funke, Roel; Husain, Amreen; Winer, Eric P; Loi, Sherene; Emens, Leisha A	New England Journal of Medicine	Germany	2018	726	Research Article

＜研究費＞

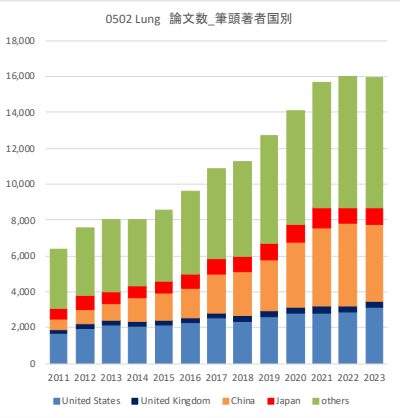
Grant: 0501 Breast

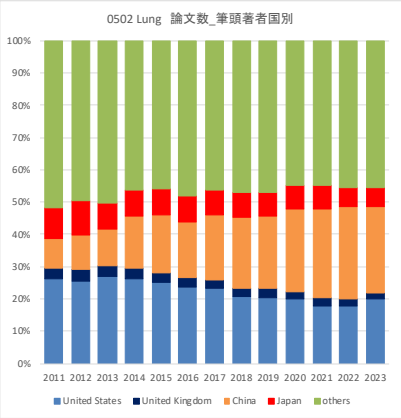
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	NRG Oncology Network Group Operations Center	NORMAN WOLMARK, QUYNH-THU XUAN LE, ROBERT S. MANNEL, WALTER J. CURRAN, PHILIP J. DISAIA	National Cancer Institute	United States	#########	2014	2025
2	Comparing Two Ways to Schedule Breast Cancer Screenings -- The WISDOM Study	Laura J. Esserman, Allison Fiscalini, Arash Naeim	Patient-Centered Outcomes Research Institute	United States	19,384,746	2015	2027
3	From data sharing and integration via VPH models to personalised medicine	0	European Commission	Belgium	17,365,806	2011	2015
4	IMAXT : imaging and molecular annotation of xenografts and tumors	0	Cancer Research UK	United Kingdom	17,315,068	2017	2023
5	Infrastructure for Pathways, a Prospective Study of Breast Cancer Survivorship	LAWRENCE H KUSHI, CHRISTINE B. AMBROSONE	National Cancer Institute	United States	16,891,908	2016	2026
6	Center for Big Data in Translational Genomics	DAVID H HAUSSLER, LAURA J VAN'T VEER, ANTHONY JOSEPH, DAVID PATTERSON	National Human Genome Research Institute	United States	14,846,092	2014	2021
7	Atherosclerosis Intervention with Novel Tissue Selective Estrogen Complex Therapy	HOWARD NEIL HODIS	National Institute on Aging	United States	13,895,561	2019	2024
8	International Randomized Study Comparing personalized, Risk-Stratified to Standard Breast Cancer Screening In Women Aged 40-70	0	European Commission	Belgium	13,843,709	2018	2026
9	Comparing Treatment Options for Women with Low-Risk Ductal Carcinoma In Situ (DCIS) -- The COMET Study	Shelley Hwang	Patient-Centered Outcomes Research Institute	United States	13,404,903	2016	2024
10	The Challenge of Individualizing Treatments for Patients with Breast Cancer	STEVEN J. KATZ, RESHMA JAGSI, JENNIFER J GRIGGS, SARAH T HAWLEY, NANCY K JANZ, LAWRENCE CHIN-I AN, TIMOTHY P. HOFER, CHRISTOPHER FRIESE, ALLISON W. KURIAN	National Cancer Institute	United States	13,372,844	2012	2018

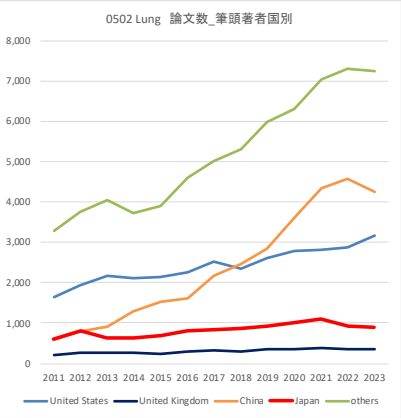
8.2. 0502 Lung

8.2.1. 論文数

Lung の論文数は経年的に増加傾向が見られたが、2020 年以降は横ばい傾向と推計された。国別の論文数は、その他の国を除くと中国が最も多く、次いで米国、日本の順と推計された。経年的には、以前は米国の論文数が多かったが、近年は中国の論文数の増加が顕著で米国より多くなったと推計された。



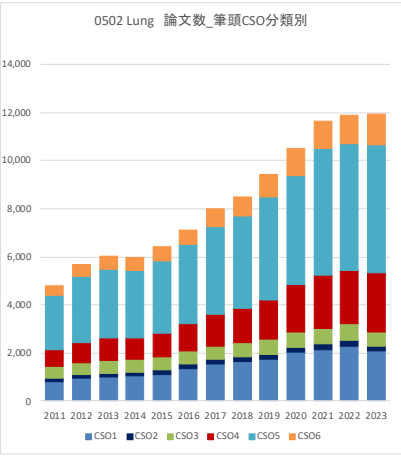


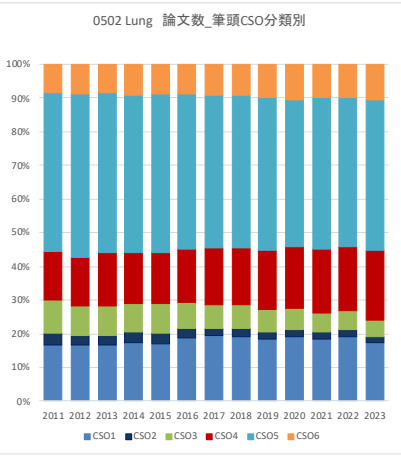


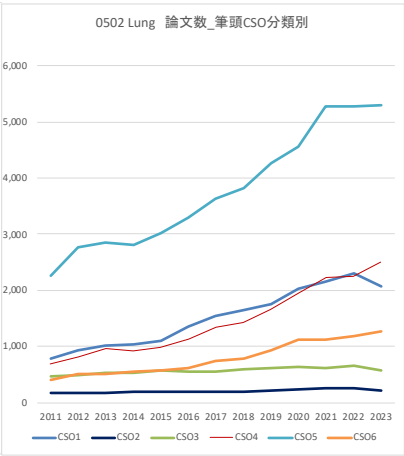
0502 Lung 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,659	1,930	2,162	2,104	2,149	2,275	2,513	2,351	2,612	2,798	2,817	2,874	3,160	1,271	32,675
United Kingdom	208	269	269	261	245	288	314	294	342	347	372	344	340	146	4,039
China	586	800	926	1,297	1,533	1,620	2,166	2,455	2,847	3,618	4,355	4,582	4,263	1,906	32,954
Japan	607	818	631	647	682	798	832	867	934	1,023	1,113	913	911	369	11,145
others	3,286	3,746	4,039	3,736	3,916	4,599	5,024	5,299	5,985	6,317	7,047	7,293	7,258	2,716	70,261
合計	6,346	7,563	8,027	8,045	8,525	9,580	10,849	11,266	12,720	14,103	15,704	16,006	15,932	6,408	151,074

0502 Lung 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	26.1%	25.5%	26.9%	26.2%	25.2%	23.7%	23.2%	20.9%	20.5%	19.8%	17.9%	18.0%	19.8%	19.8%	21.6%
United Kingdom	3.3%	3.6%	3.4%	3.2%	2.9%	3.0%	2.9%	2.6%	2.7%	2.5%	2.4%	2.1%	2.1%	2.3%	2.7%
China	9.2%	10.6%	11.5%	16.1%	18.0%	16.9%	20.0%	21.8%	22.4%	25.7%	27.7%	28.6%	26.8%	29.7%	21.8%
Japan	9.6%	10.8%	7.9%	8.0%	8.0%	8.3%	7.7%	7.7%	7.3%	7.3%	7.1%	5.7%	5.7%	5.8%	7.4%
others	51.8%	49.5%	50.3%	46.4%	45.9%	48.0%	46.3%	47.0%	47.1%	44.8%	44.9%	45.6%	45.6%	42.4%	46.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Lung の CSO 分類別の論文数は、CSO5 Treatment が最も多く経年的な増加も顕著であった。次いで CSO4 Early Detection, Diagnosis and Prognosis、CSO1 Biology の論文数が多いと推計された。



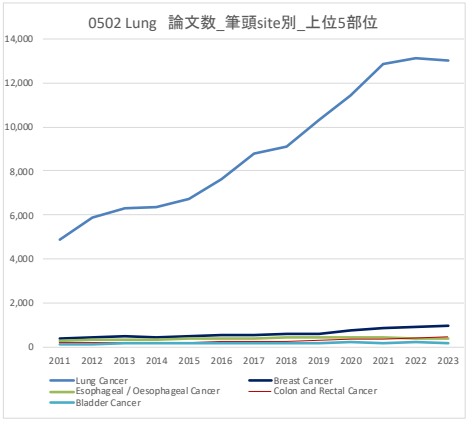




0502 Lung 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	791	939	1,006	1,042	1,101	1,351	1,550	1,638	1,744	2,023	2,147	2,298	2,065	1,043	20,738
2 Etiology	173	173	165	182	187	187	181	201	205	224	260	249	210	82	2,679
3 Prevention	469	485	524	518	571	556	547	600	609	635	623	654	579	208	7,578
4 Early Detection, Diagnosis, and Prognosis	693	821	954	911	972	1,125	1,351	1,433	1,664	1,943	2,218	2,253	2,491	1,064	19,893
5 Treatment	2,258	2,761	2,854	2,797	3,016	3,285	3,625	3,822	4,265	4,548	5,265	5,267	5,306	2,138	51,207
6 Cancer Control, Survivorship, and Outcomes Research	398	497	513	544	562	622	740	789	930	1,120	1,126	1,187	1,263	376	10,667
others	1,564	1,887	2,011	2,051	2,116	2,454	2,855	2,783	3,303	3,610	4,065	4,098	4,018	1,497	38,312
合計	6,346	7,563	8,027	8,045	8,525	9,580	10,849	11,266	12,720	14,103	15,704	16,006	15,932	6,408	151,074

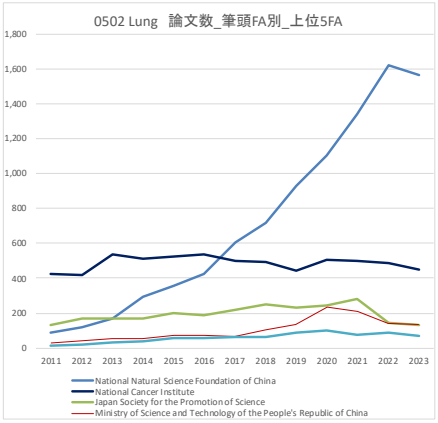
0502 Lung 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12.5%	12.4%	12.5%	13.0%	12.9%	14.1%	14.3%	14.5%	13.7%	14.3%	13.7%	14.4%	13.0%	16.3%	13.7%
2 Etiology	2.7%	2.3%	2.1%	2.3%	2.2%	2.0%	1.7%	1.8%	1.6%	1.6%	1.7%	1.6%	1.3%	1.3%	1.8%
3 Prevention	7.4%	6.4%	6.5%	6.4%	6.7%	5.8%	5.0%	5.3%	4.8%	4.5%	4.0%	4.1%	3.6%	3.2%	5.0%
4 Early Detection, Diagnosis, and Prognosis	10.9%	10.9%	11.9%	11.3%	11.4%	11.7%	12.5%	12.7%	13.1%	13.8%	14.1%	14.1%	15.6%	16.6%	13.2%
5 Treatment	35.6%	36.5%	35.6%	34.8%	35.4%	34.3%	33.4%	33.9%	33.5%	32.2%	33.5%	32.9%	33.3%	33.4%	33.9%
6 Cancer Control, Survivorship, and Outcomes Research	6.3%	6.6%	6.4%	6.8%	6.6%	6.5%	6.8%	7.0%	7.3%	7.9%	7.2%	7.4%	7.9%	5.9%	7.1%
others	24.6%	25.0%	25.1%	25.5%	24.8%	25.6%	26.3%	24.7%	26.0%	25.6%	25.9%	25.6%	25.2%	23.4%	25.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Lung の臓器別の論文数は、肺がんが大半であった。



0502 Lung 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Lung Cancer	4,877	5,900	6,312	6,371	6,748	7,644	8,802	9,128	10,317	11,417	12,853	13,122	12,993	5,273	121,757
Breast Cancer	378	456	521	471	493	548	570	622	612	781	874	932	962	385	8,605
Esophageal / Oesophageal Cancer	317	347	333	346	394	386	396	437	457	437	473	420	427	130	5,300
Colon and Rectal Cancer	203	206	204	191	234	244	263	245	305	376	381	429	465	218	3,964
Bladder Cancer	150	160	180	166	174	203	170	192	197	233	199	233	199	73	2,529
Brain Tumor	62	78	85	76	86	112	131	123	180	162	164	173	206	56	1,694
Liver Cancer	56	67	59	60	66	55	79	77	101	113	108	119	104	46	1,110
Kidney Cancer	31	40	42	38	37	62	62	60	77	79	108	74	75	25	810
Not Site-Specific Cancer	29	36	29	36	24	36	35	40	40	51	57	57	54	25	549
Head and Neck Cancer	33	32	32	39	44	44	38	43	44	44	41	36	37	14	521

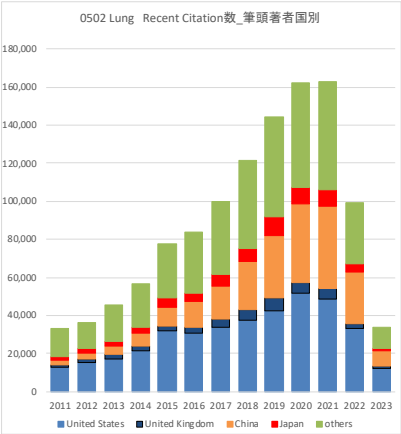
Lung の FA 別の論文数は、中国 NSFC が最も多く経年的な増加も顕著であった。次いで米国 NCI、わが国の JSPS と推計されたが、いずれも経年的には横ばい傾向と推計された。

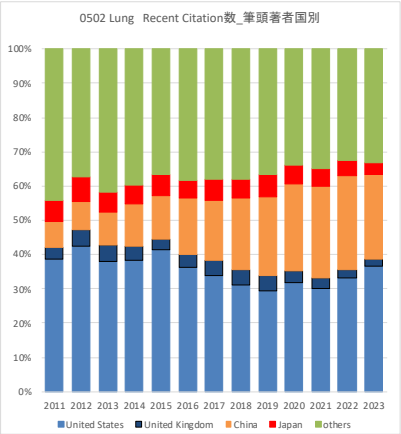


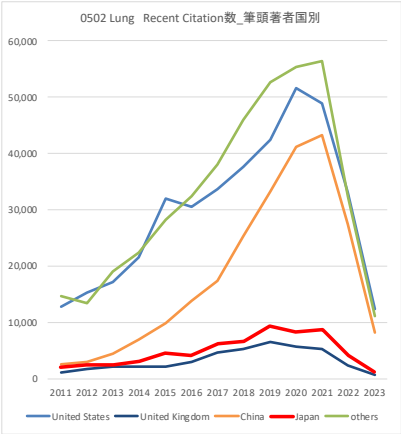
0502 Lung 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	91	121	171	295	355	424	603	719	929	1,100	1,342	1,618	1,564	705	10,037
National Cancer Institute	425	421	538	509	526	535	500	494	445	508	500	486	452	130	6,469
Japan Society for the Promotion of Science	134	171	169	169	199	188	219	251	231	244	280	145	130	46	2,576
Ministry of Science and Technology of the People's Republic of China	28	42	52	52	72	75	69	101	137	232	208	139	132	76	1,415
National Research Foundation of Korea	16	23	33	38	56	56	63	63	87	98	74	88	68	42	805
National Center for Advancing Translational Sciences	38	35	37	56	50	54	59	55	56	63	55	67	44	11	680
National Heart Lung and Blood Institute	50	46	42	55	50	50	38	60	50	36	45	55	41	13	631
European Commission	12	18	19	21	15	28	35	42	62	63	92	71	95	26	599
Cancer Research UK	22	21	27	27	48	39	50	30	37	52	59	40	25	14	491
National Institute of General Medical Sciences	15	16	22	26	23	29	36	37	43	40	35	49	36	18	425

8.2.2. Recent Citation 数

Lung の引用数は経年的に大きく増加傾向が見られた。国別の引用数は、米国、中国、日本の順に多いと推計された。



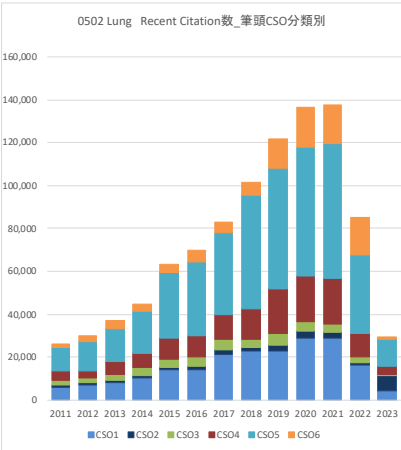


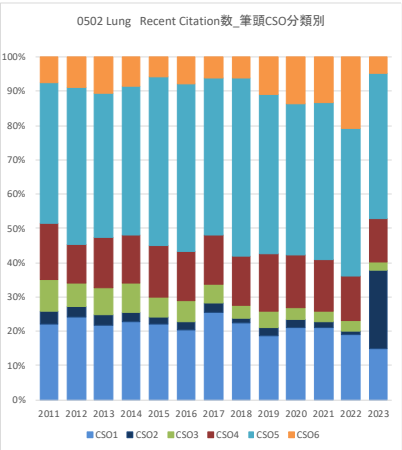


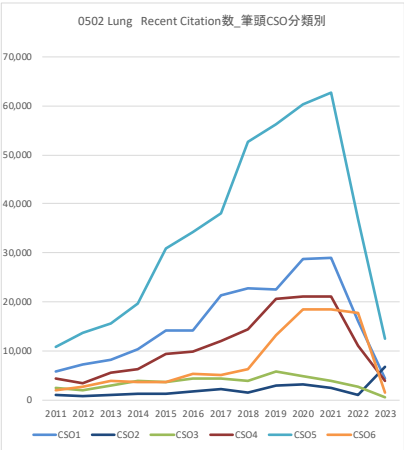
0502 Lung Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	12,889	15,260	17,232	21,704	32,079	30,628	33,695	37,635	42,463	51,703	48,861	33,124	12,451	248	389,972
United Kingdom	1,144	1,750	2,207	2,210	2,306	3,062	4,618	5,407	6,527	5,810	5,279	2,325	755	28	43,428
China	2,545	3,010	4,476	6,979	9,957	13,856	17,364	25,430	33,278	41,266	43,254	27,429	8,330	341	237,515
Japan	2,071	2,611	2,566	3,083	4,703	4,136	6,191	6,639	9,444	8,388	8,741	4,175	1,273	53	64,074
others	14,673	13,451	19,037	22,473	28,311	32,352	38,035	46,102	52,738	55,318	56,515	32,489	11,246	478	423,218
合計	33,322	36,082	45,518	56,449	77,356	84,034	99,903	121,213	144,450	162,485	162,650	99,542	34,055	1,148	1,158,207

0502 Lung Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	38.7%	42.3%	37.9%	38.4%	41.5%	36.4%	33.7%	31.0%	29.4%	31.8%	30.0%	33.3%	36.6%	21.6%	33.7%
United Kingdom	3.4%	4.9%	4.8%	3.9%	3.0%	3.6%	4.6%	4.5%	4.5%	3.6%	3.2%	2.3%	2.2%	2.4%	3.7%
China	7.6%	8.3%	9.8%	12.4%	12.9%	16.5%	17.4%	21.0%	23.0%	25.4%	26.6%	27.6%	24.5%	29.7%	20.5%
Japan	6.2%	7.2%	5.6%	5.5%	6.1%	4.9%	6.2%	5.5%	6.5%	5.2%	5.4%	4.2%	3.7%	4.6%	5.5%
others	44.0%	37.3%	41.8%	39.8%	36.6%	38.5%	38.1%	38.0%	36.5%	34.0%	34.7%	32.6%	33.0%	41.6%	36.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Lung の CSO 分類別の引用数は、CSO5 Treatment が最も多く経年的にも大きく増加傾向が見られた。次いで、CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



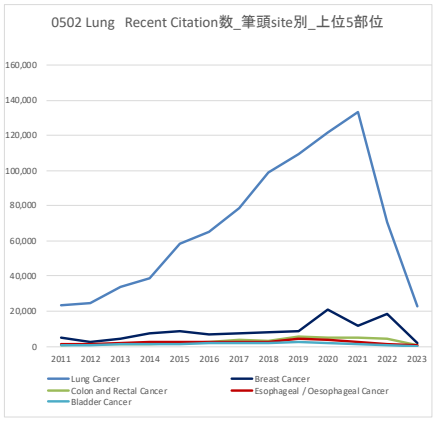




0502 Lung Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5,757	7,203	8,140	10,232	14,058	14,135	21,284	22,753	22,586	28,656	29,015	16,202	4,435	174	204,630
2 Etiology	1,074	893	1,036	1,179	1,257	1,753	2,301	1,538	2,868	3,251	2,497	1,028	6,815	16	27,506
3 Prevention	2,367	2,071	2,978	3,913	3,759	4,380	4,453	3,777	5,811	4,830	3,930	2,603	630	52	45,554
4 Early Detection, Diagnosis, and Prognosis	4,267	3,311	5,492	6,203	9,499	9,905	11,928	14,498	20,715	21,054	21,066	11,013	3,802	177	142,930
5 Treatment	10,769	13,645	15,530	19,618	30,999	34,280	38,149	52,781	56,202	60,251	62,809	36,795	12,551	463	444,842
6 Cancer Control, Survivorship, and Outcomes Research	1,991	2,610	3,986	3,754	3,705	5,370	4,997	6,339	13,313	18,586	18,396	17,721	1,417	69	102,254
others	7,097	6,417	8,387	11,565	14,082	14,253	16,818	19,695	22,972	26,370	25,037	14,257	4,435	197	190,491
合計	33,322	36,082	45,518	56,449	77,356	84,034	99,903	121,213	144,450	162,485	162,650	99,542	34,055	1,148	1,158,207

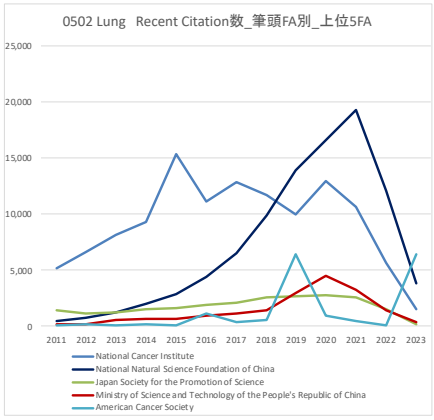
0502 Lung Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	17.3%	20.0%	17.9%	18.1%	18.2%	16.8%	21.3%	18.8%	15.6%	17.6%	17.8%	16.3%	13.0%	15.2%	17.7%
2 Etiology	3.2%	2.5%	2.3%	2.1%	1.6%	2.1%	2.3%	1.3%	2.0%	2.0%	1.5%	1.0%	20.0%	1.4%	2.4%
3 Prevention	7.1%	5.7%	6.5%	6.9%	4.9%	5.2%	4.5%	3.1%	4.0%	3.0%	2.4%	2.6%	1.8%	4.5%	3.9%
4 Early Detection, Diagnosis, and Prognosis	12.8%	9.2%	12.1%	11.0%	12.3%	11.8%	11.9%	12.0%	14.3%	13.0%	13.0%	11.1%	11.2%	15.4%	12.3%
5 Treatment	32.3%	37.8%	34.1%	34.8%	40.1%	40.8%	38.2%	43.5%	38.9%	37.1%	38.6%	37.0%	36.9%	40.3%	38.4%
6 Cancer Control, Survivorship, and Outcomes Research	6.0%	7.2%	8.8%	6.7%	4.8%	6.4%	5.0%	5.2%	9.2%	11.4%	11.3%	17.8%	4.2%	6.0%	8.8%
others	21.3%	17.8%	18.4%	20.5%	18.2%	17.0%	16.8%	16.2%	15.9%	16.2%	15.4%	14.3%	13.0%	17.2%	16.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Lung の臓器別の引用数は、肺がんが大半と推計された。



0502 Lung Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Lung Cancer	23,319	24,632	33,944	38,721	58,210	65,373	78,336	99,117	109,202	121,839	133,467	70,377	22,837	872	880,246
Breast Cancer	4,839	2,662	4,415	7,170	8,685	6,584	7,432	7,894	8,788	20,815	11,987	18,619	1,996	99	111,985
Colon and Rectal Cancer	689	1,308	1,396	1,061	2,107	2,691	3,627	2,944	5,281	5,173	4,862	4,085	971	64	36,259
Esophageal / Oesophageal Cancer	1,268	1,468	1,758	2,495	2,588	2,606	2,293	2,350	4,348	3,802	2,582	1,502	403	30	29,493
Bladder Cancer	956	755	1,141	1,218	1,269	1,814	1,621	1,596	2,441	2,006	1,546	878	229	17	17,487
Brain Tumor	552	448	383	571	1,002	1,035	1,243	2,016	2,362	2,099	2,278	841	303	9	15,142
Cervical Cancer	239	34	15	135	48	203	649	175	5,620	252	247	118	6,449	4	14,188
Kidney Cancer	21	3,148	224	933	202	731	560	601	1,015	1,020	984	285	202	8	9,934
Liver Cancer	183	404	166	238	1,685	784	983	1,126	1,004	819	776	609	143	5	8,925
Not Site-Specific Cancer	236	214	388	359	252	722	411	542	294	937	869	368	97	2	5,691

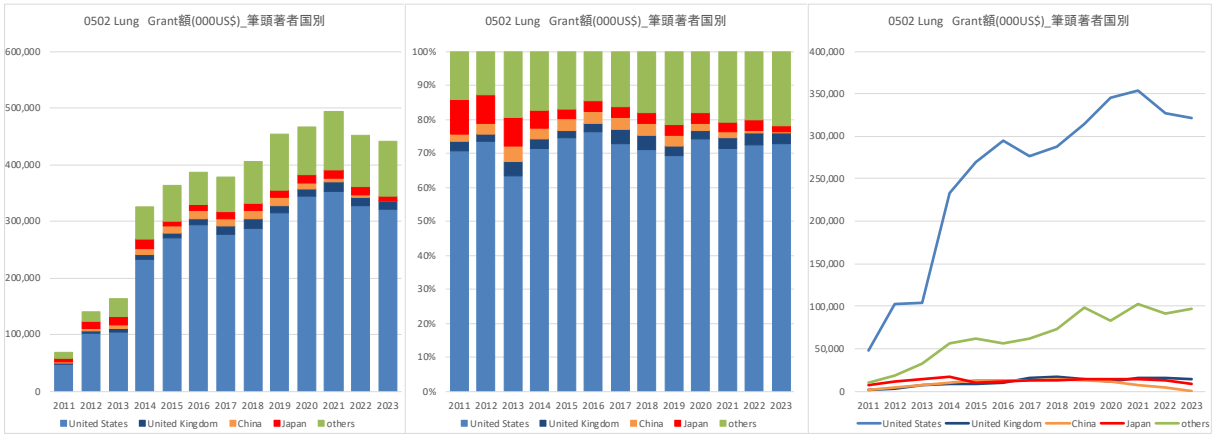
Lung の FA 別の引用数は、米国 NCI が最も多かったが、近年は中国 NSFC が最も多いと推計された。



0502 Lung Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	5,134	6,589	8,135	9,288	15,328	11,144	12,821	11,732	9,935	12,968	10,620	5,665	1,496	49	120,904
National Natural Science Foundation of China	493	728	1,216	2,025	2,894	4,431	6,490	9,871	13,919	16,594	19,286	12,051	3,844	134	93,976
Japan Society for the Promotion of Science	1,441	1,131	1,266	1,525	1,595	1,865	2,058	2,579	2,681	2,807	2,585	1,498	159	12	23,202
Ministry of Science and Technology of the People's Republic of China	211	190	597	634	683	997	1,120	1,433	2,995	4,514	3,222	1,448	349	28	18,421
American Cancer Society	104	221	97	214	104	1,106	335	573	6,404	992	439	125	6,424	3	17,141
National Center for Advancing Translational Sciences	335	1,686	494	642	1,123	1,423	1,306	1,300	1,587	2,911	726	874	105	5	14,517
Cancer Research UK	324	177	568	358	489	639	2,794	727	1,165	1,397	893	351	106	3	9,991
National Heart Lung and Blood Institute	711	747	303	669	594	1,434	761	855	854	621	775	448	111	2	8,885
National Research Foundation of Korea	80	161	259	245	505	565	574	1,063	1,219	1,605	1,109	603	138	8	8,134
Japan Agency for Medical Research and Development	0	13	17	21	113	243	2,027	615	837	2,163	714	258	58	2	7,081

8.2.3. Grant(000US$)額

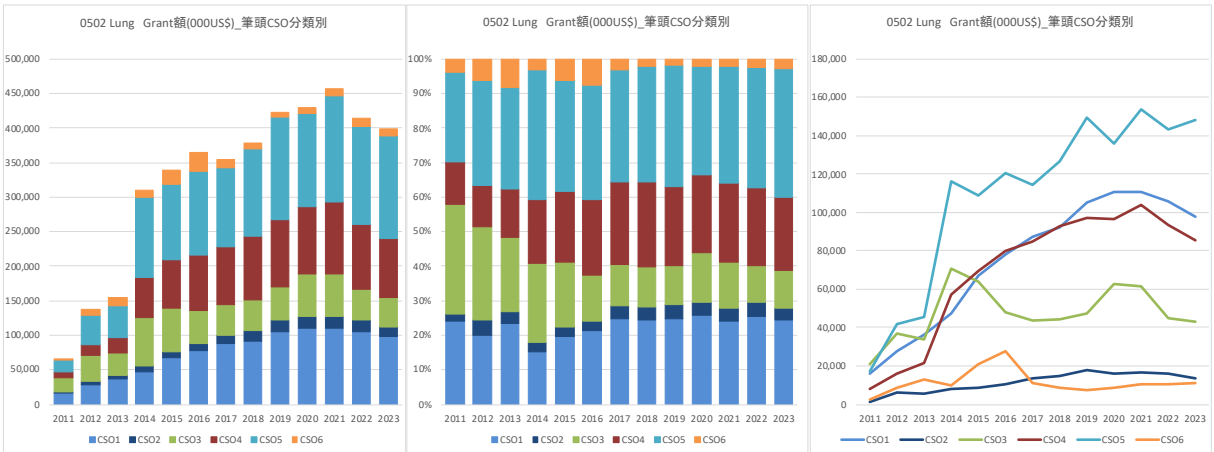
Lung の研究費総額は増加傾向にあるが、近年は横ばい傾向と推計された。国別の研究費配分額は米国が大半を占めていると推計された。



0502 Lung Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	48,342	103,093	103,609	232,505	270,265	294,895	276,138	288,417	314,110	345,095	353,720	327,315	320,826	280,901	3,559,231
United Kingdom	1,868	3,240	6,870	9,204	8,485	10,321	15,312	16,811	13,948	11,475	15,540	15,963	14,670	14,209	157,915
China	1,460	4,123	7,422	9,717	12,338	12,944	13,224	13,871	13,435	11,269	7,453	4,064	519	487	112,326
Japan	6,919	11,880	13,933	16,698	9,759	11,908	12,147	13,396	14,255	14,493	14,227	13,318	8,444	5,816	167,193
others	9,676	18,131	31,800	56,935	62,111	56,760	62,022	72,553	98,414	83,542	103,137	91,877	96,495	62,880	906,332
合計	68,265	140,468	163,633	325,058	362,959	386,827	378,844	405,048	454,162	465,874	494,078	452,536	440,954	364,293	4,902,998

0502 Lung Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	70.8%	73.4%	63.3%	71.5%	74.5%	76.2%	72.9%	71.2%	69.2%	74.1%	71.6%	72.3%	72.8%	77.1%	72.6%
United Kingdom	2.7%	2.3%	4.2%	2.8%	2.3%	2.7%	4.0%	4.2%	3.1%	2.5%	3.1%	3.5%	3.3%	3.9%	3.2%
China	2.1%	2.9%	4.5%	3.0%	3.4%	3.3%	3.5%	3.4%	3.0%	2.4%	1.5%	0.9%	0.1%	0.1%	2.3%
Japan	10.1%	8.5%	8.5%	5.1%	2.7%	3.1%	3.2%	3.3%	3.1%	3.1%	2.9%	2.9%	1.9%	1.6%	3.4%
others	14.2%	12.9%	19.4%	17.5%	17.1%	14.7%	16.4%	17.9%	21.7%	17.9%	20.9%	20.3%	21.9%	17.3%	18.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

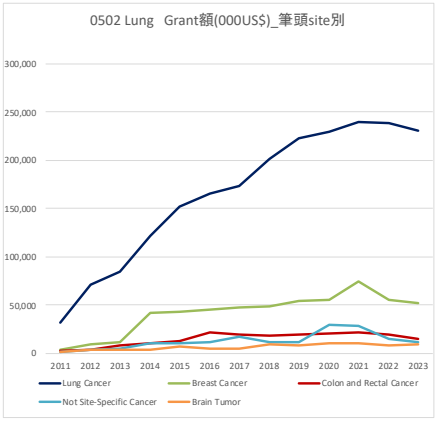
Lung の CSO 分類別の研究費配分は、CSO5 Treatment が最も多く、次いで CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis の順と推計された。



0502 Lung Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	15,878	27,603	36,164	47,288	67,149	77,971	87,313	92,039	105,075	110,676	110,647	105,665	97,883	80,014	1,061,367
2 Etiology	1,533	6,111	5,326	7,753	8,860	10,193	13,319	14,745	17,637	15,930	16,362	16,233	13,443	11,669	159,114
3 Prevention	20,904	37,078	33,661	70,936	63,810	47,898	43,395	44,325	47,186	62,526	61,783	44,717	43,244	40,340	661,803
4 Early Detection, Diagnosis, and Prognosis	8,235	16,160	21,740	57,157	69,598	80,253	84,731	92,638	96,966	96,415	103,846	93,287	85,251	77,080	983,358
5 Treatment	17,188	41,975	45,613	116,082	109,005	120,458	114,512	126,797	149,219	135,754	153,981	143,190	147,954	113,192	1,534,919
6 Cancer Control, Survivorship, and Outcomes Research	2,470	8,355	12,884	10,015	21,066	27,948	11,125	8,504	7,332	8,572	10,427	10,669	11,258	9,276	159,901
others	4,038	10,355	15,467	21,017	40,163	39,806	32,485	35,156	41,900	45,102	47,084	50,326	52,774	41,758	477,431
合計	68,265	140,468	163,633	325,058	362,959	386,827	378,844	405,048	454,162	465,874	494,078	452,536	440,954	364,293	4,902,998

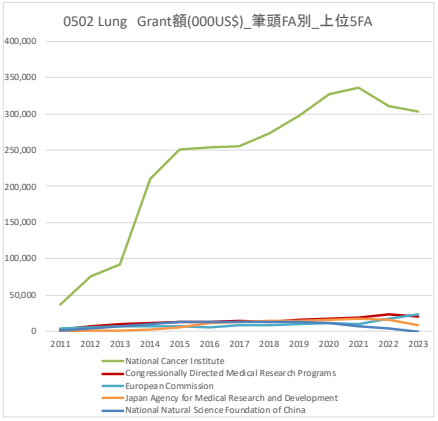
0502 Lung Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	23.3%	19.7%	22.1%	14.5%	18.5%	20.2%	23.0%	22.7%	23.1%	23.8%	22.4%	23.3%	22.2%	22.0%	21.6%
2 Etiology	2.2%	4.4%	3.3%	2.4%	2.4%	2.6%	3.5%	3.6%	3.9%	3.4%	3.3%	3.6%	3.0%	3.2%	3.2%
3 Prevention	30.6%	26.4%	20.6%	21.8%	17.6%	12.4%	11.5%	10.9%	10.4%	13.4%	12.5%	9.9%	9.8%	11.1%	13.5%
4 Early Detection, Diagnosis, and Prognosis	12.1%	11.5%	13.3%	17.6%	19.2%	20.7%	22.4%	22.9%	21.4%	20.7%	21.0%	20.6%	19.3%	21.2%	20.1%
5 Treatment	25.2%	29.9%	27.9%	35.7%	30.0%	31.1%	30.2%	31.3%	32.9%	29.1%	31.2%	31.6%	33.6%	31.1%	31.3%
6 Cancer Control, Survivorship, and Outcomes Research	3.6%	5.9%	7.9%	3.1%	5.8%	7.2%	2.9%	2.1%	1.6%	1.8%	2.1%	2.4%	2.6%	2.5%	3.3%
others	5.9%	7.4%	9.5%	6.5%	11.1%	10.3%	8.6%	8.7%	9.2%	9.7%	9.5%	11.1%	12.0%	11.5%	9.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Lung の臓器別の研究費配分額は、肺がんが大半と推計された。



0502 Lung Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Lung Cancer	32,514	71,332	84,315	121,613	152,627	165,610	173,389	202,206	222,969	229,361	240,303	238,286	230,686	183,134	2,348,346
Breast Cancer	3,833	9,662	11,734	41,954	43,066	45,656	48,207	48,574	54,629	56,161	74,628	56,125	52,258	46,764	593,253
Colon and Rectal Cancer	2,552	3,652	7,857	11,008	12,881	22,023	19,467	18,978	19,364	21,198	22,378	20,164	15,067	10,169	206,760
Not Site-Specific Cancer	1,266	3,496	4,773	10,547	11,031	11,379	17,518	11,948	12,245	29,335	28,918	14,863	11,472	10,648	179,439
Brain Tumor	1,484	3,692	4,058	4,093	7,016	5,501	5,508	9,237	7,943	10,678	10,825	8,361	9,342	6,424	94,162
Leukemia / Leukaemia	77	364	422	174	1,473	2,119	2,166	3,984	4,056	4,115	3,993	3,962	11,641	2,648	41,194
Liver Cancer	170	187	175	17,131	1,021	1,109	1,859	1,698	2,156	1,956	849	670	5,922	5,882	40,786
Bladder Cancer	292	1,222	1,363	1,352	1,028	2,576	2,755	2,615	15,019	2,266	3,001	1,490	1,700	1,793	38,473
Esophageal / Oesophageal Cancer	207	172	218	268	686	1,641	1,621	1,620	3,103	3,348	3,542	4,475	3,949	2,859	27,709
Kidney Cancer	187	56	117	538	654	740	1,744	1,659	1,712	1,937	1,816	1,816	206	174	13,356

Lung の FA 別の研究費配分額は、米国 NCI が最も多いと推計された。



0502 Lung Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	36,238	75,198	92,396	210,382	251,054	254,044	255,335	273,179	297,388	327,570	335,415	310,330	303,017	269,306	3,290,852	United States
Congressionally Directed Medical Research Programs	2,924	6,399	9,119	11,550	12,177	12,167	14,242	13,244	15,387	17,661	19,347	23,306	20,810	16,150	194,486	United States
European Commission	4,097	5,200	6,864	6,993	6,944	5,741	7,761	7,834	10,033	11,125	10,580	17,203	22,596	19,870	142,842	Belgium
Japan Agency for Medical Research and Development	0	399	962	3,005	5,831	10,797	12,562	13,779	14,333	15,224	17,221	15,154	8,220	6,129	123,617	Japan
National Natural Science Foundation of China	1,367	4,102	7,357	9,574	12,198	12,689	13,059	13,427	12,836	10,764	7,245	3,524	0	0	108,139	China
Japan Society for the Promotion of Science	1,868	2,630	3,013	3,347	3,461	3,271	3,890	4,223	4,864	5,238	5,425	5,519	5,120	3,243	55,111	Japan
Canadian Institutes of Health Research	793	1,835	2,530	2,704	2,551	3,372	3,500	3,983	4,244	4,815	5,281	4,901	4,082	2,298	46,891	Canada
European Research Council	1,638	1,638	2,551	2,551	1,956	2,392	2,402	2,942	3,504	2,968	2,912	3,099	3,166	2,602	36,323	Belgium
Wellcome Trust	329	768	1,579	4,479	4,864	4,584	4,312	3,334	2,671	699	1,486	759	649	649	31,160	United Kingdom
Cancer Research UK	0	0	2	2	2	1,358	5,052	5,497	5,495	5,105	3,982	3,694	81	81	30,349	United Kingdom

8.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0502 Lung

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Tumor Treating Fields therapy with standard systemic therapy versus standard systemic therapy alone in metastatic non-small-cell lung cancer following progression on or after platinum-based therapy (LUNAR): a randomised, open-label, pivotal phase 3 study	Leal, Ticiana; Kotecha, Rupesh; Ramlau, Rodryg; Zhang, Li; Milanowski, Janusz; Cobo, Manuel; Roubec, Jaromir; Petruzelka, Lubos; Havel, Libor; Kalmadi, Sujith; Ward, Jeffrey; Andric, Zoran; Berghmans, Thierry; Gerber, David E; Kloecker, Goetz; Panikkar, Rajiv; Aerts, Joachim; Delmonte, Angelo; Pless, Miklos; Greil, Richard; Rolfo, Christian; Akerley, Wallace; Eaton, Michael; Iqbal, Mussawar; Langer, Corey; Investigators, LUNAR Study	The Lancet Oncology	United States	2023	18	Research Article
2	Lung cancer immunotherapy: progress, pitfalls, and promises	Lahiri, Aritraa; Maji, Avik; Potdar, Pravin D.; Singh, Navneet; Parikh, Purvish; Bisht, Bharti; Mukherjee, Anubhab; Paul, Manash K.	Molecular Cancer	India	2023	179	Review Article
3	The role of PET molecular imaging in immune checkpoint inhibitor therapy in lung cancer: Precision medicine and visual monitoring	Yao, Yuan; Zhou, Xin; Zhang, Annan; Ma, Xiaopan; Zhu, Hua; Yang, Zhi; Li, Nan	European Journal of Radiology	China	2022	6	Review Article
4	Tumor treating fields: narrative review of a promising treatment modality for cancer	Kutuk, Tugce; Atak, Ece; La Rosa, Alonso; Kotecha, Rupesh; Mehta, Minesh P; Chuong, Michael D	Chinese Clinical Oncology	United States	2023	0	Review Article
5	A pharmacological exploration of targeted drug therapy in non-small cell lung cancer	Jayan, Ajay P.; Anandu, K. R.; Madhu, Krishnadas; Saiprabha, V. N.	Medical Oncology	India	2022	7	Review Article
6	Tumor-infiltrating lymphocyte therapy for lung cancer and its future paradigms	Nowroozi, Ali; Khalili, Nastaran; Razi, Sepideh; Keshavarz-Fathi, Mahsa; Rezaei, Nima	Expert Opinion on Biological Therapy	Iran	2022	4	Review Article
7	Conversion of primary liver cancer after targeted therapy for liver cancer combined with AFP-targeted CAR T-cell therapy: a case report	Wang, Yun; Zhao, Yan; Li, Miaoling; Hou, Huilian; Jian, Zhijie; Li, Weizhi; Li, Peijie; Ma, Fuquan; Liu, Mengying; Liu, Haibo; Xue, Hui	Frontiers in Immunology	China	2023	3	Research Article
8	Stage III Non-Small-Cell Lung Cancer: An Overview of Treatment Options	Petrella, Francesco; Rizzo, Stefania; Attili, Ilaria; Passaro, Antonio; Zilli, Thomas; Martucci, Francesco; Bonomo, Luca; Del Grande, Filippo; Casiraghi, Monica; De Marinis, Filippo; Spaggiari, Lorenzo	Current Oncology	Switzerland	2023	12	Review Article
9	Pucotenlimab: First Approval	Dhillon, Sohita	Drugs	New Zealand	2022	4	Review Article
10	PEN-coated superparamagnetic iron-mediated delivery of siSnail2 to inhibit metastasis and promote ferroptosis in the treatment of cancer	Hu, Yue; Nie, Qing; Cong, Xianling; Wu, Wen; Wu, Qiong; Liu, Qihui; Li, Yuanyuan; Liu, Haiyan; Ge, Jingyan; Chen, Fangfang	International Journal of Pharmaceutics	China	2023	0	Research Article

＜引用＞

Citation: 0502 Lung

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Cancer statistics, 2022	Siegel, Rebecca L.; Miller, Kimberly D.; Fuchs, Hannah E.; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2022	11915	Research Article
2	Cancer Statistics, 2021	Siegel, Rebecca L.; Miller, Kimberly D.; Fuchs, Hannah E.; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2021	11099	Research Article
3	Cancer statistics, 2020	Siegel, Rebecca L.; Miller, Kimberly D.; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2020	8013	Research Article
4	Cancer statistics, 2023	Siegel, Rebecca L.; Miller, Kimberly D.; Wagle, Nikita Sandeep; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2023	6363	Review Article
5	Cancer statistics, 2019	Siegel, Rebecca L.; Miller, Kimberly D.; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2019	5220	Research Article
6	Global cancer statistics, 2012	Torre, Lindsey A.; Bray, Freddie; Siegel, Rebecca L.; Ferlay, Jacques; Lortet-Tieulent, Joannie; Jemal, Ahmedin	CA A Cancer Journal for Clinicians	United States	2015	2845	Review Article
7	Pembrolizumab versus Chemotherapy for PD-L1-Positive Non-Small-Cell Lung Cancer	Reck, Martin; Rodríguez-Abreu, Delvys; Robinson, Andrew G; Hui, Rina; Csőszi, Tibor; Fülöp, Andrea; Gottfried, Maya; Peled, Nir; Tafreshi, Ali; Cuffe, Sinead; O'Brien, Mary; Rao, Suman; Hotta, Katsuyuki; Leiby, Melanie A; Lubiniecki, Gregory M; Shentu, Yue; Rangwala, Reshma; Brahmer, Julie R	New England Journal of Medicine	Hungary	2016	2402	Research Article
8	Pembrolizumab plus Chemotherapy in Metastatic Non-Small-Cell Lung Cancer	Gandhi, Leena; Rodríguez-Abreu, Delvys; Gadgeel, Shirish; Esteban, Emilio; Felip, Enriqueta; De Angelis, Flávia; Domine, Manuel; Clingan, Philip; Hochmair, Maximilian J; Powell, Steven F; Cheng, Susanna Y-S; Bischoff, Helge G; Peled, Nir; Grossi, Francesco; Jennens, Ross R; Reck, Martin; Hui, Rina; Garon, Edward B; Boyer, Michael; Rubio-Viqueira, Belén; Novello, Silvia; Kurata, Takayasu; Gray, Jhanelle E; Vida, John; Wei, Ziwen; Yang, Jing; Raftopoulos, Harry; Pietanza, M Catherine; Garassino, Marina C	New England Journal of Medicine	Canada	2018	1968	Research Article
9	Nivolumab versus Docetaxel in Advanced Nonsquamous Non-Small-Cell Lung Cancer	Borghaei, Hossein; Paz-Ares, Luis; Horn, Leora; Spigel, David R; Steins, Martin; Ready, Neal E; Chow, Laura Q; Vokes, Everett E; Felip, Enriqueta; Holgado, Esther; Barlesi, Fabrice; Kohlhäufl, Martin; Arrieta, Oscar; Burgio, Marco Angelo; Fayette, Jérôme; Lena, Hervé; Poddubskaya, Elena; Gerber, David E; Gettinger, Scott N; Rudin, Charles M; Rizvi, Naiyer; Crinò, Lucio; Blumenschein, George R; Antonia, Scott J; Dorange, Cécile; Harbison, Christopher T; Graf Finckenstein, Friedrich; Brahmer, Julie R	New England Journal of Medicine	United States	2015	1799	Research Article
10	The biology and management of non-small cell lung cancer	Herbst, Roy S.; Morgensztern, Daniel; Boshoff, Chris	Nature	United States	2018	1775	Review Article

＜研究費＞

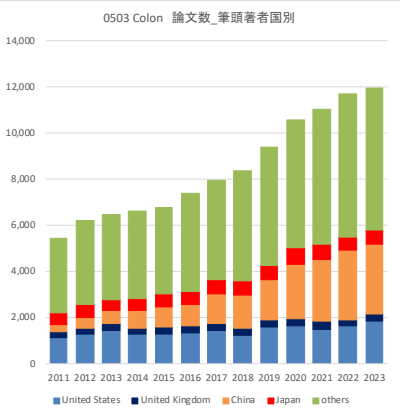
Grant: 0502 Lung

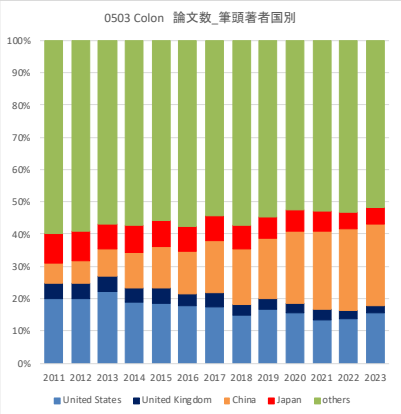
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	NRG Oncology Network Group Operations Center	NORMAN WOLMARK, QUYNH-THU XUAN LE, ROBERT S. MANNEL, WALTER J. CURRAN, PHILIP J. DISAIA	National Cancer Institute	United States	161,632,608	2014	2025
2	ECOG-ACRIN NCORP Research Base	LYNNE I. WAGNER, PETER J ODWYER, MITCHELL D. SCHNALL, RUTH C CARLOS	National Cancer Institute	United States	147,095,616	2014	2025
3	Alliance for Clinical Trials in Oncology Operations Center	STEVEN PIANTADOSI, EVANTHIA GALANIS, OLWEN HAHN, MONICA M BERTAGNOLLI, SUZANNE GEORGE, GINI F. FLEMING, EDITH A. PEREZ	National Cancer Institute	United States	141,848,976	2014	2025
4	ECOG-ACRIN Network Group Operations Center	PETER J ODWYER, MITCHELL D. SCHNALL, ROBERT L COMIS	National Cancer Institute	United States	133,465,944	2014	2025
5	SWOG Network Group Operations Center of the NCTN	CHARLES D. BLANKE, LEE M. ELLIS, ANNE F SCHOTT	National Cancer Institute	United States	113,072,232	2014	2025
6	Alliance NCORP Research Base	ELECTRA D. PASKETT, EVANTHIA GALANIS, OLWEN HAHN, SUZANNE GEORGE, MONICA M BERTAGNOLLI, JAN C BUCKNER	National Cancer Institute	United States	93,940,600	2014	2025
7	Alliance Statistics and Data Management Center	SUMITHRA JAY MANDREKAR, DANIEL J. SARGENT	National Cancer Institute	United States	87,071,040	2014	2025
8	URCC NCORP Research Base	KAREN M. MUSTIAN, GARY R MORROW	National Cancer Institute	United States	49,797,972	2014	2025
9	Wake Forest NCORP Research Base	GLENN J LESSER, KATHRYN ELIZABETH WEAVER, DONALD BAIRD PENZIEN	National Cancer Institute	United States	44,195,148	2014	2025
10	NRG Oncology Biospecimen Bank	JEFF P SIMKO, TANNER J. FREEMAN, NILSA DEL CARMEN RAMIREZ MILAN, RICHARD C JORDAN, PETER C LUCAS, SOONMYUNG PAIK	National Cancer Institute	United States	33,420,520	2015	2026

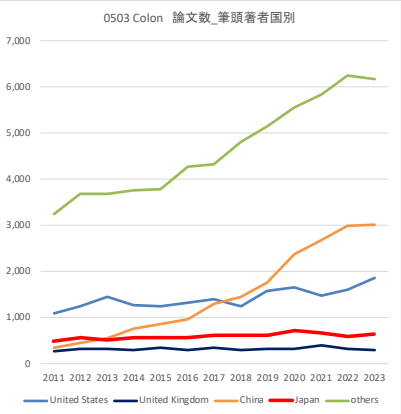
8.3. 0503 Colon

8.3.1. 論文数

Colon の論文数は経年的に増加傾向にあると推計された。国別の論文数では、その他の国を除くと中国、米国、日本の順に多いと推計された。経年的には中国の伸びが顕著であると推計された。



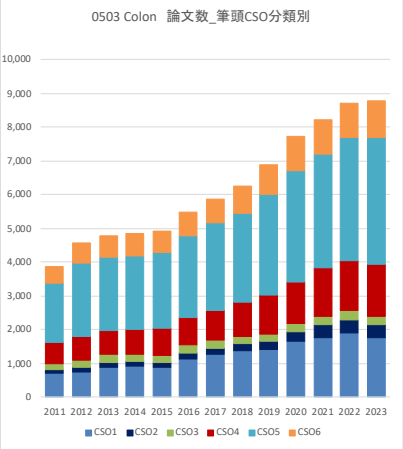


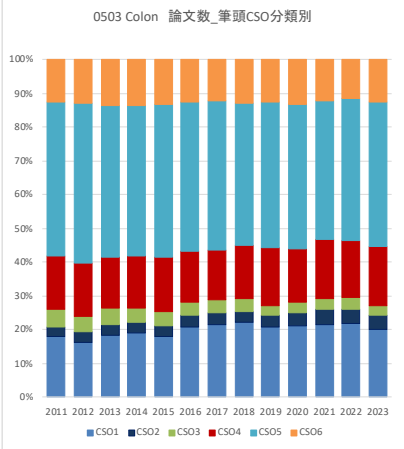


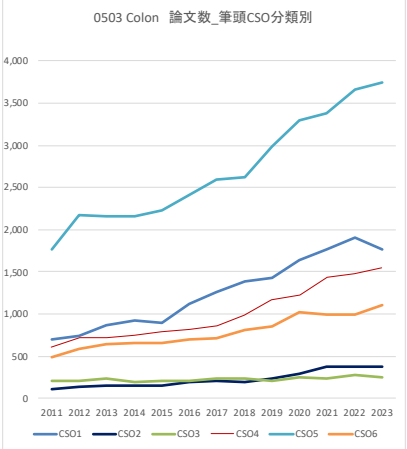
0503 Colon 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,083	1,239	1,427	1,251	1,244	1,320	1,396	1,232	1,579	1,638	1,458	1,599	1,847	821	19,134
United Kingdom	267	298	304	276	327	277	330	280	304	299	377	299	291	103	4,032
China	331	431	540	739	858	960	1,298	1,449	1,746	2,359	2,674	2,986	3,001	1,322	20,694
Japan	488	562	497	552	555	565	608	597	618	701	665	585	638	250	7,881
others	3,248	3,664	3,676	3,758	3,770	4,260	4,311	4,799	5,127	5,540	5,823	6,230	6,158	2,442	62,806
合計	5,417	6,194	6,444	6,576	6,754	7,382	7,943	8,357	9,374	10,537	10,997	11,699	11,935	4,938	114,547

0503 Colon 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	20.0%	20.0%	22.1%	19.0%	18.4%	17.9%	17.6%	14.7%	16.8%	15.5%	13.3%	13.7%	15.5%	16.6%	16.7%
United Kingdom	4.9%	4.8%	4.7%	4.2%	4.8%	3.8%	4.2%	3.4%	3.2%	2.8%	3.4%	2.6%	2.4%	2.1%	3.5%
China	6.1%	7.0%	8.4%	11.2%	12.7%	13.0%	16.3%	17.3%	18.6%	22.4%	24.3%	25.5%	25.1%	26.8%	18.1%
Japan	9.0%	9.1%	7.7%	8.4%	8.2%	7.7%	7.7%	7.1%	6.6%	6.7%	6.0%	5.0%	5.3%	5.1%	6.9%
others	60.0%	59.2%	57.0%	57.1%	55.8%	57.7%	54.3%	57.4%	54.7%	52.6%	53.0%	53.3%	51.6%	49.5%	54.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Colon の CSO 分類別の論文数は、CSO5 Treatment が最も多く、経年的にも増加傾向が見られた。次いで、CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



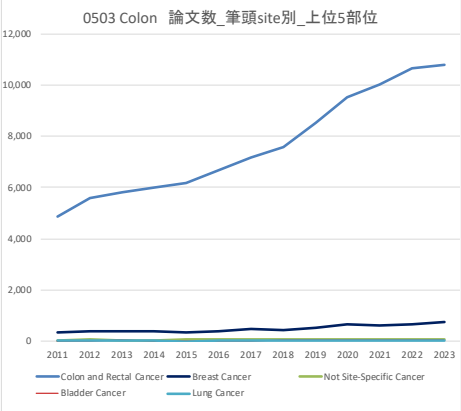




0503 Colon 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	695	749	872	922	890	1,128	1,260	1,382	1,426	1,646	1,773	1,900	1,773	864	17,280
2 Etiology	111	139	157	151	149	197	206	194	239	299	379	379	374	163	3,137
3 Prevention	203	208	235	197	211	213	240	239	203	248	243	281	247	85	3,053
4 Early Detection, Diagnosis, and Prognosis	607	720	724	745	789	824	868	994	1,166	1,221	1,440	1,478	1,547	672	13,795
5 Treatment	1,762	2,169	2,155	2,162	2,235	2,408	2,594	2,620	2,980	3,299	3,377	3,663	3,746	1,573	36,743
6 Cancer Control, Survivorship, and Outcomes Research	486	584	644	657	654	694	714	810	855	1,027	999	993	1,107	429	10,653
others	1,553	1,625	1,657	1,742	1,826	1,918	2,061	2,118	2,505	2,797	2,786	3,005	3,141	1,152	29,886
合計	5,417	6,194	6,444	6,576	6,754	7,382	7,943	8,357	9,374	10,537	10,997	11,699	11,935	4,938	114,547

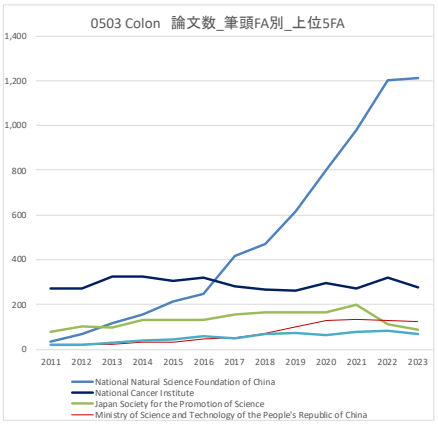
0503 Colon 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12.8%	12.1%	13.5%	14.0%	13.2%	15.3%	15.9%	16.5%	15.2%	15.6%	16.1%	16.2%	14.9%	17.5%	15.1%
2 Etiology	2.0%	2.2%	2.4%	2.3%	2.2%	2.7%	2.6%	2.3%	2.5%	2.8%	3.4%	3.2%	3.1%	3.3%	2.7%
3 Prevention	3.7%	3.4%	3.6%	3.0%	3.1%	2.9%	3.0%	2.9%	2.2%	2.4%	2.2%	2.4%	2.1%	1.7%	2.7%
4 Early Detection, Diagnosis, and Prognosis	11.2%	11.6%	11.2%	11.3%	11.7%	11.2%	10.9%	11.9%	12.4%	11.6%	13.1%	12.6%	13.0%	13.6%	12.0%
5 Treatment	32.5%	35.0%	33.4%	32.9%	33.1%	32.6%	32.7%	31.4%	31.8%	31.3%	30.7%	31.3%	31.4%	31.9%	32.1%
6 Cancer Control, Survivorship, and Outcomes Research	9.0%	9.4%	10.0%	10.0%	9.7%	9.4%	9.0%	9.7%	9.1%	9.7%	9.1%	8.5%	9.3%	8.7%	9.3%
others	28.7%	26.2%	25.7%	26.5%	27.0%	26.0%	25.9%	25.3%	26.7%	26.5%	25.3%	25.7%	26.3%	23.3%	26.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Colon の臓器別の論文数は、大腸がんが大半と推計された。



0503 Colon 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	4,859	5,570	5,795	5,979	6,158	6,692	7,189	7,600	8,535	9,527	10,005	10,655	10,792	4,506	103,862
Breast Cancer	335	395	404	377	364	411	465	446	521	649	609	654	736	281	6,647
Not Site-Specific Cancer	46	52	43	41	51	59	59	68	72	59	72	75	93	27	817
Bladder Cancer	26	15	32	20	19	25	25	31	31	31	34	39	43	21	392
Lung Cancer	15	20	32	18	11	27	20	26	22	29	45	32	31	15	343
Brain Tumor	19	21	24	27	21	16	20	27	20	34	32	36	31	12	340
Cervical Cancer	11	12	10	20	14	21	26	21	28	32	26	26	32	9	288
Anal Cancer	18	15	17	24	22	28	29	18	19	27	14	20	19	11	281
Liver Cancer	6	6	5	7	8	7	10	9	8	14	13	11	18	3	125
Melanoma	4	6	11	2	6	5	15	9	10	10	14	9	6	5	112

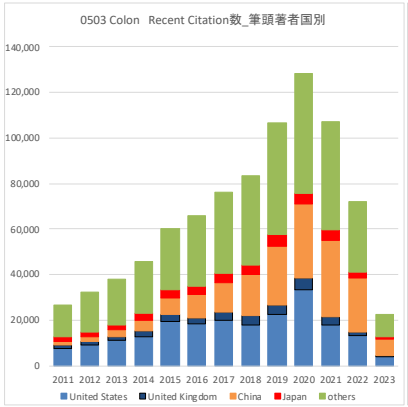
Colon の FA 別の論文数は、中国 NSFC が最も多く経年的にも顕著な増加が見られた。次いで米国 NCI と推計されたが、経年的には横ばい傾向であった。

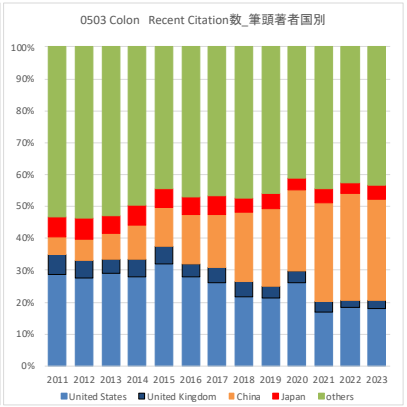


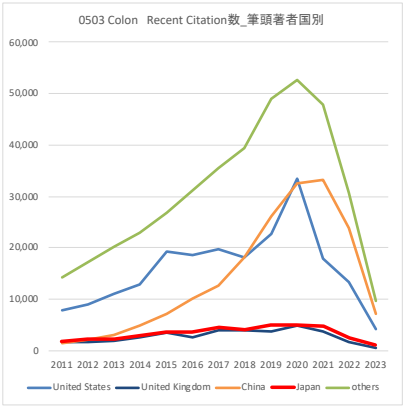
0503 Colon 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	36	67	116	154	213	249	415	470	615	800	978	1,200	1,213	489	7,015
National Cancer Institute	272	272	324	323	308	321	284	267	260	298	273	319	277	101	3,899
Japan Society for the Promotion of Science	80	104	96	132	131	130	155	166	164	165	199	112	88	28	1,750
Ministry of Science and Technology of the People's Republic of China	21	21	23	32	34	46	51	72	102	130	132	127	123	63	977
National Research Foundation of Korea	20	21	28	39	45	60	50	70	74	62	76	84	67	17	713
European Commission	10	18	20	26	40	48	39	44	52	70	79	90	95	32	663
National Institute of Diabetes and Digestive and Kidney Diseases	27	36	43	36	29	38	35	31	19	30	32	32	37	7	432
Cancer Research UK	27	21	23	25	38	32	29	33	29	34	47	34	23	9	404
National Center for Advancing Translational Sciences	16	18	32	34	30	32	34	27	33	33	29	23	15	5	361
Deutsche Forschungsgemeinschaft	22	16	20	17	17	17	29	32	26	30	47	41	23	10	347

8.3.2. Recent Citation 数

Colon の引用数は経年的に大きく増加傾向が見られた。国別の引用数は、その他の国を除くと、米国、中国の順と推計された。近年は中国の引用数が米国を上回っていると推計された。



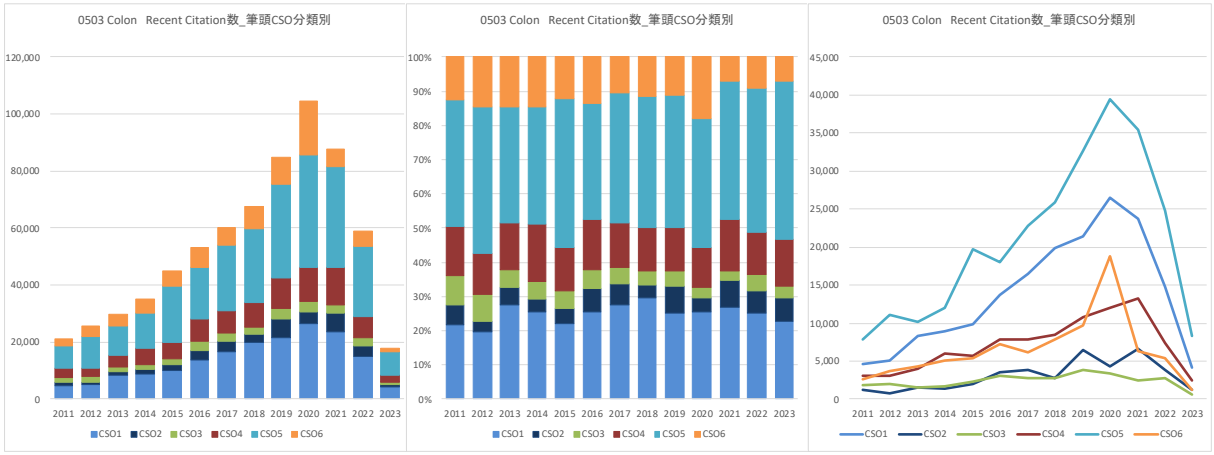


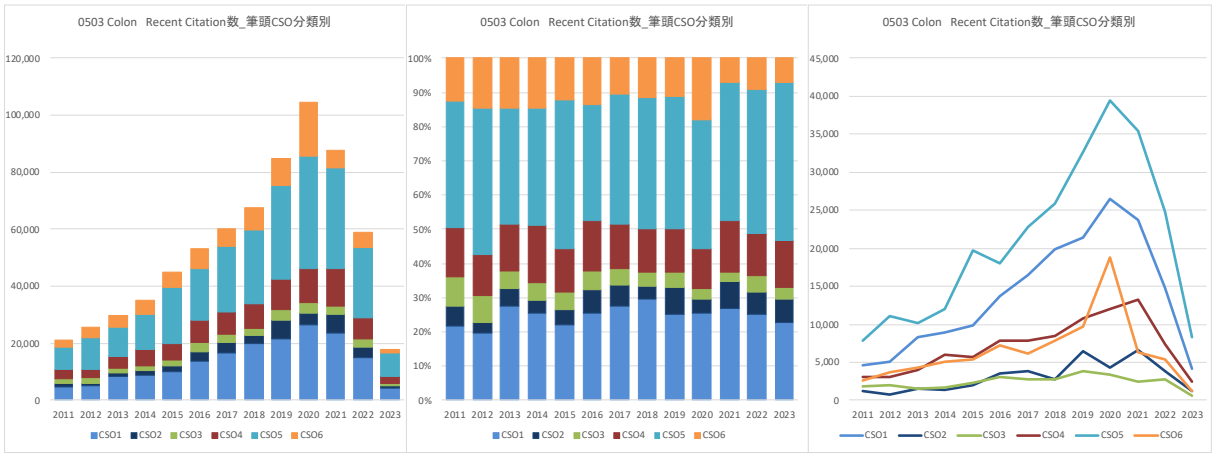


0503 Colon Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	7,707	8,956	11,062	12,852	19,246	18,494	19,773	18,089	22,751	33,554	17,971	13,277	4,078	441	208,251
United Kingdom	1,684	1,745	1,757	2,477	3,500	2,528	3,835	3,931	3,797	4,887	3,637	1,635	570	23	36,006
China	1,511	2,115	3,073	4,911	7,190	10,207	12,707	18,097	26,101	32,469	33,303	23,924	7,130	279	183,017
Japan	1,716	2,177	2,143	2,830	3,513	3,653	4,438	3,957	5,055	4,890	4,717	2,448	1,044	23	42,604
others	14,328	17,300	20,183	22,830	26,906	31,150	35,513	39,461	48,920	52,736	47,770	30,618	9,735	304	397,754
合計	26,946	32,293	38,218	45,900	60,355	66,032	76,266	83,535	106,624	128,536	107,398	71,902	22,557	1,070	867,632

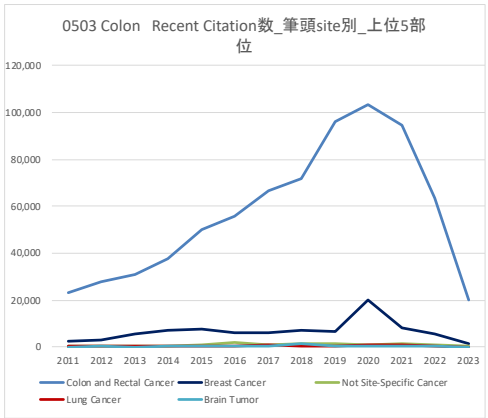
0503 Colon Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	28.6%	27.7%	28.9%	28.0%	31.9%	28.0%	25.9%	21.7%	21.3%	26.1%	16.7%	18.5%	18.1%	41.2%	24.0%
United Kingdom	6.2%	5.4%	4.6%	5.4%	5.8%	3.8%	5.0%	4.7%	3.6%	3.8%	3.4%	2.3%	2.5%	2.1%	4.1%
China	5.6%	6.5%	8.0%	10.7%	11.9%	15.5%	16.7%	21.7%	24.5%	25.3%	31.0%	33.3%	31.6%	26.1%	21.1%
Japan	6.4%	6.7%	5.6%	6.2%	5.8%	5.5%	5.8%	4.7%	4.7%	3.8%	4.4%	3.4%	4.6%	2.1%	4.9%
others	53.2%	53.6%	52.8%	49.7%	44.6%	47.2%	46.6%	47.2%	45.9%	41.0%	44.5%	42.6%	43.2%	28.4%	45.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Colon の CSO 分類別の引用数は、CSO5 Treatment が最も多く、次いで CSO1 Biology が多いと推計された。



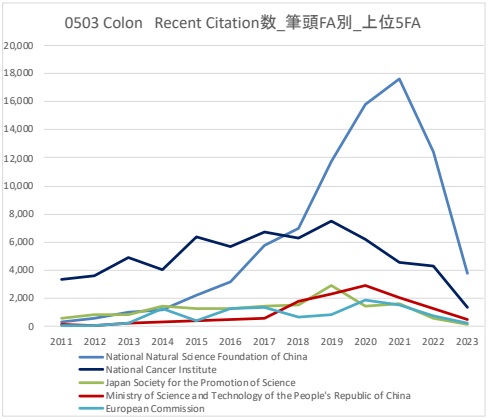


Colon の臓器別の引用数は、大腸がんが大半を占めていた。



0503 Colon Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	23,262	27,988	31,112	37,620	50,340	55,936	66,634	71,589	96,029	103,642	94,711	63,393	20,263	691	743,210
Breast Cancer	2,583	2,725	5,495	7,091	7,822	6,145	5,832	6,852	6,786	20,208	8,214	5,747	1,578	63	87,141
Not Site-Specific Cancer	223	437	318	207	1,007	1,674	757	1,450	1,182	936	1,341	703	221	1	10,457
Lung Cancer	245	131	290	125	169	314	693	263	350	725	902	170	74	2	4,453
Brain Tumor	102	160	70	128	219	171	309	1,257	495	308	360	255	93	3	3,930
Bladder Cancer	127	167	109	50	62	390	134	274	472	213	68	102	28	2	2,198
Cervical Cancer	22	12	45	89	76	88	518	147	202	130	205	156	34	295	2,019
Melanoma	43	15	209	9	75	91	461	96	177	226	85	108	7	0	1,602
Anal Cancer	40	57	69	53	93	176	118	48	70	133	60	30	6	0	953
Liver Cancer	47	8	23	59	60	100	124	87	19	147	110	58	31	1	874

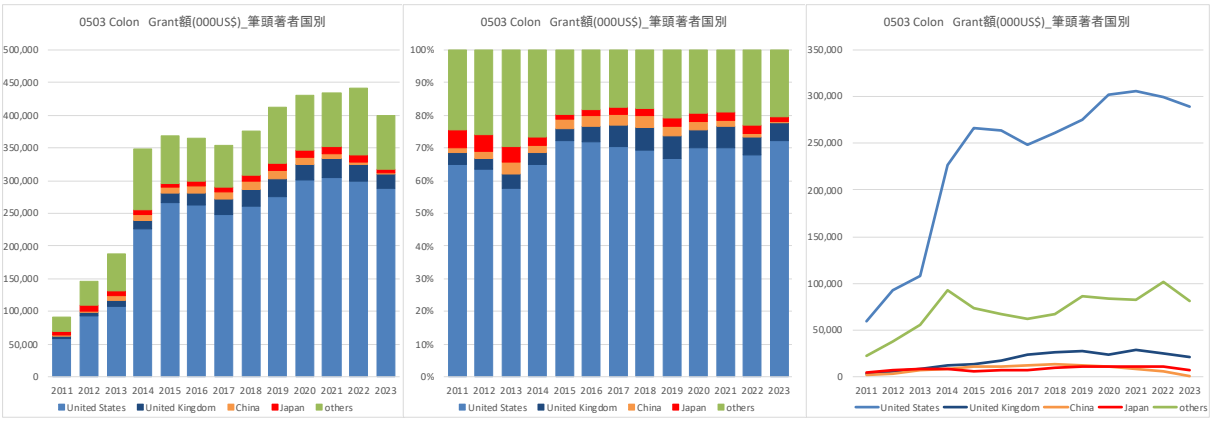
Colon の FA 別の引用数は、中国 NSFC が最も多く経年的にも顕著な増加が見られた。次いで米国 NCI と推計されたが、経年的には横ばいあるいは減少傾向と推計された。



0503 Colon Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	316	630	1,006	1,186	2,265	3,152	5,748	7,006	11,693	15,824	17,580	12,383	3,778	115	82,682
National Cancer Institute	3,330	3,596	4,922	4,040	6,373	5,733	6,722	6,332	7,521	6,233	4,585	4,312	1,344	36	65,079
Japan Society for the Promotion of Science	620	820	856	1,501	1,266	1,266	1,469	1,572	2,928	1,490	1,675	627	187	3	16,280
Ministry of Science and Technology of the People's Republic of China	176	122	293	350	384	479	600	1,822	2,337	2,950	2,106	1,325	550	20	13,514
European Commission	58	119	230	1,260	444	1,321	1,355	727	898	1,889	1,566	764	294	2	10,927
National Center for Advancing Translational Sciences	337	145	426	334	778	1,970	1,685	851	862	1,461	353	976	43	1	10,222
Cancer Research UK	343	262	936	388	725	765	367	467	583	1,614	859	324	56	3	7,692
National Research Foundation of Korea	131	217	147	339	388	554	548	1,207	905	1,187	815	735	159	4	7,336
National Institute of Diabetes and Digestive and Kidney Diseases	259	515	554	362	794	936	837	707	362	663	505	458	95	0	7,047
Department of Health and Social Care	99	360	553	201	233	1,135	319	533	568	1,415	428	121	33	0	5,998

8.3.3. Grant(000US$)額

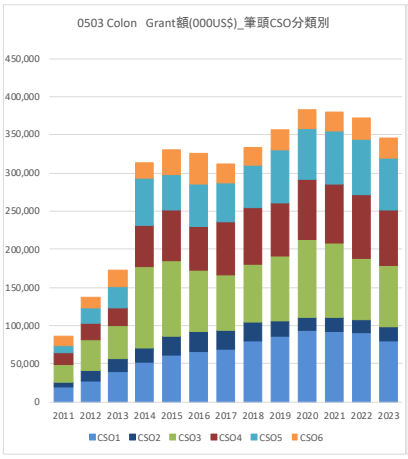
Colon の研究費総額は、2014 年以前は増加傾向にあったが、2014 年以降は微増あるいは横ばい傾向と推計された。国別の研究費配分額は、米国が最も多く経年的にも増加傾向が見られた。

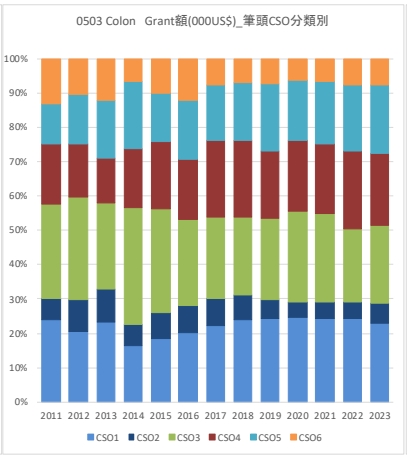


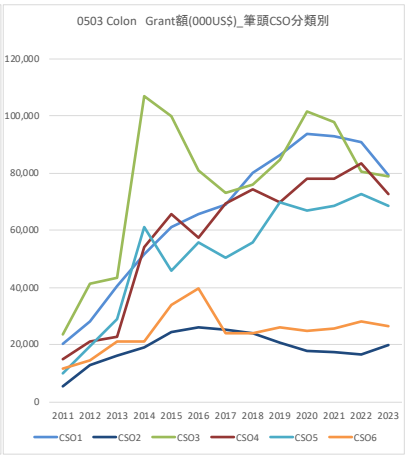
0503 Colon Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	59,203	92,784	108,306	226,799	266,702	263,136	248,171	260,623	275,511	301,607	305,545	299,530	289,124	264,719	3,261,762
United Kingdom	3,389	5,237	8,432	12,356	13,495	17,375	23,959	25,515	27,995	23,682	28,071	24,454	21,514	17,184	252,657
China	1,260	3,161	6,508	8,352	10,668	11,295	11,532	13,073	12,594	11,087	8,138	5,096	1,023	695	104,481
Japan	4,912	7,375	8,828	8,587	5,075	6,910	7,357	9,186	10,403	10,855	10,976	10,598	6,689	3,734	111,485
others	22,238	37,831	55,816	92,985	73,330	66,716	62,156	66,752	86,054	83,839	82,428	101,820	81,011	67,799	980,777
合計	91,003	146,388	187,890	349,079	369,270	365,433	353,175	375,150	412,557	431,070	435,158	441,497	399,361	354,130	4,711,161

0503 Colon Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	65.1%	63.4%	57.6%	65.0%	72.2%	72.0%	70.3%	69.5%	66.8%	70.0%	70.2%	67.8%	72.4%	74.8%	69.2%
United Kingdom	3.7%	3.6%	4.5%	3.5%	3.7%	4.8%	6.8%	6.8%	6.8%	5.5%	6.5%	5.5%	5.4%	4.9%	5.4%
China	1.4%	2.2%	3.5%	2.4%	2.9%	3.1%	3.3%	3.5%	3.1%	2.6%	1.9%	1.2%	0.3%	0.2%	2.2%
Japan	5.4%	5.0%	4.7%	2.5%	1.4%	1.9%	2.1%	2.4%	2.5%	2.5%	2.5%	2.4%	1.7%	1.1%	2.4%
others	24.4%	25.8%	29.7%	26.6%	19.9%	18.3%	17.6%	17.8%	20.9%	19.4%	18.9%	23.1%	20.3%	19.1%	20.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Colon の CSO 分類別の研究費配分額は、CSO3 Prevention、CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis の順に多いと推計された。



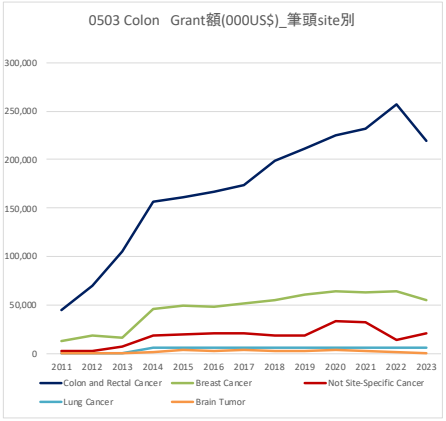




0503 Colon Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	20,459	28,128	40,452	51,542	61,032	65,669	68,972	79,855	86,423	93,671	92,989	90,947	79,391	66,415	925,945
2 Etiology	5,535	12,683	16,141	19,137	24,628	25,969	25,272	24,140	20,538	17,635	17,481	16,782	19,862	14,554	260,356
3 Prevention	23,557	41,458	43,298	106,664	99,968	80,854	73,027	75,726	84,472	101,527	97,707	80,418	78,936	77,196	1,064,810
4 Early Detection, Diagnosis, and Prognosis	14,992	21,315	22,808	54,162	65,637	57,197	69,498	74,097	69,564	78,162	78,040	83,346	72,725	65,221	826,763
5 Treatment	9,873	19,624	28,784	61,121	45,819	55,688	50,531	55,915	69,883	66,707	68,324	72,458	68,473	55,997	729,195
6 Cancer Control, Survivorship, and Outcomes Research	11,495	14,378	21,234	20,934	33,722	39,725	23,989	23,915	26,165	24,779	25,848	28,234	26,540	23,180	344,137
others	16,436	22,478	29,673	45,501	60,121	60,027	49,043	51,827	65,381	59,864	65,931	82,009	64,886	62,355	735,533
合計	91,003	146,388	187,890	349,079	369,270	365,433	353,175	375,150	412,557	431,070	435,158	441,497	399,361	354,130	4,711,161

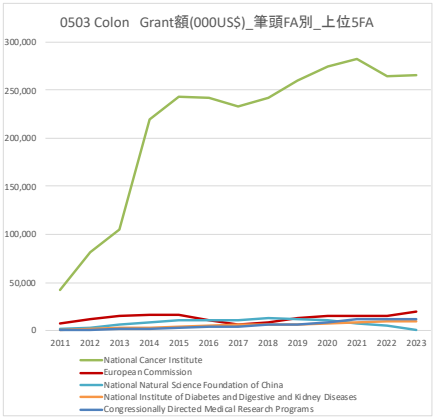
0503 Colon Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	22.5%	19.2%	21.5%	14.8%	16.5%	18.0%	19.5%	21.3%	20.9%	21.7%	21.4%	20.6%	19.9%	18.8%	19.7%
2 Etiology	6.1%	8.7%	8.6%	5.5%	6.7%	7.1%	7.2%	6.4%	5.0%	4.1%	4.0%	3.8%	5.0%	4.1%	5.5%
3 Prevention	25.9%	28.3%	23.0%	30.6%	27.1%	22.1%	20.7%	20.2%	20.5%	23.6%	22.5%	18.2%	19.8%	21.8%	22.6%
4 Early Detection, Diagnosis, and Prognosis	16.5%	14.6%	12.1%	15.5%	17.8%	15.7%	19.7%	19.8%	16.9%	18.1%	17.9%	18.9%	18.2%	18.4%	17.5%
5 Treatment	10.8%	13.4%	15.3%	17.5%	12.4%	15.2%	14.3%	14.9%	16.9%	15.5%	15.7%	16.4%	17.1%	15.8%	15.5%
6 Cancer Control, Survivorship, and Outcomes Research	12.6%	9.8%	11.3%	6.0%	9.1%	10.9%	6.8%	6.4%	6.3%	5.7%	5.9%	6.4%	6.6%	6.5%	7.3%
others	18.1%	15.4%	15.8%	13.0%	16.3%	16.4%	13.9%	13.8%	15.8%	13.9%	15.2%	18.6%	16.2%	17.6%	15.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Colon の臓器別の研究費配分額は、大腸がんが大半を占めていた。



0503 Colon Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	44,770	70,164	105,140	157,184	160,869	166,743	173,841	198,697	211,626	224,684	232,307	257,270	218,849	184,811	2,406,955
Breast Cancer	12,578	18,719	15,952	45,800	49,814	47,835	52,092	54,903	61,030	64,055	62,944	64,342	54,713	47,120	651,897
Not Site-Specific Cancer	2,340	2,443	7,736	18,244	19,596	20,585	20,978	18,694	19,169	33,605	32,753	14,608	21,024	19,925	251,700
Lung Cancer	397	397	492	5,896	6,390	6,344	6,099	5,931	5,905	5,835	5,859	6,038	6,133	6,175	67,893
Brain Tumor	26	206	864	1,231	3,253	3,044	3,573	3,241	2,922	3,293	3,087	1,326	589	561	27,215
Cervical Cancer	166	267	267	2,513	1,014	889	842	980	980	995	1,347	1,417	1,473	1,473	14,622
Melanoma	133	133	686	686	686	1,076	803	828	91	50	25	692	902	902	7,693
Bladder Cancer	91	1,541	530	530	466	499	557	667	614	110	110	84	112	112	6,023
Ovarian Cancer	0	0	0	0	51	59	86	35	367	380	354	215	202	202	1,952
Anal Cancer	0	0	0	49	0	70	123	289	543	173	173	122	129	124	1,795

Colon の FA 別の研究費配分額は、米国 NCI が最も多いと推計された。



0503 Colon Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	42,019	80,931	104,658	219,810	243,069	242,311	232,738	242,195	260,050	274,206	282,389	264,984	265,182	239,633	2,994,177	United States
European Commission	7,617	11,373	14,904	16,263	16,146	11,011	5,864	8,894	12,963	15,590	14,678	14,948	19,497	16,053	185,802	Belgium
National Natural Science Foundation of China	1,260	3,173	6,343	8,142	10,518	11,066	11,170	12,610	12,019	10,592	7,714	4,608	259	0	99,475	China
National Institute of Diabetes and Digestive and Kidney Diseases	113	1,800	2,501	3,276	4,361	5,359	6,391	6,601	6,202	7,910	7,997	9,879	9,631	9,428	81,450	United States
Congressionally Directed Medical Research Programs	451	961	1,744	1,841	3,167	4,112	4,406	6,010	5,769	8,102	11,473	11,545	11,458	10,150	81,190	United States
European Research Council	1,559	2,916	3,016	4,200	4,805	5,841	4,515	4,733	4,730	5,018	5,088	5,406	5,861	6,323	64,010	Belgium
Medical Research Council	2,585	3,157	3,145	3,609	4,452	5,543	5,849	6,257	7,121	4,538	5,571	3,525	4,037	3,254	62,643	United Kingdom
Japan Agency for Medical Research and Development	0	0	288	753	2,043	5,297	6,043	7,347	7,506	8,741	8,211	7,499	3,416	1,088	58,232	Japan
Japan Society for the Promotion of Science	1,367	2,472	3,151	3,031	3,246	2,980	3,552	3,652	4,334	4,705	5,184	5,541	4,916	3,289	51,420	Japan
Canadian Institutes of Health Research	906	1,623	2,565	2,988	3,038	3,066	3,384	3,782	4,531	4,659	5,086	4,315	3,679	2,953	46,574	Canada

8.3.4. 主要論文、引用、研究費

＜論文＞

Publication: 0503 Colon

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Pucotenlimab: First Approval	Dhillon, Sohita	Drugs	New Zealand	2022	4	Review Article
2	Case report: hepatic arterial infusion chemotherapy combined with sintilimab and lenvatinib for conversion therapy of colorectal cancer liver metastases	Peng, Kai; Li, Yuhua; Su, Hao; Lan, Chenlu; Huang, Zaida; Wei, Yongguang; Liao, Xiwen; Peng, Minhao; Peng, Tao; Zhu, Guangzhi	Frontiers in Immunology	China	2023	0	Research Article
3	Immunogenic Cell Death: An Emerging Target in Gastrointestinal Cancers	Chiaravalli, Marta; Spring, Alexia; Agostini, Antonio; Piro, Geny; Carbone, Carmine; Tortora, Giampaolo	Cells	Italy	2022	22	Review Article
4	Current status of locally advanced rectal cancer therapy and future prospects	Koukourakis, Ioannis M; Kouloulias, Vassilis; Tiniakos, Dina; Georgakopoulos, Ioannis; Zygogianni, Anna	Critical Reviews in Oncology/Hematology	Greece	2023	2	Review Article
5	Treatment Patterns of Real-World Patients with TRK Fusion Cancer Treated by US Community Oncologists	Klink, Andrew J; Kavati, Abhishek; Gassama, Awa; Kozlek, Tom; Gajra, Ajeet; Antoine, Ruth	Targeted Oncology	United States	2022	3	Research Article
6	Clinical impact of panel gene sequencing on therapy of advanced cancers of the digestive system: a retrospective, single center study	Dreikhausen, Lena; Klupsch, Anna; Wiest, Isabella; Xiao, Qiyun; Schulte, Nadine; Betge, Johannes; Boch, Tobias; Brochhausen, Christoph; Gaiser, Timo; Hofheinz, Ralf-Dieter; Ebert, Matthias; Zhan, Tianzuo	BMC Cancer	Germany	2024	0	Research Article
7	Immunotherapy-based novel nanoparticles in the treatment of gastrointestinal cancer: Trends and challenges	Ding, Yi-Nan; Xue, Ming; Tang, Qiu-Sha; Wang, Li-Jun; Ding, Hui-Yan; Li, Han; Gao, Cheng-Cheng; Yu, Wei-Ping	World Journal of Gastroenterology	China	2022	5	Review Article
8	Enhanced antitumour response of gold nanostar–mediated photothermal therapy in combination with immunotherapy in a mouse model of colon carcinoma	Hsieh, Hsin-Hua; Chen, Chuan-Lin; Chan, Hui-Wen; Chi, Kwan-Hwa; Wu, Chun-Yi	British Journal of Cancer	Taiwan	2023	0	Research Article
9	Research progress of potential factors influencing photodynamic therapy for gastrointestinal cancer	He, Puyi; Zhang, Fan; Xu, Bo; Wang, Yunpeng; Pu, Weigao; Wang, Haiyun; Wang, Bofang; Zhang, Jing; Chen, Hao; Li, Yumin	Photodiagnosis and Photodynamic Therapy	China	2023	2	Review Article
10	Portal vein tumor thrombosis in hepatocellular carcinoma: molecular mechanism and therapy	Zhou, Xing-Hao; Li, Jing-Ru; Zheng, Tang-Hui; Chen, Hong; Cai, Chen; Ye, Sheng-Long; Gao, Bo; Xue, Tong-Chun	Clinical & Experimental Metastasis	China	2022	8	Review Article

＜引用＞

Publication: 0503 Colon

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Pucotenlimab: First Approval	Dhillon, Sohita	Drugs	New Zealand	2022	4	Review Article
2	Case report: hepatic arterial infusion chemotherapy combined with sintilimab and lenvatinib for conversion therapy of colorectal cancer liver metastases	Peng, Kai; Li, Yuhua; Su, Hao; Lan, Chenlu; Huang, Zaida; Wei, Yongguang; Liao, Xiwen; Peng, Minhao; Peng, Tao; Zhu, Guangzhi	Frontiers in Immunology	China	2023	0	Research Article
3	Immunogenic Cell Death: An Emerging Target in Gastrointestinal Cancers	Chiaravalli, Marta; Spring, Alexia; Agostini, Antonio; Piro, Geny; Carbone, Carmine; Tortora, Giampaolo	Cells	Italy	2022	22	Review Article
4	Current status of locally advanced rectal cancer therapy and future prospects	Koukourakis, Ioannis M; Kouloulias, Vassilis; Tiniakos, Dina; Georgakopoulos, Ioannis; Zygogianni, Anna	Critical Reviews in Oncology/Hematology	Greece	2023	2	Review Article
5	Treatment Patterns of Real-World Patients with TRK Fusion Cancer Treated by US Community Oncologists	Klink, Andrew J; Kavati, Abhishek; Gassama, Awa; Kozlek, Tom; Gajra, Ajeet; Antoine, Ruth	Targeted Oncology	United States	2022	3	Research Article
6	Clinical impact of panel gene sequencing on therapy of advanced cancers of the digestive system: a retrospective, single center study	Dreikhausen, Lena; Klupsch, Anna; Wiest, Isabella; Xiao, Qiyun; Schulte, Nadine; Betge, Johannes; Boch, Tobias; Brochhausen, Christoph; Gaiser, Timo; Hofheinz, Ralf-Dieter; Ebert, Matthias; Zhan, Tianzuo	BMC Cancer	Germany	2024	0	Research Article
7	Immunotherapy-based novel nanoparticles in the treatment of gastrointestinal cancer: Trends and challenges	Ding, Yi-Nan; Xue, Ming; Tang, Qiu-Sha; Wang, Li-Jun; Ding, Hui-Yan; Li, Han; Gao, Cheng-Cheng; Yu, Wei-Ping	World Journal of Gastroenterology	China	2022	5	Review Article
8	Enhanced antitumour response of gold nanostar–mediated photothermal therapy in combination with immunotherapy in a mouse model of colon carcinoma	Hsieh, Hsin-Hua; Chen, Chuan-Lin; Chan, Hui-Wen; Chi, Kwan-Hwa; Wu, Chun-Yi	British Journal of Cancer	Taiwan	2023	0	Research Article
9	Research progress of potential factors influencing photodynamic therapy for gastrointestinal cancer	He, Puyi; Zhang, Fan; Xu, Bo; Wang, Yunpeng; Pu, Weigao; Wang, Haiyun; Wang, Bofang; Zhang, Jing; Chen, Hao; Li, Yumin	Photodiagnosis and Photodynamic Therapy	China	2023	2	Review Article
10	Portal vein tumor thrombosis in hepatocellular carcinoma: molecular mechanism and therapy	Zhou, Xing-Hao; Li, Jing-Ru; Zheng, Tang-Hui; Chen, Hong; Cai, Chen; Ye, Sheng-Long; Gao, Bo; Xue, Tong-Chun	Clinical & Experimental Metastasis	China	2022	8	Review Article

＜研究費＞

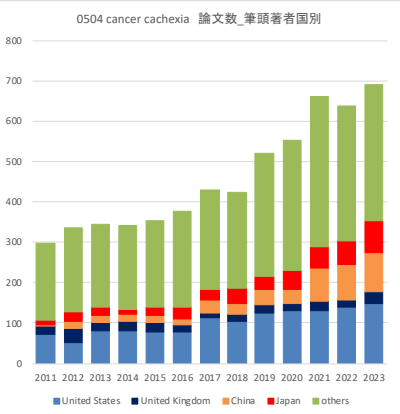
Grant: 0503 Colon

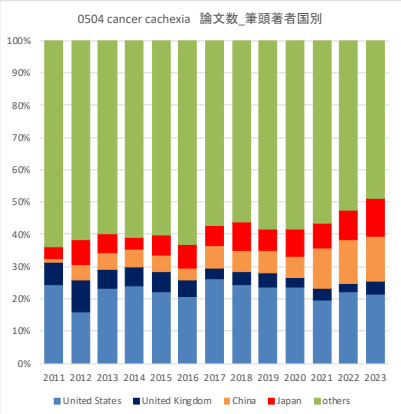
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	ECOG-ACRIN NCORP Research Base	LYNNE I. WAGNER, PETER J ODWYER, MITCHELL D. SCHNALL, RUTH C CARLOS	National Cancer Institute	United States	147,095,616	2014	2025
2	ECOG-ACRIN Network Group Operations Center	PETER J ODWYER, MITCHELL D. SCHNALL, ROBERT L COMIS	National Cancer Institute	United States	133,465,944	2014	2025
3	NRG Oncology NCORP Research Base	DEBORAH WATKINS BRUNER, JOAN LESLIE WALKER, DONALD LAWRENCE WICKERHAM	National Cancer Institute	United States	98,708,640	2014	2025
4	Alliance NCORP Research Base	ELECTRA D. PASKETT, EVANTHIA GALANIS, OLWEN HAHN, SUZANNE GEORGE, MONICA M BERTAGNOLLI, JAN C BUCKNER	National Cancer Institute	United States	93,940,600	2014	2025
5	Alliance Statistics and Data Management Center	SUMITHRA JAY MANDREKAR, DANIEL J. SARGENT	National Cancer Institute	United States	87,071,040	2014	2025
6	URCC NCORP Research Base	KAREN M. MUSTIAN, GARY R MORROW	National Cancer Institute	United States	49,797,972	2014	2025
7	Wake Forest NCORP Research Base	GLENN J LESSER, KATHRYN ELIZABETH WEAVER, DONALD BAIRD PENZIEN	National Cancer Institute	United States	44,195,148	2014	2025
8	ASPirin in Reducing Events in the Elderly - eXTension	ANNE M MURRAY, ANDREW T CHAN, JOHN JAMES MCNEIL, JOANNE RYAN, DANNY LIEW, ROBYN LORRAINE WOODS, MARK RAYMOND NELSON, RORY WOLFE	National Institute on Aging	United States	42,878,192	2019	2025
9	Kaiser Permanente NCI National Community Oncology Research Program, NCORP	JENNIFER MARIE SUGA, LOUIS FEHRENBACHER	National Cancer Institute	United States	33,768,688	2014	2025
10	NRG Oncology Biospecimen Bank	JEFF P SIMKO, TANNER J. FREEMAN, NILSA DEL CARMEN RAMIREZ MILAN, RICHARD C JORDAN, PETER C LUCAS, SOONMYUNG PAIK	National Cancer Institute	United States	33,420,520	2015	2026

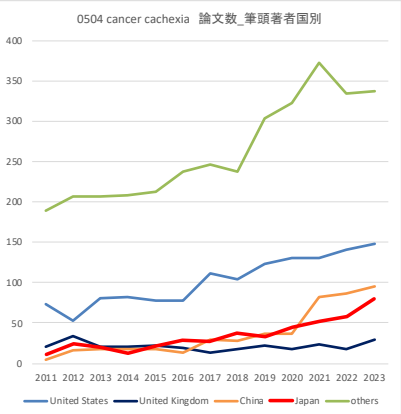
8.4. 0504 Cancer cachexia

8.4.1. 論文数

Cancer cachexia の論文数は経年的に増加傾向が見られた。国別の論文数は、その他の国を除くと、米国、中国、日本の順に多いと推計された。



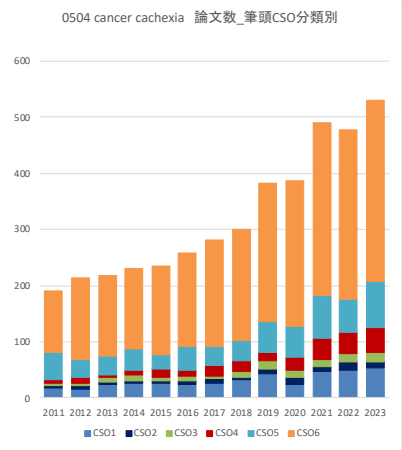


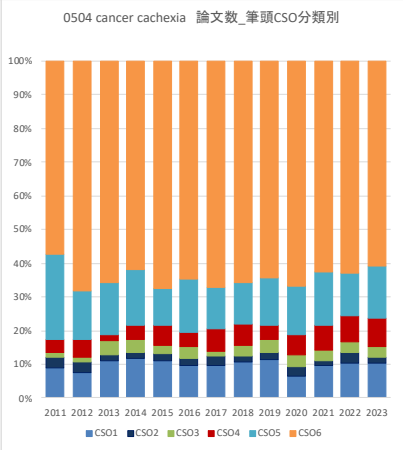


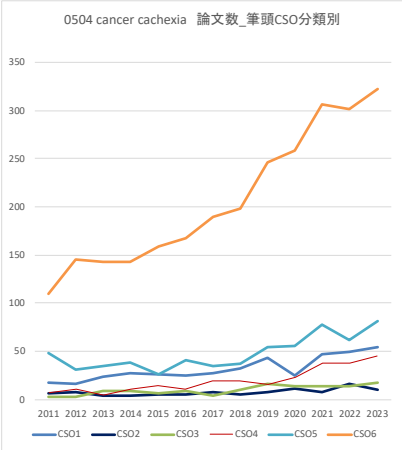
0504 cancer cachexia 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	73	53	81	82	78	78	112	104	124	130	130	141	148	66	1,400
United Kingdom	20	34	20	21	22	19	14	17	22	17	24	17	29	10	286
China	4	16	18	18	18	14	30	28	37	37	82	87	96	39	524
Japan	11	25	20	13	22	28	27	37	33	45	52	58	80	31	482
others	190	207	207	209	213	238	246	238	304	323	373	335	337	143	3,563
合計	298	335	346	343	353	377	429	424	520	552	661	638	690	289	6,255

0504 cancer cachexia 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	24.5%	15.8%	23.4%	23.9%	22.1%	20.7%	26.1%	24.5%	23.8%	23.6%	19.7%	22.1%	21.4%	22.8%	22.4%
United Kingdom	6.7%	10.1%	5.8%	6.1%	6.2%	5.0%	3.3%	4.0%	4.2%	3.1%	3.6%	2.7%	4.2%	3.5%	4.6%
China	1.3%	4.8%	5.2%	5.2%	5.1%	3.7%	7.0%	6.6%	7.1%	6.7%	12.4%	13.6%	13.9%	13.5%	8.4%
Japan	3.7%	7.5%	5.8%	3.8%	6.2%	7.4%	6.3%	8.7%	6.3%	8.2%	7.9%	9.1%	11.6%	10.7%	7.7%
others	63.8%	61.8%	59.8%	60.9%	60.3%	63.1%	57.3%	56.1%	58.5%	58.5%	56.4%	52.5%	48.8%	49.5%	57.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer cachexia の CSO 分類別の論文数は、CSO6 Cancer Control, Survivorship, and Outcomes Research が最も多く経年的にも大きく増加していると推計された。



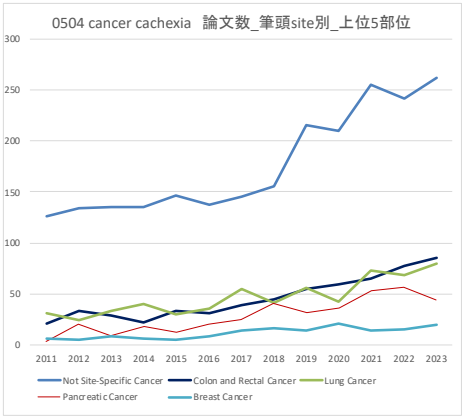




0504 cancer cachexia 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	17	16	24	27	26	25	27	32	43	25	47	49	54	23	435
2 Etiology	6	7	4	4	5	5	8	5	8	11	8	16	10	4	101
3 Prevention	3	3	9	9	6	9	4	10	16	14	14	14	17	4	132
4 Early Detection, Diagnosis, and Prognosis	7	11	4	10	14	11	19	19	15	23	37	37	45	18	270
5 Treatment	48	31	34	38	26	41	34	37	54	55	77	61	81	31	648
6 Cancer Control, Survivorship, and Outcomes Research	109	145	143	143	159	167	189	198	246	259	307	301	323	132	2,821
others	108	122	128	112	117	119	148	123	138	165	171	160	160	77	1,848
合計	298	335	346	343	353	377	429	424	520	552	661	638	690	289	6,255

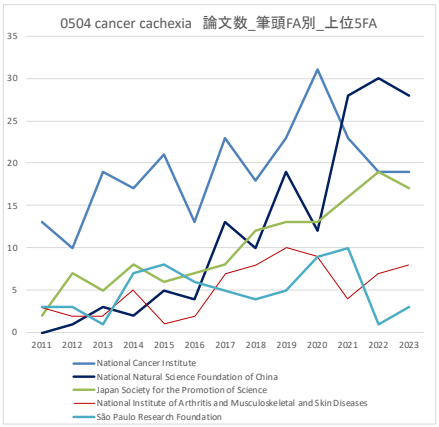
0504 cancer cachexia 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5.7%	4.8%	6.9%	7.9%	7.4%	6.6%	6.3%	7.5%	8.3%	4.5%	7.1%	7.7%	7.8%	8.0%	7.0%
2 Etiology	2.0%	2.1%	1.2%	1.2%	1.4%	1.3%	1.9%	1.2%	1.5%	2.0%	1.2%	2.5%	1.4%	1.4%	1.6%
3 Prevention	1.0%	0.9%	2.6%	2.6%	1.7%	2.4%	0.9%	2.4%	3.1%	2.5%	2.1%	2.2%	2.5%	1.4%	2.1%
4 Early Detection, Diagnosis, and Prognosis	2.3%	3.3%	1.2%	2.9%	4.0%	2.9%	4.4%	4.5%	2.9%	4.2%	5.6%	5.8%	6.5%	6.2%	4.3%
5 Treatment	16.1%	9.3%	9.8%	11.1%	7.4%	10.9%	7.9%	8.7%	10.4%	10.0%	11.6%	9.6%	11.7%	10.7%	10.4%
6 Cancer Control, Survivorship, and Outcomes Research	36.6%	43.3%	41.3%	41.7%	45.0%	44.3%	44.1%	46.7%	47.3%	46.9%	46.4%	47.2%	46.8%	45.7%	45.1%
others	36.2%	36.4%	37.0%	32.7%	33.1%	31.6%	34.5%	29.0%	26.5%	29.9%	25.9%	25.1%	23.2%	26.6%	29.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer cachexia の臓器別の論文数は、Not Site-specific Cancer が最も多く、次いで大腸がん、肺がんの順に多いと推計された。



0504 cancer cachexia 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	126	134	135	135	147	138	145	156	216	210	255	241	262	112	2,412
Colon and Rectal Cancer	21	34	29	22	33	31	39	45	55	60	65	77	86	42	639
Lung Cancer	31	24	33	40	30	36	55	41	56	42	73	69	80	25	635
Pancreatic Cancer	3	20	9	18	13	20	25	41	32	36	53	57	44	30	401
Breast Cancer	6	5	9	6	5	9	14	16	14	21	14	15	20	4	158
Head and Neck Cancer	7	3	3	3	5	8	2	6	12	11	10	15	8	6	99
Esophageal / Oesophageal Cancer	1	3	5	0	10	5	4	3	5	8	11	6	15	4	80
Liver Cancer	3	3	4	4	4	2	3	7	8	6	10	11	9	3	77
Stomach Cancer	2	2	3	4	3	3	4	2	4	7	6	10	12	4	66
Leukemia / Leukaemia	3	3	1	5	3	4	2	1	9	7	10	4	5	0	57

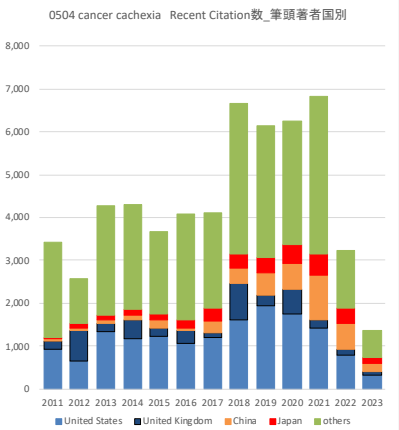
Cancer cachexia の FA 別の論文数は、米国 NCI が最も多く、次いで中国 NSFC、わが国の JSPS の順と推計された。

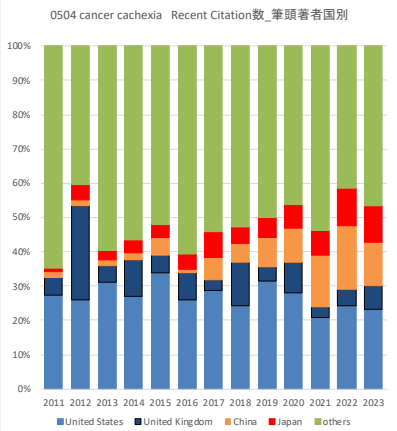


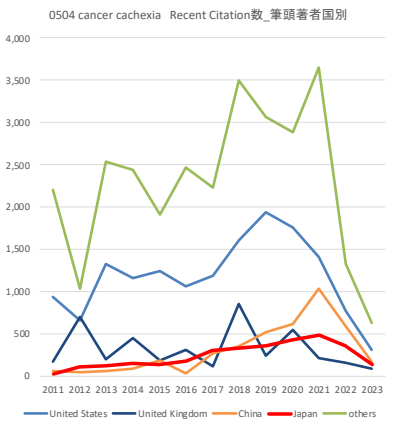
0504 cancer cachexia 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	13	10	19	17	21	13	23	18	23	31	23	19	19	4	253
National Natural Science Foundation of China	0	1	3	2	5	4	13	10	19	12	28	30	28	20	175
Japan Society for the Promotion of Science	2	7	5	8	6	7	8	12	13	13	16	19	17	10	143
National Institute of Arthritis and Musculoskeletal and Skin Diseases	3	2	2	5	1	2	7	8	10	9	4	7	8	2	70
São Paulo Research Foundation	3	3	1	7	8	6	5	4	5	9	10	1	3	0	65
Ministry of Science and Technology of the People's Republic of China	0	1	2	0	1	1	1	1	0	2	15	11	9	6	50
Canadian Institutes of Health Research	4	6	1	3	1	4	3	4	2	1	8	3	2	1	43
National Institute of Diabetes and Digestive and Kidney Diseases	5	2	5	6	1	0	0	4	2	2	5	2	4	3	41
National Institute of General Medical Sciences	4	1	0	2	2	0	5	4	3	2	6	6	4	2	41
European Commission	1	3	6	2	4	5	1	7	1	2	1	5	2	0	40

8.4.2. Recent Citation 数

Cancer cachexia の引用数は、2018 年に大きく増加した後は横ばい傾向と推計された。国別の引用数は、その他の国を除くと米国、英国、中国の順に多いと推計された。



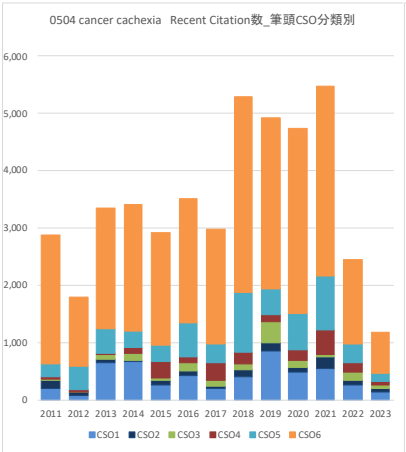


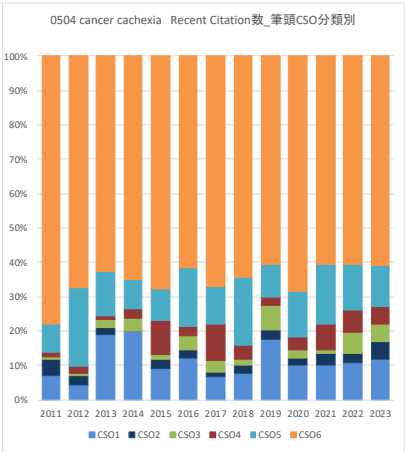


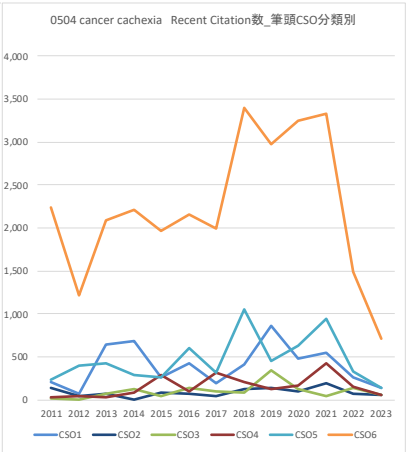
0504 cancer cachexia Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	938	662	1,326	1,168	1,241	1,061	1,189	1,614	1,937	1,760	1,409	779	317	6	15,407
United Kingdom	169	705	209	453	192	313	125	852	250	553	214	156	94	1	4,286
China	67	48	66	94	185	42	271	360	526	618	1,043	598	178	12	4,108
Japan	34	108	126	156	139	188	308	330	367	434	490	361	146	1	3,188
others	2,205	1,038	2,534	2,444	1,915	2,467	2,230	3,501	3,061	2,881	3,657	1,331	637	21	29,922
合計	3,413	2,561	4,261	4,315	3,672	4,071	4,123	6,657	6,141	6,246	6,813	3,225	1,372	41	56,911

0504 cancer cachexia Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	27.5%	25.8%	31.1%	27.1%	33.8%	26.1%	28.8%	24.2%	31.5%	28.2%	20.7%	24.2%	23.1%	14.6%	27.1%
United Kingdom	5.0%	27.5%	4.9%	10.5%	5.2%	7.7%	3.0%	12.8%	4.1%	8.9%	3.1%	4.8%	6.9%	2.4%	7.5%
China	2.0%	1.9%	1.5%	2.2%	5.0%	1.0%	6.6%	5.4%	8.6%	9.9%	15.3%	18.5%	13.0%	29.3%	7.2%
Japan	1.0%	4.2%	3.0%	3.6%	3.8%	4.6%	7.5%	5.0%	6.0%	6.9%	7.2%	11.2%	10.6%	2.4%	5.6%
others	64.6%	40.5%	59.5%	56.6%	52.2%	60.6%	54.1%	52.6%	49.8%	46.1%	53.7%	41.3%	46.4%	51.2%	52.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer cachexia の CSO 分類別の引用数は、CSO6 Cancer Control, Survivorship, and Outcomes Research が最も多いと推計された。



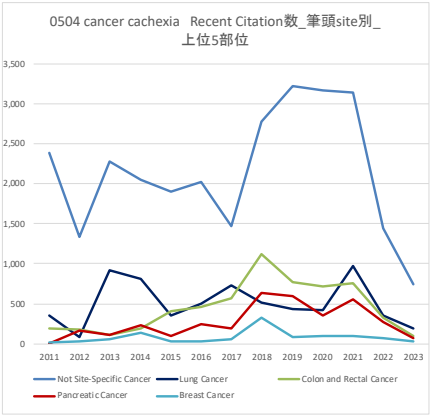




0504 cancer cachexia Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	203	78	641	680	267	430	197	409	865	478	554	268	138	0	5,208
2 Etiology	144	52	68	6	81	78	49	129	140	98	193	69	61	0	1,168
3 Prevention	16	11	77	132	43	145	99	84	352	124	44	145	59	0	1,331
4 Early Detection, Diagnosis, and Prognosis	37	39	36	91	288	98	316	215	123	170	424	161	61	2	2,061
5 Treatment	239	406	430	291	270	605	318	1,048	457	630	941	326	142	12	6,115
6 Cancer Control, Survivorship, and Outcomes Research	2,245	1,216	2,093	2,217	1,974	2,160	1,995	3,400	2,982	3,248	3,325	1,491	715	14	29,075
others	529	759	916	898	749	555	1,149	1,372	1,222	1,498	1,332	765	196	13	11,953
合計	3,413	2,561	4,261	4,315	3,672	4,071	4,123	6,657	6,141	6,246	6,813	3,225	1,372	41	56,911

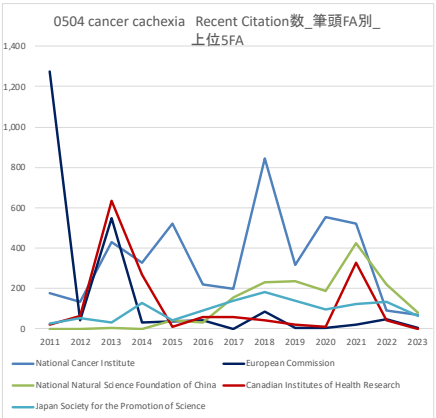
0504 cancer cachexia Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5.9%	3.0%	15.0%	15.8%	7.3%	10.6%	4.8%	6.1%	14.1%	7.7%	8.1%	8.3%	10.1%	0.0%	9.2%
2 Etiology	4.2%	2.0%	1.6%	0.1%	2.2%	1.9%	1.2%	1.9%	2.3%	1.6%	2.8%	2.1%	4.4%	0.0%	2.1%
3 Prevention	0.5%	0.4%	1.8%	3.1%	1.2%	3.6%	2.4%	1.3%	5.7%	2.0%	0.6%	4.5%	4.3%	0.0%	2.3%
4 Early Detection, Diagnosis, and Prognosis	1.1%	1.5%	0.8%	2.1%	7.8%	2.4%	7.7%	3.2%	2.0%	2.7%	6.2%	5.0%	4.4%	4.9%	3.6%
5 Treatment	7.0%	15.9%	10.1%	6.7%	7.4%	14.9%	7.7%	15.7%	7.4%	10.1%	13.8%	10.1%	10.3%	29.3%	10.7%
6 Cancer Control, Survivorship, and Outcomes Research	65.8%	47.5%	49.1%	51.4%	53.8%	53.1%	48.4%	51.1%	48.6%	52.0%	48.8%	46.2%	52.1%	34.1%	51.1%
others	15.5%	29.6%	21.5%	20.8%	20.4%	13.6%	27.9%	20.6%	19.9%	24.0%	19.6%	23.7%	14.3%	31.7%	21.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer cachexia の臓器別の引用数は、Not Site-specific Cancer が最も多く、次いで肺がん、大腸がんの順と推計された。



0504 cancer cachexia Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	2,390	1,340	2,272	2,045	1,905	2,016	1,470	2,773	3,216	3,168	3,146	1,445	739	20	27,945
Lung Cancer	353	90	921	806	348	503	725	510	433	419	971	348	194	3	6,624
Colon and Rectal Cancer	198	182	113	185	402	458	567	1,117	772	718	752	329	98	5	5,896
Pancreatic Cancer	0	168	108	230	93	247	189	636	594	357	557	269	66	2	3,516
Breast Cancer	15	32	55	134	28	29	59	326	87	94	97	77	36	5	1,074
Head and Neck Cancer	57	25	73	28	70	174	44	101	79	38	48	46	5	1	789
Leukemia / Leukaemia	2	63	7	47	31	35	4	35	53	188	27	15	70	0	577
Esophageal / Oesophageal Cancer	5	20	41	0	252	1	8	40	13	77	47	30	2	0	536
Stomach Cancer	4	5	9	23	15	15	12	0	23	81	39	52	10	1	289
Liver Cancer	3	2	19	9	27	5	5	23	52	7	42	64	12	0	270

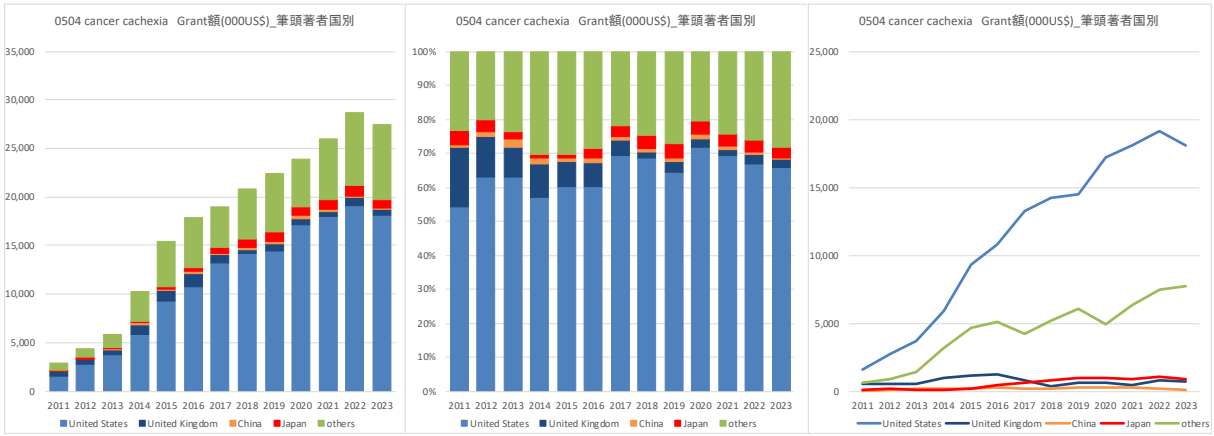
Cancer cachexia の FA 別の引用数は、米国 NCI が最も多く、次いで European Commission、中国 NSFC の順と推計された。



0504 cancer cachexia Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	177	133	429	330	519	220	201	843	315	555	519	89	71	1	4,402
European Commission	1,275	44	549	34	35	41	0	88	6	6	19	46	3	0	2,146
National Natural Science Foundation of China	0	2	6	2	42	34	154	230	235	189	423	219	80	8	1,624
Canadian Institutes of Health Research	22	65	633	266	9	56	59	45	19	8	327	44	0	0	1,553
Japan Society for the Promotion of Science	24	51	31	129	42	91	139	180	137	98	124	133	65	1	1,245
National Institute of Arthritis and Musculoskeletal and Skin Diseases	44	42	17	39	0	75	163	140	242	162	53	57	15	0	1,049
National Institute of Diabetes and Digestive and Kidney Diseases	19	8	138	260	44	0	0	78	18	68	38	33	35	0	739
National Center for Advancing Translational Sciences	73	9	47	40	107	69	38	99	120	15	30	20	0	0	667
National Institute of General Medical Sciences	106	75	0	23	29	0	73	94	48	43	47	69	13	0	620
São Paulo Research Foundation	12	30	2	47	56	129	49	37	63	113	63	13	2	0	616

8.4.3. Grant(000US$)額

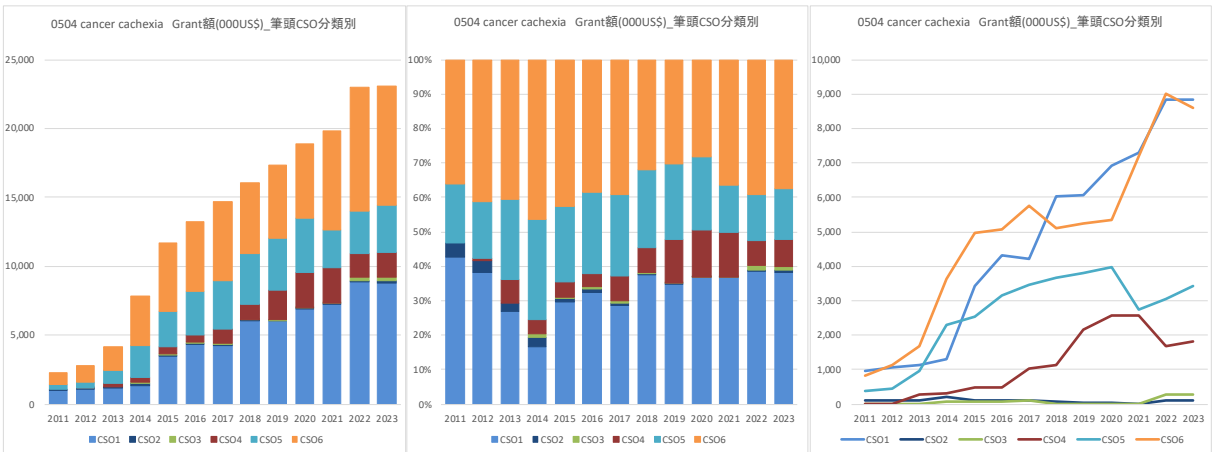
Cancer cachexia の研究費総額は経年的に増加傾向が見られた。国別の研究費配分額は、米国が最も多いと推計された。



0504 cancer cachexia Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	1,549	2,741	3,705	5,860	9,284	10,776	13,219	14,224	14,468	17,189	18,059	19,162	18,087	15,440	163,763
United Kingdom	502	525	525	1,013	1,118	1,273	836	390	652	582	435	766	678	664	9,960
China	17	61	148	182	166	250	176	214	281	303	268	211	83	41	2,401
Japan	127	151	121	94	184	472	618	799	968	943	905	1,075	906	638	8,002
others	664	879	1,393	3,134	4,673	5,111	4,178	5,146	6,056	4,927	6,325	7,449	7,723	6,244	63,902
合計	2,860	4,358	5,892	10,282	15,426	17,881	19,027	20,773	22,426	23,944	25,992	28,664	27,477	23,027	248,028

0504 cancer cachexia Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	54.2%	62.9%	62.9%	57.0%	60.2%	60.3%	69.5%	68.5%	64.5%	71.8%	69.5%	66.8%	65.8%	67.1%	66.0%
United Kingdom	17.5%	12.1%	8.9%	9.9%	7.2%	7.1%	4.4%	1.9%	2.9%	2.4%	1.7%	2.7%	2.5%	2.9%	4.0%
China	0.6%	1.4%	2.5%	1.8%	1.1%	1.4%	0.9%	1.0%	1.3%	1.3%	1.0%	0.7%	0.3%	0.2%	1.0%
Japan	4.5%	3.5%	2.0%	0.9%	1.2%	2.6%	3.2%	3.8%	4.3%	3.9%	3.5%	3.8%	3.3%	2.8%	3.2%
others	23.2%	20.2%	23.6%	30.5%	30.3%	28.6%	22.0%	24.8%	27.0%	20.6%	24.3%	26.0%	28.1%	27.1%	25.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

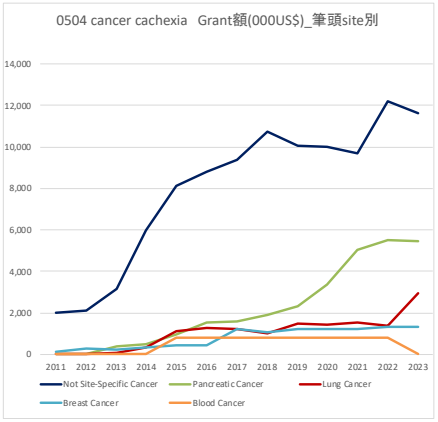
Cancer cachexia の CSO 分類別の研究費配分額は、CSO6 Cancer Control, Survivorship, and Outcomes Research と CSO1 Biology が最も多く経年的にも増加傾向が見られると推計された。



0504 cancer cachexia Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	966	1,062	1,127	1,312	3,443	4,308	4,216	6,028	6,058	6,931	7,289	8,856	8,829	5,663	66,089
2 Etiology	94	94	94	217	123	116	107	71	26	26	16	116	124	108	1,331
3 Prevention	0	0	0	76	76	86	95	19	19	18	9	273	272	272	1,215
4 Early Detection, Diagnosis, and Prognosis	0	17	281	315	501	483	1,049	1,145	2,150	2,571	2,571	1,687	1,806	1,806	16,382
5 Treatment	384	452	970	2,302	2,552	3,169	3,481	3,669	3,809	3,971	2,751	3,044	3,442	3,278	37,274
6 Cancer Control, Survivorship, and Outcomes Research	816	1,140	1,689	3,628	4,972	5,070	5,763	5,115	5,255	5,353	7,212	9,018	8,616	8,431	72,079
others	600	1,601	1,741	2,907	4,224	5,114	4,781	4,727	5,108	5,074	6,145	5,670	4,388	3,469	55,548
合計	2,860	4,358	5,892	10,282	15,426	17,881	19,027	20,773	22,426	23,944	25,992	28,664	27,477	23,027	248,028

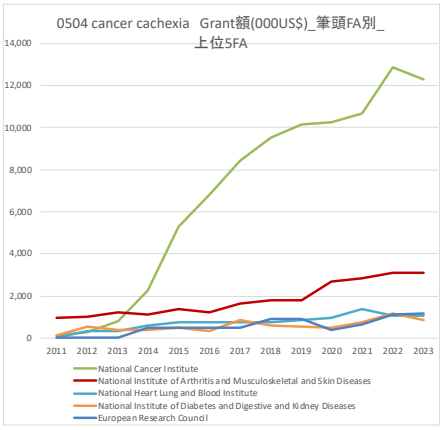
0504 cancer cachexia Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	33.8%	24.4%	19.1%	12.8%	22.3%	24.1%	22.2%	29.0%	27.0%	28.9%	28.0%	30.9%	32.1%	24.6%	26.6%
2 Etiology	3.3%	2.2%	1.6%	2.1%	0.8%	0.6%	0.6%	0.3%	0.1%	0.1%	0.1%	0.4%	0.4%	0.5%	0.5%
3 Prevention	0.0%	0.0%	0.0%	0.7%	0.5%	0.5%	0.5%	0.1%	0.1%	0.1%	0.0%	1.0%	1.0%	1.2%	0.5%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.4%	4.8%	3.1%	3.2%	2.7%	5.5%	5.5%	9.6%	10.7%	9.9%	5.9%	6.6%	7.8%	6.6%
5 Treatment	13.4%	10.4%	16.5%	22.4%	16.5%	17.7%	18.3%	17.7%	17.0%	16.6%	10.6%	10.6%	12.5%	14.2%	15.0%
6 Cancer Control, Survivorship, and Outcomes Research	28.5%	26.2%	28.7%	35.3%	32.2%	28.4%	30.3%	24.6%	23.4%	22.4%	27.7%	31.5%	31.4%	36.6%	29.1%
others	21.0%	36.7%	29.5%	28.3%	27.4%	28.6%	25.1%	22.8%	22.8%	21.2%	23.6%	19.8%	16.0%	15.1%	22.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer cachexia の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く、次いで膵がん、肺がんの順と推計された。



0504 cancer cachexia Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,993	2,116	3,132	5,967	8,104	8,810	9,397	10,722	10,079	10,016	9,679	12,228	11,641	10,508	114,391
Pancreatic Cancer	0	15	379	506	942	1,544	1,565	1,913	2,325	3,384	5,033	5,483	5,430	4,084	32,602
Lung Cancer	0	32	62	341	1,124	1,292	1,218	993	1,461	1,436	1,513	1,378	2,937	1,761	15,549
Breast Cancer	139	278	204	319	411	411	1,229	1,075	1,210	1,221	1,233	1,343	1,333	1,059	11,465
Blood Cancer	0	0	0	0	795	795	795	795	795	795	795	795	0	0	6,360
Colon and Rectal Cancer	22	88	105	418	451	424	342	479	438	462	436	739	638	599	5,643
Kidney Cancer	0	0	0	0	0	521	521	521	521	521	521	521	521	521	4,690
Leukemia / Leukaemia	0	0	0	0	0	0	0	0	440	440	440	440	440	440	2,639
Brain Tumor	0	0	0	0	0	0	0	0	565	578	578	304	291	291	2,609
Ovarian Cancer	0	0	0	0	0	0	0	0	332	653	653	321	321	321	2,603

Cancer cachexia の FA 別の研究費配分額は、米国 NCI が最も多く、次いで米国 National Institute of Arthritis and Musculoskeletal and Skin Diseases、米国 National Heart Lung and Blood Institute と推計された。



0504 cancer cachexia Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	109	257	816	2,269	5,317	6,810	8,414	9,549	10,133	10,270	10,668	12,860	12,308	10,192	99,973	United States
National Institute of Arthritis and Musculoskeletal and Skin Diseases	946	1,023	1,227	1,099	1,374	1,242	1,624	1,782	1,779	2,680	2,815	3,127	3,090	2,694	26,503	United States
National Heart Lung and Blood Institute	0	343	343	605	759	759	754	754	853	952	1,365	1,064	1,074	1,074	10,699	United States
National Institute of Diabetes and Digestive and Kidney Diseases	139	549	410	410	512	326	837	613	536	511	769	1,150	862	862	8,487	United States
European Research Council	0	0	0	483	483	483	483	883	883	400	655	1,105	1,186	1,186	8,230	Belgium
Japan Society for the Promotion of Science	127	151	121	94	184	346	492	616	716	818	768	844	744	475	6,496	Japan
European Commission	0	25	25	25	80	25	0	0	0	75	75	1,915	1,923	1,923	6,090	Belgium
Canadian Institutes of Health Research	304	220	380	495	344	322	188	466	374	536	529	577	570	359	5,665	Canada
National Institute of General Medical Sciences	0	213	213	213	213	434	434	434	221	551	773	551	585	585	5,421	United States
Medical Research Council	488	488	488	488	488	649	161	161	493	493	332	155	155	155	5,195	United Kingdom

8.4.4. 主要論文、引用、研究費

＜論文＞

Publication: 0504 cancer cachexia

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Prognostic effect of cachexia in patients with non-small cell lung cancer receiving immune checkpoint inhibitors	Matsuo, Norikazu; Azuma, Koichi; Murotani, Kenta; Murata, Daiki; Matama, Goushi; Kawahara, Akihiko; Kojima, Takashi; Tokito, Takaaki; Hoshino, Tomoaki	Thoracic Cancer	Japan	2023	7	Research Article
2	Survival and biomarkers for cachexia in non-small cell lung cancer receiving immune checkpoint inhibitors	Murata, Daiki; Azuma, Koichi; Matsuo, Norikazu; Murotani, Kenta; Matama, Goushi; Kawahara, Akihiko; Sasada, Tetsuro; Tokito, Takaaki; Hoshino, Tomoaki	Cancer Medicine	Japan	2023	1	Research Article
3	Cancer cachexia: Focus on cachexia factors and inter-organ communication	Wang, Yongfei; Dong, Zikai; An, Ziyi; Jin, Weilin	Chinese Medical Journal	China	2023	2	Review Article
4	Role of noncoding RNAs in pancreatic ductal adenocarcinoma associated cachexia	Uddin, Md Hafiz; Mohammad, Ramzi M; Philip, Philip A; Azmi, Asfar S; Muqbil, Irfana	American Journal of Physiology - Cell Physiology	United States	2022	4	Review Article
5	Cancer-associated cachexia — understanding the tumour macroenvironment and microenvironment to improve management	Argilés, Josep M.; López-Soriano, Francisco J.; Stemmler, Britta; Busquets, Silvia	Nature Reviews Clinical Oncology	Spain	2023	55	Review Article
6	Impact of Pretreatment Weight Loss on Radiotherapy Utilization and Clinical Outcomes in Non-Small Cell Lung Cancer	Alvarez, Christian M.; Aliru, Maureen; Gannavarapu, Bhavani S.; Song, Tidie; Gilmore, Linda Anne; Olaechea, Santiago; Gomez, Daniel R.; Ahn, Chul; Infante, Rodney E.; Iyengar, Puneeth	American Journal of Clinical Oncology	United States	2023	0	Research Article
7	Influence of cachexia on immunotherapy efficacy and prognosis for malignant tumors of the digestive system	Tao, Zhirui; Chen, Zhiqin; Gao, Yong; Quan, Ming	Cancer Reports	China	2024	0	Research Article
8	β-Carotene suppresses cancer cachexia by regulating the adipose tissue metabolism and gut microbiota dysregulation	Kim, Yerin; Jung, Sunil; Park, Gwoncheol; Shin, Hakdong; Heo, Seung Chul; Kim, Yuri	The Journal of Nutritional Biochemistry	South Korea	2022	5	Research Article
9	Predicting the efficacy of first-line immunotherapy by combining cancer cachexia and tumor burden in advanced non-small cell lung cancer	Miyawaki, Taichi; Naito, Tateaki; Doshita, Kosei; Kodama, Hiroaki; Mori, Mikiko; Nishioka, Naoya; Iida, Yuko; Miyawaki, Eriko; Mamesaya, Nobuaki; Kobayashi, Haruki; Omori, Shota; Ko, Ryo; Wakuda, Kazushige; Ono, Akira; Kenmotsu, Hirotsugu; Murakami, Haruyasu; Mori, Keita; Harada, Hideyuki; Endo, Masahiro; Takahashi, Kazuhisa; Takahashi, Toshiaki	Thoracic Cancer	Japan	2022	8	Review Article
10	The landscape of cancer cachexia in advanced non-small cell lung cancer: a narrative review	Morita-Tanaka, Satomi; Yamada, Tadaaki; Takayama, Koichi	Translational Lung Cancer Research	Japan	2023	13	Review Article

＜引用＞

Citation: 0504 cancer cachexia

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Definition and classification of cancer cachexia: an international consensus	Fearon, Kenneth; Strasser, Florian; Anker, Stefan D; Bosaeus, Ingvar; Bruera, Eduardo; Fainsinger, Robin L; Jatoi, Aminah; Loprinzi, Charles; MacDonald, Neil; Mantovani, Giovanni; Davis, Mellar; Muscaritoli, Maurizio; Ottery, Faith; Radbruch, Lukas; Ravasco, Paula; Walsh, Declan; Wilcock, Andrew; Kaasa, Stein; Baracos, Vickie E	The Lancet Oncology	Italy	2011	1275	Review Article
2	Cancer Cachexia in the Age of Obesity: Skeletal Muscle Depletion Is a Powerful Prognostic Factor, Independent of Body Mass Index	Martin, Lisa; Birdsell, Laura; MacDonald, Neil; Reiman, Tony; Clandinin, M. Thomas; McCargar, Linda J.; Murphy, Rachel; Ghosh, Sunita; Sawyer, Michael B.; Baracos, Vickie E.	Journal of Clinical Oncology	Canada	2013	633	Research Article
3	The side effects of platinum-based chemotherapy drugs: a review for chemists	Oun, Rabbab; Moussa, Yvonne E.; Wheate, Nial J.	Dalton Transactions	United Kingdom	2018	627	Review Article
4	Cancer-associated cachexia	Baracos, Vickie E.; Martin, Lisa; Korc, Murray; Guttridge, Denis C.; Fearon, Kenneth C. H.	Nature Reviews Disease Primers	Canada	2018	550	Review Article
5	Cancer cachexia: understanding the molecular basis	Argilés, Josep M.; Busquets, Sílvia; Stemmler, Britta; López-Soriano, Francisco J.	Nature Reviews Cancer	Spain	2014	382	Review Article
6	Mechanisms regulating skeletal muscle growth and atrophy	Schiaffino, Stefano; Dyar, Kenneth A.; Ciciliot, Stefano; Blaauw, Bert; Sandri, Marco	The FEBS Journal	Italy	2013	316	Review Article
7	Sarcopenia: A Time for Action. An SCWD Position Paper	Bauer, Juergen; Morley, John E.; Schols, Annemie M.W.J.; Ferrucci, Luigi; Cruz-Jentoft, Alfonso J.; Dent, Elsa; Baracos, Vickie E.; Crawford, Jeffrey A.; Doehner, Wolfram; Heymsfield, Steven B.; Jatoi, Aminah; Kalantar-Zadeh, Kamyar; Lainscak, Mitja; Landi, Francesco; Laviano, Alessandro; Mancuso, Michelangelo; Muscaritoli, Maurizio; Prado, Carla M.; Strasser, Florian; von Haehling, Stephan; Coats, Andrew J.S.; Anker, Stefan D.	Journal of Cachexia Sarcopenia and Muscle	United States	2019	280	Review Article
8	Branched-chain amino acids in health and disease: metabolism, alterations in blood plasma, and as supplements	Holeček, Milan	Nutrition & Metabolism	Czechia	2018	257	Review Article
9	Cancer Cachexia: Mediators, Signaling, and Metabolic Pathways	Fearon, Kenneth C.H.; Glass, David J.; Guttridge, Denis C.	Cell Metabolism	United Kingdom	2012	251	Review Article
10	Management of Cancer Cachexia: ASCO Guideline.	Roeland, Eric J; Bohlke, Kari; Baracos, Vickie E; Bruera, Eduardo; Del Fabbro, Egidio; Dixon, Suzanne; Fallon, Marie; Herrstedt, Jørn; Lau, Harold; Platek, Mary; Rugo, Hope S; Schnipper, Hester H; Smith, Thomas J; Tan, Winston; Loprinzi, Charles L	Journal of Clinical Oncology	United States	2020	250	0

＜研究費＞

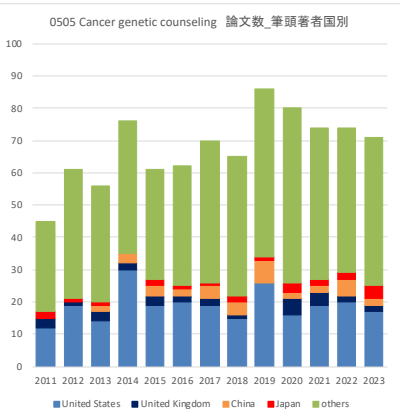
Grant: 0504 cancer cachexia

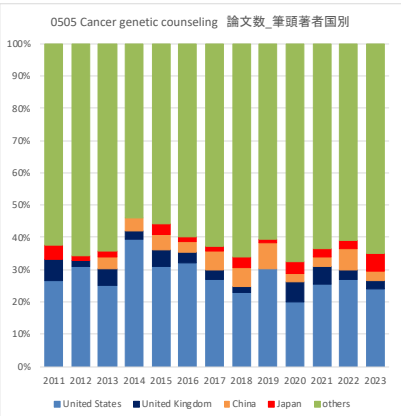
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Role of the microbiota in regulating the mononuclear phagocyte system	ROMINA GOLDSZMID, SILVANA GOLDSZMID	National Cancer Institute	United States	9,178,598	2015	2023
2	The von Hippel-Lindau Tumor Suppressor Gene and Kidney Cancer: Insights into Oxygen Sensing and Treating Cancers Caused by Undruggable Mutations	WILLIAM G. KAELIN	National Cancer Institute	United States	7,816,282	2016	2030
3	Molecular Imaging and Theranostics of Cancer	ZAVER M. BHUJWALLA	National Cancer Institute	United States	6,514,518	2017	2024
4	Improving quality of life of advanced pancreatic cancer patients through an AI-guided multimodal intervention, combining pain and cachexia management, nutrition, and physical activity	0	European Commission	Belgium	6,465,928	2022	2026
5	Cancer Gene Discovery to Identify Targetable Targets	CARLO M CROCE	National Cancer Institute	United States	6,360,184	2015	2022
6	Systemic regulation of metastasis	DAVID CHARLES LYDEN	National Cancer Institute	United States	6,006,939	2018	2025
7	The role of the macroenvironment in pancreatic cancer-induced cachexia	DENIS C GUTTRIDGE, TERESA A ZIMMERS, MICHAEL C. OSTROWSKI, LEONIDAS G. KONIARIS, MARTIN JOHN ROMEO, HONG LI	National Cancer Institute	United States	5,874,219	2021	2026
8	Impact of Cannabis on Inflammation and Viral Persistence in Treated HIV/SIV	NICHOLE ROSE KLATT	National Institute on Drug Abuse	United States	4,319,641	2015	2022
9	Identification of key tumor cell-released factors that induce cachexia	YI-PING LI, SYED H JAFRI	National Institute of Arthritis and Musculoskeletal and Skin Diseases	United States	4,271,874	2013	2025
10	FoxO signaling and skeletal muscle atrophy	ANDREW ROBERT JUDGE	National Institute of Arthritis and Musculoskeletal and Skin Diseases	United States	4,150,897	2011	2023

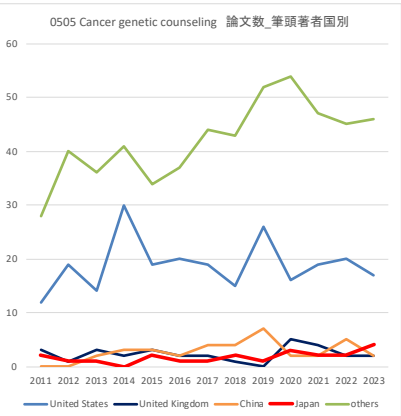
8.5. 0505 Cancer genetic counseling

8.5.1. 論文数

Cancer genetic counselling の論文数は経年的に横ばい傾向と推計された。国別の論文数は、その他の国を除いて米国が最も多いと推計された。



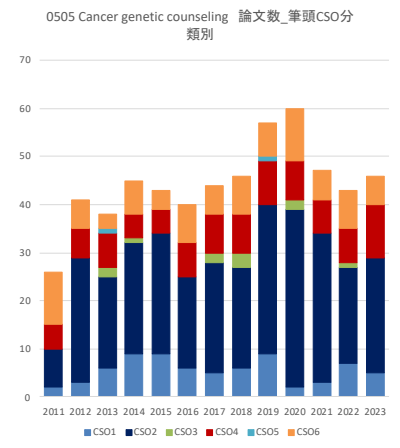


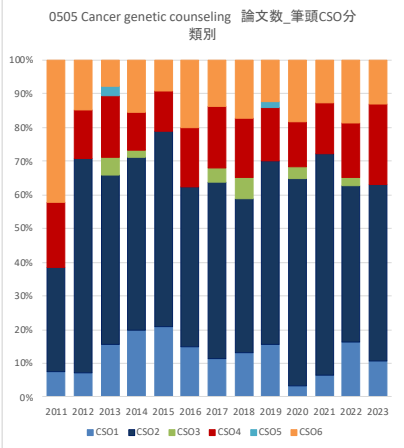


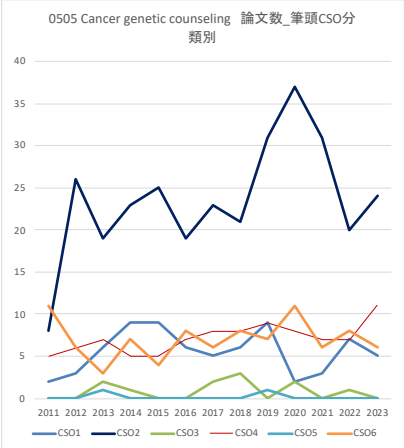
0505 Cancer genetic counseling 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	12	19	14	30	19	20	19	15	26	16	19	20	17	3	249
United Kingdom	3	1	3	2	3	2	2	1	0	5	4	2	2	2	32
China	0	0	2	3	3	2	4	4	7	2	2	5	2	1	37
Japan	2	1	1	0	2	1	1	2	1	3	2	2	4	3	25
others	28	40	36	41	34	37	44	43	52	54	47	45	46	14	561
合計	45	61	56	76	61	62	70	65	86	80	74	74	71	23	904

0505 Cancer genetic counseling 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	26.7%	31.1%	25.0%	39.5%	31.1%	32.3%	27.1%	23.1%	30.2%	20.0%	25.7%	27.0%	23.9%	13.0%	27.5%
United Kingdom	6.7%	1.6%	5.4%	2.6%	4.9%	3.2%	2.9%	1.5%	0.0%	6.3%	5.4%	2.7%	2.8%	8.7%	3.5%
China	0.0%	0.0%	3.6%	3.9%	4.9%	3.2%	5.7%	6.2%	8.1%	2.5%	2.7%	6.8%	2.8%	4.3%	4.1%
Japan	4.4%	1.6%	1.8%	0.0%	3.3%	1.6%	1.4%	3.1%	1.2%	3.8%	2.7%	2.7%	5.6%	13.0%	2.8%
others	62.2%	65.6%	64.3%	53.9%	55.7%	59.7%	62.9%	66.2%	60.5%	67.5%	63.5%	60.8%	64.8%	60.9%	62.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の CSO 分類別の論文数は、CSO2 Etiology が最も多く、次いで CSO4 Early Detection, Diagnosis and Prognosis、CSO6 Cancer Control, Survivorship, and Outcomes Research の順と推計された。



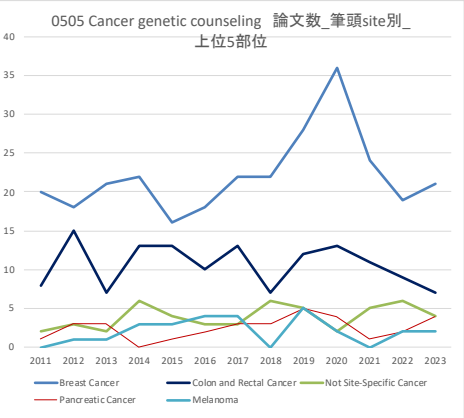




0505 Cancer genetic counseling 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2	3	6	9	9	6	5	6	9	2	3	7	5	1	73
2 Etiology	8	26	19	23	25	19	23	21	31	37	31	20	24	9	316
3 Prevention	0	0	2	1	0	0	2	3	0	2	0	1	0	0	11
4 Early Detection, Diagnosis, and Prognosis	5	6	7	5	5	7	8	8	9	8	7	7	11	3	96
5 Treatment	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2
6 Cancer Control, Survivorship, and Outcomes Research	11	6	3	7	4	8	6	8	7	11	6	8	6	1	92
others	19	20	18	31	18	22	26	19	29	20	27	31	25	9	314
合計	45	61	56	76	61	62	70	65	86	80	74	74	71	23	904

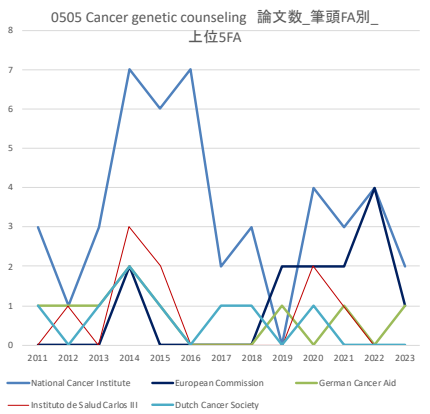
0505 Cancer genetic counseling 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4.4%	4.9%	10.7%	11.8%	14.8%	9.7%	7.1%	9.2%	10.5%	2.5%	4.1%	9.5%	7.0%	4.3%	8.1%
2 Etiology	17.8%	42.6%	33.9%	30.3%	41.0%	30.6%	32.9%	32.3%	36.0%	46.3%	41.9%	27.0%	33.8%	39.1%	35.0%
3 Prevention	0.0%	0.0%	3.6%	1.3%	0.0%	0.0%	2.9%	4.6%	0.0%	2.5%	0.0%	1.4%	0.0%	0.0%	1.2%
4 Early Detection, Diagnosis, and Prognosis	11.1%	9.8%	12.5%	6.6%	8.2%	11.3%	11.4%	12.3%	10.5%	10.0%	9.5%	9.5%	15.5%	13.0%	10.6%
5 Treatment	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
6 Cancer Control, Survivorship, and Outcomes Research	24.4%	9.8%	5.4%	9.2%	6.6%	12.9%	8.6%	12.3%	8.1%	13.8%	8.1%	10.8%	8.5%	4.3%	10.2%
others	42.2%	32.8%	32.1%	40.8%	29.5%	35.5%	37.1%	29.2%	33.7%	25.0%	36.5%	41.9%	35.2%	39.1%	34.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の臓器別の論文数は、乳がんが最も多く、大腸がん、Not Site-specific Cancer の順と推計された。



0505 Cancer genetic counseling 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	20	18	21	22	16	18	22	22	28	36	24	19	21	4	291
Colon and Rectal Cancer	8	15	7	13	13	10	13	7	12	13	11	9	7	4	142
Not Site-Specific Cancer	2	3	2	6	4	3	3	6	5	2	5	6	4	2	53
Pancreatic Cancer	1	3	3	0	1	2	3	3	5	4	1	2	4	0	32
Melanoma	0	1	1	3	3	4	4	0	5	2	0	2	2	0	27
Leukemia / Leukaemia	0	1	0	3	2	4	3	5	1	1	1	1	3	1	26
Ovarian Cancer	1	0	1	2	4	0	2	4	5	2	0	3	2	0	26
Kidney Cancer	0	1	2	2	3	1	2	1	2	0	0	4	1	1	20
Brain Tumor	0	1	1	1	1	2	1	2	1	1	0	5	2	1	19
Retinoblastoma	2	0	1	1	2	1	1	2	0	1	1	4	1	0	17

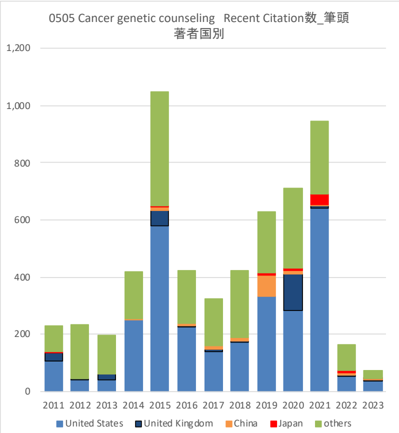
Cancer genetic counselling の FA 別の論文数は、米国 NCI が最も多く、次いで European Commission と推計された。

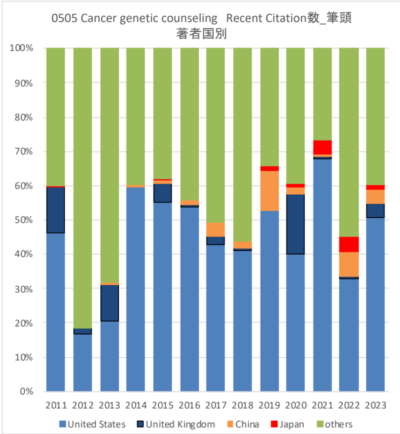


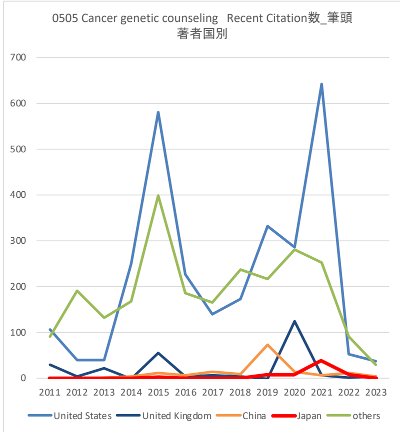
0505 Cancer genetic counseling 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	3	1	3	7	6	7	2	3	0	4	3	4	2	1	46
European Commission	0	0	0	2	0	0	0	0	2	2	2	4	1	1	14
German Cancer Aid	1	1	1	2	1	0	0	0	1	0	1	0	1	0	9
Instituto de Salud Carlos III	0	1	0	3	2	0	0	0	0	2	1	0	0	0	9
Dutch Cancer Society	1	0	1	2	1	0	1	1	0	1	0	0	0	0	8
National Natural Science Foundation of China	0	0	0	0	1	0	1	1	2	1	1	0	0	1	8
Japan Society for the Promotion of Science	1	1	0	0	2	0	2	1	0	0	0	0	0	0	7
National Center for Advancing Translational Sciences	0	1	1	0	1	0	1	0	1	0	0	2	0	0	7
Canadian Institutes of Health Research	0	0	0	2	1	0	1	0	0	1	0	1	0	0	6
Cancer Council New South Wales	0	0	1	0	0	0	1	0	0	1	2	0	0	0	5

8.5.2. Recent Citation 数

Cancer genetic counselling の引用数は 2015 年にピークが見られ、その後は 2021 年に再びピークが見られた。国別の引用数は、米国が最も多く、次いで英国と推計された。



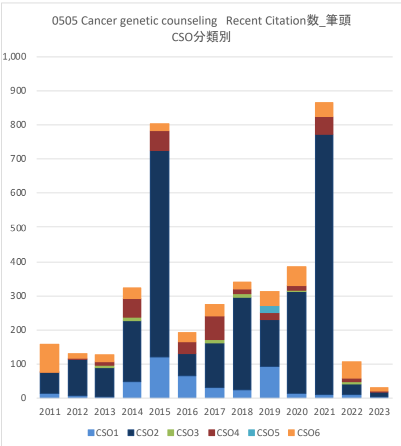


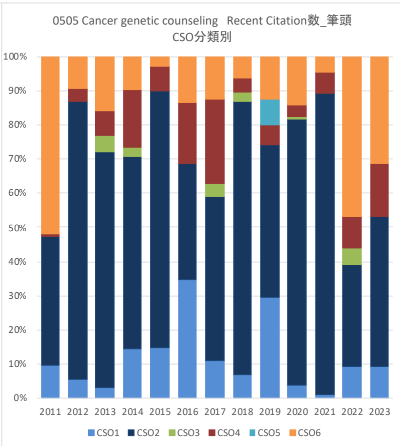


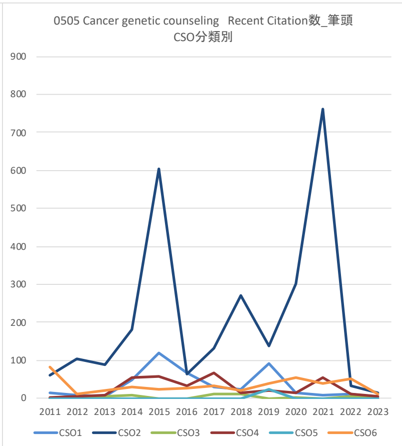
0505 Cancer genetic counseling Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	106	39	40	251	579	227	140	174	332	285	641	54	37	1	2,906
United Kingdom	31	4	21	0	56	3	7	4	0	125	7	1	3	0	262
China	0	0	1	3	11	6	14	9	73	15	6	12	3	0	153
Japan	1	0	0	0	3	0	0	0	9	7	38	7	1	0	66
others	92	192	133	167	399	186	165	238	216	281	253	90	29	1	2,442
合計	230	235	195	421	1,048	422	326	425	630	713	945	164	73	2	5,829

0505 Cancer genetic counseling Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	46.1%	16.6%	20.5%	59.6%	55.2%	53.8%	42.9%	40.9%	52.7%	40.0%	67.8%	32.9%	50.7%	50.0%	49.9%
United Kingdom	13.5%	1.7%	10.8%	0.0%	5.3%	0.7%	2.1%	0.9%	0.0%	17.5%	0.7%	0.6%	4.1%	0.0%	4.5%
China	0.0%	0.0%	0.5%	0.7%	1.0%	1.4%	4.3%	2.1%	11.6%	2.1%	0.6%	7.3%	4.1%	0.0%	2.6%
Japan	0.4%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	1.4%	1.0%	4.0%	4.3%	1.4%	0.0%	1.1%
others	40.0%	81.7%	68.2%	39.7%	38.1%	44.1%	50.6%	56.0%	34.3%	39.4%	26.8%	54.9%	39.7%	50.0%	41.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の CSO 分類別の引用数は、CSO2 Etiology が最も多いと推計された。



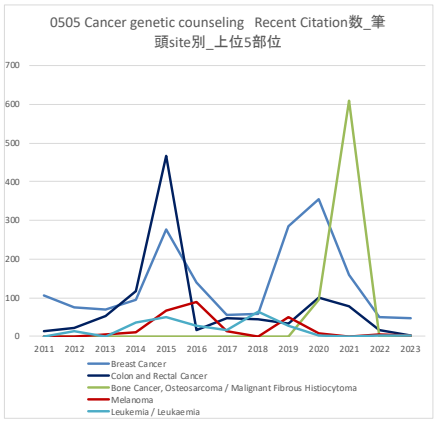




0505 Cancer genetic counseling Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	15	7	4	47	120	66	30	23	92	14	9	10	3	0	440
2 Etiology	60	105	87	181	604	65	132	271	139	300	762	32	14	1	2,753
3 Prevention	0	0	6	9	0	0	11	10	0	3	0	5	0	0	44
4 Early Detection, Diagnosis, and Prognosis	1	5	9	54	58	34	68	14	19	13	54	10	5	0	344
5 Treatment	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23
6 Cancer Control, Survivorship, and Outcomes Research	82	12	20	31	23	26	34	21	39	55	39	50	10	0	442
others	72	106	69	99	243	231	51	86	318	348	81	61	41	1	1,783
合計	230	235	195	421	1,048	422	326	425	630	713	945	164	73	2	5,829

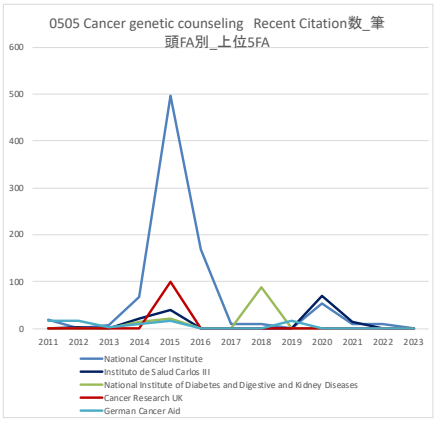
0505 Cancer genetic counseling Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	6.5%	3.0%	2.1%	11.2%	11.5%	15.6%	9.2%	5.4%	14.6%	2.0%	1.0%	6.1%	4.1%	0.0%	7.5%
2 Etiology	26.1%	44.7%	44.6%	43.0%	57.6%	15.4%	40.5%	63.8%	22.1%	42.1%	80.6%	19.5%	19.2%	50.0%	47.2%
3 Prevention	0.0%	0.0%	3.1%	2.1%	0.0%	0.0%	3.4%	2.4%	0.0%	0.4%	0.0%	3.0%	0.0%	0.0%	0.8%
4 Early Detection, Diagnosis, and Prognosis	0.4%	2.1%	4.6%	12.8%	5.5%	8.1%	20.9%	3.3%	3.0%	1.8%	5.7%	6.1%	6.8%	0.0%	5.9%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
6 Cancer Control, Survivorship, and Outcomes Research	35.7%	5.1%	10.3%	7.4%	2.2%	6.2%	10.4%	4.9%	6.2%	7.7%	4.1%	30.5%	13.7%	0.0%	7.6%
others	31.3%	45.1%	35.4%	23.5%	23.2%	54.7%	15.6%	20.2%	50.5%	48.8%	8.6%	37.2%	56.2%	50.0%	30.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の臓器別の引用数は、乳がんが最も多く、次いで大腸がんが多いと推計された。



0505 Cancer genetic counseling Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	106	75	70	95	277	139	56	59	284	354	158	50	47	0	1,770
Colon and Rectal Cancer	14	21	52	117	467	15	48	45	34	100	79	16	3	0	1,011
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	0	0	0	0	0	0	0	0	0	96	609	0	0	0	705
Melanoma	0	0	4	10	66	90	12	0	50	9	0	5	1	0	247
Leukemia / Leukaemia	0	13	0	36	50	27	15	65	27	2	0	3	3	0	241
Not Site-Specific Cancer	10	7	1	30	17	3	28	12	48	13	11	23	0	0	203
Ovarian Cancer	4	0	2	10	28	0	42	32	30	11	0	5	0	0	164
Prostate Cancer	27	0	0	40	0	2	0	2	60	24	0	0	4	0	159
Pancreatic Cancer	16	16	4	0	9	2	36	27	14	25	0	1	0	0	150
Kidney Cancer	0	2	29	6	39	3	8	5	0	0	0	6	2	0	100

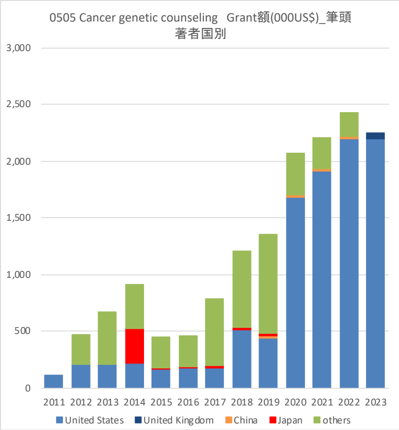
Cancer genetic counselling の FA 別の引用数は、米国 NCI が最も多く、次いでスペインの Instituto de Salud Carlos III が多いと推計された。

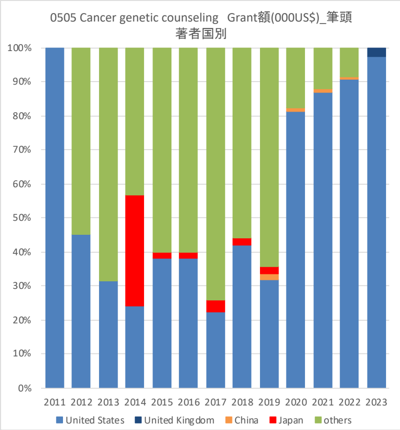


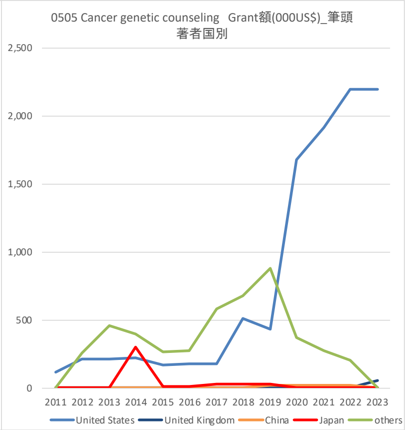
0505 Cancer genetic counseling Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	20	1	7	68	497	170	11	9	0	54	10	10	0	1	858
Instituto de Salud Carlos III	0	2	0	21	39	0	0	0	0	69	14	0	0	0	145
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	14	21	0	0	89	0	0	0	0	0	0	124
Cancer Research UK	0	0	0	0	99	0	0	0	0	0	0	0	0	0	99
German Cancer Aid	16	16	2	10	17	0	0	0	16	0	1	0	1	0	79
European Commission	0	0	0	10	0	0	0	0	9	18	11	12	0	0	60
Ministry of Economy, Industry and Competitiveness	0	0	0	0	0	0	0	0	0	0	42	0	0	0	42
Wellcome Trust	0	0	0	0	42	0	0	0	0	0	0	0	0	0	42
Canadian Institutes of Health Research	0	0	0	13	2	0	0	0	0	13	0	12	0	0	40
National Natural Science Foundation of China	0	0	0	0	8	0	6	2	7	5	5	0	0	0	33

8.5.3. Grant(000US$)額

Cancer genetic counselling の研究費総額は、近年増加傾向が顕著であったと推計された。国別の研究費配分額は、米国が最も多く近年顕著に増加傾向が見られると推計された。



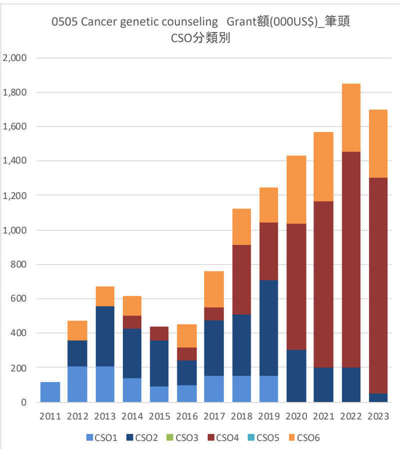


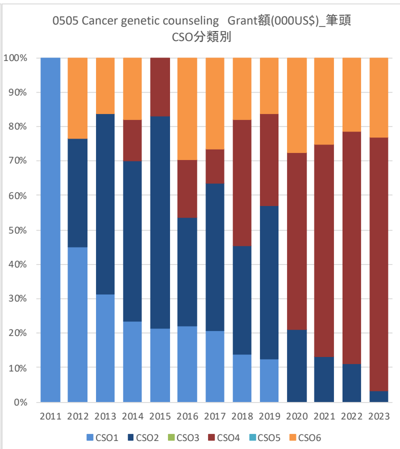


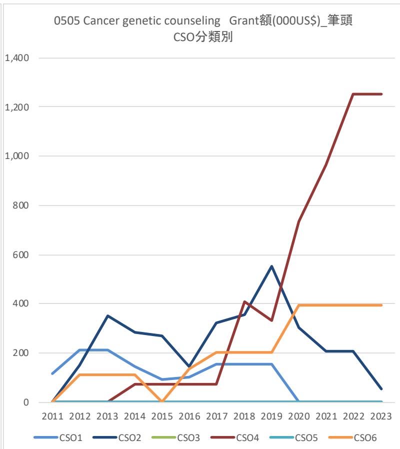
0505 Cancer genetic counseling Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	117	211	211	219	169	174	174	508	433	1,679	1,911	2,196	2,196	2,196	12,392
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	56	56	111
China	0	0	0	0	0	0	0	0	22	22	22	22	0	0	89
Japan	0	0	0	299	8	8	27	27	27	0	0	0	0	0	395
others	0	256	459	393	267	276	581	675	874	368	269	205	0	0	4,624
合計	117	467	670	910	444	458	782	1,210	1,356	2,070	2,202	2,423	2,251	2,251	17,612

0505 Cancer genetic counseling Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	100.0%	45.1%	31.5%	24.0%	38.0%	38.0%	22.3%	42.0%	31.9%	81.1%	86.8%	90.6%	97.5%	97.5%	70.4%
United Kingdom	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	2.5%	0.6%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	1.1%	1.0%	0.9%	0.0%	0.0%	0.5%
Japan	0.0%	0.0%	0.0%	32.8%	1.8%	1.7%	3.4%	2.2%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%
others	0.0%	54.9%	68.5%	43.2%	60.2%	60.2%	74.3%	55.8%	64.4%	17.8%	12.2%	8.5%	0.0%	0.0%	26.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis の近年の増加が顕著で、次いで CSO2 Etiology、CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



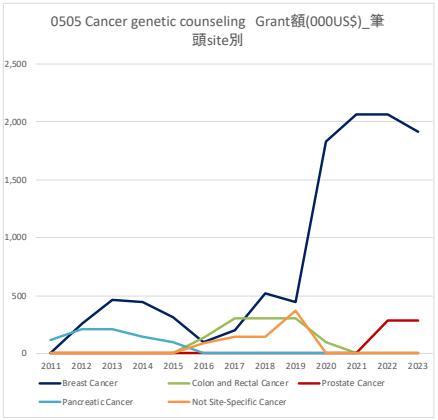




0505 Cancer genetic counseling Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	117	211	211	144	94	100	156	156	156	0	0	0	0	0	1,344
2 Etiology	0	147	350	284	267	142	324	355	553	305	205	205	56	56	3,249
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	0	0	0	74	74	74	74	408	334	734	966	1,250	1,250	1,250	6,489
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cancer Control, Survivorship, and Outcomes Research	0	109	109	109	0	133	201	201	201	394	394	394	394	394	3,033
others	0	109	109	408	8	141	228	292	314	638	638	574	552	552	4,562
合計	117	467	670	910	444	458	782	1,210	1,356	2,070	2,202	2,423	2,251	2,251	17,612

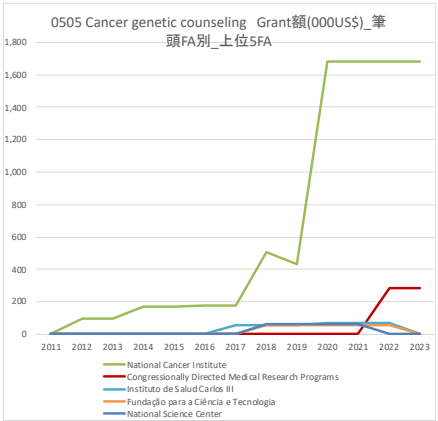
0505 Cancer genetic counseling Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	100.0%	45.1%	31.5%	15.9%	21.2%	21.8%	19.9%	12.9%	11.5%	0.0%	0.0%	0.0%	0.0%	0.0%	7.6%
2 Etiology	0.0%	31.5%	52.3%	31.2%	60.2%	31.1%	41.4%	29.3%	40.8%	14.7%	9.3%	8.5%	2.5%	2.5%	18.4%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	0.0%	8.2%	16.8%	16.3%	9.5%	33.7%	24.6%	35.5%	43.8%	51.6%	55.5%	55.5%	36.8%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	23.3%	16.3%	12.0%	0.0%	29.1%	25.7%	16.6%	14.8%	19.0%	17.9%	16.2%	17.5%	17.5%	17.2%
others	0.0%	23.3%	16.3%	44.8%	1.8%	30.9%	29.2%	24.1%	23.1%	30.8%	29.0%	23.7%	24.5%	24.5%	25.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cancer genetic counselling の臓器別の研究費配分額は、乳がんが最も多く経年的にも大きく増加していた。次いで大腸がん、前立腺がんの順と推計された。



0505 Cancer genetic counseling Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Breast Cancer	0	256	459	440	315	97	205	517	442	1,830	2,062	2,062	1,911	1,911	12,507
Colon and Rectal Cancer	0	0	0	0	0	133	301	301	301	100	0	0	0	0	1,136
Prostate Cancer	0	0	0	0	0	0	0	0	0	0	0	284	284	284	853
Pancreatic Cancer	117	211	211	144	94	0	0	0	0	0	0	0	0	0	777
Not Site-Specific Cancer	0	0	0	0	0	93	150	148	373	0	0	0	0	0	764
Pituitary Tumor	0	0	0	0	0	0	0	55	55	55	55	55	0	0	273
Melanoma	0	0	0	27	27	27	27	27	0	0	0	0	0	0	134
Leukemia / Leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	56	56	111
Liver Cancer	0	0	0	0	0	0	0	0	22	22	22	22	0	0	89
Adrenocortical Cancer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cancer genetic counselling の FA 別の研究費配分額は、米国 NCI が最も多く、次いで米国 Congressionally Directed Medical Research Programs、スペインの Instituto de Salud Carlos III の順と推計された。



0505 Cancer genetic counseling Grant額 (000US$),筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	0	94	94	169	169	174	174	508	433	1,679	1,679	1,679	1,679	1,679	10,212	United States
Congressionally Directed Medical Research Programs	0	0	0	0	0	0	0	0	0	0	0	284	284	284	853	United States
Instituto de Salud Carlos III	0	0	0	0	0	0	56	56	56	69	69	69	0	0	375	Spain
Fundação para a Ciência e Tecnologia	0	0	0	0	0	0	0	55	55	55	55	55	0	0	273	Portugal
National Science Center	0	0	0	0	0	0	0	64	64	64	64	0	0	0	255	Poland
Medical Research Council	0	0	0	0	0	0	0	0	0	0	0	0	56	56	111	United Kingdom
National Natural Science Foundation of China	0	0	0	0	0	0	0	0	22	22	22	22	0	0	89	China
Japan Society for the Promotion of Science	0	0	0	8	8	8	0	0	0	0	0	0	0	0	24	Japan

8.5.4. 主要論文、引用、研究費

＜論文＞

Publication: 0505 Cancer genetic counseling

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Experience with a nurse-driven genetic counseling pathway of Italian women with uninformative BRCA test result	Blondeaux, Eva; Lambertini, Matteo; Buzzatti, Giulia; Bruzzone, Carla; Baraga, Marina; Pisani, Roberta; Del Mastro, Lucia; Pronzato, Paolo; Varesco, Liliana; Bonelli, Luigina	Journal of Genetic Counseling	Italy	2022	0	Research Article
2	Hereditary evaluation and genetic counselling in young individuals with colorectal cancer in a population-based cohort	Lundqvist, Erik; Kuchinskaya, Ekaterina; Landerholm, Kalle; Assarsson, Jeanette; Benckert, Anna; Myrelid, Pär; Haapaniemi, Staffan	Surgical Oncology	Sweden	2022	1	Research Article
3	Determinants of genetic counseling uptake and its impact on breast cancer outcome: a population-based study	Ayme, Aurélie; Viassolo, Valeria; Rapiti, Elisabetta; Fioretta, Gérald; Schubert, Hyma; Bouchardy, Christine; Chappuis, Pierre O.; Benhamou, Simone	Breast Cancer Research and Treatment	Switzerland	2014	3	Research Article
4	Estimation of familial recurrence risk of malignancy: Application of liability threshold model in genetic counseling	Nagao, Yoshiro	Clinical Genetics	Japan	2022	1	Research Article
5	Genetic counselling referral practices for patients with pancreatic adenocarcinoma: A French retrospective multicentre observational cohort study (CAPANCOGEN)	Brugel, Mathias; Marulier, Thibault; Evrard, Camille; Carlier, Claire; Tougeron, David; Piessen, Guillaume; Truant, Stéphanie; Turpin, Anthony; Williet, Nicolas; Botsen, Damien; Brasseur, Mathilde; Perrier, Marine; Bouché, Olivier	Pancreatology	France	2023	0	Research Article
6	Familial pancreatic cancer—current knowledge	Bartsch, Detlef K.; Gress, Thomas M.; Langer, Peter	Nature Reviews Gastroenterology & Hepatology	Germany	2012	16	Review Article
7	Mapping psychosocial interventions in familial colorectal cancer: a rapid systematic review	Ciucă, Andrada; Moldovan, Ramona; Băban, Adriana	BMC Cancer	United Kingdom	2022	1	Review Article
8	Role of psychological background in cancer susceptibility genetic testing distress: It is not only about a positive result	López-Fernández, Adrià; Villacampa, Guillermo; Salinas, Mònica; Grau, Elia; Darder, Esther; Carrasco, Estela; Solanes, Ares; Velasco, Angela; Torres, Maite; Munté, Elisabet; Iglesias, Silvia; Torres-Esquius, Sara; Tuset, Noemí; Diez, Orland; Lázaro, Conxi; Brunet, Joan; Corbella, Sergi; Balmaña, Judith	Journal of Genetic Counseling	Spain	2023	2	Research Article
9	Remotely Delivered Cancer Genetic Testing in the Making Genetic Testing Accessible (MAGENTA) Trial	Swisher, Elizabeth M; Rayes, Nadine; Bowen, Deborah; Peterson, Christine B; Norquist, Barbara M; Coffin, Tara; Gavin, Kathleen; Polinsky, Deborah; Crase, Jamie; Bakkum-Gamez, Jamie N; Blank, Stephanie V; Munsell, Mark F; Nebgen, Denise; Fleming, Gini F; Olopade, Olufunmilayo I; Law, Sherman; Zhou, Alicia; Levine, Douglas A; D'Andrea, Alan; Lu, Karen H	JAMA Oncology	United States	2023	8	Research Article
10	Families' experience of oncogenetic counselling: accounts from a heterogeneous hereditary cancer risk population	Mendes, Álvaro; Sousa, Liliana	Familial Cancer	Portugal	2012	4	Research Article

＜引用＞

Citation: 0505 Cancer genetic counseling

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic, Version 2.2021, NCCN Clinical Practice Guidelines in Oncology.	Daly, Mary B; Pal, Tuya; Berry, Michael P; Buys, Saundra S; Dickson, Patricia; Domchek, Susan M; Elkhanany, Ahmed; Friedman, Susan; Goggins, Michael; Hutton, Mollie L; Karlan, Beth Y; Khan, Seema; Klein, Catherine; Kohlmann, Wendy; Kurian, Allison W; Laronga, Christine; Litton, Jennifer K; Mak, Julie S; Menendez, Carolyn S; Merajver, Sofia D; Norquist, Barbara S;	Journal of the National Comprehensive Cancer Network	United States	2021	580	0
2	ACG Clinical Guideline: Genetic Testing and Management of Hereditary Gastrointestinal Cancer Syndromes	Syngal, Sapna; Brand, Randall E; Church, James M; Giardiello, Francis M; Hampel, Heather L; Burt, Randall W	The American Journal of Gastroenterology	United States	2015	363	Review Article
3	NCCN Guidelines Insights: Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic, Version 1.2020.	Daly, Mary B; Pilarski, Robert; Yurgelun, Matthew B; Berry, Michael P; Buys, Saundra S; Dickson, Patricia; Domchek, Susan M; Elkhanany, Ahmed; Friedman, Susan; Garber, Judy E; Goggins, Michael; Hutton, Mollie L; Khan, Seema; Klein, Catherine; Kohlmann, Wendy; Kurian, Allison W; Laronga, Christine; Litton, Jennifer K; Mak, Julie S; Menendez, Carolyn S; Merajver, Sofia D;	Journal of the National Comprehensive Cancer Network	United States	2020	190	Research Article
4	Risk Assessment, Genetic Counseling, and Genetic Testing for BRCA-Related Cancer	Force, Preventive Services Task; Owens, Douglas K.; Davidson, Karina W.; Krist, Alex H.; Barry, Michael J.; Cabana, Michael; Caughey, Aaron B.; Doubeni, Chyke A.; Epling, John W.; Kubik, Martha; Landefeld, C. Seth; Mangione, Carol M.; Pbert, Lori; Silverstein, Michael; Simon, Melissa A.; Tseng, Chien-Wen; Wong, John B.	JAMA	United States	2019	169	Review Article
5	Hereditary diffuse gastric cancer: updated clinical guidelines with an emphasis on germline CDH1 mutation carriers	van der Post, Rachel S; Vogelaar, Ingrid P; Carneiro, Fátima; Guilford, Parry; Huntsman, David; Hoogerbrugge, Nicoline; Caldas, Carlos; Schreiber, Karen E Chelcun; Hardwick, Richard H; Ausems, Margreet G E M; Bardram, Linda; Benusiglio, Patrick R; Bisseling, Tanya M; Blair, Vanessa; Bleiker, Eveline; Boussioutas, Alex; Cats, Annemieke; Coit, Daniel; DeGregorio, Lynn; Figueiredo, Joana; Ford, James M; Heijkoop, Esther; Hermens,	Journal of Medical Genetics	Italy	2015	99	Review Article
6	Frequency of Pathogenic Germline Variants in Cancer-Susceptibility Genes in Patients With Osteosarcoma	Mirabello, Lisa; Zhu, Bin; Koster, Roelof; Karlins, Eric; Dean, Michael; Yeager, Meredith; Gianferante, Matthew; Spector, Logan G.; Morton, Lindsay M.; Karyadi, Danielle; Robison, Leslie L.; Armstrong, Gregory T.; Bhatia, Smita; Song, Lei; Pankratz, Nathan; Pinheiro, Maisa; Gastier-Foster, Julie M.; Gorlick, Richard; de Toledo, Silvia Regina Caminada; Petrilli, Antonio S.; Patino-Garcia, Ana; Lecanda, Fernando; Gutierrez-Jimeno,	JAMA Oncology	United Kingdom	2020	96	Research Article
7	Evaluating Susceptibility to Pancreatic Cancer: ASCO Provisional Clinical Opinion	Stoffel, Elena M; McKernin, Shannon E; Brand, Randall; Canto, Marcia; Goggins, Michael; Moravek, Cassadie; Nagarajan, Arun; Petersen, Gloria M; Simeone, Diane M; Yurgelun, Matthew; Khorana, Alok A	Journal of Clinical Oncology	United States	2018	78	Research Article
8	Hereditary Colorectal Cancer Syndromes: American Society of Clinical Oncology Clinical Practice Guideline Endorsement of the Familial Risk-Colorectal Cancer: European Society for Medical Oncology Clinical Practice Guidelines	Stoffel, Elena M; Mangu, Pamela B; Gruber, Stephen B; Hamilton, Stanley R; Kalady, Matthew F; Lau, Michelle Wan Yee; Lu, Karen H; Roach, Nancy; Limburg, Paul J	Journal of Clinical Oncology	United States	2014	73	Research Article
9	NCCN Guidelines Insights: Genetic/Familial High-Risk Assessment: Breast and Ovarian, Version 2.2017.	Daly, Mary B; Pilarski, Robert; Berry, Michael; Buys, Saundra S; Farmer, Meagan; Friedman, Susan; Garber, Judy E; Kauff, Noah D; Khan, Seema; Klein, Catherine; Kohlmann, Wendy; Kurian, Allison; Litton, Jennifer K; Madlensky, Lisa; Merajver, Sofia D; Offit, Kenneth; Pal, Tuya; Reiser, Gwen; Shannon, Kristen Mahoney; Swisher, Elizabeth; Vinayak, Shaveta; Voian, Nicoleta C; Weitzel, Jeffrey N; Wick, Myra J; Wiesner, Georgia L; Dwyer, Mary; Darlow, Susan	Journal of the National Comprehensive Cancer Network	United States	2016	72	Research Article
10	Somatic and germline genomics in paediatric acute lymphoblastic leukaemia	Pui, Ching-Hon; Nichols, Kim E.; Yang, Jun J.	Nature Reviews Clinical Oncology	United States	2018	64	Review Article

＜研究費＞

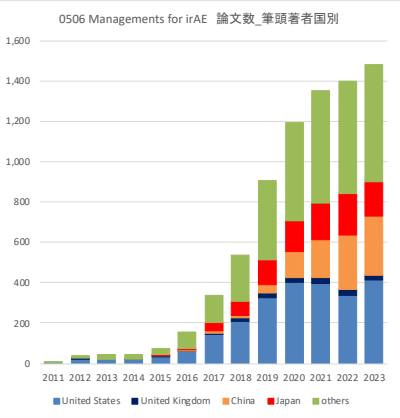
Grant: 0505 Cancer genetic counseling

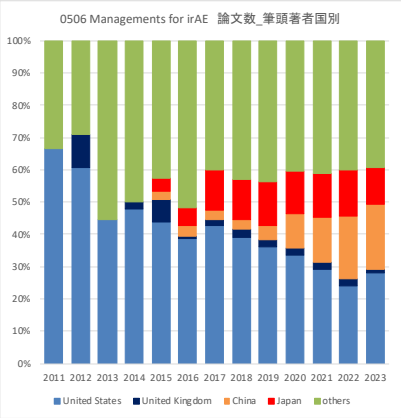
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Prospective Trial of a Linguistically and Culturally Appropriate Mainstreaming Model for Hereditary Cancer Multigene Panel Testing Among Diverse Cancer Patients	JADA GABRIELLE HAMILTON	National Cancer Institute	United States	2,801,693	2020	2026
2	Leveraging tumor registries and pathology specimens to facilitate genetic testing and traceback for ovarian cancer	JESSICA EZZELL HUNTER	National Cancer Institute	United States	2,665,747	2020	2025
3	Facilitated Education and Testing in BRCA Positive Families	MARC D SCHWARTZ	National Cancer Institute	United States	2,335,673	2018	2024
4	Improving Genetic Counseling for BRCA+ Mothers	KENNETH TERCYAK, BETH N PESHKIN	National Cancer Institute	United States	1,968,674	2020	2024
5	Promoting Equity Through a Culturally Tailored Prostate Cancer Genetics Video for African American Males for Impact Long Term: PREVAIL Study	Veda N Giri	Congressionally Directed Medical Research Programs	United States	1,137,950	2022	2025
6	Access to Genetic Information Leveraging Innovative Technology (AGILITY) Study	JESSICA EZZELL HUNTER, BARBARA BOWLES BIESECKER	National Human Genome Research Institute	United States	926,755	2021	2024
7	Promoting Genetic Counseling among African American Women with Hereditary Risk for Breast Cancer	VIDA ANN HENDERSON	National Cancer Institute	United States	644,921	2020	2025
8	Integration of genetic testing for risk associated genomic variants and rare predisposition genes into the management of high risk hereditary breast cancer families	Paul James, Gillian Mitchell, Marion Harris, Nina Hallowell, Mary-Anne Young	National Health and Medical Research Council	Australia	589,407	2012	2015
9	Importance of family history of cancer on colorectal cancer occurence and outcome: setting-up a population-based Familial Colorectal Cancer Registry in Geneva	Christine Bouchardy, Pierre Olivier Chappuis, Giacomo Puppa, Elisabetta Rapiti, Inti Zlobec, Claude Anne Bron, Daniel Cobos Rivera, Joana Cruz, Evelyne Fournier, Nicolas Ionescu, Daniela Loponte, Helena Markwalder, Simone Benhamou	Swiss National Science Foundation	Switzerland	533,416	2016	2019
10	Identification and functional characterization of novel genetic predisposing factors for breast cancer	Katri Pylkäs	Academy of Finland	Finland	489,755	2017	2022

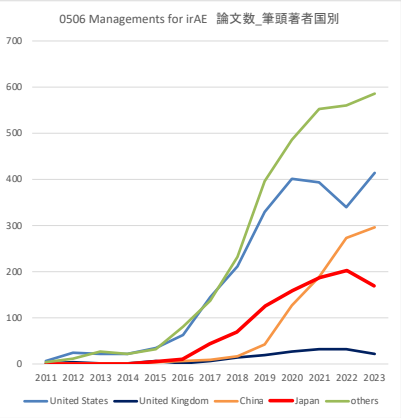
8.6. 0506 Managements for irAE

8.6.1. 論文数

Managements for irAE の論文数は、大きく増加傾向にあると推計された。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。



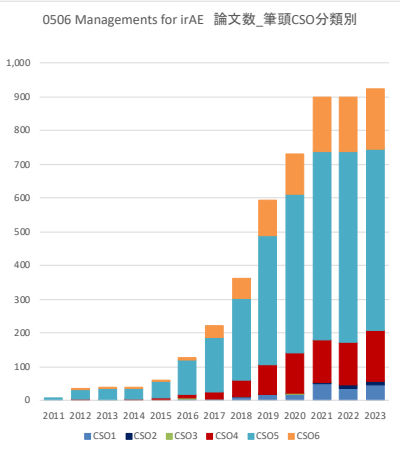


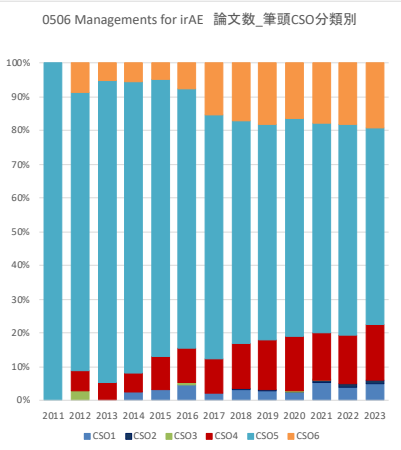


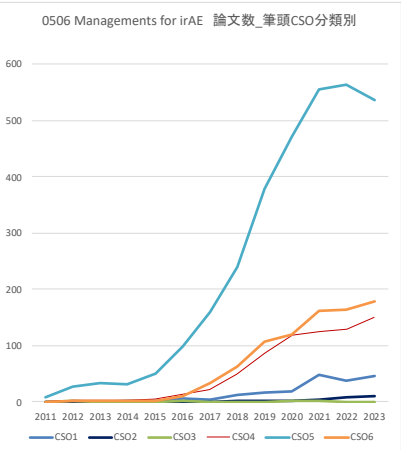
0506 Managements for irAE 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	6	23	20	21	33	61	145	210	328	400	394	338	414	149	2,542
United Kingdom	0	4	0	1	5	1	6	14	19	27	30	30	21	15	173
China	0	0	0	0	2	5	9	15	42	125	188	271	295	117	1,069
Japan	0	0	0	0	3	9	43	68	124	158	185	202	168	88	1,048
others	3	11	25	22	32	81	135	231	396	484	553	559	585	226	3,343
合計	9	38	45	44	75	157	338	538	909	1,194	1,350	1,400	1,483	595	8,175

0506 Managements for irAE 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	66.7%	60.5%	44.4%	47.7%	44.0%	38.9%	42.9%	39.0%	36.1%	33.5%	29.2%	24.1%	27.9%	25.0%	31.1%
United Kingdom	0.0%	10.5%	0.0%	2.3%	6.7%	0.6%	1.8%	2.6%	2.1%	2.3%	2.2%	2.1%	1.4%	2.5%	2.1%
China	0.0%	0.0%	0.0%	0.0%	2.7%	3.2%	2.7%	2.8%	4.6%	10.5%	13.9%	19.4%	19.9%	19.7%	13.1%
Japan	0.0%	0.0%	0.0%	0.0%	4.0%	5.7%	12.7%	12.6%	13.6%	13.2%	13.7%	14.4%	11.3%	14.8%	12.8%
others	33.3%	28.9%	55.6%	50.0%	42.7%	51.6%	39.9%	42.9%	43.6%	40.5%	41.0%	39.9%	39.4%	38.0%	40.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Managements for irAE の CSO 分類別の論文数は、CSO5 Treatment が最も多く、次いで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO4 Early Detection, Diagnosis and Prognosis の順と推計された。



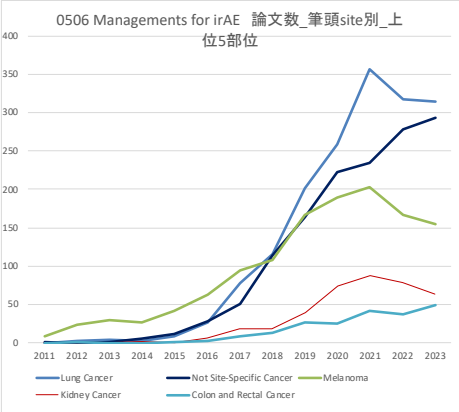




0506 Managements for irAE 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	1	2	6	5	12	17	18	49	37	47	16	210
2 Etiology	0	0	0	0	0	0	0	1	3	2	4	8	10	5	33
3 Prevention	0	1	0	0	0	1	0	0	0	1	2	0	0	1	6
4 Early Detection, Diagnosis, and Prognosis	0	2	2	2	6	13	22	49	88	119	126	129	151	69	778
5 Treatment	8	28	34	32	50	99	160	239	379	472	556	563	537	209	3,366
6 Cancer Control, Survivorship, and Outcomes Research	0	3	2	2	3	10	34	63	108	119	161	163	179	67	914
others	1	4	7	7	14	28	117	174	314	463	452	500	559	228	2,868
合計	9	38	45	44	75	157	338	538	909	1,194	1,350	1,400	1,483	595	8,175

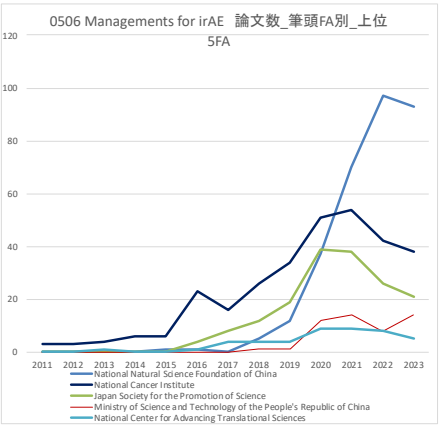
0506 Managements for irAE 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	2.3%	2.7%	3.8%	1.5%	2.2%	1.9%	1.5%	3.6%	2.6%	3.2%	2.7%	2.6%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.2%	0.3%	0.6%	0.7%	0.8%	0.4%
3 Prevention	0.0%	2.6%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.2%	0.1%
4 Early Detection, Diagnosis, and Prognosis	0.0%	5.3%	4.4%	4.5%	8.0%	8.3%	6.5%	9.1%	9.7%	10.0%	9.3%	9.2%	10.2%	11.6%	9.5%
5 Treatment	88.9%	73.7%	75.6%	72.7%	66.7%	63.1%	47.3%	44.4%	41.7%	39.5%	41.2%	40.2%	36.2%	35.1%	41.2%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	7.9%	4.4%	4.5%	4.0%	6.4%	10.1%	11.7%	11.9%	10.0%	11.9%	11.6%	12.1%	11.3%	11.2%
others	11.1%	10.5%	15.6%	15.9%	18.7%	17.8%	34.6%	32.3%	34.5%	38.8%	33.5%	35.7%	37.7%	38.3%	35.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Managements for irAE の臓器別の論文数は、肺がん、Not Site-specific Cancer、メラノーマの順と推計された。



0506 Managements for irAE 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Lung Cancer	0	3	4	2	9	27	78	115	201	259	357	318	315	122	1,810
Not Site-Specific Cancer	1	0	1	5	12	28	50	114	164	222	234	278	294	126	1,529
Melanoma	8	23	30	27	42	62	95	108	167	189	203	166	155	63	1,338
Kidney Cancer	0	0	0	1	0	6	18	19	39	74	87	79	63	17	403
Colon and Rectal Cancer	0	1	0	0	1	2	8	13	27	25	42	37	49	20	225
Liver Cancer	0	0	1	0	0	0	3	8	17	37	41	39	50	26	222
Breast Cancer	0	0	0	0	1	6	5	5	19	15	20	37	54	38	200
Stomach Cancer	0	0	0	0	0	0	0	0	8	23	12	24	18	8	93
Head and Neck Cancer	0	0	0	0	0	0	0	4	12	10	20	19	19	7	91
Bladder Cancer	0	0	0	1	1	2	5	9	8	10	5	16	18	6	81

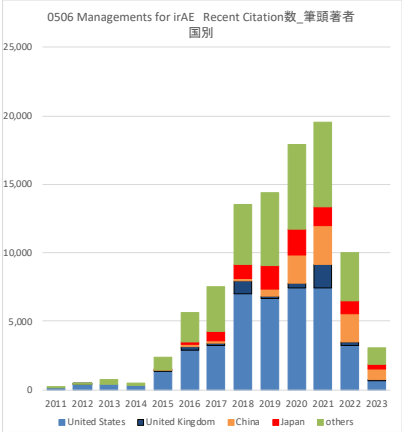
Managements for irAE の FA 別の論文数は、中国 NSFC が最も多く近年の増加傾向が顕著と推計された。次いで米国 NCI、わが国の JSPS と推計された。

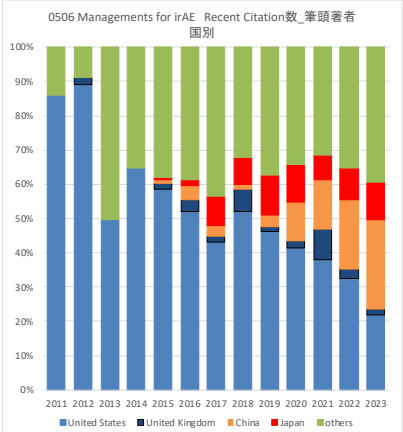


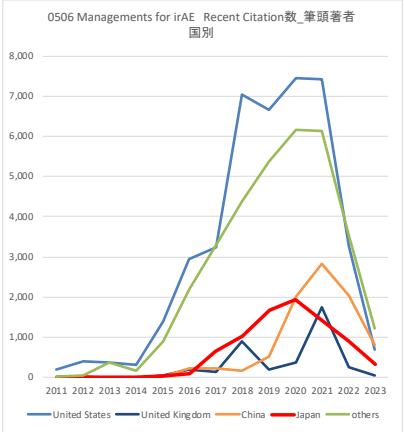
0506 Managements for irAE 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	0	0	0	0	1	1	0	5	12	37	70	97	93	37	353
National Cancer Institute	3	3	4	6	6	23	16	26	34	51	54	42	38	14	320
Japan Society for the Promotion of Science	0	0	0	0	0	4	8	12	19	39	38	26	21	7	174
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	0	0	0	1	1	12	14	8	14	2	52
National Center for Advancing Translational Sciences	0	0	1	0	0	1	4	4	4	9	9	8	5	2	47
Japan Agency for Medical Research and Development	0	0	0	0	1	0	0	3	6	10	10	3	5	2	40
National Heart Lung and Blood Institute	0	0	0	0	1	0	0	7	3	4	7	9	7	2	40
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	1	1	2	5	5	7	7	8	2	38
National Institute of Arthritis and Musculoskeletal and Skin Diseases	0	0	0	0	0	3	2	1	0	6	1	6	7	4	30
National Institute of Allergy and Infectious Diseases	0	0	0	0	0	0	1	1	3	3	5	4	8	3	28

8.6.2. Recent Citation 数

Managements for irAE の引用数は、経年的に増加傾向が見られた。国別の引用数は、米国が最も多く、次いで中国、日本の順に多いと推計された。



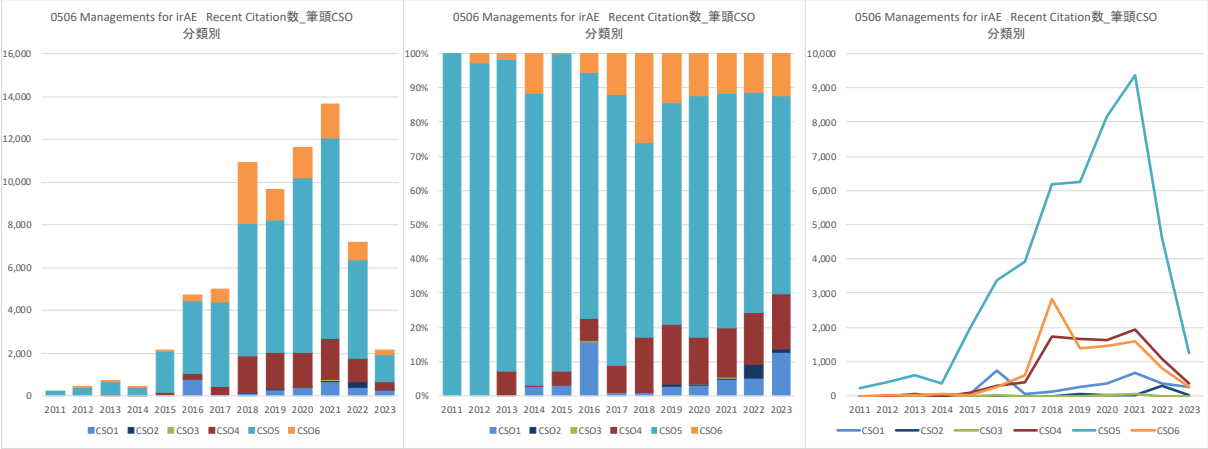




0506 Managements for irAE Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	190	388	369	306	1,382	2,937	3,242	7,042	6,654	7,454	7,430	3,264	677	38	41,373
United Kingdom	0	8	0	0	39	184	128	892	203	366	1,734	262	52	3	3,871
China	0	0	0	0	22	232	231	178	507	2,011	2,817	2,044	803	50	8,895
Japan	0	0	0	0	19	104	644	1,034	1,677	1,940	1,401	898	330	20	8,067
others	31	39	374	167	893	2,171	3,281	4,366	5,378	6,153	6,140	3,541	1,213	52	33,799
合計	221	435	743	473	2,355	5,628	7,526	13,512	14,419	17,924	19,522	10,009	3,075	163	96,005

0506 Managements for irAE Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	86.0%	89.2%	49.7%	64.7%	58.7%	52.2%	43.1%	52.1%	46.1%	41.6%	38.1%	32.6%	22.0%	23.3%	43.1%
United Kingdom	0.0%	1.8%	0.0%	0.0%	1.7%	3.3%	1.7%	6.6%	1.4%	2.0%	8.9%	2.6%	1.7%	1.8%	4.0%
China	0.0%	0.0%	0.0%	0.0%	0.9%	4.1%	3.1%	1.3%	3.5%	11.2%	14.4%	20.4%	26.1%	30.7%	9.3%
Japan	0.0%	0.0%	0.0%	0.0%	0.8%	1.8%	8.6%	7.7%	11.6%	10.8%	7.2%	9.0%	10.7%	12.3%	8.4%
others	14.0%	9.0%	50.3%	35.3%	37.9%	38.6%	43.6%	32.3%	37.3%	34.3%	31.5%	35.4%	39.4%	31.9%	35.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

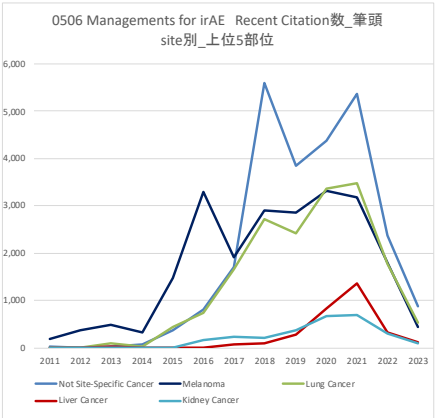
Managements for irAE の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



0506 Managements for irAE Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	12	69	744	50	128	268	372	665	362	274	1	2,945
2 Etiology	0	0	0	0	0	0	0	1	63	24	34	303	25	3	453
3 Prevention	0	0	0	0	0	8	0	0	0	3	66	0	0	0	77
4 Early Detection, Diagnosis, and Prognosis	0	0	46	1	83	309	399	1,742	1,672	1,612	1,932	1,087	344	11	9,238
5 Treatment	221	408	590	377	1,958	3,374	3,922	6,193	6,244	8,172	9,373	4,605	1,254	77	46,768
6 Cancer Control, Survivorship, and Outcomes Research	0	12	12	51	3	261	596	2,832	1,394	1,442	1,587	802	269	10	9,271
others	0	15	95	32	242	932	2,559	2,616	4,778	6,299	5,865	2,850	909	61	27,253
合計	221	435	743	473	2,355	5,628	7,526	13,512	14,419	17,924	19,522	10,009	3,075	163	96,005

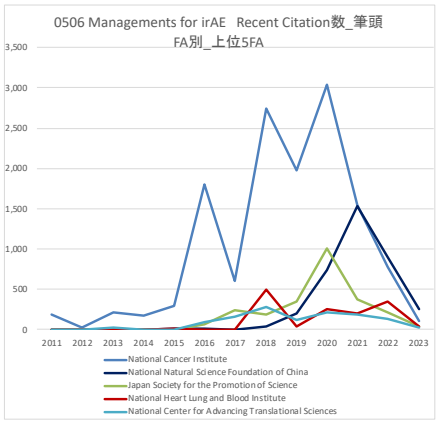
0506 Managements for irAE Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	2.5%	2.9%	13.2%	0.7%	0.9%	1.9%	2.1%	3.4%	3.6%	8.9%	0.6%	3.1%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%	0.2%	3.0%	0.8%	1.8%	0.5%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	6.2%	0.2%	3.5%	5.5%	5.3%	12.9%	11.6%	9.0%	9.9%	10.9%	11.2%	6.7%	9.6%
5 Treatment	100.0%	93.8%	79.4%	79.7%	83.1%	60.0%	52.1%	45.8%	43.3%	45.6%	48.0%	46.0%	40.8%	47.2%	48.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	2.8%	1.6%	10.8%	0.1%	4.6%	7.9%	21.0%	9.7%	8.0%	8.1%	8.0%	8.7%	6.1%	9.7%
others	0.0%	3.4%	12.8%	6.8%	10.3%	16.6%	34.0%	19.4%	33.1%	35.1%	30.0%	28.5%	29.6%	37.4%	28.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Managements for irAE の臓器別の引用数は、Not Site-specific Cancer が最も多く、次いでメラノーマ、肺がんの順と推計された。



0506 Managements for irAE Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	25	0	30	78	364	800	1,699	5,601	3,837	4,387	5,366	2,369	879	28	25,463
Melanoma	196	373	485	313	1,470	3,296	1,917	2,912	2,861	3,320	3,183	1,794	428	14	22,562
Lung Cancer	0	6	86	17	450	743	1,668	2,717	2,425	3,361	3,480	1,783	539	53	17,328
Liver Cancer	0	0	36	0	0	0	72	93	275	841	1,367	324	123	3	3,134
Kidney Cancer	0	0	0	0	0	164	243	200	376	681	682	312	96	2	2,756
Colon and Rectal Cancer	0	0	0	0	3	21	269	75	515	263	529	321	89	13	2,098
Breast Cancer	0	0	0	0	8	22	16	24	752	196	284	459	108	3	1,872
Leukemia / Leukaemia	0	0	0	0	3	8	12	141	415	70	97	95	23	0	864
Thyroid Cancer	0	0	0	0	5	5	153	42	136	166	180	132	18	1	838
Head and Neck Cancer	0	0	0	0	0	0	0	28	94	84	228	119	26	1	580

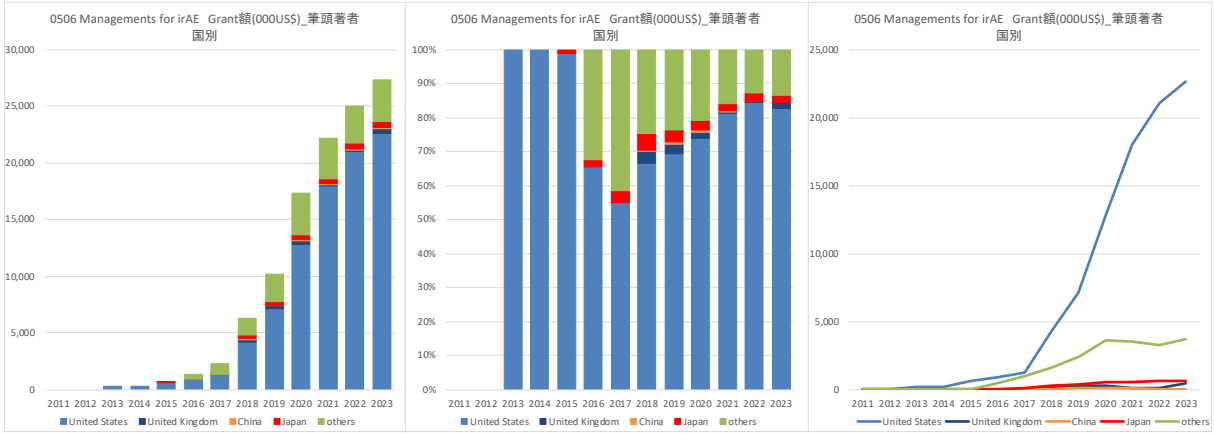
Managements for irAE の FA 別の引用数は、米国 NCI が最も多く、次いで中国 NSFC、わが国の JSPS の順と推計された。



0506 Managements for irAE Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	186	31	216	170	294	1,804	608	2,748	1,974	3,037	1,548	777	107	7	13,507
National Natural Science Foundation of China	0	0	0	0	8	6	0	37	196	743	1,526	900	257	11	3,684
Japan Society for the Promotion of Science	0	0	0	0	0	69	244	187	352	1,002	369	214	36	1	2,474
National Heart Lung and Blood Institute	0	0	0	0	13	0	0	498	34	256	194	350	36	0	1,381
National Center for Advancing Translational Sciences	0	0	21	0	0	87	155	280	114	219	183	129	28	0	1,216
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	22	13	45	218	70	439	80	25	7	919
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	0	0	0	37	63	267	242	53	84	1	747
Agence Nationale de la Recherche	0	0	0	0	0	0	485	34	0	132	23	0	23	0	697
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	56	20	595	13	1	0	685
Instituto de Salud Carlos III	0	0	0	0	0	0	0	481	85	16	0	47	0	0	629

8.6.3. Grant(000US$)額

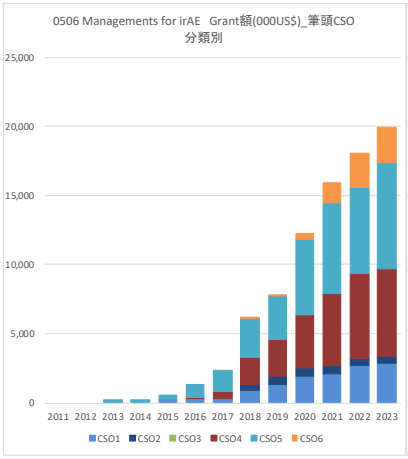
Managements for irAE の研究費総額は、経年的に大きく増加傾向にあると推計された。国別の研究費配分額は、米国が最も多く経年的にも増加傾向が見られた。

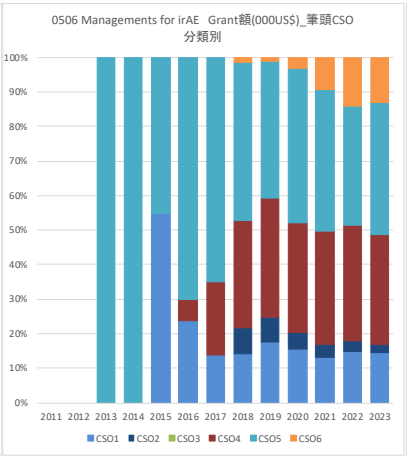


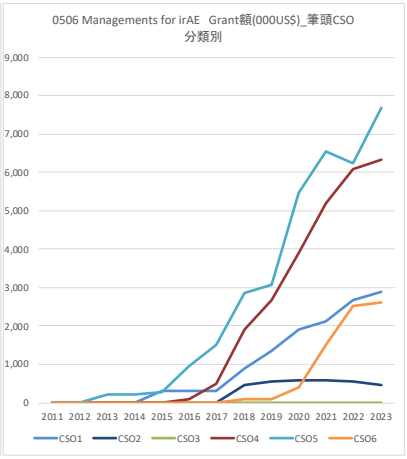
0506 Managements for irAE Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	0	229	229	581	887	1,277	4,203	7,072	12,785	17,955	21,059	22,633	20,274	109,183
United Kingdom	0	0	0	0	0	0	0	222	308	308	86	86	414	517	1,942
China	0	0	0	0	0	0	0	11	54	84	73	52	20	0	294
Japan	0	0	0	0	6	29	82	314	364	495	516	581	585	438	3,411
others	0	0	0	0	0	438	961	1,553	2,419	3,611	3,505	3,215	3,692	2,322	21,717
合計	0	0	229	229	587	1,355	2,321	6,303	10,217	17,284	22,136	24,992	27,345	23,550	136,546

0506 Managements for irAE Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States			100.0%	100.0%	98.9%	65.5%	55.0%	66.7%	69.2%	74.0%	81.1%	84.3%	82.8%	86.1%	80.0%
United Kingdom			0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.0%	1.8%	0.4%	0.3%	1.5%	2.2%	1.4%
China			0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	0.5%	0.3%	0.2%	0.1%	0.0%	0.2%
Japan			0.0%	0.0%	1.1%	2.2%	3.5%	5.0%	3.6%	2.9%	2.3%	2.3%	2.1%	1.9%	2.5%
others			0.0%	0.0%	0.0%	32.3%	41.4%	24.6%	23.7%	20.9%	15.8%	12.9%	13.5%	9.9%	15.9%
合計			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Managements for irAE の CSO 分類別の研究費配分額は、CSO5 Treatment と CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



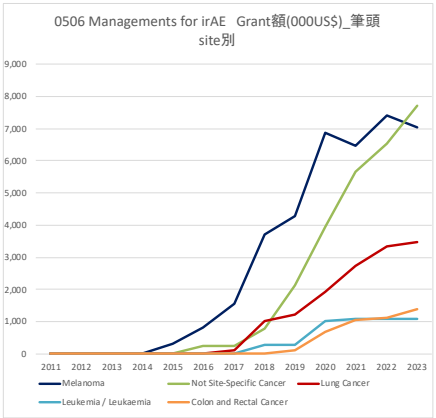




0506 Managements for irAE Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	321	321	321	879	1,365	1,918	2,127	2,686	2,882	2,716	15,535
2 Etiology	0	0	0	0	0	0	0	470	556	576	576	556	470	470	3,672
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	83	494	1,918	2,687	3,893	5,204	6,092	6,347	5,568	32,286
5 Treatment	0	0	229	229	266	950	1,505	2,847	3,087	5,473	6,539	6,244	7,672	6,480	41,520
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	80	89	391	1,510	2,524	2,601	1,913	9,108
others	0	0	0	0	0	0	0	110	2,434	5,044	6,192	6,891	7,374	6,404	34,448
合計	0	0	229	229	587	1,355	2,321	6,303	10,217	17,284	22,136	24,992	27,345	23,550	136,546

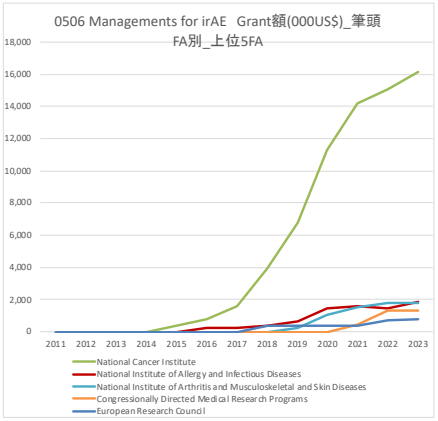
0506 Managements for irAE Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology			0.0%	0.0%	54.7%	23.7%	13.8%	13.9%	13.4%	11.1%	9.6%	10.7%	10.5%	11.5%	11.4%
2 Etiology			0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	5.4%	3.3%	2.6%	2.2%	1.7%	2.0%	2.7%
3 Prevention			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis			0.0%	0.0%	0.0%	6.1%	21.3%	30.4%	26.3%	22.5%	23.5%	24.4%	23.2%	23.6%	23.6%
5 Treatment			100.0%	100.0%	45.3%	70.2%	64.9%	45.2%	30.2%	31.7%	29.5%	25.0%	28.1%	27.5%	30.4%
6 Cancer Control, Survivorship, and Outcomes Research			0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.9%	2.3%	6.8%	10.1%	9.5%	8.1%	6.7%
others			0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	23.8%	29.2%	28.0%	27.6%	27.0%	27.2%	25.2%
合計			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Managements for irAE の臓器別の研究費配分額は、メラノーマが最も多く、次いで Not Site-specific Cancer、肺がんが多いと推計された。



0506 Managements for irAE Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Melanoma	0	0	0	0	321	830	1,567	3,694	4,298	6,868	6,481	7,416	7,033	5,805	44,312
Not Site-Specific Cancer	0	0	0	0	0	246	246	772	2,116	3,941	5,670	6,548	7,718	6,417	33,675
Lung Cancer	0	0	0	0	6	6	116	1,013	1,205	1,930	2,734	3,356	3,470	2,800	16,636
Leukemia / Leukaemia	0	0	0	0	0	0	0	296	296	1,033	1,083	1,083	1,083	1,033	5,908
Colon and Rectal Cancer	0	0	0	0	0	13	13	13	112	694	1,050	1,128	1,378	1,217	5,616
Breast Cancer	0	0	0	0	0	0	149	149	0	0	841	940	1,254	1,254	4,589
Pancreatic Cancer	0	0	229	229	260	260	229	229	229	0	0	0	0	0	1,662
Liver Cancer	0	0	0	0	0	0	0	0	20	29	221	232	230	221	954
Brain Tumor	0	0	0	0	0	0	0	103	195	195	204	101	92	0	889
Kidney Cancer	0	0	0	0	0	0	0	25	171	171	181	30	125	124	826

Managements for irAE の FA 別の研究費配分額は、米国 NCI が最も多く、次いで米国 National Institute of Arthritis and Musculoskeletal and Skin Diseases、米国 National Institute of Allergy and Infectious Diseases が多いと推計された。



0506 Managements for irAE Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	0	0	0	0	352	790	1,568	3,967	6,740	11,284	14,151	15,081	16,134	13,515	83,583	United States
National Institute of Allergy and Infectious Diseases	0	0	0	0	0	246	246	409	674	1,447	1,560	1,460	1,833	1,615	9,491	United States
National Institute of Arthritis and Musculoskeletal and Skin Diseases	0	0	0	0	0	0	0	0	229	1,061	1,537	1,766	1,808	1,489	7,891	United States
Congressionally Directed Medical Research Programs	0	0	0	0	0	0	0	0	0	0	467	1,335	1,335	1,335	4,471	United States
European Research Council	0	0	0	0	0	0	0	395	395	395	395	721	802	802	3,906	Belgium
National Heart Lung and Blood Institute	0	0	0	0	0	0	0	0	0	117	735	735	1,241	1,016	3,843	United States
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	0	0	0	0	0	388	476	817	817	817	3,314	United States
Japan Society for the Promotion of Science	0	0	0	0	6	29	82	223	272	337	449	480	484	404	2,767	Japan
Medical Research Council	0	0	0	0	0	0	0	222	308	308	86	86	0	102	1,113	United Kingdom
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	0	0	0	0	414	414	829	United Kingdom

8.6.4. 主要論文、引用、研究費

＜論文＞

Publication: 0506 Managements for irAE

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Tissue-resident memory T cells in immune-related adverse events: friend or foe?	Reschke, Robin; Gajewski, Thomas F	OncoImmunology	United States	2023	3	Research Article
2	Risk factors and predictors of immune-related adverse events: implications for patients with non-small cell lung cancer	Issa, Majd; Tang, Joy; Guo, Yizhen; Coss, Chris; Mace, Thomas A.; Bischof, Jason; Phelps, Mitch; Presley, Carolyn J; Owen, Dwight H	Expert Review of Anticancer Therapy	United States	2022	7	Review Article
3	Integrative analysis of risk factors for immune-related adverse events of checkpoint blockade therapy in cancer	Sung, Changhwan; An, Jinhyeon; Lee, Soohyeon; Park, Jaesoon; Lee, Kang Seon; Kim, Il-Hwan; Han, Ji-Youn; Park, Yeon Hee; Kim, Jee Hyun; Kang, Eun Joo; Hong, Min Hee; Kim, Tae-Yong; Lee, Jae Cheol; Lee, Jae Lyun; Yoon, Shinkyo; Choi, Chang-Min; Lee, Dae Ho; Yoo, Changhoon; Kim, Sang-We; Jeong, Jae Ho; Seo, Seyoung; Kim, Sun Young; Kong, Sun-Young; Choi, Jung Kyoon; Park, Sook Ryun	Nature Cancer	South Korea	2023	9	Research Article
4	Second-line immunosuppressant administration for steroid-refractory immune-related adverse events in patients with lung cancer	Ogusu, Shinsuke; Harutani, Yuhei; Tozuka, Takehiro; Saito, Ryota; Koyama, Junji; Sakamoto, Hiroaki; Sonoda, Tomoaki; Tsuchiya-Kawano, Yuko; Oba, Tomohiro; Kudo, Keita; Gyotoku, Hiroshi; Nakatomi, Katsumi; Ariyasu, Ryo	Cancer Immunology, Immunotherapy	Japan	2023	3	Research Article
5	Identifying Early Predictive Markers for Immune-Related Adverse Events in Nivolumab-Treated Patients with Renal Cell Carcinoma and Gastric Cancer	Takada, Shinya; Murooka, Hidetaka; Tahatsu, Kanae; Yanase, Maki; Umehara, Kengo; Hashishita, Hirokazu; Toru, Harabayashi; Satoru, Maruyama; Sagawa, Tamotsu; Fujikawa, Koshi; Sato, Hideki; Kozo, Mino	Asian Pacific Journal of Cancer Prevention	Japan	2022	9	Research Article
6	Multisystem Immune-Related Adverse Events from Dual-Agent Immunotherapy Use	Li, Yuchen; Pond, Gregory; McWhirter, Elaine	Current Oncology	Canada	2024	0	Research Article
7	Autoimmune encephalitis related to nivolumab followed by tumor regression.	Mysler, Shirly J; Perazzo, Florencia; Mandó, Pablo	Medicina	Argentina	2023	1	Research Article
8	Evaluating Survival After Hospitalization Due to Immune-Related Adverse Events From Checkpoint Inhibitors	Silverstein, Jordyn; Wright, Francis; Wang, Michelle; Young, Arabella; Kim, Daniel; De Dios, Kimberly; Brondfield, Sam; Quandt, Zoe	The Oncologist	United States	2023	2	Research Article
9	Association between immune-related adverse event timing and treatment outcomes	Hsiehchen, David; Naqash, Abdul Rafeh; Espinoza, Magdalena; Von Itzstein, Mitchell S.; Cortellini, Alessio; Ricciuti, Biagio; Owen, Dwight H.; Laharwal, Mehak; Toi, Yukihiro; Burke, Michael; Xie, Yang; Gerber, David E.	OncoImmunology	United States	2022	42	Research Article
10	Safety of sequential immune checkpoint inhibitors after prior immune therapy	Awidi, Muhammad; Connell, Brendan; Johnson, Delaney; Craven, Isabel; Ranjit, Rojer; Gil, Brigitte; Dal' Bo, Natalie; Maher, Lewena; Daves, Seanna Reilly; McDonald, Stephanie; Gunturu, Krishna S.	Journal of Cancer Research and Clinical Oncology	United States	2022	2	Research Article

＜引用＞

Citation: 0506 Managements for irAE

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Immune-Related Adverse Events Associated with Immune Checkpoint Blockade	Postow, Michael A; Sidlow, Robert; Hellmann, Matthew D	New England Journal of Medicine	United States	2018	1392	Review Article
2	Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline	Brahmer, Julie R.; Lacchetti, Christina; Schneider, Bryan J.; Atkins, Michael B.; Brassil, Kelly J.; Caterino, Jeffrey M.; Chau, Ian; Ernstoff, Marc S.; Gardner, Jennifer M.; Ginex, Pamela; Hallmeyer, Sigrun; Chakrabarty, Jennifer Holter; Leighl, Natasha B.; Mammen, Jennifer S.; McDermott, David F.; Naing, Aung; Nastoupil, Loretta J.; Phillips, Tanyanika; Porter, Laura D.; Puzanov, Igor; Reichner, Cristina A.; Santomasso, Bianca D.; Seigel, Carole; Spira, Alexander; Suarez-Almazor, Maria E.; Wang, Yinghong; Weber, Jeffrey S.; Wolchok, Jedd D.; Thompson, John A.; Network, in collaboration with the National Comprehensive Cancer	Journal of Clinical Oncology		2018	1100	Review Article
3	Immune Checkpoint Inhibitors for the Treatment of Cancer: Clinical Impact and Mechanisms of Response and Resistance	Bagchi, Sreya; Yuan, Robert; Engleman, Edgar G	Annual Review of Pathology Mechanisms of Disease	United States	2020	1062	Review Article
4	Adverse effects of immune-checkpoint inhibitors: epidemiology, management and surveillance	Martins, Filipe; Sofiya, Latifyan; Sykiotis, Gerasimos P.; Lamine, Faiza; Maillard, Michel; Fraga, Montserrat; Shabafrouz, Keyvan; Ribi, Camillo; Cairoli, Anne; Guex-Crosier, Yan; Kuntzer, Thierry; Michielin, Olivier; Peters, Solange; Coukos, Georges; Spertini, Francois; Thompson, John A.; Obeid, Michel	Nature Reviews Clinical Oncology	Switzerland	2019	839	Review Article
5	Immune checkpoint inhibitors: recent progress and potential biomarkers	Darvin, Pramod; Toor, Salman M.; Sasidharan Nair, Varun; Elkord, Eyad	Experimental & Molecular Medicine	United Kingdom	2018	781	Review Article
6	Immunotherapies for hepatocellular carcinoma	Llovet, Josep M.; Castet, Florian; Heikenwalder, Mathias; Maini, Mala K.; Mazzaferro, Vincenzo; Pinato, David J.; Pikarsky, Eli; Zhu, Andrew X.; Finn, Richard S.	Nature Reviews Clinical Oncology	United Kingdom	2021	779	Review Article
7	Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: ASCO Guideline Update	Schneider, Bryan J; Naidoo, Jarushka; Santomasso, Bianca D; Lacchetti, Christina; Adkins, Sherry; Anadkat, Milan; Atkins, Michael B; Brassil, Kelly J; Caterino, Jeffrey M; Chau, Ian; Davies, Marianne J; Ernstoff, Marc S; Fecher, Leslie; Ghosh, Monalisa; Jaiyesimi, Ishmael; Mammen, Jennifer S; Naing, Aung; Nastoupil, Loretta J; Phillips, Tanyanika; Porter, Laura D; Reichner, Cristina A; Seigel, Carole; Song, Jung-Min; Spira, Alexander; Suarez-Almazor, Maria; Swami, Umang; Thompson, John A; Vikas, Praveen; Wang, Yinghong; Weber, Jeffrey S; Funchain, Pauline; Bollin, Kathryn	Journal of Clinical Oncology	United States	2021	704	Review Article
8	Hallmarks of response, resistance, and toxicity to immune checkpoint blockade	Morad, Golnaz; Helmink, Beth A; Sharma, Padmanee; Wargo, Jennifer A	Cell	United States	2021	678	Review Article
9	Fulminant Myocarditis with Combination Immune Checkpoint Blockade	Johnson, Douglas B; Balko, Justin M; Compton, Margaret L; Chalkias, Spyridon; Gorham, Joshua; Xu, Yaomin; Hicks, Mellissa; Puzanov, Igor; Alexander, Matthew R; Bloomer, Tyler L; Becker, Jason R; Slosky, David A; Phillips, Elizabeth J; Pilkinton, Mark A; Craig-Owens, Laura; Kola, Nina; Plautz, Gregory; Reshef, Daniel S; Deutsch, Jonathan S; Deering, Raquel P; Olenchock, Benjamin A; Lichtman, Andrew H; Roden, Dan M; Seidman, Christine E; Koralnik, Igor J; Seidman, Jonathan G; Hoffman, Robert D; Taube, Janis M; Diaz, Luis A; Anders, Robert A; Sosman, Jeffrey A; Moslehi, Javid J	New England Journal of Medicine	United States	2016	630	Research Article
10	Immune-related adverse events of checkpoint inhibitors	Ramos-Casals, Manuel; Brahmer, Julie R.; Callahan, Margaret K.; Flores-Chávez, Alejandra; Keegan, Niamh; Khamashta, Munther A.; Lambotte, Olivier; Mariette, Xavier; Prat, Aleix; Suárez-Almazor, Maria E.	Nature Reviews Disease Primers	United States	2020	623	Review Article

＜研究費＞

Grant: 0506 Managements for irAE

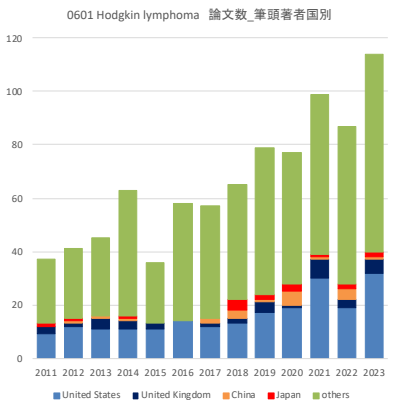
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Defining the features of T cell response to tumor and self-antigens as predictors of response to checkpoint therapy	JANE HOYT BUCKNER, PETER S LINSLEY, LAURA CHOW, ERIC WAMBRE	National Cancer Institute	United States	4,639,940	2019	2025
2	Humoral immunity after CAR-T cell therapy for B cell malignancies: The HICAR Study	JOSHUA AIDEN HILL	National Cancer Institute	United States	3,686,913	2020	2024
3	(8) Genetics of Immune Related Adverse Events and Response to Immunotherapy	ELAD ZIV	National Cancer Institute	United States	3,287,442	2018	2024
4	Immunologic and Antigenic Drivers of Immune Checkpoint Inhibitor-Associated Myocarditis	JUSTIN M BALKO, JAVID J MOSLEHI	National Heart Lung and Blood Institute	United States	3,197,436	2021	2026
5	Identification of pathways to mitigate Immune-Related Adverse Events with Cancer Immunotherapy	DONALD YM LEUNG, JEFFREY A KERN, MARIO LACOUTURE	National Institute of Arthritis and Musculoskeletal and Skin Diseases	United States	3,076,377	2020	2025
6	Adrenergic modulation of cellular immune functions in CAR T cell-induced cytokine release syndrome	VERENA STAEDTKE, RENYUAN BAI	National Cancer Institute	United States	3,040,792	2020	2024
7	(8) Genomic determinants of the T-cell regulome in immune checkpoint blockade	TOMAS KIRCHHOFF, JEFFREY S WEBER	National Cancer Institute	United States	2,997,961	2018	2024
8	Reducing Cancer Health Disparities in Detroit	ANN G. SCHWARTZ, ELISABETH IIJAS HEATH, GEROLD BEPLER, FELICITY HARPER, HAYLEY S. THOMPSON, JULIE LYNN BOERNER	National Cancer Institute	United States	2,957,140	2021	2024
9	Novel mechanisms regulating PD-1 signaling and function	ADAM MOR	National Institute of Allergy and Infectious Diseases	United States	2,956,184	2016	2027
10	Engineering immunotherapeutic probiotics to mitigate irAE	TAL DANINO, NICHOLAS ARPAIA	National Cancer Institute	United States	2,937,508	2020	2024

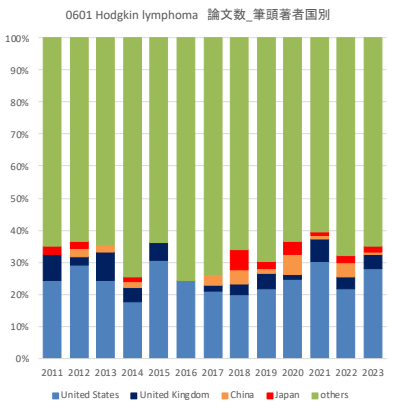
9. テーマ分析：領域 6

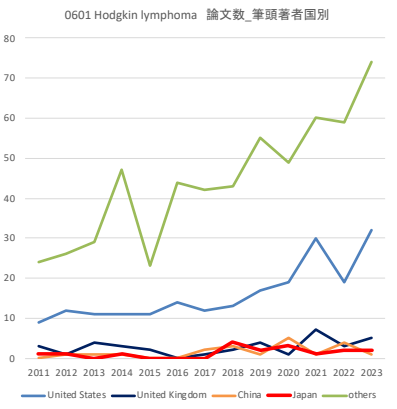
9.1. 0601 Hodgkin lymphoma

9.1.1. 論文数

Hodgkin lymphoma の論文数は経年的に増加傾向が見られた。国別の論文数は、その他の国を除くと、米国、英国の順に多いと推計された。



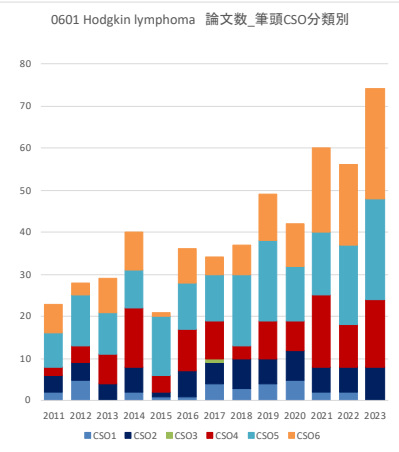


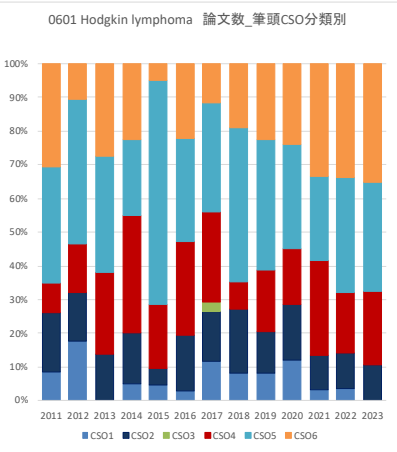


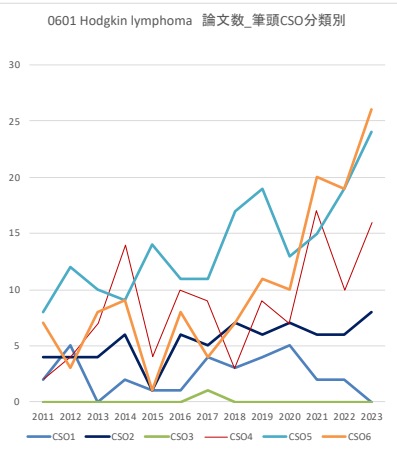
0601 Hodgkin lymphoma 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	9	12	11	11	11	14	12	13	17	19	30	19	32	7	217
United Kingdom	3	1	4	3	2	0	1	2	4	1	7	3	5	2	38
China	0	1	1	1	0	0	2	3	1	5	1	4	1	3	23
Japan	1	1	0	1	0	0	0	4	2	3	1	2	2	1	18
others	24	26	29	47	23	44	42	43	55	49	60	59	74	32	607
合計	37	41	45	63	36	58	57	65	79	77	99	87	114	45	903

0601 Hodgkin lymphoma 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	24.3%	29.3%	24.4%	17.5%	30.6%	24.1%	21.1%	20.0%	21.5%	24.7%	30.3%	21.8%	28.1%	15.6%	24.0%
United Kingdom	8.1%	2.4%	8.9%	4.8%	5.6%	0.0%	1.8%	3.1%	5.1%	1.3%	7.1%	3.4%	4.4%	4.4%	4.2%
China	0.0%	2.4%	2.2%	1.6%	0.0%	0.0%	3.5%	4.6%	1.3%	6.5%	1.0%	4.6%	0.9%	6.7%	2.5%
Japan	2.7%	2.4%	0.0%	1.6%	0.0%	0.0%	0.0%	6.2%	2.5%	3.9%	1.0%	2.3%	1.8%	2.2%	2.0%
others	64.9%	63.4%	64.4%	74.6%	63.9%	75.9%	73.7%	66.2%	69.6%	63.6%	60.6%	67.8%	64.9%	71.1%	67.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の CSO 分類別の論文数は、CSO5 Treatment が最も多く、次いで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



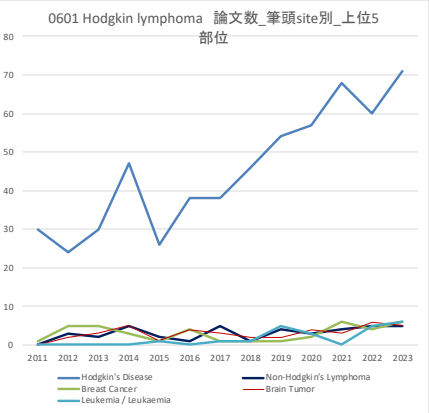




0601 Hodgkin lymphoma 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2	5	0	2	1	1	4	3	4	5	2	2	0	2	33
2 Etiology	4	4	4	6	1	6	5	7	6	7	6	6	8	1	71
3 Prevention	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
4 Early Detection, Diagnosis, and Prognosis	2	4	7	14	4	10	9	3	9	7	17	10	16	6	118
5 Treatment	8	12	10	9	14	11	11	17	19	13	15	19	24	10	192
6 Cancer Control, Survivorship, and Outcomes Research	7	3	8	9	1	8	4	7	11	10	20	19	26	12	145
others	14	13	16	23	15	22	23	28	30	35	39	31	40	13	342
合計	37	41	45	63	36	58	57	65	79	77	99	87	114	45	903

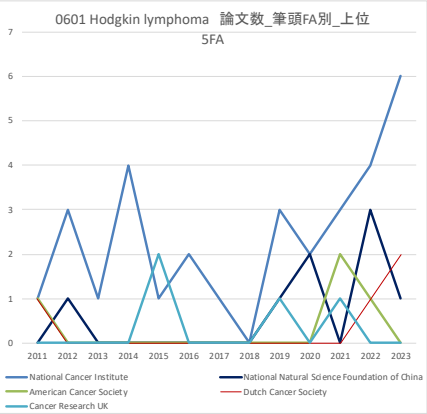
0601 Hodgkin lymphoma 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5.4%	12.2%	0.0%	3.2%	2.8%	1.7%	7.0%	4.6%	5.1%	6.5%	2.0%	2.3%	0.0%	4.4%	3.7%
2 Etiology	10.8%	9.8%	8.9%	9.5%	2.8%	10.3%	8.8%	10.8%	7.6%	9.1%	6.1%	6.9%	7.0%	2.2%	7.9%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.2%
4 Early Detection, Diagnosis, and Prognosis	5.4%	9.8%	15.6%	22.2%	11.1%	17.2%	15.8%	4.6%	11.4%	9.1%	17.2%	11.5%	14.0%	13.3%	13.1%
5 Treatment	21.6%	29.3%	22.2%	14.3%	38.9%	19.0%	19.3%	26.2%	24.1%	16.9%	15.2%	21.8%	21.1%	22.2%	21.3%
6 Cancer Control, Survivorship, and Outcomes Research	18.9%	7.3%	17.8%	14.3%	2.8%	13.8%	7.0%	10.8%	13.9%	13.0%	20.2%	21.8%	22.8%	26.7%	16.1%
others	37.8%	31.7%	35.6%	36.5%	41.7%	37.9%	40.4%	43.1%	38.0%	45.5%	39.4%	35.6%	35.1%	28.9%	37.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の臓器別の論文数は、ホジキン病が大半であった。



0601 Hodgkin lymphoma 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Hodgkin's Disease	30	24	30	47	26	38	38	46	54	57	68	60	71	32	621
Non-Hodgkin's Lymphoma	0	3	2	5	2	1	5	1	4	3	4	5	5	3	43
Breast Cancer	1	5	5	3	1	4	1	1	1	2	6	4	6	2	42
Brain Tumor	0	2	3	5	1	4	3	2	2	4	3	6	5	1	41
Leukemia / Leukaemia	0	0	0	0	1	0	1	1	5	3	0	5	6	1	23
Blood Cancer	0	1	0	0	0	0	1	3	2	1	2	0	3	1	14
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	0	0	2	0	1	0	0	2	0	0	3	1	1	0	10
Cervical Cancer	1	1	1	1	1	1	0	0	0	0	0	0	1	0	7
Colon and Rectal Cancer	1	0	1	0	0	0	0	0	0	0	1	1	1	0	5
Lung Cancer	1	0	0	0	0	0	0	1	0	0	1	0	1	1	5

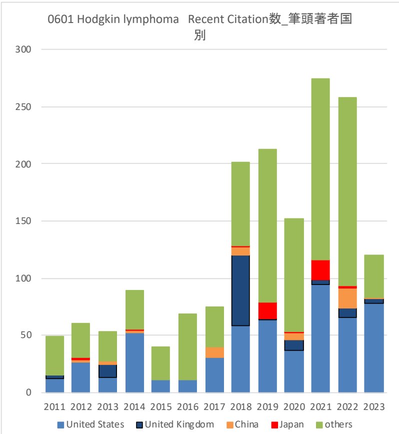
Hodgkin lymphoma の FA 別の論文数は、米国 NCI が最も多く、次いで中国 NSFC、American Cancer Society の順と推計された。

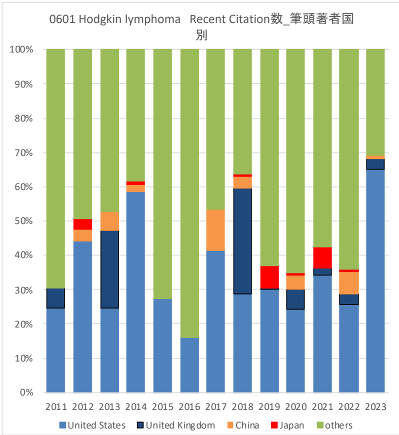


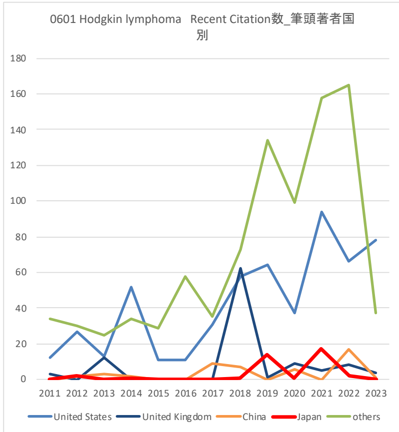
0601 Hodgkin lymphoma 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	1	3	1	4	1	2	1	0	3	2	3	4	6	2	33
National Natural Science Foundation of China	0	1	0	0	0	0	0	0	1	2	0	3	1	3	11
American Cancer Society	1	0	0	0	0	0	0	0	0	0	2	1	0	0	4
Dutch Cancer Society	1	0	0	0	0	0	0	0	0	0	0	1	2	0	4
Cancer Research UK	0	0	0	0	2	0	0	0	1	0	1	0	0	0	4
Ministero della Salute	1	0	0	0	0	0	1	0	0	0	2	0	0	0	4
Italian Association for Cancer Research	0	1	0	0	0	0	0	0	0	1	1	1	0	0	4
Medical Research Council	0	0	0	0	0	0	0	1	0	1	0	0	0	1	3
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
National Institute of Allergy and Infectious Diseases	0	0	0	0	0	0	1	0	1	0	1	0	0	0	3

9.1.2. Recent Citation 数

Hodgkin lymphoma の引用数は経年的に増加傾向が見られると推計された。国別の引用数は、その他の国を除くと米国、次いで英国が多いと推計された。



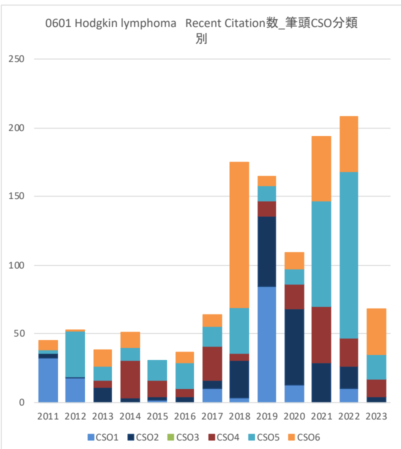


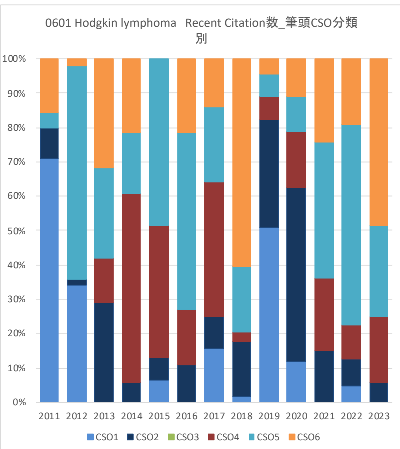


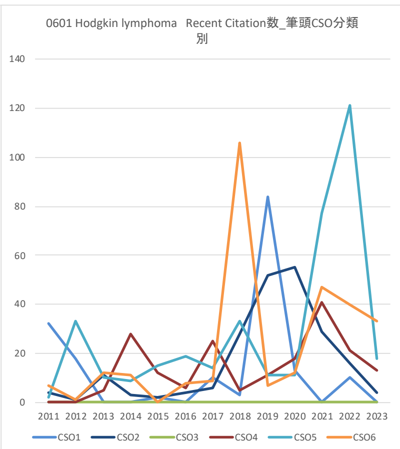
0601 Hodgkin lymphoma Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	12	27	13	52	11	11	31	58	64	37	94	66	78	2	556
United Kingdom	3	0	12	0	0	0	0	62	1	9	5	8	4	0	104
China	0	2	3	2	0	0	9	7	0	6	0	17	1	0	47
Japan	0	2	0	1	0	0	0	1	14	1	17	2	0	0	38
others	34	30	25	34	29	58	35	73	134	99	158	165	37	3	914
合計	49	61	53	89	40	69	75	201	213	152	274	258	120	5	1,659

0601 Hodgkin lymphoma Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	24.5%	44.3%	24.5%	58.4%	27.5%	15.9%	41.3%	28.9%	30.0%	24.3%	34.3%	25.6%	65.0%	40.0%	33.5%
United Kingdom	6.1%	0.0%	22.6%	0.0%	0.0%	0.0%	0.0%	30.8%	0.5%	5.9%	1.8%	3.1%	3.3%	0.0%	6.3%
China	0.0%	3.3%	5.7%	2.2%	0.0%	0.0%	12.0%	3.5%	0.0%	3.9%	0.0%	6.6%	0.8%	0.0%	2.8%
Japan	0.0%	3.3%	0.0%	1.1%	0.0%	0.0%	0.0%	0.5%	6.6%	0.7%	6.2%	0.8%	0.0%	0.0%	2.3%
others	69.4%	49.2%	47.2%	38.2%	72.5%	84.1%	46.7%	36.3%	62.9%	65.1%	57.7%	64.0%	30.8%	60.0%	55.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の CSO 分類別の引用数は、CSO5 Treatment が最も多く、次いで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO2 Etiology が多いと推計された。



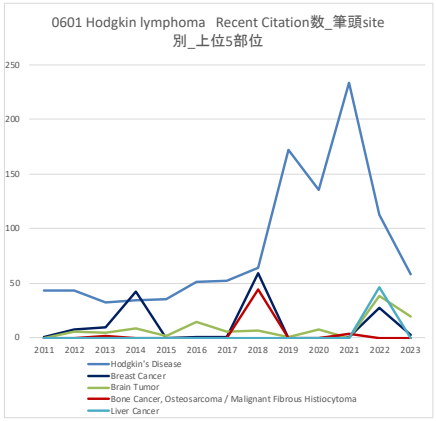




0601 Hodgkin lymphoma Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	32	18	0	0	2	0	10	3	84	13	0	10	0	1	173
2 Etiology	4	1	11	3	2	4	6	28	52	55	29	16	4	0	215
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	0	0	5	28	12	6	25	5	11	18	41	21	13	0	185
5 Treatment	2	33	10	9	15	19	14	33	11	11	77	121	18	1	374
6 Cancer Control, Survivorship, and Outcomes Research	7	1	12	11	0	8	9	106	7	12	47	40	33	1	294
others	4	8	15	38	9	32	11	26	48	43	80	50	52	2	418
合計	49	61	53	89	40	69	75	201	213	152	274	258	120	5	1,659

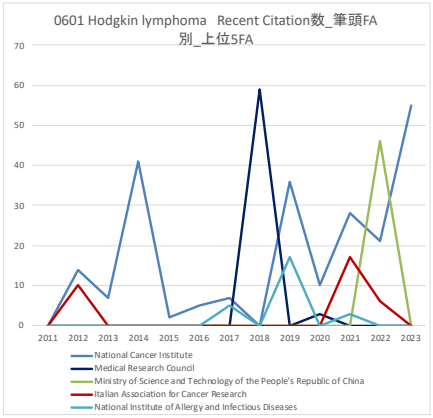
0601 Hodgkin lymphoma Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	65.3%	29.5%	0.0%	0.0%	5.0%	0.0%	13.3%	1.5%	39.4%	8.6%	0.0%	3.9%	0.0%	20.0%	10.4%
2 Etiology	8.2%	1.6%	20.8%	3.4%	5.0%	5.8%	8.0%	13.9%	24.4%	36.2%	10.6%	6.2%	3.3%	0.0%	13.0%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	9.4%	31.5%	30.0%	8.7%	33.3%	2.5%	5.2%	11.8%	15.0%	8.1%	10.8%	0.0%	11.2%
5 Treatment	4.1%	54.1%	18.9%	10.1%	37.5%	27.5%	18.7%	16.4%	5.2%	7.2%	28.1%	46.9%	15.0%	20.0%	22.5%
6 Cancer Control, Survivorship, and Outcomes Research	14.3%	1.6%	22.6%	12.4%	0.0%	11.6%	12.0%	52.7%	3.3%	7.9%	17.2%	15.5%	27.5%	20.0%	17.7%
others	8.2%	13.1%	28.3%	42.7%	22.5%	46.4%	14.7%	12.9%	22.5%	28.3%	29.2%	19.4%	43.3%	40.0%	25.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の臓器別の引用数は、ホジキン病が大半を占めていた。



0601 Hodgkin lymphoma Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Hodgkin's Disease	43	43	32	34	35	51	52	64	172	135	233	112	58	3	1,067
Breast Cancer	1	8	10	42	0	1	1	59	0	0	1	27	3	0	153
Brain Tumor	0	6	5	9	2	14	6	7	1	8	0	38	19	0	115
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	0	0	2	0	0	0	0	44	0	0	4	0	0	0	50
Liver Cancer	0	0	0	0	0	0	0	0	0	0	0	46	0	0	46
Non-Hodgkin's Lymphoma	0	2	3	4	3	0	9	0	2	1	7	8	5	0	44
Leukemia / Leukaemia	0	0	0	0	0	0	1	0	13	1	0	15	8	0	38
Blood Cancer	0	0	0	0	0	0	0	0	12	0	3	0	9	2	26
Melanoma	0	0	0	0	0	0	0	18	0	0	2	0	0	0	20
Colon and Rectal Cancer	2	0	1	0	0	0	0	0	0	0	11	0	2	0	16

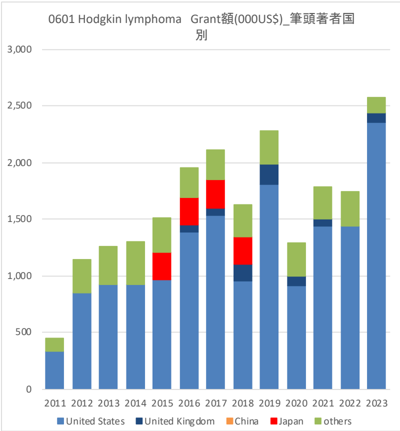
Hodgkin lymphoma の FA 別の引用数は、米国 NCI が最も多く、次いで英国 Medical Research Council、中国 NSFC の順と推計された。

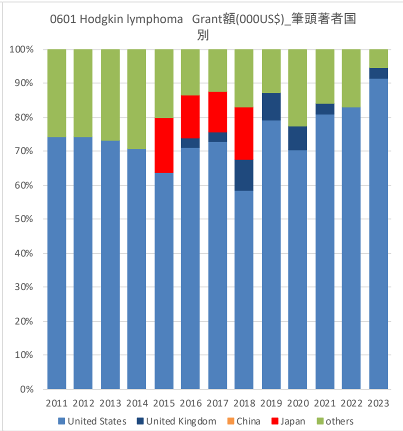


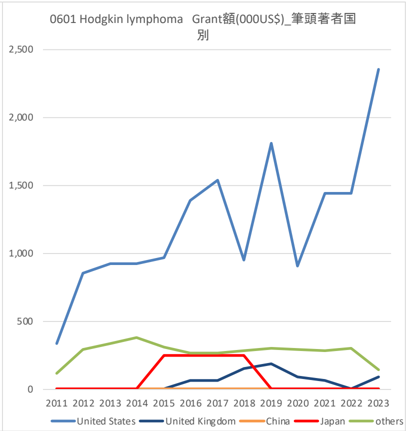
0601 Hodgkin lymphoma Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	0	14	7	41	2	5	7	0	36	10	28	21	55	1	227
Medical Research Council	0	0	0	0	0	0	0	59	0	3	0	0	0	0	62
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	0	0	0	0	0	0	0	46	0	0	46
Italian Association for Cancer Research	0	10	0	0	0	0	0	0	0	0	17	6	0	0	33
National Institute of Allergy and Infectious Diseases	0	0	0	0	0	0	5	0	17	0	3	0	0	0	25
Canadian Institutes of Health Research	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23
European Commission	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18
National Institute of Neurological Disorders and Stroke	0	0	0	16	0	0	2	0	0	0	0	0	0	0	18
European Research Council	0	0	0	0	0	18	0	0	0	0	0	0	0	0	18
Government of Catalonia	0	0	0	0	0	0	0	0	0	0	17	0	0	0	17

9.1.3. Grant(000US$)額

Hodgkin lymphoma の研究費総額は横ばい傾向であったが、2023 年に大きく増加した。国別の研究費配分額は、米国が最も多く経年的にも大幅な増加傾向が見られた。



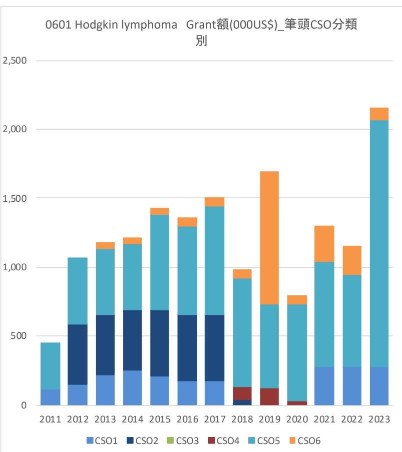


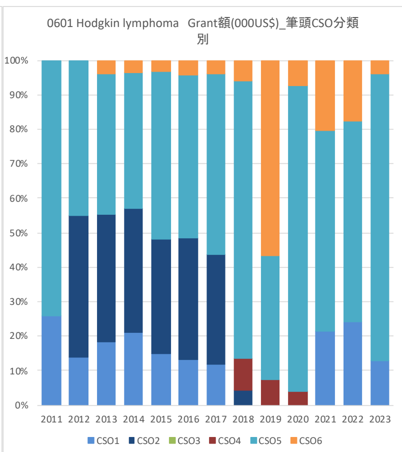


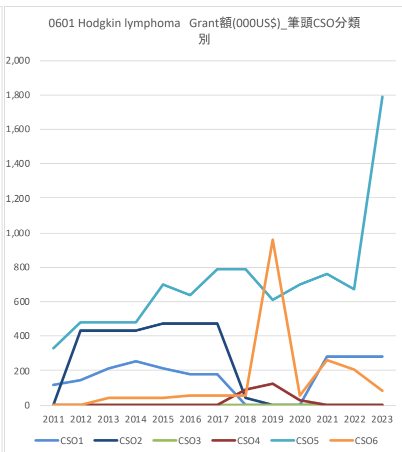
0601 Hodgkin lymphoma Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	333	854	922	922	963	1,388	1,538	949	1,807	907	1,442	1,442	2,350	361	16,178
United Kingdom	0	0	0	0	0	59	59	150	182	91	59	0	87	0	686
China	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	0	0	0	0	248	248	248	248	0	0	0	0	0	0	991
others	116	295	338	379	304	262	263	277	295	293	284	296	138	366	3,906
合計	449	1,148	1,260	1,301	1,514	1,957	2,107	1,624	2,284	1,291	1,785	1,738	2,575	727	21,761

0601 Hodgkin lymphoma Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	74.1%	74.3%	73.1%	70.9%	63.6%	70.9%	73.0%	58.4%	79.1%	70.3%	80.8%	83.0%	91.3%	49.7%	74.3%
United Kingdom	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	2.8%	9.2%	8.0%	7.0%	3.3%	0.0%	3.4%	0.0%	3.2%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan	0.0%	0.0%	0.0%	0.0%	16.4%	12.7%	11.8%	15.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%
others	25.9%	25.7%	26.9%	29.1%	20.0%	13.4%	12.5%	17.1%	12.9%	22.7%	15.9%	17.0%	5.4%	50.3%	18.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の CSO 分類別の研究費配分額は、CSO5 Treatment が最も多いと推計された。



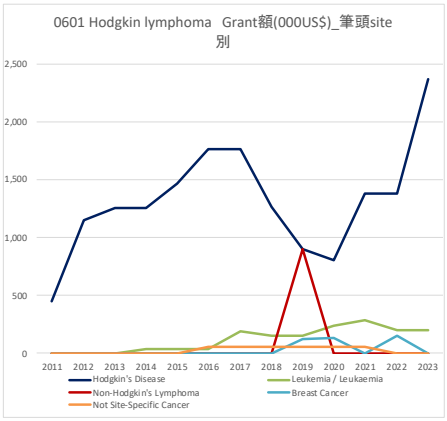




0601 Hodgkin lymphoma Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	116	148	216	257	211	180	180	0	0	0	280	280	280	280	2,430
2 Etiology	0	436	436	436	477	477	477	41	0	0	0	0	0	0	2,780
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	0	91	123	32	0	0	0	227	474
5 Treatment	333	480	480	480	697	639	789	788	610	700	758	671	1,789	138	9,353
6 Cancer Control, Survivorship, and Outcomes Research	0	0	44	44	44	59	59	59	959	59	263	205	81	81	1,956
others	0	85	129	129	129	602	602	644	592	500	483	583	424	0	4,901
合計	449	1,148	1,260	1,301	1,514	1,957	2,107	1,624	2,284	1,291	1,785	1,738	2,575	727	21,761

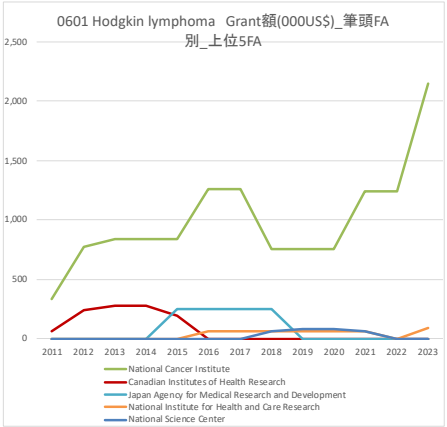
0601 Hodgkin lymphoma Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	25.9%	12.9%	17.2%	19.7%	14.0%	9.2%	8.5%	0.0%	0.0%	0.0%	15.7%	16.1%	10.9%	38.5%	11.2%
2 Etiology	0.0%	38.0%	34.6%	33.5%	31.5%	24.4%	22.6%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.8%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	5.4%	2.5%	0.0%	0.0%	0.0%	31.3%	2.2%
5 Treatment	74.1%	41.8%	38.1%	36.9%	46.0%	32.7%	37.5%	48.5%	26.7%	54.3%	42.5%	38.6%	69.5%	19.0%	43.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	3.5%	3.4%	2.9%	3.0%	2.8%	3.6%	42.0%	4.6%	14.8%	11.8%	3.2%	11.2%	9.0%
others	0.0%	7.4%	10.2%	9.9%	8.5%	30.8%	28.6%	39.7%	25.9%	38.7%	27.1%	33.5%	16.5%	0.0%	22.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hodgkin lymphoma の臓器別の研究費配分額は、ホジキン病が大半と推計された。



0601 Hodgkin lymphoma Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Hodgkin's Disease	449	1,148	1,260	1,260	1,474	1,765	1,765	1,264	898	806	1,380	1,380	2,375	727	17,953
Leukemia / Leukaemia	0	0	0	41	41	41	191	150	150	237	287	200	200	0	1,537
Non-Hodgkin's Lymphoma	0	0	0	0	0	0	0	0	900	0	0	0	0	0	900
Breast Cancer	0	0	0	0	0	0	0	0	127	130	0	158	0	0	415
Not Site-Specific Cancer	0	0	0	0	0	59	59	59	59	59	59	0	0	0	353
Adrenocortical Cancer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Hodgkin lymphoma の FA 別の研究費配分額は、米国 NCI が最も多く、次いで Canadian Institute of Health Research、わが国の JSPS の順と推計された。



0601 Hodgkin lymphoma Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	333	769	837	837	837	1,261	1,261	757	757	757	1,242	1,242	2,150	361	13,403	United States
Canadian Institutes of Health Research	58	236	280	280	192	0	0	0	0	0	0	0	0	0	1,047	Canada
Japan Agency for Medical Research and Development	0	0	0	0	248	248	248	248	0	0	0	0	0	0	991	Japan
National Institute for Health and Care Research	0	0	0	0	0	59	59	59	59	59	59	0	87	0	440	United Kingdom
National Science Center	0	0	0	0	0	0	0	58	76	76	58	0	0	0	268	Poland
Natural Sciences and Engineering Research Council	58	58	58	58	0	0	0	0	0	0	0	0	0	0	233	Canada
European Research Council	0	0	0	0	0	0	0	0	0	87	87	0	0	0	174	Belgium
Children with Cancer UK	0	0	0	0	0	0	0	0	32	32	0	0	0	0	64	United Kingdom

9.1.4. 主要論文、引用、研究費

＜論文＞

Publication: 0601 Hodgkin lymphoma

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Management of children and adults with all stages of nodular lymphocyte predominant Hodgkin lymphoma — All StAGEs: A consensus-based position paper from the Hodgkin lymphoma subgroup of the UK National Cancer Research Institute	Shankar, Ananth; Hall, Georgina W.; McKay, Pam; Gallop-Evans, Eve; Fielding, Patrick; Collins, Graham P.	British Journal of Haematology	United Kingdom	2022	8	Review Article
2	An illuminating piece in the jigsaw of Hodgkin lymphoma risk stratification	Shankar, Ananth; Bomanji, Jamshed	British Journal of Haematology	United Kingdom	2023	0	Research Article
3	The Mutation of CD27 Deficiency Presented With Familial Hodgkin Lymphoma and a Review of the Literature	Köse, Doğan; Güzelçiçek, Ahmet; Öz, Özlem; Erdem, Arzu Y.; Haliloğlu, Yeşim; Witzel, Maximilian; Klein, Christoph; Ünal, Ekrem	Journal of Pediatric Hematology/Oncology	Germany	2022	2	Review Article
4	Accelerating pediatric Hodgkin lymphoma research: the Hodgkin Lymphoma Data Collaboration (NODAL)	Wyatt, Kirk D; Birz, Suzi; Castellino, Sharon M; Henderson, Tara O; Lucas, John T; Pei, Qinglin; Zhou, Yiwang; Volchenboum, Samuel L; Furner, Brian; Watkins, Michael; Kelly, Kara M; Flerlage, Jamie E; Achen, Bhavya; Appel, Burt; Beauchemin, Melissa; Belsky, Jenny; Casey, Dana; Cole, Peter; Constine, Louis; Dave, Hema; Drachtman, Richard; Forlenza, Chris; Friedman, Debra; Harker-Murray, Paul; Hodgson, David; Hoppe, Brad; Jacobs, Shana; Kahn, Justine; Kamdar, Kala; Keller, Frank; Lo, Andrea; Mailhot, Raymond; Marks, Lianna; McCarten, Kathleen; Milgrom, Sarah; Mori, Tomi; Parsons, Susan; Punnett, Angela; Schwartz, Cindy; Seelisch, Jenn; Wu, Yue; Castellino, Sharon; Flerlage, Jamie; Henderson, Tara; Kelly, Kara; Lucas, John; Pei, Qinglin; Volchenboum, Samuel; Zhou, Yiwang; Birz, Suzi	Journal of the National Cancer Institute	United States	2024	1	Research Article
5	Children's Oncology Group's 2023 blueprint for research: Hodgkin lymphoma	Castellino, Sharon M.; Giulino-Roth, Lisa; Harker-Murray, Paul; Kahn, Justine M.; Forlenza, Christopher; Cho, Steve; Hoppe, Bradford; Parsons, Susan K.; Kelly, Kara M.; Committee, the COG Hodgkin Lymphoma	Pediatric Blood & Cancer	United States	2023	2	Research Article
6	Expression Profile of Selected Antitumor Immune Response Genes in Pediatric Classic Hodgkin Lymphoma	Gul, Gulen; Ceyhan, Metin; Ince, Dilek; Olgun, Nur; Ozer, Erdener	Applied Immunohistochemistry & Molecular Morphology	Turkey	2022	0	Research Article
7	Therapy results in pediatric Hodgkin lymphoma — does less mean better? Experience from a single children' s oncology center	Stankiewicz, Joanna; Kołtan, Andrzej; Demidowicz, Ewa; Bartoszewicz, Natalia; Kołtan, Sylwia; Czyżewski, Krzysztof; Richert-Przygońska, Monika; Dębski, Robert; Pogorzała, Monika; Tejza, Barbara; Cisek, Joanna; Księżniakiewicz, Piotr; Jatczak-Gaca, Agnieszka; Marjańska, Agata; Salamon, Marlena; Dąbrowska, Anna; Urbańczyk, Anna; Grześk, Elżbieta; Jaremek, Kamila; Łęcka, Monika; Grochowska, Oliwia; Styczyński, Jan	Annals of Hematology	Poland	2023	0	Research Article
8	Role of non-chromosomal birth defects on the risk of developing childhood Hodgkin lymphoma: A Children's Oncology Group study	Peckham-Gregory, Erin C.; Boff, Lucas Maschietto; Schraw, Jeremy M.; Spector, Logan G.; Linabery, Amy M.; Erhardt, Erik B.; Ribeiro, Karina B.; Allen, Carl E.; Scheurer, Michael E.; Lupo, Philip J.	Pediatric Blood & Cancer	United States	2023	0	Research Article
9	Intracranial disease in pediatric Hodgkin lymphoma-case report and review of literature.	Dhariwal, Nidhi; Roy Moulik, Nirmalya; Bhat, Vasudeva; Smriti, Vasundhara; Kakoti, Sangeeta; Choudhury, Sayak; Sridhar, Epari; Gujral, Sumeet; Dhamne, Chetan; Shah, Sneha; Narula, Gaurav; Banavali, Shripad	Am J Blood Res	India	2023	0	Research Article
10	Checkpoint Immunotherapy in Pediatrics: Here, Gone, and Back Again.	Long, Adrienne H; Morgenstern, Daniel A; Leruste, Amaury; Bourdeaut, Franck; Davis, Kara L	American Society of Clinical Oncology Educational Book	Canada	2022	25	Review Article

＜引用＞

Citation: 0601 Hodgkin lymphoma

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The impact of cancer on subsequent chance of pregnancy: a population-based analysis	Anderson, Richard A; Brewster, David H; Wood, Rachael; Nowell, Sian; Fischbacher, Colin; Kelsey, Tom W; Wallace, W Hamish B	Human Reproduction	United Kingdom	2018	59	Research Article
2	Incidence and mortality of non-AIDS-defining cancers among people living with HIV: A systematic review and meta-analysis	Yuan, Tanwei; Hu, Yuqing; Zhou, Xinyi; Yang, Luoyao; Wang, Hui; Li, Linghua; Wang, Junfeng; Qian, Han-Zhu; Clifford, Gary M.; Zou, Huachun	EClinicalMedicine	Netherlands	2022	46	Review Article
3	Genomic analyses of flow-sorted Hodgkin Reed-Sternberg cells reveal complementary mechanisms of immune evasion	Wienand, Kirsty; Chapuy, Bjoern; Stewart, Chip; Dunford, Andrew J.; Wu, David; Kim, Jaegil; Kamburov, Atanas; Wood, Timothy R.; Cader, Fathima Zumla; Ducar, Matthew D.; Thorner, Aaron R.; Nag, Anwesha; Heubeck, Alexander T.; Buonopane, Michael J.; Redd, Robert A.; Bojarczuk, Kamil; Lawton, Lee N.; Armand, Philippe; Rodig, Scott J.; Fromm, Jonathan R.; Getz, Gad; Shipp, Margaret A.	Blood Advances	Germany	2019	43	Research Article
4	Predicting and Preventing Anthracycline-Related Cardiotoxicity	Armenian, Saro; Bhatia, Smita	American Society of Clinical Oncology Educational Book	United States	2018	39	Review Article
5							
6	The rising incidence of second cancers: patterns of occurrence and identification of risk factors for children and adults.	Morton, Lindsay M; Onel, Kenan; Curtis, Rochelle E; Hungate, Eric A; Armstrong, Gregory T	American Society of Clinical Oncology Educational Book	United States	2014	33	Review Article
7	Genomic analyses of PMBL reveal new drivers and mechanisms of sensitivity to PD-1 blockade	Chapuy, Bjoern; Stewart, Chip; Dunford, Andrew J.; Kim, Jaegil; Wienand, Kirsty; Kamburov, Atanas; Griffin, Gabriel K.; Chen, Pei-Hsuan; Lako, Ana; Redd, Robert A.; Cote, Claire M.; Ducar, Matthew D.; Thorner, Aaron R.; Rodig, Scott J.; Getz, Gad; Shipp, Margaret A.	Blood	United States	2019	29	Research Article
8	Dose-dense brentuximab vedotin plus ifosfamide, carboplatin, and etoposide for second-line treatment of relapsed or refractory classical Hodgkin lymphoma: a single centre, phase 1/2 study	Lynch, Ryan C; Cassaday, Ryan D; Smith, Stephen D; Fromm, Jonathan R; Cowan, Andrew J; Warren, Edus H; Shadman, Mazyar S; Shustov, Andrei; Till, Brian G; Ujjani, Chaitra S; Libby, Edward N; Philip, Mary; Coye, Hilary; Martino, Christen N; Bhark, Sandra L; Morris, Karolyn; Rasmussen, Heather; Behnia, Sanaz; Voutsinas, Jenna; Gopal, Ajay K	The Lancet Haematology	United States	2021	27	Research Article
9	Checkpoint Immunotherapy in Pediatrics: Here, Gone, and Back Again.	Long, Adrienne H; Morgenstern, Daniel A; Leruste, Amaury; Bourdeaut, Franck; Davis, Kara L	American Society of Clinical Oncology Educational Book	Canada	2022	25	Review Article
10	Hodgkin Lymphoma-Review on Pathogenesis, Diagnosis, Current and Future Treatment Approaches for Adult Patients	Momotow, Jesko; Borchmann, Sven; Eichenauer, Dennis A.; Engert, Andreas; Sasse, Stephanie	Journal of Clinical Medicine	Germany	2021	24	Review Article

＜研究費＞

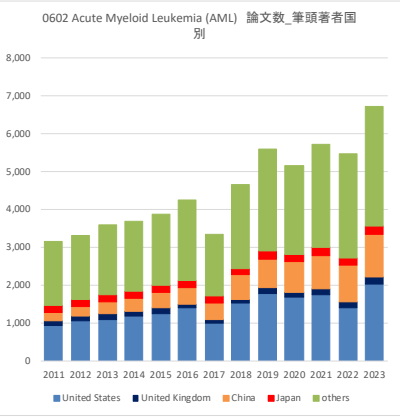
Grant: 0601 Hodgkin lymphoma

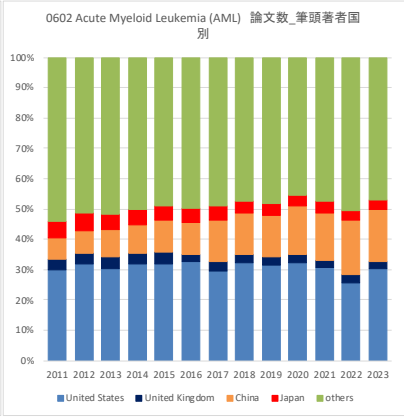
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Targetable Immune Evasion Pathways in Hodgkin Lymphoma	MARGARET A SHIPP	National Cancer Institute	United States	3,995,065	2011	2022
2	Host factors, tumor microenvironment and survival in a multiethnic study of Hodgkin lymphoma patients	WENDY COZEN	National Cancer Institute	United States	3,395,633	2016	2023
3	Novel Pathogen Associated Cancers (PQ12)	DENISE A. GALLOWAY, COREY CASPER, MARGARET M MADELEINE, DAVID WANG	National Cancer Institute	United States	2,615,072	2012	2017
4	Analysis and Therapeutic Targeting of the Linear-Ubiquitination Pathway in Hodgkin Lymphoma	YIBIN YANG	National Cancer Institute	United States	1,681,108	2021	2026
5	Checkpoint inhibitor treatment for EBV+ lymphoma among HIV+ individuals	MARK ROSCHEWSKI	National Cancer Institute	United States	1,364,053	2023	2023
6	Study for establishing standard treatment for childhood lymphoma	Ryoji Kobayashi	Japan Agency for Medical Research and Development	Japan	990,965	2015	2018
7	Modulating Cardiomyocyte DNA Damage in Response to Genotoxic Stress	Hesham Sadek	Cancer Prevention and Research Institute of Texas	United States	900,000	2019	0
8	Employing rational novel agent combination therapy to improve transplant cure rates for relapsed/refractory Hodgkin Lymphoma	Eliza Hawkes, Judith Trotman, Kerry Savage, Colm Keane, Sze Lee, John Kuruvilla, Tara Cochrane, Chan Cheah, Gareth Gregory, Anna Johnston	Medical Research Future Fund	Australia	829,492	2021	2026
9	Testing Targeted Therapy in Langerhans Cell Histiocytosis	Carl Allen, md, Carl Allen	Leukemia and Lymphoma Society	United States	600,000	2017	2020

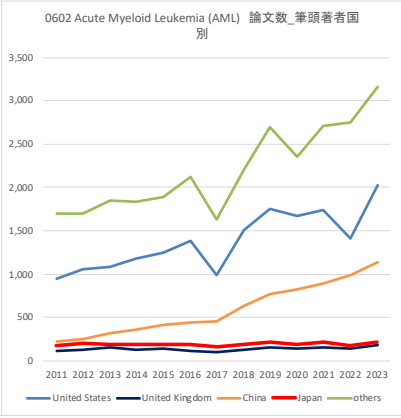
9.2. 0602 Acute Myeloid Leukemia (AML)

9.2.1. 論文数

Acute Myeloid Leukemia (AML)の論文数は、経年的に増加傾向が見られると推計された。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。



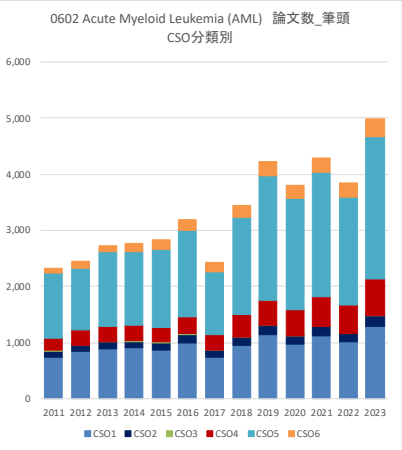


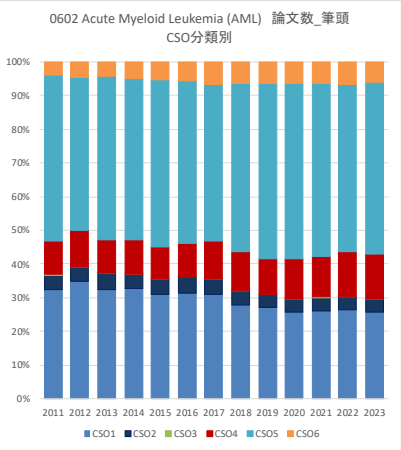


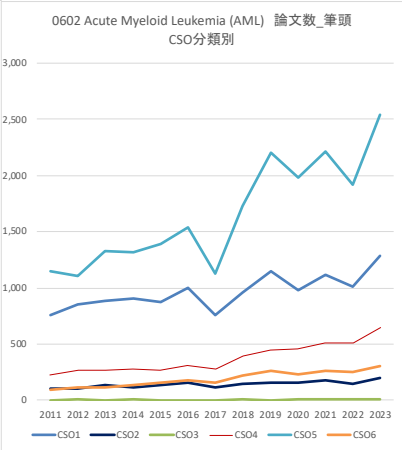
0602 Acute Myeloid Leukemia (AML) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	941	1,057	1,080	1,175	1,240	1,382	986	1,505	1,755	1,667	1,744	1,406	2,023	550	18,511
United Kingdom	110	118	146	123	141	109	101	120	157	136	151	145	173	41	1,771
China	220	244	312	352	418	440	447	630	769	819	884	982	1,143	402	8,062
Japan	178	195	190	189	181	191	163	187	207	180	209	175	218	75	2,538
others	1,699	1,696	1,846	1,841	1,889	2,115	1,623	2,201	2,690	2,349	2,710	2,748	3,155	928	29,490
合計	3,148	3,310	3,574	3,680	3,869	4,237	3,320	4,643	5,578	5,151	5,698	5,456	6,712	1,996	60,372

0602 Acute Myeloid Leukemia (AML) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	29.9%	31.9%	30.2%	31.9%	32.0%	32.6%	29.7%	32.4%	31.5%	32.4%	30.6%	25.8%	30.1%	27.6%	30.7%
United Kingdom	3.5%	3.6%	4.1%	3.3%	3.6%	2.6%	3.0%	2.6%	2.8%	2.6%	2.7%	2.7%	2.6%	2.1%	2.9%
China	7.0%	7.4%	8.7%	9.6%	10.8%	10.4%	13.5%	13.6%	13.8%	15.9%	15.5%	18.0%	17.0%	20.1%	13.4%
Japan	5.7%	5.9%	5.3%	5.1%	4.7%	4.5%	4.9%	4.0%	3.7%	3.5%	3.7%	3.2%	3.2%	3.8%	4.2%
others	54.0%	51.2%	51.7%	50.0%	48.8%	49.9%	48.9%	47.4%	48.2%	45.6%	47.6%	50.4%	47.0%	46.5%	48.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute Myeloid Leukemia (AML)の CSO 分類別の論文数は、CSO5 Treatment が最も多く経年的に近年大きく増加傾向が見られた。ついで CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis と推計された。



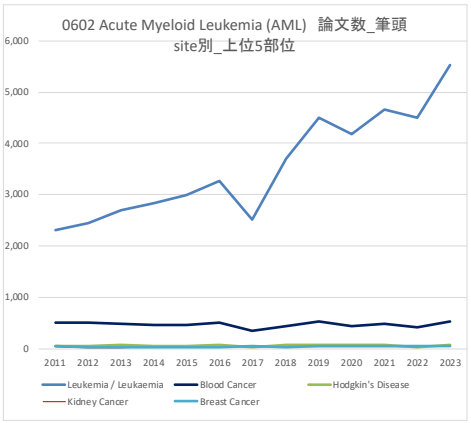




0602 Acute Myeloid Leukemia (AML) 論文数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	753	852	887	910	875	999	753	962	1,151	975	1,115	1,015	1,283	366	12,896
2 Etiology	104	104	137	112	130	154	112	143	159	151	174	149	194	52	1,875
3 Prevention	3	4	1	6	3	3	1	4	2	4	13	8	6	2	60
4 Early Detection, Diagnosis, and Prognosis	230	266	265	279	270	310	276	396	451	456	513	509	651	223	5,095
5 Treatment	1,153	1,109	1,327	1,319	1,396	1,540	1,131	1,724	2,205	1,984	2,213	1,920	2,542	782	22,345
6 Cancer Control, Survivorship, and Outcomes Research	88	109	119	139	153	176	161	215	261	235	265	252	302	74	2,549
others	817	866	838	915	1,042	1,055	886	1,199	1,349	1,346	1,405	1,603	1,734	497	15,552
合計	3,148	3,310	3,574	3,680	3,869	4,237	3,320	4,643	5,578	5,151	5,698	5,456	6,712	1,996	60,372

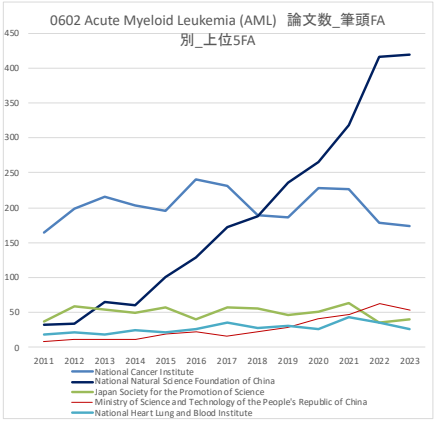
0602 Acute Myeloid Leukemia (AML) 論文数_筆頭 CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	23.9%	25.7%	24.8%	24.7%	22.6%	23.6%	22.7%	20.7%	20.6%	18.9%	19.6%	18.6%	19.1%	18.3%	21.4%
2 Etiology	3.3%	3.1%	3.8%	3.0%	3.4%	3.6%	3.4%	3.1%	2.9%	2.9%	3.1%	2.7%	2.9%	2.6%	3.1%
3 Prevention	0.1%	0.1%	0.0%	0.2%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%
4 Early Detection, Diagnosis, and Prognosis	7.3%	8.0%	7.4%	7.6%	7.0%	7.3%	8.3%	8.5%	8.1%	8.9%	9.0%	9.3%	9.7%	11.2%	8.4%
5 Treatment	36.6%	33.5%	37.1%	35.8%	36.1%	36.3%	34.1%	37.1%	39.5%	38.5%	38.8%	35.2%	37.9%	39.2%	37.0%
6 Cancer Control, Survivorship, and Outcomes Research	2.8%	3.3%	3.3%	3.8%	4.0%	4.2%	4.8%	4.6%	4.7%	4.6%	4.7%	4.6%	4.5%	3.7%	4.2%
others	26.0%	26.2%	23.4%	24.9%	26.9%	24.9%	26.7%	25.8%	24.2%	26.1%	24.7%	29.4%	25.8%	24.9%	25.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute Myeloid Leukemia (AML)の臓器別の論文数は、白血病が大半を占めていた。



0602 Acute Myeloid Leukemia (AML) 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	2,310	2,446	2,690	2,840	2,993	3,267	2,516	3,691	4,510	4,186	4,653	4,501	5,526	1,624	47,753
Blood Cancer	505	515	486	475	462	503	351	454	533	453	497	420	539	159	6,352
Hodgkin's Disease	46	51	74	65	58	68	31	70	73	75	78	35	80	25	829
Kidney Cancer	34	26	30	35	48	44	48	40	46	54	54	52	59	17	587
Breast Cancer	47	36	35	23	28	31	45	43	45	49	53	63	47	18	563
Brain Tumor	11	14	22	20	24	31	31	29	39	33	24	35	40	15	368
Not Site-Specific Cancer	22	14	28	14	18	19	26	27	25	25	33	21	33	21	326
Colon and Rectal Cancer	7	12	12	14	12	16	15	17	25	21	17	21	28	17	234
Liver Cancer	7	8	17	8	8	9	14	14	8	14	14	16	17	8	162
Lung Cancer	6	6	8	4	6	9	11	14	15	14	19	13	16	7	148

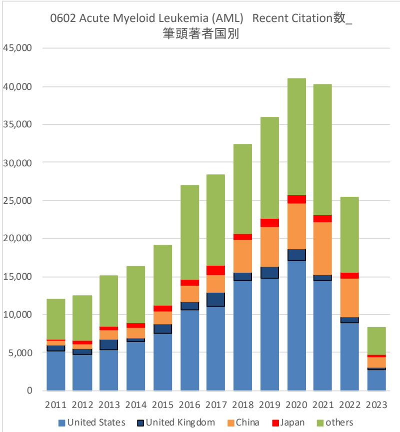
Acute Myeloid Leukemia (AML)の FA 別の論文数は、 2017 年までは米国 NCI が最も多かったが、中国 NSFC の論文数の増加傾向が顕著で、2018 年以降の論文数が最も多いと推計された。次いで、わが国の JSPS と推計された。

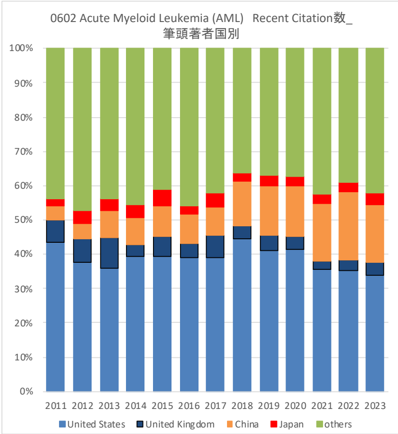


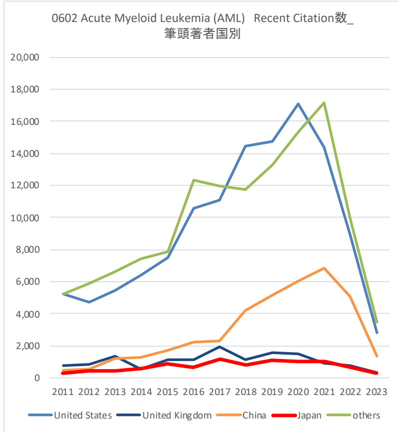
0602 Acute Myeloid Leukemia (AML) 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	164	198	216	203	195	241	232	190	187	228	226	179	174	66	2,699
National Natural Science Foundation of China	32	34	65	61	101	129	172	188	236	265	319	416	420	160	2,598
Japan Society for the Promotion of Science	37	59	54	49	57	41	57	56	46	51	63	35	41	13	659
Ministry of Science and Technology of the People's Republic of China	9	11	12	12	20	22	16	22	29	41	47	63	53	30	387
National Heart Lung and Blood Institute	18	22	19	25	21	27	36	28	31	27	44	35	27	11	371
Deutsche Forschungsgemeinschaft	12	22	19	17	22	21	32	32	34	28	42	30	29	6	346
National Center for Advancing Translational Sciences	13	9	17	16	19	25	28	20	28	27	14	24	14	6	260
European Commission	7	8	11	11	15	15	15	11	25	25	34	28	32	18	255
Italian Association for Cancer Research	9	9	13	19	14	4	12	13	29	32	25	33	24	5	241
Cancer Research UK	7	10	14	12	10	12	15	14	14	18	23	25	26	3	203

9.2.2. Recent Citation 数

Acute Myeloid Leukemia (AML)の引用数は経年的に増加傾向が見られた。国別の引用数は、米国が最も多く、ついで中国、英国が多いと推計された。



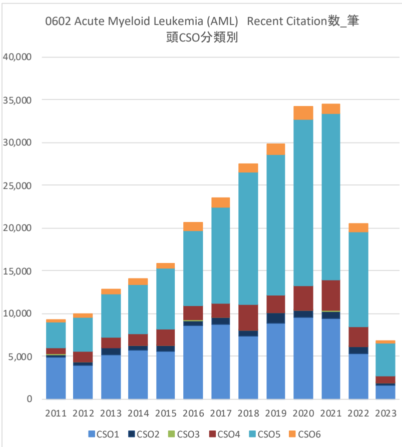


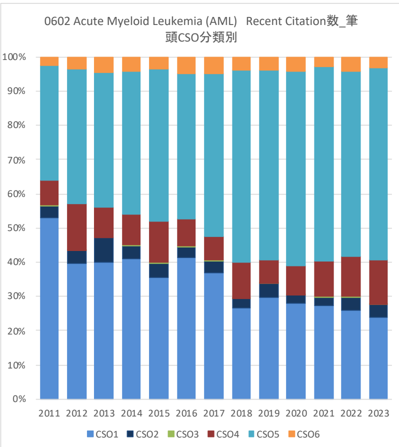


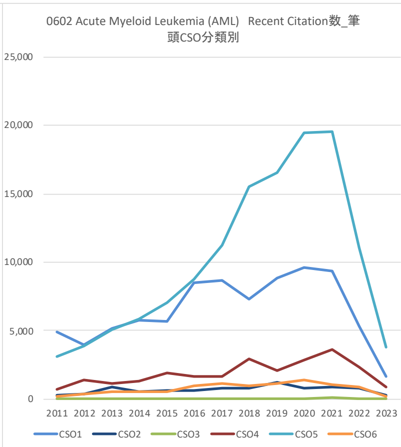
0602 Acute Myeloid Leukemia (AML)　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	5,230	4,705	5,429	6,415	7,542	10,562	11,059	14,430	14,766	17,081	14,410	8,956	2,799	119	123,503
United Kingdom	808	847	1,370	567	1,149	1,106	1,920	1,157	1,560	1,539	913	781	319	23	14,059
China	492	569	1,204	1,308	1,699	2,268	2,304	4,238	5,182	6,067	6,814	5,068	1,394	53	38,660
Japan	270	449	472	612	874	655	1,167	790	1,083	1,031	1,023	676	278	7	9,387
others	5,274	5,907	6,657	7,416	7,906	12,353	11,967	11,759	13,321	15,364	17,145	9,968	3,472	181	128,690
合計	12,074	12,477	15,132	16,318	19,170	26,944	28,417	32,374	35,912	41,082	40,305	25,449	8,262	383	314,299

0602 Acute Myeloid Leukemia (AML)　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	43.3%	37.7%	35.9%	39.3%	39.3%	39.2%	38.9%	44.6%	41.1%	41.6%	35.8%	35.2%	33.9%	31.1%	39.3%
United Kingdom	6.7%	6.8%	9.1%	3.5%	6.0%	4.1%	6.8%	3.6%	4.3%	3.7%	2.3%	3.1%	3.9%	6.0%	4.5%
China	4.1%	4.6%	8.0%	8.0%	8.9%	8.4%	8.1%	13.1%	14.4%	14.8%	16.9%	19.9%	16.9%	13.8%	12.3%
Japan	2.2%	3.6%	3.1%	3.8%	4.6%	2.4%	4.1%	2.4%	3.0%	2.5%	2.5%	2.7%	3.4%	1.8%	3.0%
others	43.7%	47.3%	44.0%	45.4%	41.2%	45.8%	42.1%	36.3%	37.1%	37.4%	42.5%	39.2%	42.0%	47.3%	40.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute Myeloid Leukemia (AML)の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO1 Biology が多いと推計された。



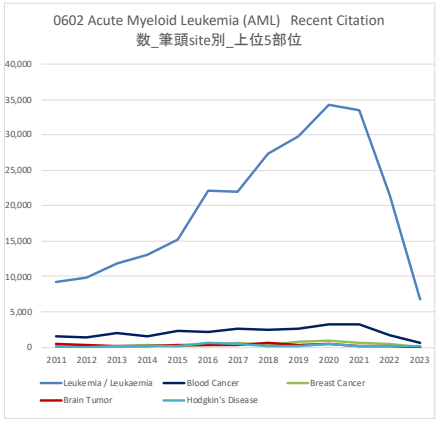




0602 Acute Myeloid Leukemia (AML) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	4,933	3,950	5,131	5,791	5,642	8,548	8,717	7,332	8,820	9,633	9,381	5,348	1,623	60	84,909
2 Etiology	321	351	922	520	644	670	824	773	1,266	768	863	765	248	2	8,937
3 Prevention	5	3	0	26	16	34	7	18	1	7	93	37	9	0	256
4 Early Detection, Diagnosis, and Prognosis	682	1,359	1,158	1,278	1,897	1,670	1,636	2,957	2,056	2,881	3,591	2,376	888	38	24,467
5 Treatment	3,118	3,898	5,070	5,853	7,055	8,780	11,237	15,490	16,529	19,437	19,530	11,063	3,802	143	131,005
6 Cancer Control, Survivorship, and Outcomes Research	228	359	565	587	557	998	1,122	1,009	1,137	1,443	1,023	871	220	2	10,121
others	2,787	2,560	2,287	2,263	3,359	6,297	4,896	4,802	6,103	6,913	5,824	4,989	1,473	138	54,604
合計	12,074	12,477	15,132	16,318	19,170	26,944	28,417	32,374	35,912	41,082	40,305	25,449	8,262	383	314,299

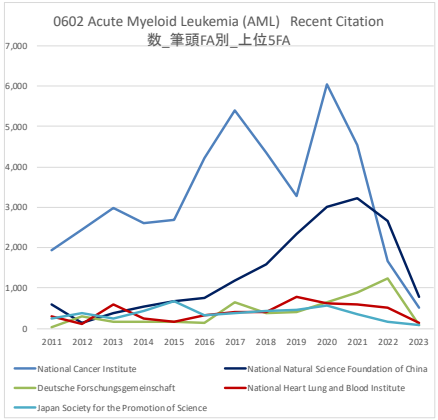
0602 Acute Myeloid Leukemia (AML) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	40.9%	31.7%	33.9%	35.5%	29.4%	31.7%	30.7%	22.6%	24.6%	23.4%	23.3%	21.0%	19.6%	15.7%	27.0%
2 Etiology	2.7%	2.8%	6.1%	3.2%	3.4%	2.5%	2.9%	2.4%	3.5%	1.9%	2.1%	3.0%	3.0%	0.5%	2.8%
3 Prevention	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.2%	0.1%	0.1%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	5.6%	10.9%	7.7%	7.8%	9.9%	6.2%	5.8%	9.1%	5.7%	7.0%	8.9%	9.3%	10.7%	9.9%	7.8%
5 Treatment	25.8%	31.2%	33.5%	35.9%	36.8%	32.6%	39.5%	47.8%	46.0%	47.3%	48.5%	43.5%	46.0%	37.3%	41.7%
6 Cancer Control, Survivorship, and Outcomes Research	1.9%	2.9%	3.7%	3.6%	2.9%	3.7%	3.9%	3.1%	3.2%	3.5%	2.5%	3.4%	2.7%	0.5%	3.2%
others	23.1%	20.5%	15.1%	13.9%	17.5%	23.4%	17.2%	14.8%	17.0%	16.8%	14.4%	19.6%	17.8%	36.0%	17.4%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute Myeloid Leukemia (AML)の臓器別の引用数は、白血病が大半であった。



0602 Acute Myeloid Leukemia (AML) Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	9,230	9,823	11,867	13,091	15,241	22,092	21,958	27,302	29,734	34,198	33,413	21,488	6,824	258	256,519
Blood Cancer	1,571	1,351	2,065	1,620	2,247	2,216	2,656	2,543	2,564	3,182	3,303	1,736	636	11	27,701
Breast Cancer	123	85	185	258	167	286	677	259	759	988	602	545	76	2	5,012
Brain Tumor	451	303	145	116	306	353	335	586	307	473	224	123	55	0	3,777
Hodgkin's Disease	54	63	226	239	119	640	451	222	224	494	224	95	136	2	3,189
Kidney Cancer	83	150	82	344	214	206	260	221	250	226	319	126	63	1	2,545
Not Site-Specific Cancer	19	28	143	69	232	129	210	123	318	299	185	88	32	6	1,881
Ovarian Cancer	1	8	0	5	101	13	530	29	4	1	478	176	65	0	1,411
Colon and Rectal Cancer	41	75	28	59	83	91	153	208	209	77	78	146	37	1	1,286
Liver Cancer	45	36	57	24	65	84	101	98	158	83	199	116	12	2	1,080

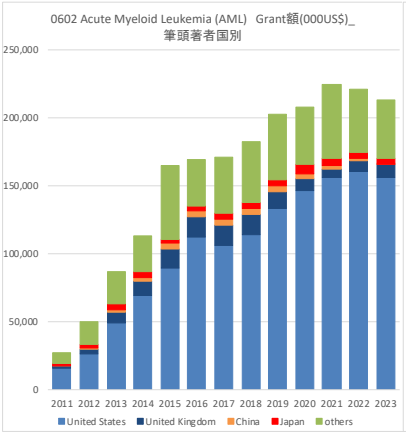
Acute Myeloid Leukemia (AML)の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC が多いと推計された。

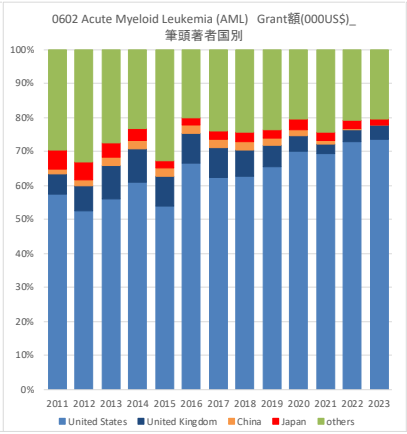


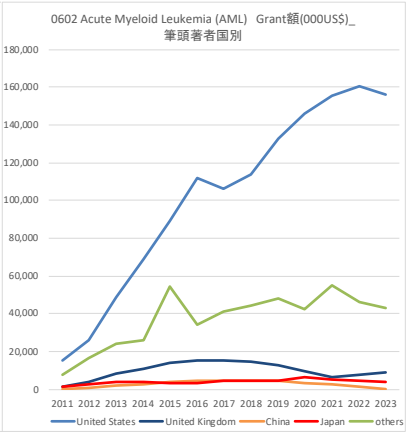
0602 Acute Myeloid Leukemia (AML) Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	1,930	2,440	2,984	2,614	2,696	4,214	5,403	4,364	3,283	6,045	4,541	1,675	516	33	42,738
National Natural Science Foundation of China	585	143	388	545	675	766	1,173	1,580	2,343	3,014	3,220	2,664	785	26	17,907
Deutsche Forschungsgemeinschaft	37	305	176	165	154	132	658	371	417	650	884	1,232	91	1	5,273
National Heart Lung and Blood Institute	286	101	589	248	177	326	407	412	783	621	606	514	136	4	5,210
Japan Society for the Promotion of Science	239	376	251	439	678	339	386	429	461	573	357	153	77	2	4,760
National Center for Advancing Translational Sciences	52	97	192	251	457	728	319	245	532	570	346	312	16	1	4,118
Medical Research Council	262	132	343	98	210	445	60	123	397	449	693	192	23	4	3,431
Ministry of Science and Technology of the People's Republic of China	53	81	144	126	113	178	132	429	282	475	639	375	96	7	3,130
National Institute of General Medical Sciences	133	220	44	500	92	447	118	316	171	230	336	126	32	2	2,767
Cancer Research UK	81	119	68	161	214	145	222	261	133	407	561	150	70	4	2,596

9.2.3. Grant(000US$)額

Acute Myeloid Leukemia (AML)の研究費総額は 2016 年まで急増しその後も増加傾向が見られたが、近年は横ばい傾向と推計された。国別の研究費配分額は米国が最も多く経年的にも大きく増加していると推計された。



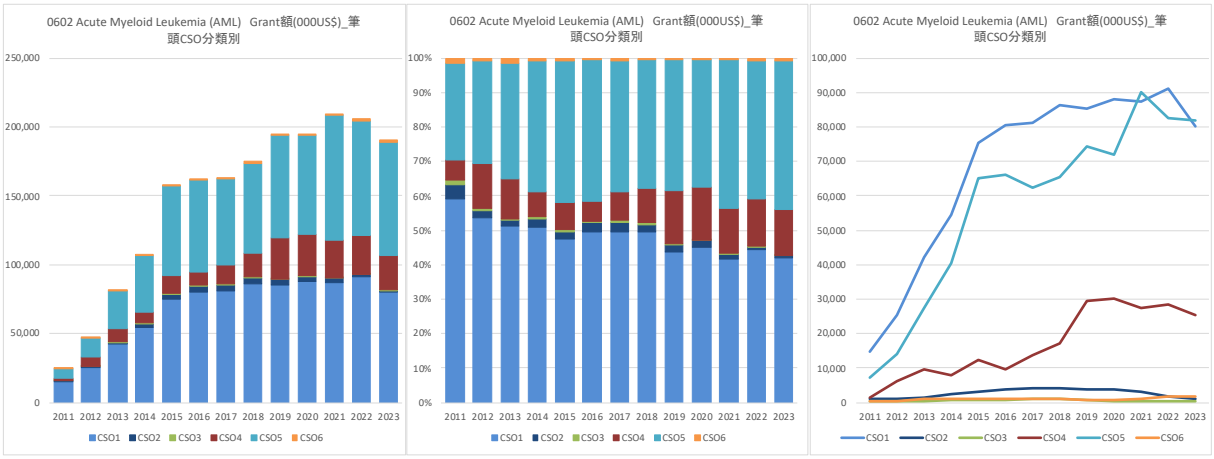




0602 Acute Myeloid Leukemia (AML) Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	15,239	25,944	48,390	68,615	88,950	111,992	106,010	113,779	132,837	145,754	155,453	160,436	156,067	119,981	1,449,448
United Kingdom	1,594	3,587	8,410	10,862	14,240	14,988	14,979	14,404	12,657	9,318	6,314	7,871	9,145	9,296	137,665
China	352	871	1,991	2,835	4,023	4,374	4,182	4,402	4,401	3,426	2,422	1,294	205	114	34,892
Japan	1,466	2,667	3,592	4,121	3,162	3,150	4,431	4,701	4,433	6,606	5,397	4,774	4,049	1,766	54,315
others	7,876	16,411	23,815	26,112	54,161	34,137	40,950	44,439	48,202	42,650	54,858	46,351	43,252	34,770	517,984
合計	26,527	49,480	86,198	112,544	164,536	168,642	170,551	181,724	202,531	207,753	224,444	220,726	212,719	165,928	2,194,304

0602 Acute Myeloid Leukemia (AML) Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	57.4%	52.4%	56.1%	61.0%	54.1%	66.4%	62.2%	62.6%	65.6%	70.2%	69.3%	72.7%	73.4%	72.3%	66.1%
United Kingdom	6.0%	7.3%	9.8%	9.7%	8.7%	8.9%	8.8%	7.9%	6.2%	4.5%	2.8%	3.6%	4.3%	5.6%	6.3%
China	1.3%	1.8%	2.3%	2.5%	2.4%	2.6%	2.5%	2.4%	2.2%	1.6%	1.1%	0.6%	0.1%	0.1%	1.6%
Japan	5.5%	5.4%	4.2%	3.7%	1.9%	1.9%	2.6%	2.6%	2.2%	3.2%	2.4%	2.2%	1.9%	1.1%	2.5%
others	29.7%	33.2%	27.6%	23.2%	32.9%	20.2%	24.0%	24.5%	23.8%	20.5%	24.4%	21.0%	20.3%	21.0%	23.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

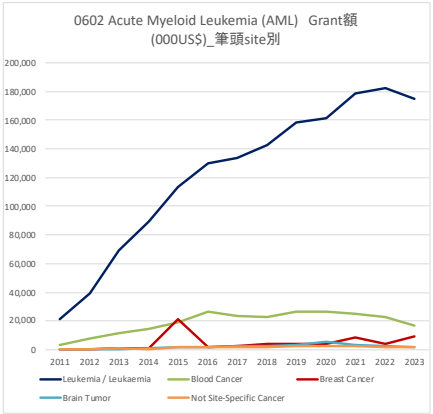
Acute Myeloid Leukemia (AML)の CSO 分類別の研究費配分額は、CSO1 Biology が最も多く、ついで CSO5 Treatment が多いと推計された。



0602 Acute Myeloid Leukemia (AML) Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	14,876	25,249	42,191	54,640	75,336	80,573	81,068	86,407	85,300	88,008	87,287	91,055	80,292	63,106	955,389
2 Etiology	1,000	1,056	1,465	2,564	3,235	3,948	4,222	4,106	3,914	3,665	2,979	1,770	984	855	35,763
3 Prevention	335	281	281	876	837	837	1,059	1,059	817	335	335	335	335	222	7,943
4 Early Detection, Diagnosis, and Prognosis	1,429	6,126	9,614	7,824	12,482	9,542	13,594	17,020	29,576	30,110	27,622	28,325	25,328	22,577	241,168
5 Treatment	7,096	14,042	27,584	40,624	65,192	66,286	62,330	65,334	74,532	72,043	89,962	82,480	81,900	65,315	814,719
6 Cancer Control, Survivorship, and Outcomes Research	354	354	1,186	1,041	1,192	967	1,169	1,018	704	761	1,130	1,723	1,861	1,731	15,189
others	1,704	2,372	3,963	5,357	6,674	6,901	7,521	7,233	8,026	12,873	15,171	15,038	22,063	12,165	127,061
合計	26,527	49,480	86,198	112,544	164,536	168,642	170,551	181,724	202,531	207,753	224,444	220,726	212,719	165,928	2,194,304

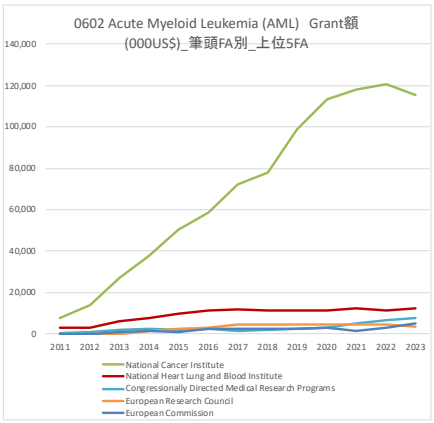
0602 Acute Myeloid Leukemia (AML) Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	56.1%	51.0%	48.9%	48.5%	45.8%	47.8%	47.5%	47.5%	42.1%	42.4%	38.9%	41.3%	37.7%	38.0%	43.5%
2 Etiology	3.8%	2.1%	1.7%	2.3%	2.0%	2.3%	2.5%	2.3%	1.9%	1.8%	1.3%	0.8%	0.5%	0.5%	1.6%
3 Prevention	1.3%	0.6%	0.3%	0.8%	0.5%	0.5%	0.6%	0.6%	0.4%	0.2%	0.1%	0.2%	0.2%	0.1%	0.4%
4 Early Detection, Diagnosis, and Prognosis	5.4%	12.4%	11.2%	7.0%	7.6%	5.7%	8.0%	9.4%	14.6%	14.5%	12.3%	12.8%	11.9%	13.6%	11.0%
5 Treatment	26.7%	28.4%	32.0%	36.1%	39.6%	39.3%	36.5%	36.0%	36.8%	34.7%	40.1%	37.4%	38.5%	39.4%	37.1%
6 Cancer Control, Survivorship, and Outcomes Research	1.3%	0.7%	1.4%	0.9%	0.7%	0.6%	0.7%	0.6%	0.3%	0.4%	0.5%	0.8%	0.9%	1.0%	0.7%
others	6.4%	4.8%	4.6%	4.8%	4.1%	4.1%	4.4%	4.0%	4.0%	6.2%	6.8%	6.8%	10.4%	7.3%	5.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute Myeloid Leukemia (AML)の臓器別の研究費配分額は、白血病が大半を占めていた。



0602 Acute Myeloid Leukemia (AML) Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	21,183	39,217	69,585	89,859	113,374	129,967	133,543	142,507	158,135	161,748	178,719	182,188	175,057	141,053	1,736,134
Blood Cancer	3,018	7,834	11,329	14,250	19,319	26,799	23,269	23,148	26,403	26,545	25,038	22,626	16,835	15,107	261,519
Breast Cancer	127	399	989	975	21,543	1,763	2,394	4,449	4,158	4,104	8,422	4,411	9,606	2,723	66,062
Brain Tumor	223	312	610	1,108	1,941	1,767	2,532	2,391	3,201	5,415	3,277	2,323	2,180	218	27,497
Not Site-Specific Cancer	384	637	963	711	1,875	1,526	1,559	1,599	2,445	2,313	2,378	1,979	1,657	952	20,977
Lung Cancer	0	280	280	679	679	759	759	490	29	29	311	449	599	514	5,857
Colon and Rectal Cancer	152	152	225	333	533	353	683	716	605	912	474	440	239	0	5,817
Prostate Cancer	21	21	37	125	129	242	625	584	131	420	289	612	612	399	4,246
Hodgkin's Disease	56	168	713	657	771	654	419	114	59	0	0	0	0	0	3,610
Kidney Cancer	0	0	0	112	112	127	127	183	366	366	366	256	116	116	2,250

Acute Myeloid Leukemia (AML)の FA 別の研究費配分額は、米国 NCI が最も多く経年的にも大きく増加傾向が見られた。



0602 Acute Myeloid Leukemia (AML) Grant額 (000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	7,887	14,103	27,026	38,126	50,349	58,804	72,331	78,035	98,841	113,196	118,110	120,364	115,598	94,548	1,007,320	United States
National Heart Lung and Blood Institute	2,949	3,221	6,072	7,790	9,878	11,165	12,115	11,365	11,405	11,515	12,601	11,611	12,239	7,127	131,052	United States
Congressionally Directed Medical Research Programs	356	1,024	2,087	2,344	2,309	2,471	1,743	2,117	2,364	3,162	5,377	6,897	7,518	5,815	45,585	United States
European Research Council	0	0	0	1,319	2,681	2,966	4,451	4,779	4,742	4,858	4,468	4,664	3,729	4,936	43,591	Belgium
European Commission	78	199	1,199	1,341	1,167	2,533	2,456	2,818	2,759	2,847	1,458	3,160	5,206	6,473	33,694	Belgium
National Natural Science Foundation of China	319	837	1,935	2,739	3,961	4,267	4,016	4,263	4,213	3,344	2,379	1,189	91	0	33,553	China
Canadian Institutes of Health Research	343	561	820	1,059	1,319	1,657	2,624	2,926	3,260	3,378	3,458	3,321	3,170	2,000	29,897	Canada
Japan Agency for Medical Research and Development	0	0	0	828	1,699	2,069	3,213	3,474	2,573	4,733	3,411	3,246	2,414	616	28,277	Japan
Medical Research Council	0	640	640	534	976	976	1,531	2,031	2,148	2,638	1,864	3,418	4,446	4,948	26,791	United Kingdom
Japan Society for the Promotion of Science	960	1,719	1,827	2,197	1,828	1,672	1,809	1,818	2,135	2,265	2,460	1,997	1,977	1,263	25,926	Japan

9.2.4. 主要論文、引用、研究費

＜論文＞

Publication: 0602 Acute Myeloid Leukemia (AML)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Genomics of Acute Myeloid Leukemia: The Next Generation	Riva, Laura; Luzi, Lucilla; Pelicci, Pier Giuseppe	Frontiers in Oncology	Italy	2012	7	Review Article
2	Combinatorial Haplo-Deficient Tumor Suppression in 7q-Deficient Myelodysplastic Syndrome and Acute Myeloid Leukemia	Will, Britta; Steidl, Ulrich	Cancer Cell	United States	2014	3	Research Article
3	Pleural Effusion as an Unusual Initial Presentation of Acute Myeloid Leukemia	Agarwal, Mukul; Purohit, Abhishek HL; Mahapatra, Manoranjan; Kumar, Rajeev; Mishra, Pravas; Seth, Tulika; Saxena, Renu	Indian Journal of Hematology and Blood Transfusion	India	2014	1	Research Article
4	Recent Discoveries in Molecular Characterization of Acute Myeloid Leukemia	Khasawneh, Mohamad K.; Abdel-Wahab, Omar	Current Hematologic Malignancy Reports	United States	2014	1	Review Article
5	Natural killer cell immune escape in acute myeloid leukemia	Lion, E; Willemen, Y; Berneman, Z N; Van Tendeloo, V F I; Smits, E L J	Leukemia	Belgium	2012	28	Review Article
6	The expression analysis of LATS2 gene in de novo AML patients	Gholami, Milad; Mirfakhraie, Reza; Movafagh, Abolfazl; Jalaeekhoo, Hasan; Kalahroodi, Ramezanali; Zare-Abdollahi, Davood; Zare-Karizi, Shohreh	Medical Oncology	Iran	2014	3	Research Article
7	Azacitidine as salvage therapy for acute myeloid leukemia in a severely ill patient	Powers, Harry Ross; Bachar, Moshe; Savage, Natasha; Toscano, Michael; Dainer, Paul M.	Hematology Reports	United States	2014	1	Research Article
8	Acute myeloid leukemia in a 38-year-old hemodialyzed patient with von Hippel-Lindau disease	Labno-Kirszniok, Katarzyna; Nieszporek, Teresa; Wiecek, Andrzej; Helbig, Grzegorz; Lubinski, Jan	Hereditary Cancer in Clinical Practice	Poland	2013	0	Research Article
9	BIRC6 (APOLLON) is down-regulated in acute myeloid leukemia and its knockdown attenuates neutrophil differentiation	Schläfli, Anna M; Torbett, Bruce E; Fey, Martin F; Tschan, Mario P	Experimental Hematology & Oncology	United States	2012	0	Research Article
10	Can systems biology approach help in finding more effective treatment for acute myeloid leukemia?	Vaidya, Anuradha	Systems and Synthetic Biology	India	2014	1	Research Article

＜引用＞

Citation: 0602 Acute Myeloid Leukemia (AML)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Diagnosis and management of AML in adults: 2017 ELN recommendations from an international expert panel	Döhner, Hartmut; Estey, Elihu; Grimwade, David; Amadori, Sergio; Appelbaum, Frederick R; Büchner, Thomas; Dombret, Hervé; Ebert, Benjamin L; Fenaux, Pierre; Larson, Richard A; Levine, Ross L; Lo-Coco, Francesco; Naoe, Tomoki; Niederwieser, Dietger; Ossenkoppele, Gert J; Sanz, Miguel; Sierra, Jorge; Tallman, Martin S; Tien, Hwei-Fang; Wei, Andrew H; Löwenberg, Bob; Bloomfield, Clara D	Blood	Germany	2016	1856	Review Article
2	Azacitidine and Venetoclax in Previously Untreated Acute Myeloid Leukemia	DiNardo, Courtney D; Jonas, Brian A; Pullarkat, Vinod; Thirman, Michael J; Garcia, Jacqueline S; Wei, Andrew H; Konopleva, Marina; Döhner, Hartmut; Letai, Anthony; Fenaux, Pierre; Koller, Elizabeth; Havelange, Violaine; Leber, Brian; Esteve, Jordi; Wang, Jianxiang; Pejsa, Vlatko; Hájek, Roman; Porkka, Kimmo; Illés, Árpád; Lavie, David; Lemoli, Roberto M; Yamamoto, Kazuhito; Yoon,	New England Journal of Medicine	United States	2020	1136	Research Article
3	Genomic Classification and Prognosis in Acute Myeloid Leukemia	Papaemmanuil, Elli; Gerstung, Moritz; Bullinger, Lars; Gaidzik, Verena I; Paschka, Peter; Roberts, Nicola D; Potter, Nicola E; Heuser, Michael; Thol, Felicitas; Bolli, Niccolo; Gundem, Gunes; Van Loo, Peter; Martincorena, Inigo; Ganly, Peter; Mudie, Laura; McLaren, Stuart; O'Meara, Sarah; Raine, Keiran; Jones, David R;	New England Journal of Medicine	Italy	2016	1134	Research Article
4	Diagnosis and management of AML in adults: 2022 recommendations from an international expert panel on behalf of the ELN	Döhner, Hartmut; Wei, Andrew H; Appelbaum, Frederick R; Craddock, Charles; DiNardo, Courtney D; Dombret, Hervé; Ebert, Benjamin L; Fenaux, Pierre; Godley, Lucy A; Hasserjian, Robert P; Larson, Richard A; Levine, Ross L; Miyazaki, Yasushi; Niederwieser, Dietger; Ossenkoppele, Gert; Röllig, Christoph; Sierra, Jorge; Stein, Eytan M; Tallman, Martin S; Tien, Hwei-Fang; Wang, Jianxiang; Wierzbowska, Agnieszka; Löwenberg, Bob	Blood	United States	2022	1028	Research Article
5	Genomic and Epigenomic Landscapes of Adult De Novo Acute Myeloid Leukemia	Ley, Timothy J; Miller, Christopher; Ding, Li; Raphael, Benjamin J; Mungall, Andrew J; Robertson, A Gordon; Hoadley, Katherine; Triche, Timothy J; Laird, Peter W; Baty, Jack D; Fulton, Lucinda L; Fulton, Robert; Heath, Sharon E; Kalicki-Veizer, Joelle; Kandoth, Cyriac; Klco, Jeffery M; Koboldt, Daniel C; Kanchi, Krishna-Latha; Kulkarni, Shashikant; Lamprecht, Tamara L;	New England Journal of Medicine		2013	932	Research Article
6	Clonal Hematopoiesis and Blood-Cancer Risk Inferred from Blood DNA Sequence	Genovese, Giulio; Kähler, Anna K; Handsaker, Robert E; Lindberg, Johan; Rose, Samuel A; Bakhoum, Samuel F; Chambert, Kimberly; Mick, Eran; Neale, Benjamin M; Fromer, Menachem; Purcell, Shaun M; Svantesson, Oscar; Landén, Mikael; Höglund, Martin; Lehmann, Sören; Gabriel, Stacey B; Moran, Jennifer L; Lander,	New England Journal of Medicine		2014	840	Research Article
7	Data-Driven Phenotypic Dissection of AML Reveals Progenitor-like Cells that Correlate with Prognosis	Levine, Jacob H.; Simonds, Erin F.; Bendall, Sean C.; Davis, Kara L.; Amir, El-ad D.; Tadmor, Michelle D.; Litvin, Oren; Fienberg, Harris G.; Jager, Astraea; Zunder, Eli R.; Finck, Rachel; Gedman, Amanda L.; Radtke, Ina; Downing, James R.; Pe'er, Dana; Nolan, Garry P.	Cell	United States	2015	754	Research Article
8	Revised International Prognostic Scoring System for Myelodysplastic Syndromes	Greenberg, Peter L.; Tuechler, Heinz; Schanz, Julie; Sanz, Guillermo; Garcia-Manero, Guillermo; Solé, Francesc; Bennett, John M.; Bowen, David; Fenaux, Pierre; Dreyfus, Francois; Kantarjian, Hagop; Kuendgen, Andrea; Levis, Alessandro; Malcovati, Luca; Cazzola, Mario; Cermak, Jaroslav; Fonatsch,	Blood	Spain	2012	665	Research Article
9	Midostaurin plus Chemotherapy for Acute Myeloid Leukemia with a FLT3 Mutation	Stone, Richard M; Mandrekar, Sumithra J; Sanford, Ben L; Laumann, Kristina; Geyer, Susan; Bloomfield, Clara D; Thiede, Christian; Prior, Thomas W; Döhner, Konstanze; Marcucci, Guido; Lo-Coco, Francesco; Klisovic, Rebecca B; Wei, Andrew; Sierra, Jorge; Sanz, Miguel A; Brandwein, Joseph M; de Witte, Theo;	New England Journal of Medicine	Netherlands	2017	637	Research Article
10	Small-molecule inhibition of METTL3 as a strategy against myeloid leukaemia	Yankova, Eliza; Blackaby, Wesley; Albertella, Mark; Rak, Justyna; De Braekeleer, Etienne; Tsagkogeorga, Georgia; Pilka, Ewa S.; Aspris, Demetrios; Leggate, Dan; Hendrick, Alan G.; Webster, Natalie A.; Andrews, Byron; Fosbeary, Richard; Guest, Patrick; Irigoyen, Nerea; Eleftheriou, Maria; Gozdecka, Malgorzata; Dias,	Nature	Germany	2021	555	Research Article

＜研究費＞

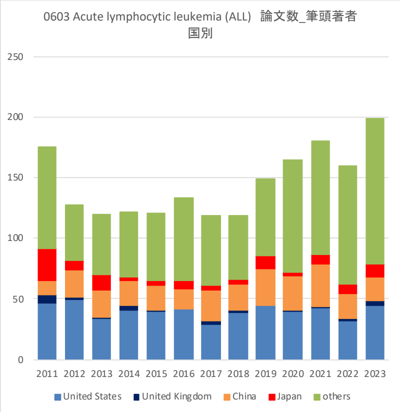
Grant: 0602 Acute Myeloid Leukemia (AML)

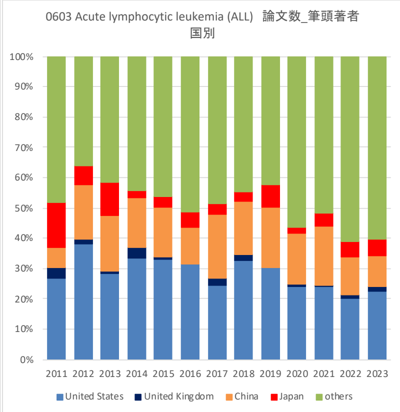
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	MD NET	RALPH PARCHMENT	National Cancer Institute	United States	54,828,828	2019	2024
2	MD NET	RALPH PARCHMENT	National Cancer Institute	United States	33,472,472	2019	2028
3	Specialized Program Of Research Excellence (SPORE) in Leukemia.	DANIEL C LINK, TIMOTHY J. LEY, GEOFFREY L UY, TIMOTHY A GRAUBERT, JOHN F. DIPERSIO, PETER WESTERVELT, J. PHILIP MILLER, LEE RATNER, CAMILLE ABBOUD, GRAHAM A. COLDITZ, MATTHEW J WALTER, TODD A FEHNIGER	National Cancer Institute	United States	22,964,298	2013	2024
4	Detection, prevention and treatment of acute myeloid leukemia (AML) relapse.	CHRISTOPHER HOURIGAN	National Heart Lung and Blood Institute	United States	20,971,072	2013	2023
5	Engineered AXL Decoy Receptor for Treatment of AML & Solid Tumors	Amato Giaccia	Cancer Prevention and Research Institute of Texas	United States	20,000,000	2015	0
6	Transcription and Splicing Dynamics in Single Cells	DANIEL LARSON	National Cancer Institute	United States	19,593,496	2011	2023
7	Targeted Sphingolipid Metabolism for Treatment of AML	THOMAS PATRICK LOUGHRAN, MYLES C. CABOT, MARK KESTER, HONG-GANG WANG, SHANTU G AMIN, TODD E FOX, DAVID F CLAXTON, JIANGANG LIAO, KEVIN A JANES, MARK R CONAWAY, CHARLES E. CHALFANT, BETHANY JABLONSKI HORTON	National Cancer Institute	United States	17,993,116	2013	2025
8	Clinical Evaluation of a Novel T Cell Therapy (BPX-501) for the Treatment of Children and Adults with AML	Melissa Aldinger	Cancer Prevention and Research Institute of Texas	United States	16,946,716	2016	0
9	Enhancing Chimeric Antigen Receptor T Cell Therapies for HematologicMalignancies: Beyond CART 19	CARL H. JUNE, DAVID L PORTER, SAAR GILL, EDWARD A STADTMAUER, BRUCE L. LEVINE, JAN J MELENHORST, DONALD LAWRENCE SIEGEL, SIMON F LACEY, JOSEPH ANTHONY FRAIETTA, MICHAEL C. MILONE, FRIEDERIKE HERBST-NOWROUZI	National Cancer Institute	United States	15,324,100	2017	2028
10	Immune Modulation After Allogeneic HCT	ROBERT JON SOIFFER, CATHERINE JU-YING WU, ROBERT COLEMAN LINDSLEY, HAESOOK T KIM, JEROME RITZ, KENNETH JAMES LIVAK	National Cancer Institute	United States	13,828,168	2019	2024

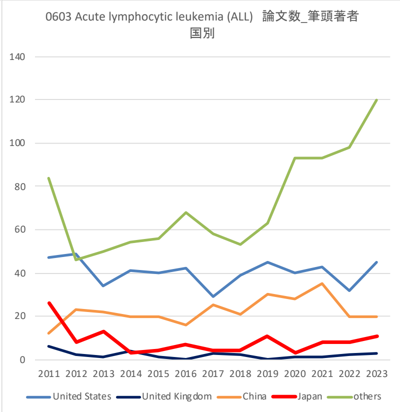
9.3. 0603 Acute lymphocytic leukemia (ALL)

9.3.1. 論文数

Acute lymphocytic leukemia (ALL)の論文数は経年的に横ばい傾向であったが、近年は微増傾向が見られた。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。



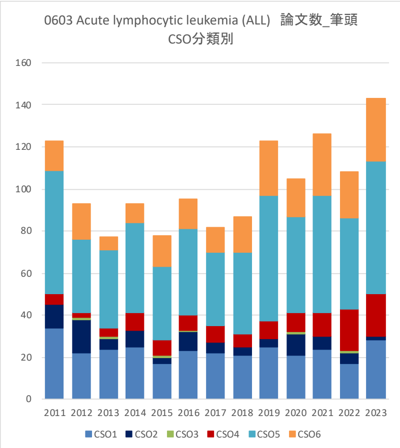


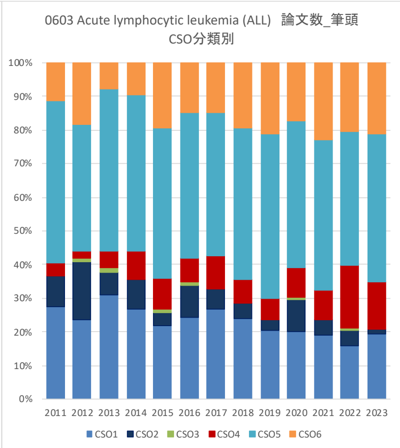


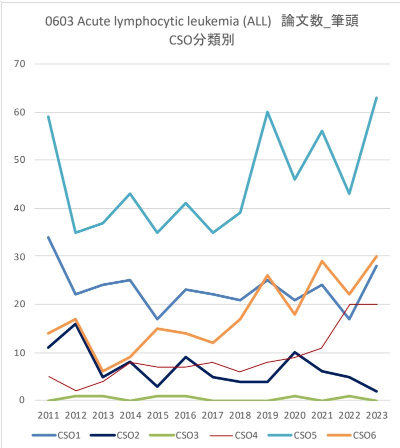
0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	47	49	34	41	40	42	29	39	45	40	43	32	45	12	538
United Kingdom	6	2	1	4	1	0	3	2	0	1	1	2	3	1	27
China	12	23	22	20	20	16	25	21	30	28	35	20	20	8	300
Japan	26	8	13	3	4	7	4	4	11	3	8	8	11	2	112
others	84	46	50	54	56	68	58	53	63	93	93	98	120	30	966
合計	175	128	120	122	121	133	119	119	149	165	180	160	199	53	1,943

0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	26.9%	38.3%	28.3%	33.6%	33.1%	31.6%	24.4%	32.8%	30.2%	24.2%	23.9%	20.0%	22.6%	22.6%	27.7%
United Kingdom	3.4%	1.6%	0.8%	3.3%	0.8%	0.0%	2.5%	1.7%	0.0%	0.6%	0.6%	1.3%	1.5%	1.9%	1.4%
China	6.9%	18.0%	18.3%	16.4%	16.5%	12.0%	21.0%	17.6%	20.1%	17.0%	19.4%	12.5%	10.1%	15.1%	15.4%
Japan	14.9%	6.3%	10.8%	2.5%	3.3%	5.3%	3.4%	3.4%	7.4%	1.8%	4.4%	5.0%	5.5%	3.8%	5.8%
others	48.0%	35.9%	41.7%	44.3%	46.3%	51.1%	48.7%	44.5%	42.3%	56.4%	51.7%	61.3%	60.3%	56.6%	49.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute lymphocytic leukemia (ALL)の CSO 分類別の論文数は、CSO5 Treatment が最も多く、ついで CSO6 Cancer Control, Survivorship, and Outcomes Research、CSO1 Biology が多いと推計された。



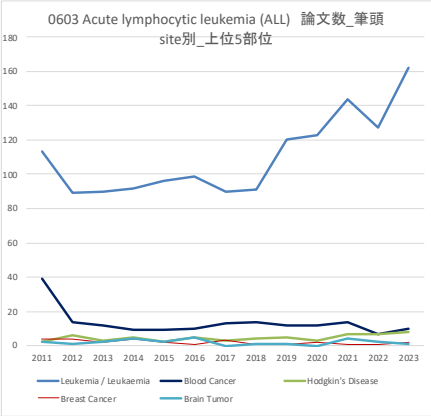




0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	34	22	24	25	17	23	22	21	25	21	24	17	28	5	308
2 Etiology	11	16	5	8	3	9	5	4	4	10	6	5	2	5	93
3 Prevention	0	1	1	0	1	1	0	0	0	1	0	1	0	0	6
4 Early Detection, Diagnosis, and Prognosis	5	2	4	8	7	7	8	6	8	9	11	20	20	3	118
5 Treatment	59	35	37	43	35	41	35	39	60	46	56	43	63	15	607
6 Cancer Control, Survivorship, and Outcomes Research	14	17	6	9	15	14	12	17	26	18	29	22	30	6	235
others	52	35	43	29	43	38	37	32	26	60	54	52	56	19	576
合計	175	128	120	122	121	133	119	119	149	165	180	160	199	53	1,943

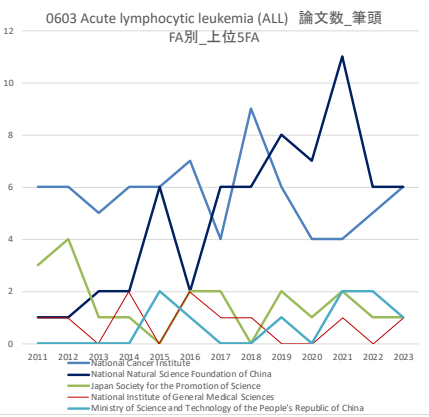
0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	19.4%	17.2%	20.0%	20.5%	14.0%	17.3%	18.5%	17.6%	16.8%	12.7%	13.3%	10.6%	14.1%	9.4%	15.9%
2 Etiology	6.3%	12.5%	4.2%	6.6%	2.5%	6.8%	4.2%	3.4%	2.7%	6.1%	3.3%	3.1%	1.0%	9.4%	4.8%
3 Prevention	0.0%	0.8%	0.8%	0.0%	0.8%	0.8%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%	0.0%	0.0%	0.3%
4 Early Detection, Diagnosis, and Prognosis	2.9%	1.6%	3.3%	6.6%	5.8%	5.3%	6.7%	5.0%	5.4%	5.5%	6.1%	12.5%	10.1%	5.7%	6.1%
5 Treatment	33.7%	27.3%	30.8%	35.2%	28.9%	30.8%	29.4%	32.8%	40.3%	27.9%	31.1%	26.9%	31.7%	28.3%	31.2%
6 Cancer Control, Survivorship, and Outcomes Research	8.0%	13.3%	5.0%	7.4%	12.4%	10.5%	10.1%	14.3%	17.4%	10.9%	16.1%	13.8%	15.1%	11.3%	12.1%
others	29.7%	27.3%	35.8%	23.8%	35.5%	28.6%	31.1%	26.9%	17.4%	36.4%	30.0%	32.5%	28.1%	35.8%	29.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute lymphocytic leukemia (ALL)の臓器別の論文数は、白血病が大半を占めていた。



0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	113	89	90	92	96	99	90	91	120	123	144	127	162	38	1,474
Blood Cancer	39	14	12	9	9	10	13	14	12	12	14	7	10	5	180
Hodgkin's Disease	2	6	3	5	2	5	3	4	5	3	7	7	8	3	63
Breast Cancer	4	4	2	4	2	1	3	1	1	2	1	1	2	1	29
Brain Tumor	2	1	2	4	2	5	0	1	1	0	4	2	1	0	25
Not Site-Specific Cancer	3	4	2	0	0	1	5	0	1	2	1	3	1	2	25
Kidney Cancer	0	0	0	1	1	0	0	1	2	1	0	1	3	0	10
Non-Hodgkin's Lymphoma	1	1	1	0	1	2	0	0	1	0	1	0	1	1	10
Colon and Rectal Cancer	2	0	0	1	1	0	0	1	0	1	1	2	0	0	9
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	1	3	2	0	0	0	1	0	1	0	0	0	0	0	8

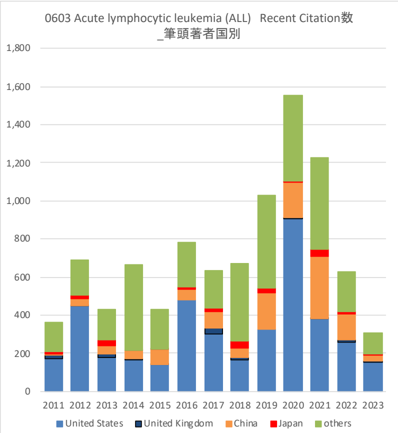
Acute lymphocytic leukemia (ALL)の FA 別の論文数は、米国 NCI と中国 NSFC が多いと推計された。

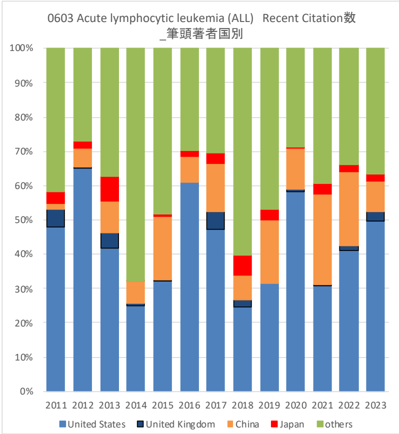


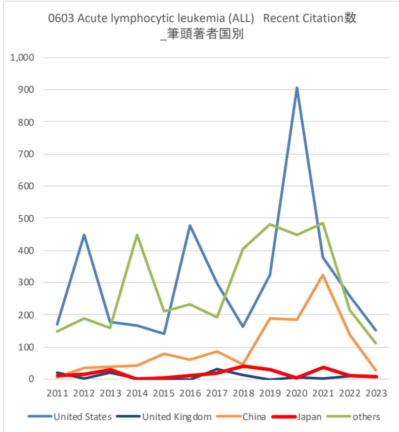
0603 Acute lymphocytic leukemia (ALL) 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	6	6	5	6	6	7	4	9	6	4	4	5	6	1	75
National Natural Science Foundation of China	1	1	2	2	6	2	6	6	8	7	11	6	6	3	67
Japan Society for the Promotion of Science	3	4	1	1	0	2	2	0	2	1	2	1	1	0	20
National Institute of General Medical Sciences	1	1	0	2	0	2	1	1	0	0	1	0	1	1	11
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	2	1	0	0	1	0	2	2	1	0	9
National Heart Lung and Blood Institute	1	1	4	1	0	0	0	1	0	0	0	0	0	0	8
Canadian Institutes of Health Research	0	0	0	1	0	3	0	1	0	0	0	2	0	0	7
Deutsche Forschungsgemeinschaft	0	0	1	1	1	0	1	0	0	2	0	0	0	0	6
São Paulo Research Foundation	0	0	1	1	1	0	0	1	0	2	0	0	0	0	6
National Institute of Diabetes and Digestive and Kidney Diseases	2	2	1	0	0	0	0	0	0	1	0	0	0	0	6

9.3.2. Recent Citation 数

Acute lymphocytic leukemia (ALL)の引用数は横ばい傾向であったが、2020 年に急増してピークが見られた。国別の引用数は、米国が最も多く、ついで中国と推計された。



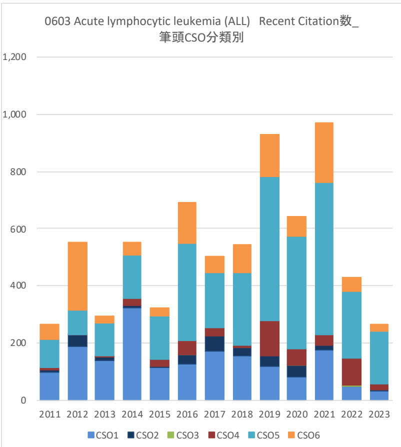


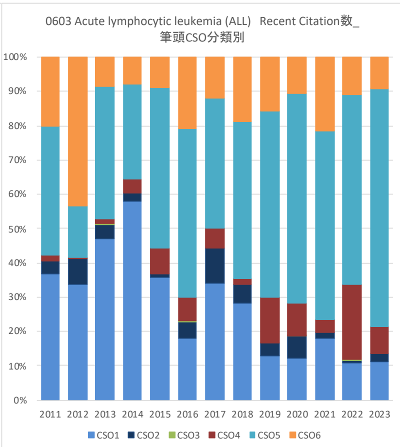


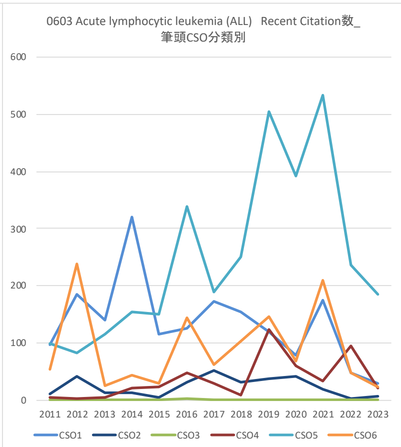
0603 Acute lymphocytic leukemia (ALL)　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	172	449	179	166	140	479	299	165	325	906	379	259	153	1	4,072
United Kingdom	19	3	19	4	1	0	33	15	0	7	2	9	8	0	120
China	6	37	40	43	80	59	88	47	190	186	325	136	28	2	1,267
Japan	13	14	31	1	3	12	20	39	29	5	38	12	6	0	223
others	150	187	159	449	209	234	193	405	483	448	485	214	113	1	3,730
合計	360	690	428	663	433	784	633	671	1,027	1,552	1,229	630	308	4	9,412

0603 Acute lymphocytic leukemia (ALL)　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	47.8%	65.1%	41.8%	25.0%	32.3%	61.1%	47.2%	24.6%	31.6%	58.4%	30.8%	41.1%	49.7%	25.0%	43.3%
United Kingdom	5.3%	0.4%	4.4%	0.6%	0.2%	0.0%	5.2%	2.2%	0.0%	0.5%	0.2%	1.4%	2.6%	0.0%	1.3%
China	1.7%	5.4%	9.3%	6.5%	18.5%	7.5%	13.9%	7.0%	18.5%	12.0%	26.4%	21.6%	9.1%	50.0%	13.5%
Japan	3.6%	2.0%	7.2%	0.2%	0.7%	1.5%	3.2%	5.8%	2.8%	0.3%	3.1%	1.9%	1.9%	0.0%	2.4%
others	41.7%	27.1%	37.1%	67.7%	48.3%	29.8%	30.5%	60.4%	47.0%	28.9%	39.5%	34.0%	36.7%	25.0%	39.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute lymphocytic leukemia (ALL)の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO1 Biology の順と推計された。



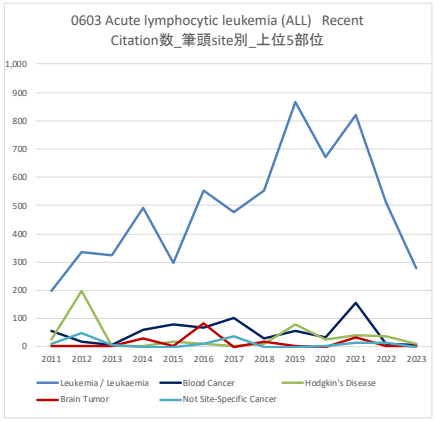




0603 Acute lymphocytic leukemia (ALL) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	97	186	139	321	115	125	172	154	119	79	175	47	30	0	1,759
2 Etiology	10	41	12	12	4	32	52	31	37	41	18	3	6	0	299
3 Prevention	0	0	1	0	0	3	0	0	0	1	0	1	0	0	6
4 Early Detection, Diagnosis, and Prognosis	5	3	4	22	24	48	30	8	123	60	34	94	21	1	477
5 Treatment	99	83	115	154	150	339	190	251	504	392	533	237	184	3	3,234
6 Cancer Control, Survivorship, and Outcomes Research	53	239	25	43	29	145	61	102	146	69	210	47	24	0	1,193
others	96	138	132	111	111	92	128	125	98	910	259	201	43	0	2,444
合計	360	690	428	663	433	784	633	671	1,027	1,552	1,229	630	308	4	9,412

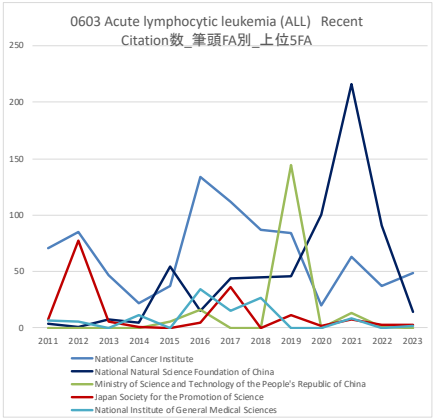
0603 Acute lymphocytic leukemia (ALL) Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	26.9%	27.0%	32.5%	48.4%	26.6%	15.9%	27.2%	23.0%	11.6%	5.1%	14.2%	7.5%	9.7%	0.0%	18.7%
2 Etiology	2.8%	5.9%	2.8%	1.8%	0.9%	4.1%	8.2%	4.6%	3.6%	2.6%	1.5%	0.5%	1.9%	0.0%	3.2%
3 Prevention	0.0%	0.0%	0.2%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%
4 Early Detection, Diagnosis, and Prognosis	1.4%	0.4%	0.9%	3.3%	5.5%	6.1%	4.7%	1.2%	12.0%	3.9%	2.8%	14.9%	6.8%	25.0%	5.1%
5 Treatment	27.5%	12.0%	26.9%	23.2%	34.6%	43.2%	30.0%	37.4%	49.1%	25.3%	43.4%	37.6%	59.7%	75.0%	34.4%
6 Cancer Control, Survivorship, and Outcomes Research	14.7%	34.6%	5.8%	6.5%	6.7%	18.5%	9.6%	15.2%	14.2%	4.4%	17.1%	7.5%	7.8%	0.0%	12.7%
others	26.7%	20.0%	30.8%	16.7%	25.6%	11.7%	20.2%	18.6%	9.5%	58.6%	21.1%	31.9%	14.0%	0.0%	26.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute lymphocytic leukemia (ALL)の臓器別の引用数は、白血病が大半であった。



0603 Acute lymphocytic leukemia (ALL) Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	196	335	323	492	296	553	477	552	868	671	822	511	277	4	6,377
Blood Cancer	57	18	5	60	81	66	101	31	57	34	155	11	5	0	681
Hodgkin's Disease	25	197	3	2	19	11	4	9	79	24	41	39	11	0	464
Brain Tumor	4	3	4	29	3	83	0	17	4	0	32	4	3	0	186
Not Site-Specific Cancer	10	49	8	0	0	9	39	0	0	4	14	13	0	0	146
Breast Cancer	13	3	25	5	23	1	1	12	2	39	12	0	6	0	142
Non-Hodgkin's Lymphoma	0	0	7	0	0	47	0	0	0	0	35	0	0	0	89
Liver Cancer	0	0	0	0	0	0	0	0	13	0	36	2	0	0	51
Colon and Rectal Cancer	0	0	0	31	2	0	0	10	0	2	3	1	0	0	49
Cervical Cancer	0	0	0	0	0	3	0	3	0	4	8	12	0	0	30

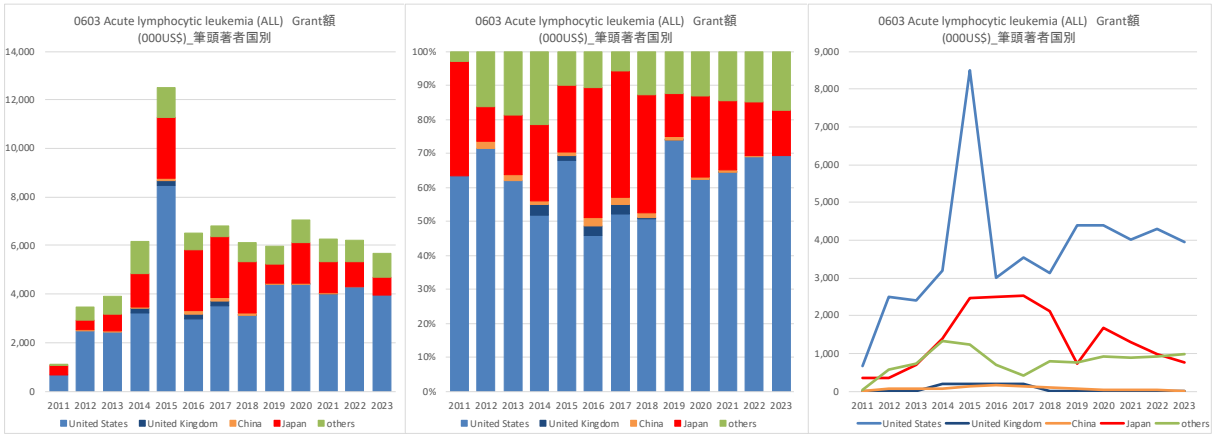
Acute lymphocytic leukemia (ALL)の FA 別の引用数は、米国 NCI と中国 NSFC が多いと推計された。



0603 Acute lymphocytic leukemia (ALL) Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	71	85	47	22	37	134	112	87	84	20	63	37	49	0	848
National Natural Science Foundation of China	4	1	8	5	54	15	44	45	46	100	216	91	14	2	645
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	6	16	0	0	144	0	13	1	0	0	180
Japan Society for the Promotion of Science	8	77	6	1	0	5	36	0	11	2	8	3	3	0	160
National Institute of General Medical Sciences	7	6	0	11	0	34	15	27	0	0	9	0	2	0	111
National Institute of Diabetes and Digestive and Kidney Diseases	22	49	8	0	0	0	0	0	0	10	0	0	0	0	89
FWF Austrian Science Fund	0	0	0	0	0	0	0	0	0	0	84	0	1	0	85
American Cancer Society	0	0	0	0	0	0	0	3	0	0	13	57	0	0	73
National Heart Lung and Blood Institute	0	6	43	4	0	0	0	20	0	0	0	0	0	0	73
Canadian Institutes of Health Research	0	0	0	6	0	40	0	5	0	0	0	10	0	0	61

9.3.3. Grant(000US$)額

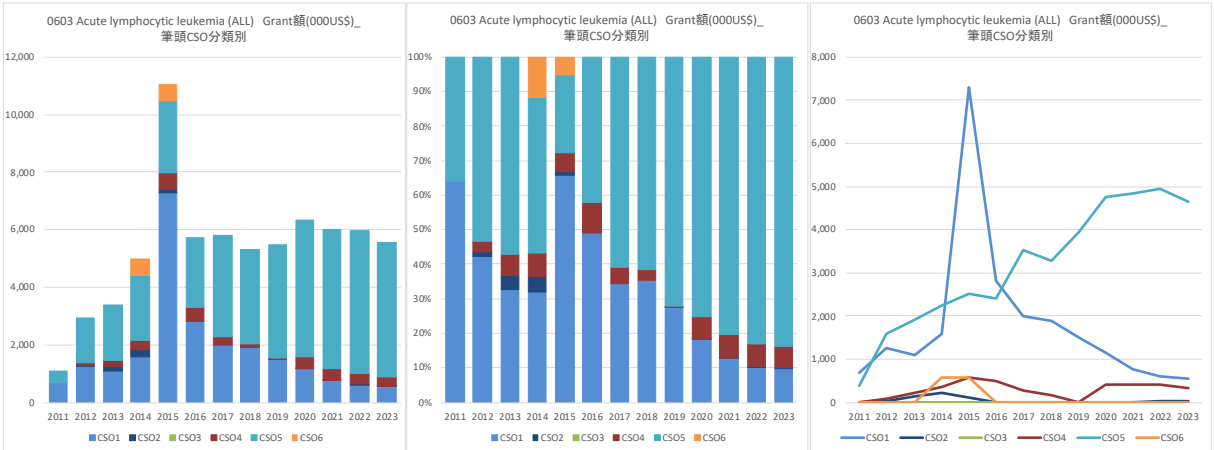
Acute lymphocytic leukemia (ALL)の研究費総額は、2015 年にピークが見られたが、他の年は横ばい傾向であった。国別の研究費配分額は米国が最も多く、ついで日本が多いと推計された。



0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	681	2,485	2,416	3,199	8,485	2,989	3,526	3,120	4,400	4,400	4,012	4,300	3,950	2,912	50,874
United Kingdom	0	0	0	196	196	196	196	5	5	5	5	0	0	0	804
China	0	63	63	75	115	155	143	89	64	42	42	21	0	0	872
Japan	361	361	684	1,389	2,461	2,507	2,519	2,128	743	1,692	1,284	990	763	154	18,037
others	31	562	737	1,321	1,248	690	400	794	746	918	900	920	988	464	10,720
合計	1,074	3,472	3,899	6,179	12,506	6,537	6,784	6,137	5,957	7,057	6,243	6,231	5,701	3,530	81,307

0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	63.4%	71.6%	62.0%	51.8%	67.9%	45.7%	52.0%	50.8%	73.9%	62.4%	64.3%	69.0%	69.3%	82.5%	62.6%
United Kingdom	0.0%	0.0%	0.0%	3.2%	1.6%	3.0%	2.9%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	1.0%
China	0.0%	1.8%	1.6%	1.2%	0.9%	2.4%	2.1%	1.5%	1.1%	0.6%	0.7%	0.3%	0.0%	0.0%	1.1%
Japan	33.7%	10.4%	17.5%	22.5%	19.7%	38.3%	37.1%	34.7%	12.5%	24.0%	20.6%	15.9%	13.4%	4.4%	22.2%
others	2.9%	16.2%	18.9%	21.4%	10.0%	10.6%	5.9%	12.9%	12.5%	13.0%	14.4%	14.8%	17.3%	13.1%	13.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

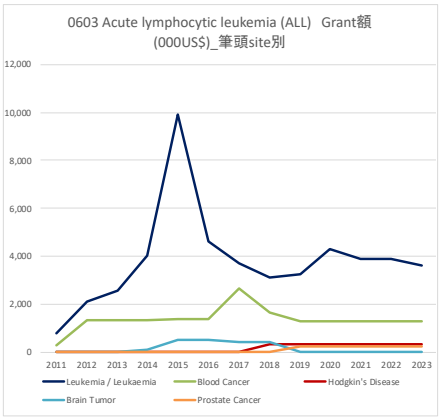
Acute lymphocytic leukemia (ALL)の CSO 分類別の研究費配分額は、CSO5 Treatment が最も多く経年的にも増加傾向が見られた。



0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	687	1,245	1,103	1,587	7,285	2,822	1,997	1,888	1,501	1,152	762	601	540	34	23,204
2 Etiology	0	37	130	221	115	0	0	0	7	7	11	19	19	8	575
3 Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Early Detection, Diagnosis, and Prognosis	0	85	214	350	588	497	272	153	12	413	400	400	335	0	3,721
5 Treatment	386	1,573	1,921	2,253	2,503	2,418	3,538	3,284	3,938	4,758	4,832	4,948	4,646	3,463	44,459
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	576	576	0	0	0	0	0	0	0	0	0	1,152
others	0	531	531	1,191	1,439	800	978	812	499	727	238	263	161	25	8,195
合計	1,074	3,472	3,899	6,179	12,506	6,537	6,784	6,137	5,957	7,057	6,243	6,231	5,701	3,530	81,307

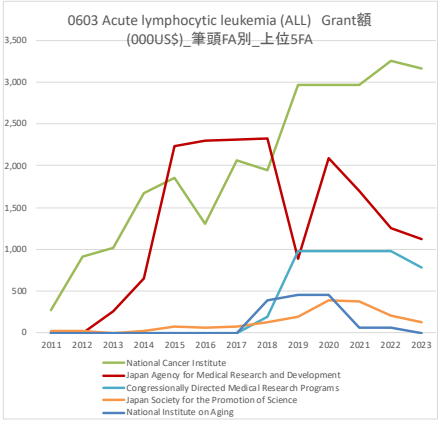
0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	64.0%	35.9%	28.3%	25.7%	58.3%	43.2%	29.4%	30.8%	25.2%	16.3%	12.2%	9.6%	9.5%	1.0%	28.5%
2 Etiology	0.0%	1.1%	3.3%	3.6%	0.9%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.3%	0.3%	0.2%	0.7%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	0.0%	2.5%	5.5%	5.7%	4.7%	7.6%	4.0%	2.5%	0.2%	5.8%	6.4%	6.4%	5.9%	0.0%	4.6%
5 Treatment	36.0%	45.3%	49.3%	36.5%	20.0%	37.0%	52.1%	53.5%	66.1%	67.4%	77.4%	79.4%	81.5%	98.1%	54.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
others	0.0%	15.3%	13.6%	19.3%	11.5%	12.2%	14.4%	13.2%	8.4%	10.3%	3.8%	4.2%	2.8%	0.7%	10.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Acute lymphocytic leukemia (ALL)の臓器別の研究費配分額は、白血病が大半を占めていた。



0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Leukemia / Leukaemia	770	2,126	2,554	4,033	9,905	4,626	3,690	3,140	3,260	4,294	3,899	3,887	3,614	1,920	51,718
Blood Cancer	304	1,345	1,345	1,344	1,387	1,396	2,683	1,641	1,277	1,286	1,286	1,286	1,286	1,277	19,146
Hodgkin's Disease	0	0	0	0	0	0	0	333	333	333	333	333	333	333	2,328
Brain Tumor	0	0	0	90	502	502	412	412	18	18	0	0	0	0	1,953
Prostate Cancer	0	0	0	0	0	0	0	0	244	244	244	244	244	0	1,220
Colon and Rectal Cancer	0	0	0	0	0	0	0	388	388	388	0	0	0	0	1,165
Ovarian Cancer	0	0	0	0	0	0	0	0	214	214	214	214	214	0	1,072
Breast Cancer	0	0	0	0	0	0	0	192	192	192	192	192	0	0	960
Non-Hodgkin's Lymphoma	0	0	0	122	122	0	0	12	12	12	0	0	0	0	282
Not Site-Specific Cancer	0	0	0	14	14	14	0	0	0	0	0	0	0	0	41

Acute lymphocytic leukemia (ALL)の FA 別の研究費配分額は、米国 NCI が最も多く、ついでわが国の AMED が多いと推計された。



0603 Acute lymphocytic leukemia (ALL) Grant額 (000US$),筆頭FA別,上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	270	917	1,013	1,673	1,851	1,310	2,057	1,946	2,973	2,973	2,973	3,261	3,164	2,912	29,293	United States
Japan Agency for Medical Research and Development	0	0	251	649	2,239	2,304	2,317	2,328	880	2,090	1,693	1,254	1,124	74	17,203	Japan
Congressionally Directed Medical Research Programs	0	0	0	0	0	0	0	192	978	978	978	978	786	0	4,889	United States
Japan Society for the Promotion of Science	26	26	0	24	79	60	73	121	185	386	375	198	129	81	1,764	Japan
National Institute on Aging	0	0	0	0	0	0	0	388	449	449	61	61	0	0	1,408	United States
National Natural Science Foundation of China	0	63	79	91	131	155	143	89	64	42	42	21	0	0	921	China
National Heart Lung and Blood Institute	188	188	119	119	119	119	0	0	0	0	0	0	0	0	851	United States
Medical Research Council	0	0	0	196	196	196	196	0	0	0	0	0	0	0	785	United Kingdom
Canadian Institutes of Health Research	0	0	0	0	26	115	115	115	89	89	89	0	0	0	637	Canada
National Institute of Allergy and Infectious Diseases	0	0	0	122	122	0	0	0	0	0	0	0	0	0	245	United States

9.3.4. 主要論文、引用、研究費

＜論文＞

Publication: 0603 Acute lymphocytic leukemia (ALL)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Using immunotherapy and novel trial designs to optimise front-line therapy in adult acute lymphoblastic leukaemia: breaking with the traditions of the past	Short, Nicholas J; Kantarjian, Hagop	The Lancet Haematology	United States	2023	9	Review Article
2	Current treatment strategies targeting histone deacetylase inhibitors in acute lymphocytic leukemia: a systematic review	Zhang, Yingjun; Zhang, Ge; Wang, Yuefang; Ye, Lei; Peng, Luyun; Shi, Rui; Guo, Siqi; He, Jiajing; Yang, Hao; Dai, Qingkai	Frontiers in Oncology	China	2024	0	Review Article
3	Hyper-CVAD and sequential blinatumomab for newly diagnosed Philadelphia chromosome-negative B-cell acute lymphocytic leukaemia: a single-arm, single-centre, phase 2 trial	Jabbour, Elias; Short, Nicholas J; Jain, Nitin; Thompson, Philip A; Kadia, Tapan M; Ferrajoli, Alessandra; Huang, Xuelin; Yilmaz, Musa; Alvarado, Yesid; Patel, Keyur P; Garcia-Manero, Guillermo; Macaron, Walid; Garris, Rebecca; Konopleva, Marina; Ravandi, Farhad; Kantarjian, Hagop	The Lancet Haematology	United States	2022	33	Research Article
4	Association between maternal breastfeeding and risk of systemic neoplasms of offspring	Gong, Qin-Qin; Quan, Dan-Dan; Guo, Chong; Zhang, Chao; Zhang, Zhi-Jun	Italian Journal of Pediatrics	China	2022	6	Research Article
5	Minimal residual disease, long-term outcome, and IKZF1 deletions in children and adolescents with Down syndrome and acute lymphocytic leukaemia: a matched cohort study	Michels, Naomi; Boer, Judith M; Enshaei, Amir; Sutton, Rosemary; Heyman, Mats; Ebert, Sabine; Fiocco, Marta; de Groot-Kruseman, Hester A; van der Velden, Vincent H J; Barbany, Gisela; Escherich, Gabriele; Vora, Ajay; Trahair, Toby; Dalla-Pozza, Luciano; Pieters, Rob; Stadt, Udo zur; Schmiegelow, Kjeld; Moorman, Anthony V; Zwaan, C Michel; Boer, Monique L den	The Lancet Haematology	Sweden	2021	9	Research Article
6	Oral Intragastric DMBA Administration Induces Acute Lymphocytic Leukemia and Other Tumors in Male Wistar Rats	El-Masry, Omar S; Alhawaj, Hussain Abdullah; Fagere, Muaz O; Owaidah, Amani Y; Alamri, Aisha; Alsamman, Khaldoon	Journal of Experimental Pharmacology	Saudi Arabia	2022	0	Research Article
7	Diagnostic and therapeutic challenges of glioblastoma as an initial malignancy of constitutional mismatch repair deficiency (CMMRD): two case reports and a literature review	Onishi, Shumpei; Yamasaki, Fumiyuki; Kuraoka, Kazuya; Taguchi, Akira; Takayasu, Takeshi; Akagi, Kiwamu; Hinoi, Takao	BMC Medical Genomics	Japan	2023	3	Research Article
8	Agents for refractory/relapsed acute lymphocytic leukemia in adults.	Qian, L-R; Fu, W; Shen, J-L	European review for medical and pharmacological sciences	China	2014	1	Review Article
9	Drug independence and the curability of cancer by combination chemotherapy	Pomeroy, Amy E; Schmidt, Emmett V; Sorger, Peter K; Palmer, Adam C	Trends in Cancer	United States	2022	60	Review Article
10	Malignancies in patients with cystic fibrosis: a case series	Appelt, Dorothea; Fuchs, Teresa; Steinkamp, Gratiana; Ellemunter, Helmut	Journal of Medical Case Reports	Austria	2022	12	Research Article

＜引用＞

Citation: 0603 Acute lymphocytic leukemia (ALL)

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Cancer statistics for adolescents and young adults, 2020	Miller, Kimberly D.; Fidler-Benaoudia, Miranda; Keegan, Theresa H.; Hipp, Heather S.; Jemal, Ahmedin; Siegel, Rebecca L.	CA A Cancer Journal for Clinicians	United States	2020	571	Research Article
2	An oncogenic super-enhancer formed through somatic mutation of a noncoding intergenic element	Mansour, Marc R; Abraham, Brian J; Anders, Lars; Berezovskaya, Alla; Gutierrez, Alejandro; Durbin, Adam D; Etchin, Julia; Lawton, Lee; Sallan, Stephen E; Silverman, Lewis B; Loh, Mignon L; Hunger, Stephen P; Sanda, Takaomi; Young, Richard A; Look, A Thomas	Science	Singapore	2014	187	Research Article
3	CAR T-cell Therapy: A New Era in Cancer Immunotherapy.	Miliotou, Androulla N; Papadopoulou, Lefkothea C	Current Pharmaceutical Biotechnology	Greece	2018	156	Review Article
4	CRISPR-Edited Stem Cells in a Patient with HIV and Acute Lymphocytic Leukemia	Xu, Lei; Wang, Jun; Liu, Yulin; Xie, Liangfu; Su, Bin; Mou, Danlei; Wang, Longteng; Liu, Tingting; Wang, Xiaobao; Zhang, Bin; Zhao, Long; Hu, Liangding; Ning, Hongmei; Zhang, Yufeng; Deng, Kai; Liu, Lifeng; Lu, Xiaofan; Zhang, Tong; Xu, Jun; Li, Cheng; Wu, Hao; Deng, Hongkui; Chen, Hu	New England Journal of Medicine		2019	144	Research Article
5	Bispecific T cell engagers: an emerging therapy for management of hematologic malignancies	Tian, Zheng; Liu, Ming; Zhang, Ya; Wang, Xin	Journal of Hematology & Oncology	China	2021	116	Review Article
6	Ibrutinib enhances chimeric antigen receptor T-cell engraftment and efficacy in leukemia	Fraietta, Joseph A; Beckwith, Kyle A; Patel, Prachi R; Ruella, Marco; Zheng, Zhaohui; Barrett, David M; Lacey, Simon F; Melenhorst, Jan Joseph; McGettigan, Shannon E; Cook, Danielle R; Zhang, Changfeng; Xu, Jun; Do, Priscilla; Hulitt, Jessica; Kudchodkar, Sagar B; Cogdill, Alexandria P; Gill, Saar; Porter, David L; Woyach, Jennifer A; Long, Meixiao; Johnson, Amy J; Maddocks, Kami; Muthusamy, Natarajan; Levine, Bruce L; June, Carl H; Byrd, John C; Maus, Marcela V	Blood	United States	2016	114	Research Article
7	Interrogation of enhancer function by enhancer-targeting CRISPR epigenetic editing	Li, Kailong; Liu, Yuxuan; Cao, Hui; Zhang, Yuannyu; Gu, Zhimin; Liu, Xin; Yu, Andy; Kaphle, Pranita; Dickerson, Kathryn E.; Ni, Min; Xu, Jian	Nature Communications	United States	2020	97	Research Article
8	CAR T-Cell Therapy in Hematological Malignancies	Haslauer, Theresa; Greil, Richard; Zaborsky, Nadja; Geisberger, Roland	International Journal of Molecular Sciences	Austria	2021	84	Review Article
9	Anti-CD19 chimeric antigen receptor T-cell therapy in acute lymphocytic leukaemia: a systematic review and meta-analysis	Anagnostou, Theodora; Riaz, Irbaz B; Hashmi, Shahrukh K; Murad, Mohammad H; Kenderian, Saad S	The Lancet Haematology	Saudi Arabia	2020	73	Review Article
10	Clinical Review: Navitoclax as a Pro-Apoptotic and Anti-Fibrotic Agent	Anuar, Nur Najmi Mohamad; Hisam, Nur Syahidah Nor; Liew, Sze Ling; Ugusman, Azizah	Frontiers in Pharmacology	Malaysia	2020	72	Review Article

＜研究費＞

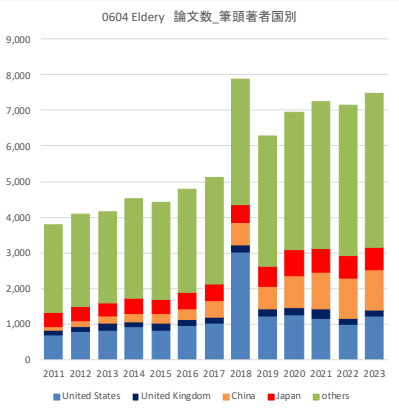
Grant: 0603 Acute lymphocytic leukemia (ALL)

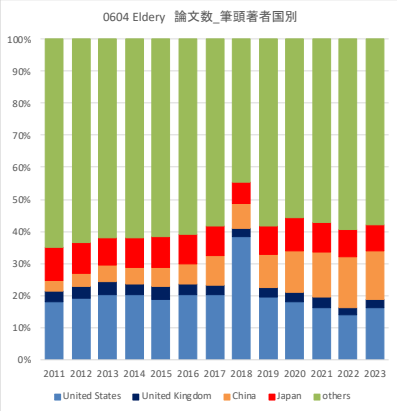
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Enhancing Chimeric Antigen Receptor T Cell Therapies for HematologicMalignancies: Beyond CART 19	CARL H. JUNE, DAVID L PORTER, SAAR GILL, EDWARD A STADTMAUER, BRUCE L. LEVINE, JAN J MELENHORST, DONALD LAWRENCE SIEGEL, SIMON F LACEY, JOSEPH ANTHONY FRAIETTA, MICHAEL C. MILONE, FRIEDERIKE HERBST-NOWROUZI	National Cancer Institute	United States	15,324,100	2017	2028
2	Cell Based Immunotherapies for Leukemia and Lymphoma	Carl June	Leukemia and Lymphoma Society	United States	6,250,000	2012	2017
3	CPRIT Core for RNA Therapeutics and Research	John Cooke	Cancer Prevention and Research Institute of Texas	United States	4,845,868	2015	0
4	Elucidation of pathogenesis of AYA generation acute lymphocytic leukemia and identification of therapeutic target	Hiroyuki Mano	Japan Agency for Medical Research and Development	Japan	3,225,288	2015	2018
5	Linking insertional mutagenesis and cell function to improve CAR T cell therapy	FREDERIC D BUSHMAN, JAN J MELENHORST	National Cancer Institute	United States	3,051,399	2019	2024
6	Targeting mitochondrial complex I in acute lymphoblastic leukemia	MARINA Y KONOPLEVA	National Cancer Institute	United States	2,657,971	2019	2025
7	Cell-targeted glutamine antagonists as a novel therapy for lymphoma	BARBARA STAUCH SLUSHER, JONATHAN D POWELL	National Cancer Institute	United States	2,327,649	2018	2024
8	Alternative RNA splicing and protein products in leukemia outcome (PQ11)	SCOTT A. NESS	National Cancer Institute	United States	2,310,038	2012	2017
9	Establishment of patient-individual peptide vaccination based on tumor-specific mutations for childhood acute lymphocytic leukemia - iVacALL	0	Federal Ministry of Education and Research	Germany	2,124,197	2012	2015
10	Targeting CRLF2 and Ikaros Alterations to Reduce Health Disparities in Childhood Leukemia	PENELOPE J DUERKSEN-HUGHES, SINISA DOVAT, KIMBERLY J PAYNE	National Cancer Institute	United States	2,019,712	2016	2023

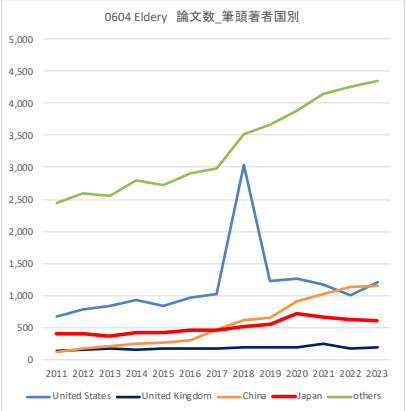
9.4. 0604 Eldery

9.4.1. 論文数

Elderly の論文数は経年的に増加傾向が見られた。国別の論文数は、その他の国を除くと、米国、中国、日本の順と推計された。



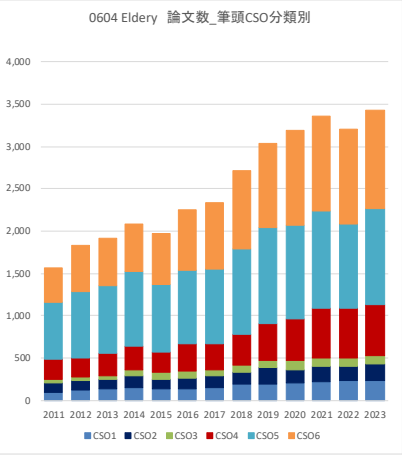


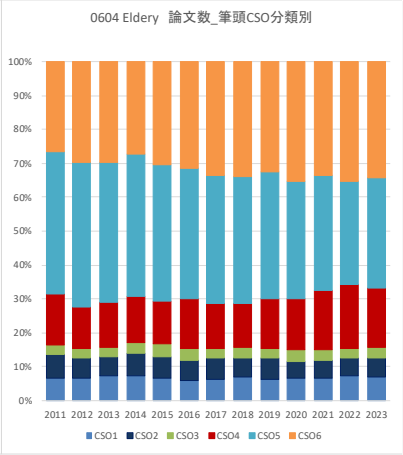


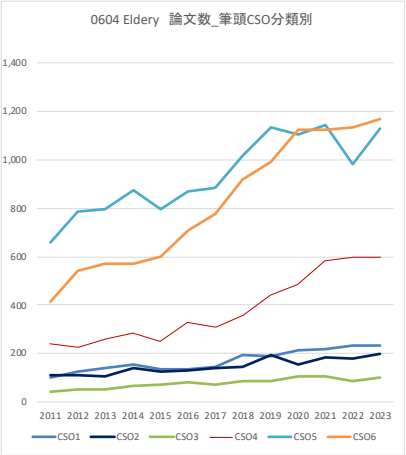
0604 Eldery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	674	774	834	919	833	967	1,028	3,032	1,232	1,261	1,163	999	1,211	368	15,295
United Kingdom	137	159	175	146	173	167	164	195	184	187	248	162	179	59	2,335
China	122	168	214	234	264	298	470	615	650	914	1,027	1,129	1,141	504	7,750
Japan	394	393	355	413	414	451	459	514	554	710	664	614	607	212	6,754
others	2,453	2,584	2,560	2,799	2,721	2,915	2,983	3,524	3,664	3,890	4,155	4,261	4,343	1,399	44,251
合計	3,780	4,078	4,138	4,511	4,405	4,798	5,104	7,880	6,284	6,962	7,257	7,165	7,481	2,542	76,385

0604 Eldery 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	17.8%	19.0%	20.2%	20.4%	18.9%	20.2%	20.1%	38.5%	19.6%	18.1%	16.0%	13.9%	16.2%	14.5%	20.0%
United Kingdom	3.6%	3.9%	4.2%	3.2%	3.9%	3.5%	3.2%	2.5%	2.9%	2.7%	3.4%	2.3%	2.4%	2.3%	3.1%
China	3.2%	4.1%	5.2%	5.2%	6.0%	6.2%	9.2%	7.8%	10.3%	13.1%	14.2%	15.8%	15.3%	19.8%	10.1%
Japan	10.4%	9.6%	8.6%	9.2%	9.4%	9.4%	9.0%	6.5%	8.8%	10.2%	9.1%	8.6%	8.1%	8.3%	8.8%
others	64.9%	63.4%	61.9%	62.0%	61.8%	60.8%	58.4%	44.7%	58.3%	55.9%	57.3%	59.5%	58.1%	55.0%	57.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Elderly の CSO 分類別の論文数は、CSO5 Treatment と CSO6 Cancer Control, Survivorship, and Outcomes Research が多く、経年的にも増加傾向が見られた。



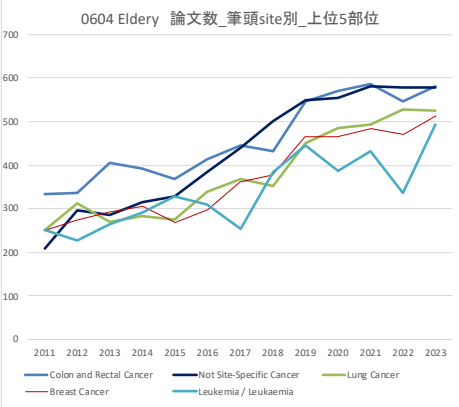




0604 Eldery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	103	124	140	154	134	137	147	193	189	212	220	231	235	81	2,300
2 Etiology	111	109	108	139	123	128	142	146	195	156	183	178	200	64	1,982
3 Prevention	42	50	51	64	72	81	70	85	88	107	105	88	102	38	1,043
4 Early Detection, Diagnosis, and Prognosis	239	225	258	286	248	327	308	357	440	487	584	600	597	266	5,222
5 Treatment	660	785	794	877	794	869	885	1,016	1,133	1,105	1,143	982	1,127	335	12,505
6 Cancer Control, Survivorship, and Outcomes Research	414	543	569	569	602	708	779	920	992	1,125	1,123	1,132	1,170	416	11,062
others	2,211	2,242	2,218	2,422	2,432	2,548	2,773	5,163	3,247	3,770	3,899	3,954	4,050	1,342	42,271
合計	3,780	4,078	4,138	4,511	4,405	4,798	5,104	7,880	6,284	6,962	7,257	7,165	7,481	2,542	76,385

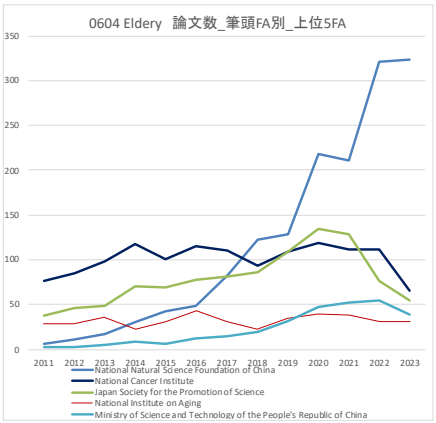
0604 Eldery 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	2.7%	3.0%	3.4%	3.4%	3.0%	2.9%	2.9%	2.4%	3.0%	3.0%	3.0%	3.2%	3.1%	3.2%	3.0%
2 Etiology	2.9%	2.7%	2.6%	3.1%	2.8%	2.7%	2.8%	1.9%	3.1%	2.2%	2.5%	2.5%	2.7%	2.5%	2.6%
3 Prevention	1.1%	1.2%	1.2%	1.4%	1.6%	1.7%	1.4%	1.1%	1.4%	1.5%	1.4%	1.2%	1.4%	1.5%	1.4%
4 Early Detection, Diagnosis, and Prognosis	6.3%	5.5%	6.2%	6.3%	5.6%	6.8%	6.0%	4.5%	7.0%	7.0%	8.0%	8.4%	8.0%	10.5%	6.8%
5 Treatment	17.5%	19.2%	19.2%	19.4%	18.0%	18.1%	17.3%	12.9%	18.0%	15.9%	15.8%	13.7%	15.1%	13.2%	16.4%
6 Cancer Control, Survivorship, and Outcomes Research	11.0%	13.3%	13.8%	12.6%	13.7%	14.8%	15.3%	11.7%	15.8%	16.2%	15.5%	15.8%	15.6%	16.4%	14.5%
others	58.5%	55.0%	53.6%	53.7%	55.2%	53.1%	54.3%	65.5%	51.7%	54.2%	53.7%	55.2%	54.1%	52.8%	55.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Elderly の臓器別の論文数は、大腸がん、Not Site-specific Cancer、肺がんの順と推計された。



0604 Eldery 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	333	336	406	393	368	414	445	431	545	571	586	546	581	212	6,167
Not Site-Specific Cancer	209	296	287	314	328	384	441	501	550	555	582	579	579	214	5,819
Lung Cancer	252	313	271	283	274	340	369	352	450	485	493	527	524	184	5,117
Breast Cancer	250	274	292	305	268	297	361	378	465	466	485	471	513	195	5,020
Leukemia / Leukaemia	251	226	264	291	327	310	254	384	446	387	431	336	493	118	4,518
Non-Hodgkin's Lymphoma	138	158	153	207	164	186	149	178	211	221	279	224	313	81	2,662
Prostate Cancer	120	161	141	174	162	179	188	204	188	239	198	256	263	97	2,570
Liver Cancer	115	109	131	117	104	122	133	157	165	170	206	207	205	80	2,021
Stomach Cancer	86	88	81	87	102	117	115	160	126	154	161	197	193	74	1,741
Brain Tumor	67	81	91	115	89	115	143	163	146	175	166	170	164	45	1,730

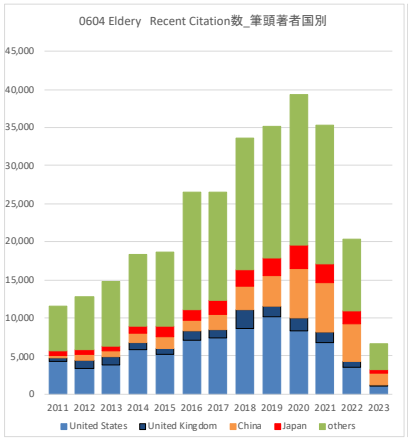
Elderly の FA 別の論文数は、中国 NSFC が最も多く経年的にも増加傾向が顕著であった、ついで米国 NCI、わが国の JSPS と推計された。

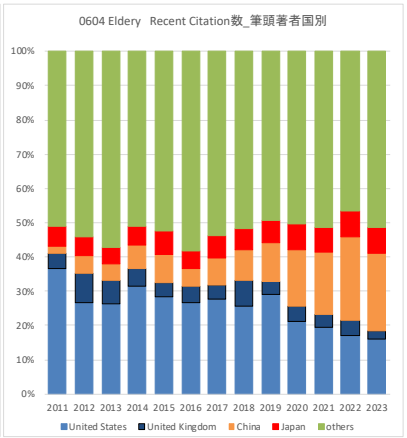


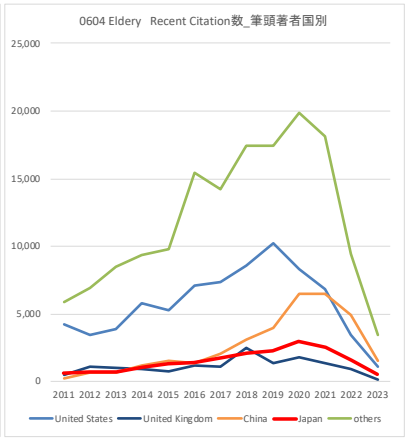
0604 Eldery 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	6	11	17	30	43	48	83	122	128	218	211	321	323	121	1,682
National Cancer Institute	76	85	98	117	101	115	110	93	109	119	111	112	65	25	1,336
Japan Society for the Promotion of Science	38	46	49	70	69	77	81	86	109	134	128	76	55	13	1,031
National Institute on Aging	29	29	36	23	31	43	31	22	34	40	38	31	31	8	426
Ministry of Science and Technology of the People's Republic of China	3	3	5	8	6	12	14	19	32	47	52	55	39	17	312
European Commission	3	5	17	13	16	19	14	15	15	26	22	36	25	10	236
National Center for Advancing Translational Sciences	11	13	15	27	16	25	12	16	25	18	21	10	10	3	222
Japan Agency for Medical Research and Development	0	0	0	2	2	5	9	14	21	28	40	14	10	4	149
National Research Foundation of Korea	5	5	6	4	8	1	14	11	11	14	14	13	18	2	126
Department of Health and Social Care	2	11	5	8	5	13	9	13	12	11	15	12	4	3	123

9.4.2. Recent Citation 数

Elderly の引用数は経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと、米国、中国、日本の順と推計された。



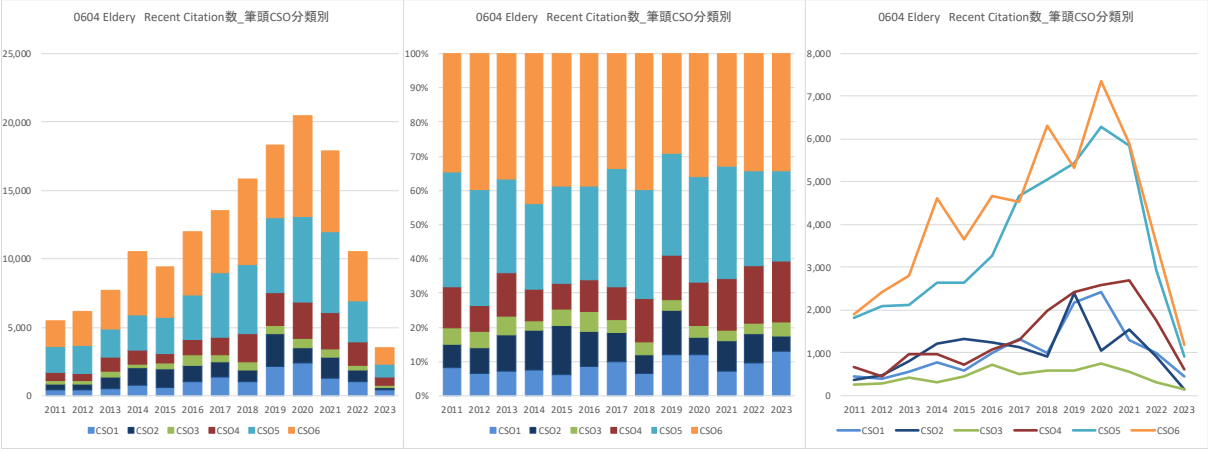




0604 Eldery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	4,223	3,429	3,876	5,762	5,283	7,077	7,339	8,611	10,227	8,279	6,821	3,444	1,074	48	75,493
United Kingdom	527	1,068	1,044	957	782	1,221	1,106	2,512	1,322	1,766	1,333	901	162	14	14,715
China	239	686	699	1,215	1,525	1,383	2,056	3,078	3,974	6,490	6,508	4,961	1,497	59	34,370
Japan	660	695	689	1,043	1,307	1,379	1,772	2,069	2,297	2,962	2,495	1,585	510	12	19,475
others	5,876	6,919	8,463	9,310	9,782	15,400	14,236	17,392	17,395	19,825	18,130	9,439	3,425	128	155,720
合計	11,525	12,797	14,771	18,287	18,679	26,460	26,509	33,662	35,215	39,322	35,287	20,330	6,668	261	299,773

0604 Eldery Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	36.6%	26.8%	26.2%	31.5%	28.3%	26.7%	27.7%	25.6%	29.0%	21.1%	19.3%	16.9%	16.1%	18.4%	25.2%
United Kingdom	4.6%	8.3%	7.1%	5.2%	4.2%	4.6%	4.2%	7.5%	3.8%	4.5%	3.8%	4.4%	2.4%	5.4%	4.9%
China	2.1%	5.4%	4.7%	6.6%	8.2%	5.2%	7.8%	9.1%	11.3%	16.5%	18.4%	24.4%	22.5%	22.6%	11.5%
Japan	5.7%	5.4%	4.7%	5.7%	7.0%	5.2%	6.7%	6.1%	6.5%	7.5%	7.1%	7.8%	7.6%	4.6%	6.5%
others	51.0%	54.1%	57.3%	50.9%	52.4%	58.2%	53.7%	51.7%	49.4%	50.4%	51.4%	46.4%	51.4%	49.0%	51.9%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

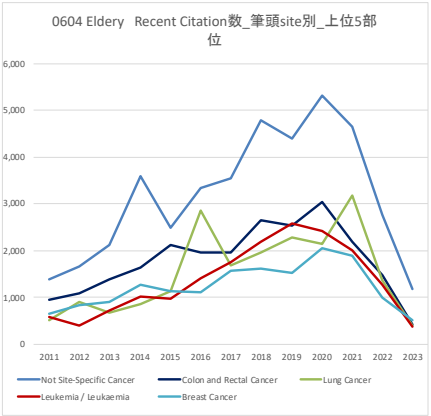
Elderly の CSO 分類別の引用数は、CSO6 Cancer Control, Survivorship, and Outcomes Research が最も多く、ついで CSO5 Treatment と推計された。



0604 Eldery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	454	396	551	790	592	1,007	1,337	1,004	2,165	2,417	1,305	991	451	3	13,463
2 Etiology	363	472	820	1,227	1,337	1,250	1,138	906	2,389	1,061	1,546	906	158	6	13,579
3 Prevention	261	280	433	307	447	720	509	599	577	753	549	315	137	8	5,895
4 Early Detection, Diagnosis, and Prognosis	665	460	978	970	721	1,091	1,298	1,988	2,411	2,576	2,702	1,758	623	19	18,260
5 Treatment	1,820	2,099	2,112	2,631	2,655	3,276	4,669	5,066	5,446	6,286	5,846	2,933	907	38	45,784
6 Cancer Control, Survivorship, and Outcomes Research	1,889	2,435	2,816	4,613	3,658	4,657	4,542	6,302	5,320	7,355	5,903	3,582	1,193	38	54,303
others	6,097	6,658	7,062	7,752	9,288	14,469	13,136	17,871	16,959	18,918	17,445	9,851	3,199	149	148,489
合計	11,525	12,797	14,771	18,287	18,679	26,460	26,509	33,662	35,215	39,322	35,287	20,330	6,668	261	299,773

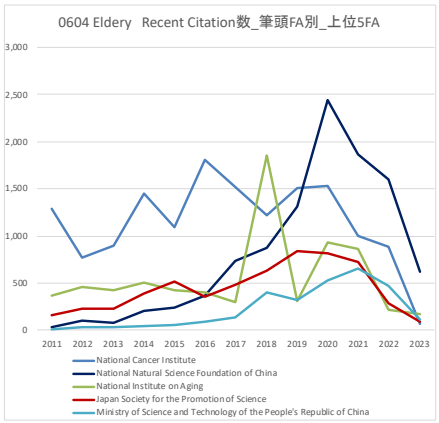
0604 Eldery Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3.9%	3.1%	3.7%	4.3%	3.2%	3.8%	5.0%	3.0%	6.1%	6.1%	3.7%	4.9%	6.8%	1.1%	4.5%
2 Etiology	3.1%	3.7%	5.6%	6.7%	7.2%	4.7%	4.3%	2.7%	6.8%	2.7%	4.4%	4.5%	2.4%	2.3%	4.5%
3 Prevention	2.3%	2.2%	2.9%	1.7%	2.4%	2.7%	1.9%	1.8%	1.6%	1.9%	1.6%	1.5%	2.1%	3.1%	2.0%
4 Early Detection, Diagnosis, and Prognosis	5.8%	3.6%	6.6%	5.3%	3.9%	4.1%	4.9%	5.9%	6.8%	6.6%	7.7%	8.6%	9.3%	7.3%	6.1%
5 Treatment	15.8%	16.4%	14.3%	14.4%	14.2%	12.4%	17.6%	15.0%	15.5%	16.0%	16.6%	14.4%	13.6%	14.6%	15.3%
6 Cancer Control, Survivorship, and Outcomes Research	16.4%	19.0%	19.1%	25.2%	19.6%	17.6%	17.1%	18.7%	15.1%	18.7%	16.7%	17.6%	17.9%	14.6%	18.1%
others	52.9%	52.0%	47.8%	42.4%	49.7%	54.7%	49.6%	53.1%	48.2%	48.1%	49.4%	48.5%	48.0%	57.1%	49.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Elderly の臓器別の引用数は、Not Site-specific Cancer が最も多く、大腸がん、肺がんの順に多いと推計された。



0604 Eldery Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1,391	1,670	2,122	3,590	2,489	3,337	3,555	4,778	4,395	5,311	4,642	2,775	1,183	25	41,263
Colon and Rectal Cancer	955	1,077	1,393	1,639	2,133	1,970	1,956	2,650	2,536	3,048	2,184	1,486	431	25	23,483
Lung Cancer	507	896	669	853	1,123	2,848	1,697	1,964	2,278	2,144	3,180	1,363	395	18	19,935
Leukemia / Leukaemia	586	402	720	1,016	984	1,415	1,755	2,183	2,574	2,425	2,013	1,274	383	15	17,745
Breast Cancer	641	845	913	1,278	1,130	1,102	1,565	1,611	1,519	2,055	1,891	1,001	523	18	16,092
Prostate Cancer	333	234	346	538	440	1,377	623	675	1,930	3,011	506	650	178	20	10,861
Non-Hodgkin's Lymphoma	794	313	798	705	602	858	628	638	655	840	1,139	644	199	4	8,817
Brain Tumor	462	632	644	482	457	885	1,014	727	704	841	978	529	158	1	8,514
Liver Cancer	217	247	762	316	320	382	560	615	937	941	894	688	185	9	7,073
Stomach Cancer	114	200	236	229	340	573	664	621	735	866	1,132	613	142	10	6,475

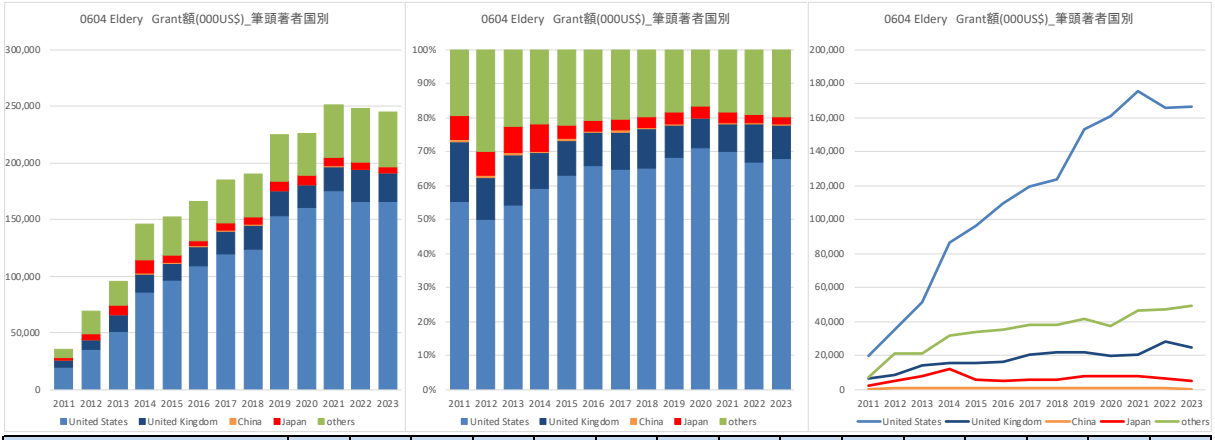
Elderly の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、米国 National Institute of Ageing の順に多くと推計された。



0604 Eldery Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	1,285	768	894	1,448	1,092	1,807	1,517	1,225	1,511	1,527	997	890	71	5	15,037
National Natural Science Foundation of China	34	99	78	206	242	368	738	871	1,312	2,437	1,870	1,603	624	12	10,494
National Institute on Aging	365	461	429	506	419	399	296	1,856	304	931	859	213	172	4	7,214
Japan Society for the Promotion of Science	154	234	228	385	519	352	481	633	839	811	727	284	93	0	5,740
Ministry of Science and Technology of the People's Republic of China	5	27	31	45	54	87	138	403	317	529	657	472	108	2	2,875
National Center for Advancing Translational Sciences	88	95	120	349	210	590	71	168	359	242	196	61	16	0	2,565
European Commission	11	10	360	144	109	244	335	217	137	254	218	220	73	3	2,335
Department of Health and Social Care	6	47	97	400	27	285	170	574	123	116	424	61	4	0	2,334
Canadian Institutes of Health Research	92	465	43	20	26	106	221	625	123	12	199	27	9	0	1,968
Medical Research Council	151	77	43	41	125	696	125	166	82	106	42	65	8	3	1,730

9.4.3. Grant(000US$)額

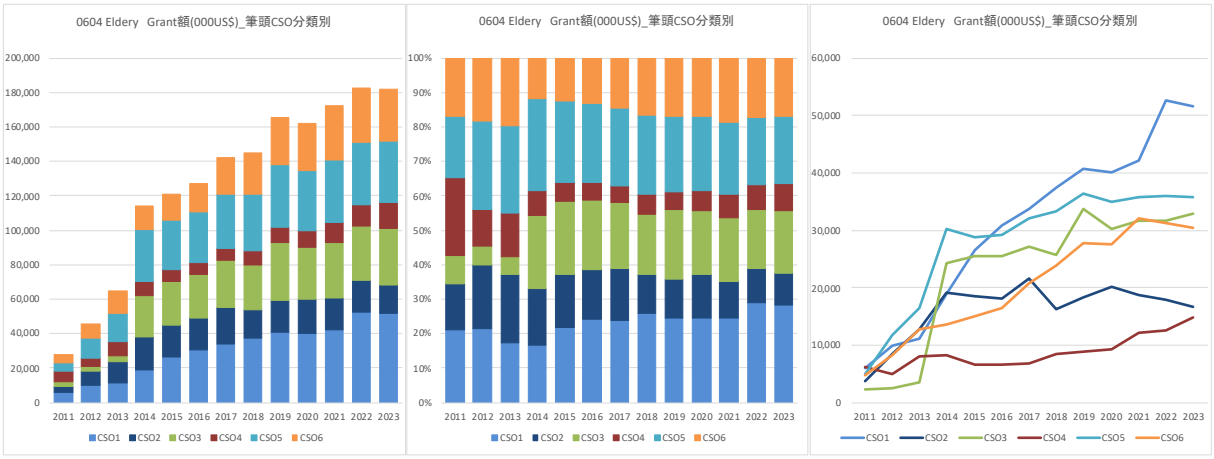
Elderly の研究費総額は 2021 年までは増加傾向が見られた。国別の研究費配分額は米国が最も多く、ついでその他の国、英国、日本の順と推計された。



0604 Eldery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	19,419	34,909	51,572	86,229	96,009	109,350	119,513	123,651	153,249	160,887	175,824	165,822	166,214	140,438	1,603,086
United Kingdom	6,245	8,491	13,985	15,479	15,651	16,153	20,508	21,485	21,739	19,376	20,595	28,072	24,647	24,749	257,173
China	186	460	729	773	880	931	877	761	786	682	712	458	338	270	8,844
Japan	2,504	4,853	7,519	11,709	5,956	4,847	5,735	6,008	7,638	7,802	7,501	6,310	4,902	2,617	85,901
others	6,836	20,853	21,358	31,974	34,015	34,834	38,165	37,757	41,340	37,419	46,560	47,116	48,907	31,080	478,215
合計	35,190	69,567	95,163	146,164	152,511	166,115	184,799	189,663	224,752	226,165	251,192	247,778	245,007	199,155	2,433,219

0604 Eldery Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	55.2%	50.2%	54.2%	59.0%	63.0%	65.8%	64.7%	65.2%	68.2%	71.1%	70.0%	66.9%	67.8%	70.5%	65.9%
United Kingdom	17.7%	12.2%	14.7%	10.6%	10.3%	9.7%	11.1%	11.3%	9.7%	8.6%	8.2%	11.3%	10.1%	12.4%	10.6%
China	0.5%	0.7%	0.8%	0.5%	0.6%	0.6%	0.5%	0.4%	0.3%	0.3%	0.3%	0.2%	0.1%	0.1%	0.4%
Japan	7.1%	7.0%	7.9%	8.0%	3.9%	2.9%	3.1%	3.2%	3.4%	3.4%	3.0%	2.5%	2.0%	1.3%	3.5%
others	19.4%	30.0%	22.4%	21.9%	22.3%	21.0%	20.7%	19.9%	18.4%	16.5%	18.5%	19.0%	20.0%	15.6%	19.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

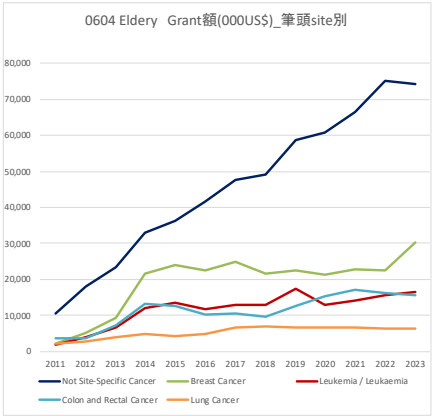
Elderly の CSO 分類別の研究費配分額は、CSO1 Biology が最も多く経年的にも増加傾向が大きく、ついで CSO5 Treatment、CSO3 Prevention の順と推計された。



0604 Eldery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	5,892	9,816	11,163	18,861	26,519	30,844	33,707	37,525	40,771	40,102	42,251	52,700	51,681	40,414	442,248
2 Etiology	3,688	8,457	12,756	19,093	18,608	18,191	21,636	16,363	18,366	20,116	18,705	17,993	16,749	13,583	224,304
3 Prevention	2,230	2,508	3,486	24,345	25,496	25,554	27,178	25,723	33,696	30,138	31,637	31,672	32,816	30,105	326,586
4 Early Detection, Diagnosis, and Prognosis	6,264	4,929	8,036	8,197	6,637	6,665	6,719	8,430	8,771	9,306	12,076	12,627	14,745	12,927	126,328
5 Treatment	4,943	11,718	16,386	30,229	28,887	29,256	32,047	33,242	36,337	35,032	35,873	36,086	35,717	26,432	392,184
6 Cancer Control, Survivorship, and Outcomes Research	4,729	8,339	12,687	13,578	14,974	16,552	20,746	23,911	27,787	27,624	32,073	31,251	30,544	25,608	290,403
others	11,949	29,150	38,502	42,924	44,117	50,010	57,904	59,134	75,891	77,259	92,586	78,612	77,500	62,535	798,073
合計	35,190	69,567	95,163	146,164	152,511	166,115	184,799	189,663	224,752	226,165	251,192	247,778	245,007	199,155	2,433,219

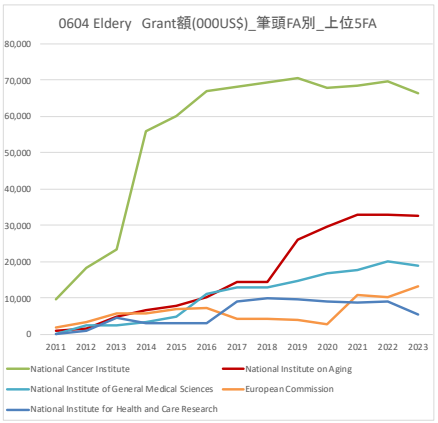
0604 Eldery Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	16.7%	14.1%	11.7%	12.9%	17.4%	18.6%	18.2%	19.8%	18.1%	17.7%	16.8%	21.3%	21.1%	20.3%	18.2%
2 Etiology	10.5%	12.2%	13.4%	13.1%	12.2%	11.0%	11.7%	8.6%	8.2%	8.9%	7.4%	7.3%	6.8%	6.8%	9.2%
3 Prevention	6.3%	3.6%	3.7%	16.7%	16.7%	15.4%	14.7%	13.6%	15.0%	13.3%	12.6%	12.8%	13.4%	15.1%	13.4%
4 Early Detection, Diagnosis, and Prognosis	17.8%	7.1%	8.4%	5.6%	4.4%	4.0%	3.6%	4.4%	3.9%	4.1%	4.8%	5.1%	6.0%	6.5%	5.2%
5 Treatment	14.0%	16.8%	17.2%	20.7%	18.9%	17.6%	17.3%	17.5%	16.2%	15.5%	14.3%	14.6%	14.6%	13.3%	16.1%
6 Cancer Control, Survivorship, and Outcomes Research	13.4%	12.0%	13.3%	9.3%	9.8%	10.0%	11.2%	12.6%	12.4%	12.2%	12.8%	12.6%	12.5%	12.9%	11.9%
others	34.0%	41.9%	40.5%	29.4%	28.9%	30.1%	31.3%	31.2%	33.8%	34.2%	36.9%	31.7%	31.6%	31.4%	32.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Elderly の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く経年的にも増加傾向が見られた。ついで乳がん、白血病、大腸がんの順に多いと推計された。



0604 Eldery Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	10,477	17,946	23,469	32,903	36,265	41,661	47,717	49,234	58,737	60,864	66,332	75,069	74,246	60,918	655,837
Breast Cancer	2,166	5,079	9,316	21,529	23,903	22,467	24,844	21,599	22,562	21,391	22,798	22,651	30,170	21,149	271,623
Leukemia / Leukaemia	1,757	4,051	6,820	12,179	13,620	11,833	13,000	13,015	17,483	13,098	14,090	15,509	16,496	14,207	167,158
Colon and Rectal Cancer	3,791	3,807	7,163	13,329	12,644	10,368	10,619	9,595	12,693	15,325	17,085	16,365	15,596	14,743	163,123
Lung Cancer	2,117	2,777	4,018	4,803	4,272	4,886	6,757	6,986	6,701	6,635	6,659	6,471	6,421	4,177	73,679
Brain Tumor	124	2,714	3,252	3,435	3,327	3,379	3,714	5,824	3,837	4,236	6,638	5,513	5,636	4,628	56,258
Non-Hodgkin's Lymphoma	466	585	688	3,298	3,161	4,482	4,233	4,074	5,062	4,894	4,894	5,342	3,916	1,440	46,536
Liver Cancer	142	804	1,652	2,885	2,269	4,419	4,717	4,801	5,310	5,460	4,126	3,524	2,576	2,369	45,054
Prostate Cancer	873	2,016	2,777	3,387	3,760	3,923	3,353	3,976	2,819	2,178	3,811	3,389	3,127	1,926	41,315
Melanoma	432	432	682	1,057	731	1,021	1,020	1,451	1,620	1,677	3,907	4,375	4,169	3,762	26,336

Elderly の FA 別の研究費配分額は、米国 NCI が最も多く、ついで米国 National Institute of Ageing、米国 National Institute of General Medical Sciences の順と推計された。



0604 Eldery Grant額(000US$)筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	9,598	18,338	23,465	55,817	60,263	67,131	68,239	69,252	70,501	67,769	68,603	69,809	66,303	56,557	771,644	United States
National Institute on Aging	1,037	1,562	4,740	6,632	7,763	10,270	14,318	14,481	25,953	29,794	32,911	33,001	32,763	28,427	243,652	United States
National Institute of General Medical Sciences	176	2,575	2,604	3,485	4,769	11,299	12,872	12,812	14,805	16,744	17,827	20,059	18,918	17,219	156,163	United States
European Commission	2,015	3,297	5,827	5,744	6,967	7,330	4,309	4,169	4,042	2,870	10,879	10,118	13,293	13,196	94,055	Belgium
National Institute for Health and Care Research	0	989	4,510	3,083	3,095	3,031	9,117	10,050	9,565	9,038	8,724	9,009	5,490	5,110	80,812	United Kingdom
Medical Research Council	1,672	2,246	2,901	3,671	4,479	4,249	4,078	4,390	4,385	3,245	3,623	10,822	11,381	12,201	73,341	United Kingdom
National Heart Lung and Blood Institute	596	890	886	940	1,063	1,058	2,697	3,425	7,658	8,873	10,457	9,422	8,951	7,249	64,166	United States
Congressionally Directed Medical Research Programs	578	1,224	1,777	2,215	2,757	2,247	2,168	2,579	4,733	4,936	6,195	6,680	6,365	4,798	49,252	United States
National Center for Advancing Translational Sciences	992	992	375	375	382	392	10	12	7,565	7,560	7,560	7,560	7,585	7,593	48,953	United States
National Institute of Allergy and Infectious Diseases	14	418	2,513	3,072	3,674	3,622	3,629	4,066	2,657	2,517	3,050	3,644	3,659	3,303	39,837	United States

9.4.4. 主要論文、引用、研究費

＜論文＞

Publication: 0604 Eldery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Inflammation-based prognostic scores in geriatric patients with rectal cancer	Manoglu, B.; Sokmen, S.; Bisgin, T.; Semiz, H. S.; Görken, İ. B.; Ellidokuz, H.	Techniques in Coloproctology	Turkey	2022	6	Research Article
2	Survival Benefit of Surgical Treatment for Elderly Patients with Intrahepatic Cholangiocarcinoma: A Retrospective Cohort Study in the SEER Database by Propensity Score Matching Analysis	Chen, Kaiyu; Yu, Haitao; Yang, Jinhuan; Bo, Zhiyuan; Jin, Chen; Wu, Lijun; Wang, Yi; Chen, Gang	Current Oncology	China	2023	0	Research Article
3	Impact of Cancer on Nutrition in the Geriatric Cancer Population.	Bains, Kanwal; Somasundar, Ponnandai S; Chebl, Joanna Abi; Vognar, Lidia A	Rhode Island medical journal	United States	2024	0	Research Article
4	Impact of sex and age on adherence to guidelines in non-small cell lung cancer management	Paakkola, Nelly-Maria; Lindqvist, Jonatan; Jekunen, Antti; Sihvo, Eero; Johansson, Mikael; Andersén, Heidi	Cancer Treatment and Research Communications	Sweden	2022	3	Research Article
5	The Clinical Characteristics and Treatments for Large Cell Carcinoma Patients Older than 65 Years Old: A Population-Based Study	Yao, Anjie; Liang, Long; Rao, Hanyu; Shen, Yilun; Wang, Changhui; Xie, Shuanshuan	Cancers	China	2022	5	Research Article
6	BRCA1/2 in non-mucinous epithelial ovarian cancer: tumour with or without germline testing?	Morgan, Robert D.; Burghel, George J.; Flaum, Nicola; Bulman, Michael; Smith, Philip; Clamp, Andrew R.; Hasan, Jurjees; Mitchell, Claire L.; Salih, Zena; Woodward, Emma R.; Lalloo, Fiona; Crosbie, Emma J.; Edmondson, Richard J.; Wallace, Andrew J.; Jayson, Gordon C.; Evans, D. Gareth R.	British Journal of Cancer	United Kingdom	2022	3	Review Article
7	Practical Assessment and Management of Vulnerabilities in Older Patients Receiving Systemic Cancer Therapy: ASCO Guideline Update	Dale, William; Klepin, Heidi D; Williams, Grant R; Alibhai, Shabbir M H; Bergerot, Cristiane; Brintzenhofeszoc, Karlynn; Hopkins, Judith O; Jhawer, Minaxi P; Katheria, Vani; Loh, Kah Poh; Lowenstein, Lisa M; McKoy, June M; Noronha, Vanita; Phillips, Tanyanika; Rosko, Ashley E; Ruegg, Tracy; Schiaffino, Melody K; Simmons, John F; Subbiah, Ishwaria; Tew, William P; Webb, Tracy L; Whitehead, Mary; Somerfield, Mark R; Mohile, Supriya G	Journal of Clinical Oncology	United States	2023	69	Review Article
8	The geriatric nutritional risk index predicts complications after nephrectomy for renal cancer	Riveros, Carlos; Chalfant, Victor; Bazargani, Soroush; Bandyk, Mark; Balaji, Kethandapatti Chakravarthy	International braz j urol	United States	2023	6	Research Article
9	The preoperative geriatric nutritional risk index (GNRI) is an independent prognostic factor in elderly patients underwent curative resection for colorectal cancer	Hayama, Tamuro; Hashiguchi, Yojiro; Ozawa, Tsuyoshi; Watanabe, Makoto; Fukushima, Yoshihisa; Shimada, Ryu; Nozawa, Keijiro; Matsuda, Keiji; Fujii, Shoichi; Fukagawa, Takeo	Scientific Reports	Japan	2022	35	Research Article
10	Association of frailty with chemotherapy toxicity in chemotherapy-naive older patients with cancer	Akbıyık, Ilgın; Yüce, Deniz; Kars, Ayşe; Halil, Meltem Gülhan	Supportive Care in Cancer	Turkey	2022	1	Research Article

＜引用＞

Citation: 0604 Eldery

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Mortality, morbidity, and risk factors in China and its provinces, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017	Zhou, Maigeng; Wang, Haidong; Zeng, Xinying; Yin, Peng; Zhu, Jun; Chen, Wanqing; Li, Xiaohong; Wang, Lijun; Wang, Limin; Liu, Yunning; Liu, Jiangmei; Zhang, Mei; Qi, Jinlei; Yu, Shicheng; Afshin, Ashkan; Gakidou, Emmanuela; Glenn, Scott; Krish, Varsha Sarah; Miller–Petrie, Molly Katherine; Mountjoy–Venning, W Cliff; Mullany, Erin C; Redford, Sofia Boston; Liu, Hongyan; Naghavi, Mohsen; Hay, Simon I; Wang, Linhong; Murray, Christopher J L; Liang, Xiaofeng	The Lancet	United States	2019	1585	Research Article
2	EAU–EANM–ESTRO–ESUR–SIOG Guidelines on Prostate Cancer—2020 Update. Part 1: Screening, Diagnosis, and Local Treatment with Curative Intent	Mottet, Nicolas; van den Bergh, Roderick C N; Briers, Erik; Van den Broeck, Thomas; Cumberbatch, Marcus G; De Santis, Maria; Fanti, Stefano; Fossati, Nicola; Gandaglia, Giorgio; Gillessen, Silke; Grivas, Nikos; Grummet, Jeremy; Henry, Ann M; van der Kwast, Theodorus H; Lam, Thomas B; Lardas, Michael; Liew, Matthew; Mason, Malcolm D; Moris, Lisa; Oprea–Lager, Daniela E; van der Poel, Henk G; Rouvière, Olivier; Schoots, Ivo G; Tilki, Derya; Wiegel, Thomas; Willemse, Peter–Paul M; Cornford, Philip	European Urology	Switzerland	2020	1515	Review Article
3	Inflammageing: chronic inflammation in ageing, cardiovascular disease, and frailty	Ferrucci, Luigi; Fabbri, Elisa	Nature Reviews Cardiology	Italy	2018	1182	Review Article
4	Lung cancer: current therapies and new targeted treatments	Hirsch, Fred R; Scagliotti, Giorgio V; Mulshine, James L; Kwon, Regina; Curran, Walter J; Wu, Yi–Long; Paz–Ares, Luis	The Lancet	Italy	2016	1156	Review Article
5	Role of C-Reactive Protein at Sites of Inflammation and Infection	Sproston, Nicola R.; Ashworth, Jason J.	Frontiers in Immunology	United Kingdom	2018	1110	Review Article
6	Epidemiology of Prostate Cancer	Rawla, Prashanth	World Journal of Oncology	United States	2019	997	Review Article
7	2019 Alzheimer's disease facts and figures	Association, Alzheimer's	Alzheimer's & Dementia		2019	774	0
8	EAU–EANM–ESTRO–ESUR–SIOG Guidelines on Prostate Cancer. Part II—2020 Update: Treatment of Relapsing and Metastatic Prostate Cancer	Cornford, Philip; van den Bergh, Roderick C N; Briers, Erik; Van den Broeck, Thomas; Cumberbatch, Marcus G; De Santis, Maria; Fanti, Stefano; Fossati, Nicola; Gandaglia, Giorgio; Gillessen, Silke; Grivas, Nikolaos; Grummet, Jeremy; Henry, Ann M; der Kwast, Theodorus H van; Lam, Thomas B; Lardas, Michael; Liew, Matthew; Mason, Malcolm D; Moris, Lisa; Oprea–Lager, Daniela E; der Poel, Henk G van; Rouvière, Olivier; Schoots, Ivo G; Tilki, Derya; Wiegel, Thomas; Willemse, Peter–Paul M; Mottet, Nicolas	European Urology	Switzerland	2020	581	Review Article
9	The Epidemiology of Epilepsy	Beghi, Ettore	Neuroepidemiology		2019	556	Review Article
10	Venetoclax combined with decitabine or azacitidine in treatment-naïve, elderly patients with acute myeloid leukemia	DiNardo, Courtney D; Pratz, Keith; Pullarkat, Vinod; Jonas, Brian A; Arellano, Martha; Becker, Pamela S; Frankfurt, Olga; Konopleva, Marina; Wei, Andrew H; Kantarjian, Hagop M; Xu, Tu; Hong, Wan–Jen; Chyla, Brenda; Potluri, Jalaja; Pollyea, Daniel A; Letai, Anthony	Blood	United States	2018	554	Research Article

＜研究費＞

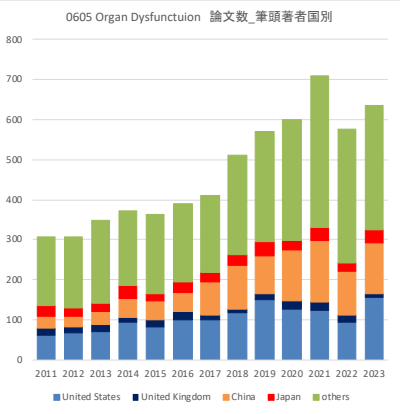
Grant: 0604 Eldery

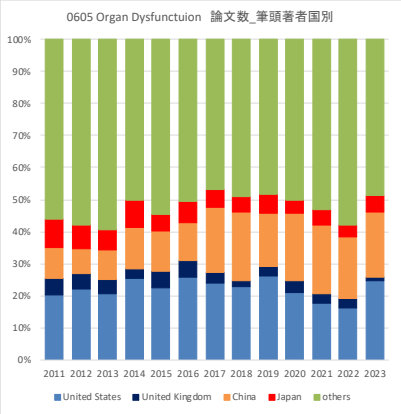
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	ECOG-ACRIN NCORP Research Base	LYNNE I. WAGNER, PETER J ODWYER, MITCHELL D. SCHNALL, RUTH C CARLOS	National Cancer Institute	United States	147,095,616	2014	2025
2	Center for Clinical and Translational Sciences (CCTS)	DAVID D MCPHERSON, DANIEL D KARP, MARIA EULALIA FERNANDEZ, KAYO FUJIMOTO, MARCIA C DE OLIVEIRA OTTO, BELINDA REININGER, PAUL MCGAHA	National Center for Advancing Translational Sciences	United States	45,318,336	2019	2024
3	ASPirin in Reducing Events in the Elderly – eXTension	ANNE M MURRAY, ANDREW T CHAN, JOHN JAMES MCNEIL, JOANNE RYAN, DANNY LIEW, ROBYN LORRAINE WOODS, MARK RAYMOND NELSON, RORY WOLFE	National Institute on Aging	United States	42,878,192	2019	2025
4	Mary Lyon Centre, International Facility for Mouse Genetics, at MRC Harwell	0	Medical Research Council	United Kingdom	35,921,892	2022	2027
5	Wisconsin NCI Community Oncology Research Program (WiNCORP)	ADEDAYO A ONITILO, KURT OETTEL, MATTHIAS WEISS, DOUGLAS J REDING, NATASHA EDWIN, ANTHONY J JASLOWSKI	National Cancer Institute	United States	24,773,928	2014	2025
6	SF Bay Area MACS/WIHS Combined Cohort Study	PHYLLIS C TIEN, BRADLEY E AOUIZERAT, JENNIFER COHEN PRICE	National Heart Lung and Blood Institute	United States	24,261,118	2019	2026
7	Medical Oncology Service Clinical Core	ARUN RAJAN, JAMES L. GULLEY	National Cancer Institute	United States	22,614,604	2014	2023
8	Cancer Research Consortium of West Michigan (CRCWM)	KATHLEEN J YOST, GILBERT DARIN ANTHONY PADULA	National Cancer Institute	United States	22,023,830	2014	2025
9	Hepatobiology and Toxicology COBRE	CRAIG J. MCCLAIN, XIANG ZHANG, SHIRISH S BARVE, GAVIN E ARTEEL, IRINA A. KIRPICH, LEILA GOBEJISHVILI, ZHONG-BIN DENG, WENKE FENG, WALTER H WATSON, DAVID W HEIN, MING SONG, SWATI JOSHI-BARVE, YAN LI, MATTHEW C CAVE, JOSHUA L. HOOD, SMITA S GHARE	National Institute of General Medical Sciences	United States	21,639,158	2016	2026
10	Oklahoma COBRE in Structural Biology	ANN H WEST, LEONARD M THOMAS, AUGEN A PIOSZAK, ELIZABETH A KARR, MARIE H HANIGAN, PAUL ABELL SIMS, CHRISTINA R BOURNE, RAKHI RAJAN, BLAINE H. M. MOOERS, PHILIP CHARLES BOURNE, ADAM SCOTT DUERFELDT, ANNE KASUS-JACOBI, JIALING LIN, JODY A SUMMERS, SHANTERI SINGH, ASHLEE HEDGECOCK ROWE	National Institute of General Medical Sciences	United States	20,381,696	2012	2023

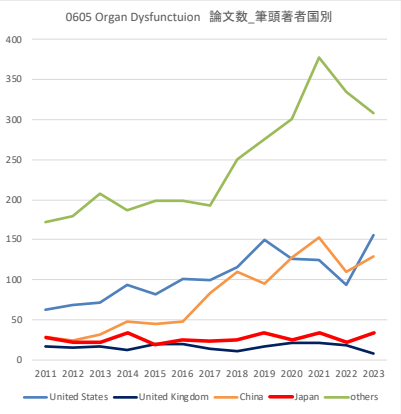
9.5. 0605 Organ Difunctuion

9.5.1. 論文数

Organ Dysfunction の論文数は経年的に増加傾向が見られたが、2021 年以降は横ばい傾向と推計された。国別の論文数は、その他の国を除くと、米国、中国、英国の順に多いと推計された。



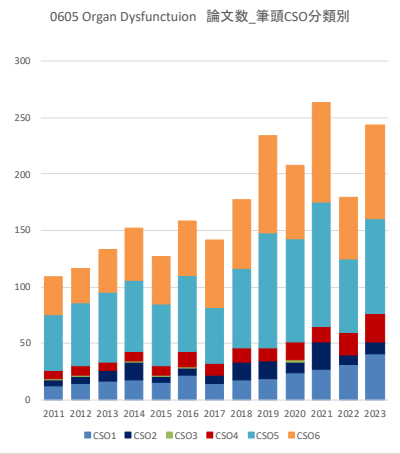


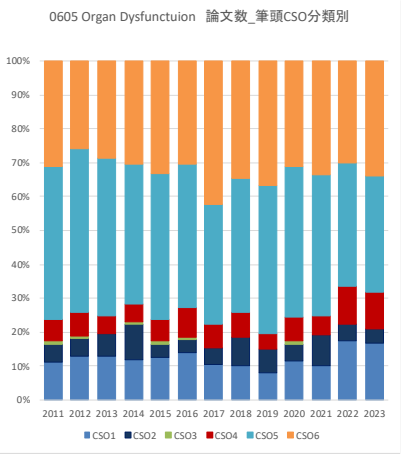


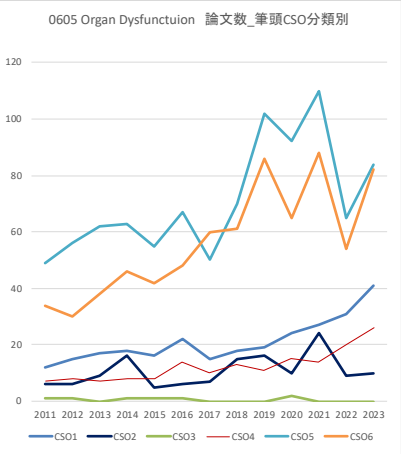
0605 Organ Dysfunctuion 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	62	68	71	94	82	101	99	116	149	126	124	93	156	47	1,388
United Kingdom	16	15	16	12	19	20	13	10	16	21	21	18	8	3	208
China	29	24	32	47	45	47	83	110	95	127	153	109	129	36	1,066
Japan	28	22	22	33	19	25	23	25	34	24	33	22	33	14	357
others	172	179	207	186	199	198	193	250	276	301	378	334	308	124	3,305
合計	307	308	348	372	364	391	411	511	570	599	709	576	634	224	6,324

0605 Organ Dysfunctuion 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	20.2%	22.1%	20.4%	25.3%	22.5%	25.8%	24.1%	22.7%	26.1%	21.0%	17.5%	16.1%	24.6%	21.0%	21.9%
United Kingdom	5.2%	4.9%	4.6%	3.2%	5.2%	5.1%	3.2%	2.0%	2.8%	3.5%	3.0%	3.1%	1.3%	1.3%	3.3%
China	9.4%	7.8%	9.2%	12.6%	12.4%	12.0%	20.2%	21.5%	16.7%	21.2%	21.6%	18.9%	20.3%	16.1%	16.9%
Japan	9.1%	7.1%	6.3%	8.9%	5.2%	6.4%	5.6%	4.9%	6.0%	4.0%	4.7%	3.8%	5.2%	6.3%	5.6%
others	56.0%	58.1%	59.5%	50.0%	54.7%	50.6%	47.0%	48.9%	48.4%	50.3%	53.3%	58.0%	48.6%	55.4%	52.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Organ Dysfunction の CSO 分類別の論文数は、CSO5 Treatment と CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



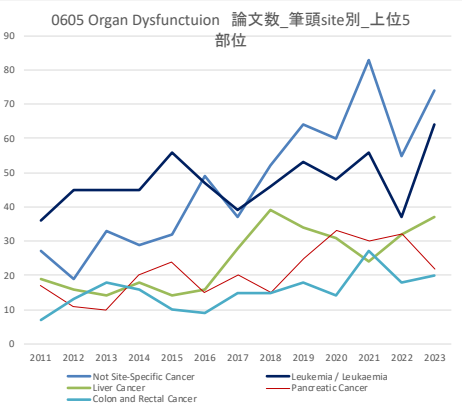




0605 Organ Dysfunctuion 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	12	15	17	18	16	22	15	18	19	24	27	31	41	13	288
2 Etiology	6	6	9	16	5	6	7	15	16	10	24	9	10	4	143
3 Prevention	1	1	0	1	1	1	0	0	0	2	0	0	0	1	8
4 Early Detection, Diagnosis, and Prognosis	7	8	7	8	8	14	10	13	11	15	14	20	26	8	169
5 Treatment	49	56	62	63	55	67	50	70	102	92	110	65	84	35	960
6 Cancer Control, Survivorship, and Outcomes Research	34	30	38	46	42	48	60	61	86	65	88	54	82	29	763
others	198	192	215	220	237	233	269	334	336	391	446	397	391	134	3,993
合計	307	308	348	372	364	391	411	511	570	599	709	576	634	224	6,324

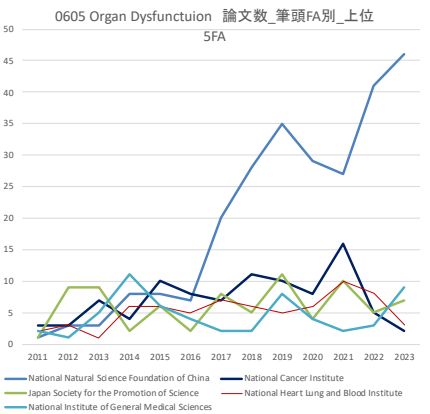
0605 Organ Dysfunctuion 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	3.9%	4.9%	4.9%	4.8%	4.4%	5.6%	3.6%	3.5%	3.3%	4.0%	3.8%	5.4%	6.5%	5.8%	4.6%
2 Etiology	2.0%	1.9%	2.6%	4.3%	1.4%	1.5%	1.7%	2.9%	2.8%	1.7%	3.4%	1.6%	1.6%	1.8%	2.3%
3 Prevention	0.3%	0.3%	0.0%	0.3%	0.3%	0.3%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.4%	0.1%
4 Early Detection, Diagnosis, and Prognosis	2.3%	2.6%	2.0%	2.2%	2.2%	3.6%	2.4%	2.5%	1.9%	2.5%	2.0%	3.5%	4.1%	3.6%	2.7%
5 Treatment	16.0%	18.2%	17.8%	16.9%	15.1%	17.1%	12.2%	13.7%	17.9%	15.4%	15.5%	11.3%	13.2%	15.6%	15.2%
6 Cancer Control, Survivorship, and Outcomes Research	11.1%	9.7%	10.9%	12.4%	11.5%	12.3%	14.6%	11.9%	15.1%	10.9%	12.4%	9.4%	12.9%	12.9%	12.1%
others	64.5%	62.3%	61.8%	59.1%	65.1%	59.6%	65.5%	65.4%	58.9%	65.3%	62.9%	68.9%	61.7%	59.8%	63.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Organ Dysfunction の臓器別の論文数は、Not Site-specific Cancer が最も多く、ついで白血病、肝がんの順と推計された。



0605 Organ Dysfunctuion 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	27	19	33	29	32	49	37	52	64	60	83	55	74	30	644
Leukemia / Leukaemia	36	45	45	45	56	47	39	46	53	48	56	37	64	20	637
Liver Cancer	19	16	14	18	14	16	28	39	34	31	24	32	37	10	332
Pancreatic Cancer	17	11	10	20	24	15	20	15	25	33	30	32	22	11	285
Colon and Rectal Cancer	7	13	18	16	10	9	15	15	18	14	27	18	20	10	210
Lung Cancer	10	6	13	13	10	11	16	14	18	24	24	17	26	4	206
Non-Hodgkin's Lymphoma	9	12	5	11	13	10	13	17	31	17	16	12	32	8	206
Hodgkin's Disease	10	8	11	16	5	7	4	12	17	13	15	4	13	6	141
Myeloma	5	8	12	13	4	7	5	14	19	9	12	10	19	3	140
Breast Cancer	5	4	5	4	6	10	8	4	11	8	13	12	11	11	112

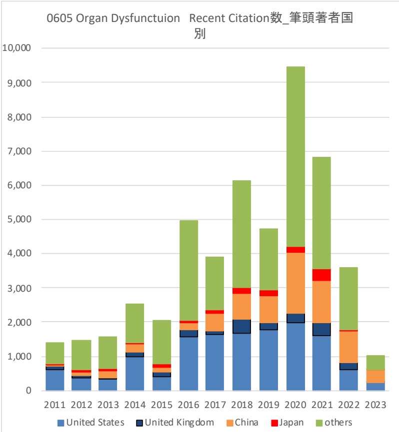
Organ Dysfunction の FA 別の論文数は、中国 NSFC が最も多く経年的にも大きく増加が見られた。ついで米国 NCI、わが国の JSPS が多いと推計された。

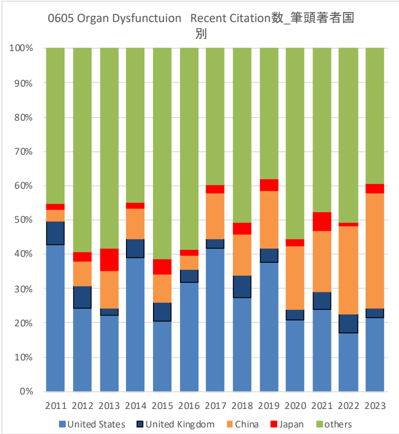


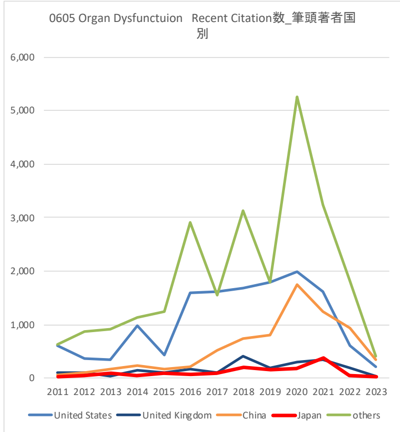
0605 Organ Dysfunctuion 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	1	3	3	8	8	7	20	28	35	29	27	41	46	13	269
National Cancer Institute	3	3	7	4	10	8	7	11	10	8	16	5	2	1	95
Japan Society for the Promotion of Science	1	9	9	2	6	2	8	5	11	4	10	5	7	2	81
National Heart Lung and Blood Institute	2	3	1	6	6	5	7	6	5	6	10	8	3	2	70
National Institute of General Medical Sciences	2	1	5	11	6	4	2	2	8	4	2	3	9	2	61
Ministry of Science and Technology of the People's Republic of China	2	2	3	2	0	0	4	3	1	4	8	2	5	1	37
National Center for Advancing Translational Sciences	0	0	1	1	2	0	4	1	5	6	1	6	5	0	32
Deutsche Forschungsgemeinschaft	1	0	2	4	5	2	0	4	1	3	3	4	0	0	29
National Institute of Diabetes and Digestive and Kidney Diseases	1	2	1	4	2	0	5	3	2	1	2	2	4	0	29
European Commission	0	1	0	3	2	2	3	4	0	0	6	4	0	1	26

9.5.2. Recent Citation 数

Organ Dysfunction の引用数は経年的に増加傾向が見られた。国別の引用数はその他の国を除くと、米国、中国、英国の順に多いと推計された。



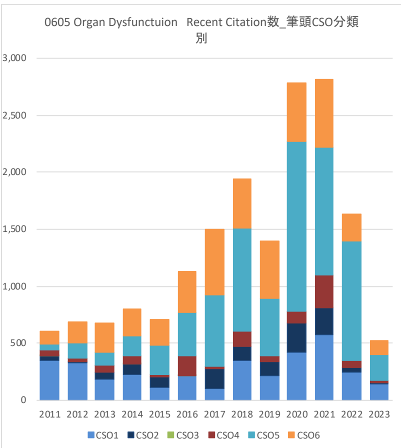


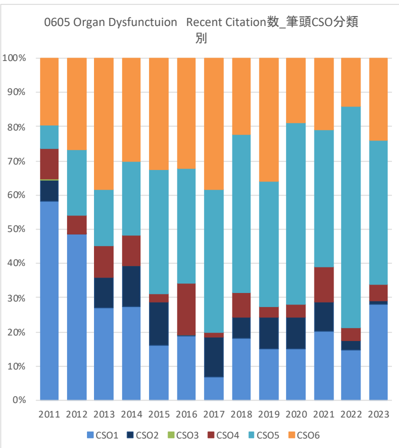


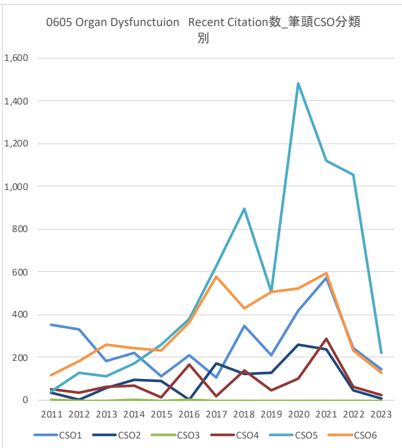
0605 Organ Dysfunctuion　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	601	358	349	988	420	1,583	1,625	1,679	1,781	1,980	1,622	608	222	20	13,836
United Kingdom	96	96	37	139	111	177	110	404	199	293	349	198	28	1	2,238
China	49	104	174	230	163	207	524	743	803	1,753	1,233	927	348	6	7,264
Japan	25	41	101	47	96	78	87	201	157	169	368	41	27	1	1,439
others	637	870	920	1,135	1,245	2,904	1,545	3,120	1,802	5,255	3,233	1,812	405	23	24,906
合計	1,408	1,469	1,581	2,539	2,035	4,949	3,891	6,147	4,742	9,450	6,805	3,586	1,030	51	49,683

0605 Organ Dysfunctuion　Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	42.7%	24.4%	22.1%	38.9%	20.6%	32.0%	41.8%	27.3%	37.6%	21.0%	23.8%	17.0%	21.6%	39.2%	27.8%
United Kingdom	6.8%	6.5%	2.3%	5.5%	5.5%	3.6%	2.8%	6.6%	4.2%	3.1%	5.1%	5.5%	2.7%	2.0%	4.5%
China	3.5%	7.1%	11.0%	9.1%	8.0%	4.2%	13.5%	12.1%	16.9%	18.6%	18.1%	25.9%	33.8%	11.8%	14.6%
Japan	1.8%	2.8%	6.4%	1.9%	4.7%	1.6%	2.2%	3.3%	3.3%	1.8%	5.4%	1.1%	2.6%	2.0%	2.9%
others	45.2%	59.2%	58.2%	44.7%	61.2%	58.7%	39.7%	50.8%	38.0%	55.6%	47.5%	50.5%	39.3%	45.1%	50.1%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Organ Dysfunction の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO6 Cancer Control, Survivorship, and Outcomes Research と推計された。



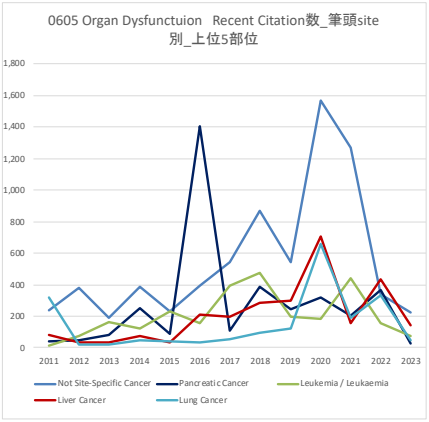




0605 Organ Dysfunctuion Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	353	333	184	221	114	213	104	348	212	419	571	241	147	0	3,460
2 Etiology	38	1	60	95	91	3	174	121	127	261	238	45	7	2	1,263
3 Prevention	1	0	0	1	0	2	0	0	0	0	0	0	0	0	4
4 Early Detection, Diagnosis, and Prognosis	54	37	63	70	16	168	19	141	46	101	288	63	24	0	1,090
5 Treatment	42	130	110	173	259	381	629	895	509	1,484	1,122	1,052	223	17	7,026
6 Cancer Control, Survivorship, and Outcomes Research	119	184	261	243	230	365	578	432	506	523	592	231	126	5	4,395
others	801	784	903	1,736	1,325	3,817	2,387	4,210	3,342	6,662	3,994	1,954	503	27	32,445
合計	1,408	1,469	1,581	2,539	2,035	4,949	3,891	6,147	4,742	9,450	6,805	3,586	1,030	51	49,683

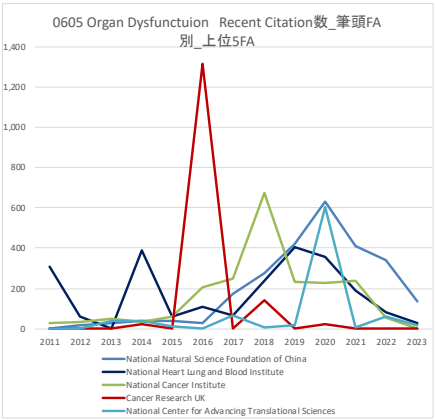
0605 Organ Dysfunctuion Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	25.1%	22.7%	11.6%	8.7%	5.6%	4.3%	2.7%	5.7%	4.5%	4.4%	8.4%	6.7%	14.3%	0.0%	7.0%
2 Etiology	2.7%	0.1%	3.8%	3.7%	4.5%	0.1%	4.5%	2.0%	2.7%	2.8%	3.5%	1.3%	0.7%	3.9%	2.5%
3 Prevention	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	3.8%	2.5%	4.0%	2.8%	0.8%	3.4%	0.5%	2.3%	1.0%	1.1%	4.2%	1.8%	2.3%	0.0%	2.2%
5 Treatment	3.0%	8.8%	7.0%	6.8%	12.7%	7.7%	16.2%	14.6%	10.7%	15.7%	16.5%	29.3%	21.7%	33.3%	14.1%
6 Cancer Control, Survivorship, and Outcomes Research	8.5%	12.5%	16.5%	9.6%	11.3%	7.4%	14.9%	7.0%	10.7%	5.5%	8.7%	6.4%	12.2%	9.8%	8.8%
others	56.9%	53.4%	57.1%	68.4%	65.1%	77.1%	61.3%	68.5%	70.5%	70.5%	58.7%	54.5%	48.8%	52.9%	65.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Organ Dysfunction の臓器別の引用数は、Not Site-specific Cancer、ついで膵がん、白血病が多いと推計された。



0605 Organ Dysfunctuion Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	235	382	187	384	229	390	545	866	545	1,566	1,269	339	222	8	7,167
Pancreatic Cancer	40	45	79	249	89	1,402	107	386	241	321	205	365	27	1	3,557
Leukemia / Leukaemia	14	76	162	124	229	156	392	475	194	181	442	158	76	5	2,684
Liver Cancer	80	32	34	71	31	208	198	285	295	707	157	436	139	5	2,678
Lung Cancer	317	17	23	50	40	36	55	96	121	655	191	332	47	1	1,981
Colon and Rectal Cancer	7	23	42	29	24	45	163	101	61	44	144	117	5	0	805
Hodgkin's Disease	2	28	3	24	5	2	12	24	70	116	442	25	21	2	776
Breast Cancer	18	43	37	21	99	20	173	26	39	15	78	30	11	3	613
Kidney Cancer	4	7	73	6	19	56	22	73	52	77	197	1	2	0	589
Non-Hodgkin's Lymphoma	5	16	4	22	41	19	23	30	120	148	97	9	22	1	557

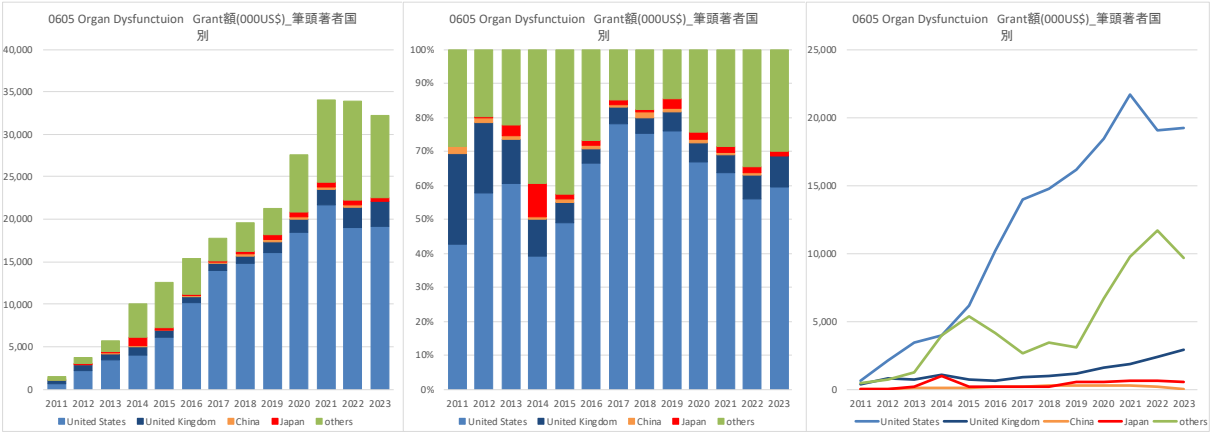
Organ Dysfunction の FA 別の引用数は、中国 NSFC が最も多く、ついで米国 National Heart Lung and Blood Institute、米国 NCI の順と推計された。



0605 Organ Dysfunctuion Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	0	17	27	41	41	30	174	276	419	632	409	339	139	3	2,547
National Heart Lung and Blood Institute	309	59	2	390	61	109	65	241	408	359	188	85	27	1	2,304
National Cancer Institute	28	32	50	35	60	205	248	673	233	227	237	55	2	0	2,085
Cancer Research UK	3	0	0	23	3	1,317	0	140	0	26	0	0	0	0	1,512
National Center for Advancing Translational Sciences	0	0	37	38	10	0	68	9	18	607	9	61	19	0	876
National Institute of General Medical Sciences	21	4	95	126	67	77	26	10	254	38	9	11	11	1	750
Science and Engineering Research Board	0	0	0	0	0	0	0	41	0	686	0	0	0	0	727
United States Department of Veterans Affairs	0	0	0	0	0	435	30	11	54	0	36	48	0	3	617
Japan Society for the Promotion of Science	0	29	77	7	50	2	38	73	68	47	154	12	8	0	565
National Institute of Neurological Disorders and Stroke	97	0	15	0	0	75	349	0	0	0	0	0	0	0	536

9.5.3. Grant(000US$)額

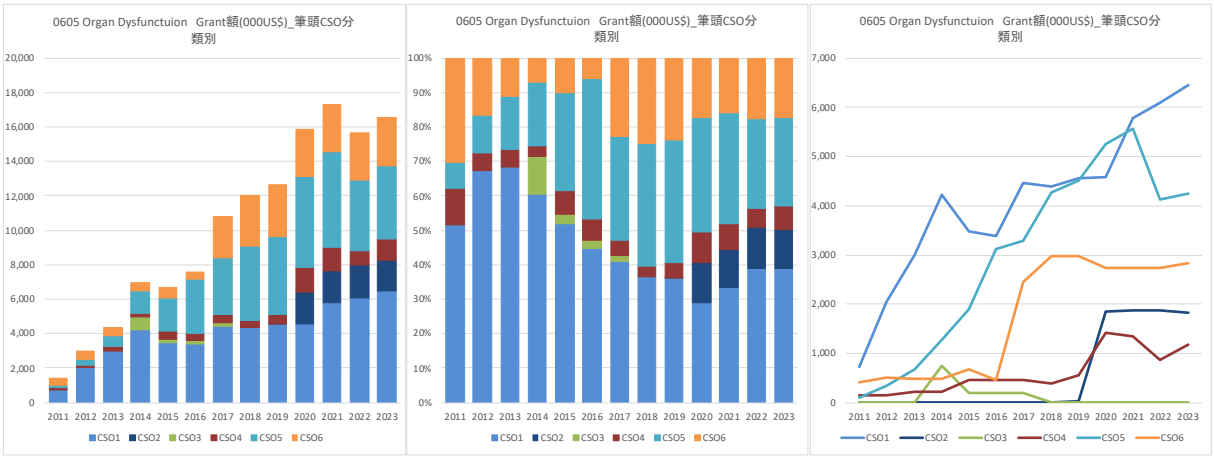
Organ Dysfunction の研究費総額は 2021 年までは大きく増加傾向が見られたが、2021 年以降は横ばい傾向と推計された。国別の研究費配分額は、米国が最も多く経年的にも増加傾向が見られた。



0605 Organ Dysfunctuion Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	621	2,130	3,472	3,965	6,154	10,218	13,926	14,768	16,126	18,444	21,701	19,067	19,206	14,773	164,570
United Kingdom	389	769	746	1,083	738	603	847	933	1,167	1,569	1,858	2,367	2,867	2,181	18,117
China	33	48	73	71	134	172	172	295	274	300	234	202	0	0	2,008
Japan	0	18	178	1,018	193	208	214	185	555	579	600	626	510	477	5,361
others	416	731	1,271	3,971	5,351	4,132	2,663	3,461	3,101	6,679	9,703	11,689	9,636	7,514	70,318
合計	1,460	3,695	5,740	10,107	12,570	15,333	17,821	19,642	21,222	27,571	34,096	33,951	32,220	24,945	260,373

0605 Organ Dysfunctuion Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	42.6%	57.6%	60.5%	39.2%	49.0%	66.6%	78.1%	75.2%	76.0%	66.9%	63.6%	56.2%	59.6%	59.2%	63.2%
United Kingdom	26.7%	20.8%	13.0%	10.7%	5.9%	3.9%	4.8%	4.8%	5.5%	5.7%	5.4%	7.0%	8.9%	8.7%	7.0%
China	2.3%	1.3%	1.3%	0.7%	1.1%	1.1%	1.0%	1.5%	1.3%	1.1%	0.7%	0.6%	0.0%	0.0%	0.8%
Japan	0.0%	0.5%	3.1%	10.1%	1.5%	1.4%	1.2%	0.9%	2.6%	2.1%	1.8%	1.8%	1.6%	1.9%	2.1%
others	28.5%	19.8%	22.1%	39.3%	42.6%	26.9%	14.9%	17.6%	14.6%	24.2%	28.5%	34.4%	29.9%	30.1%	27.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

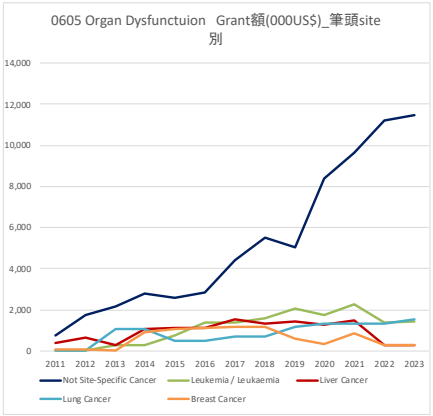
Organ Dysfunction の CSO 分類別の研究費配分額は、CSO1 Biology が最も多く経年的にも増加傾向が顕著と推計された。ついで、CSO5 Treatment、CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



0605 Organ Dysfunctuion Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	720	2,035	3,004	4,227	3,480	3,391	4,451	4,394	4,561	4,589	5,784	6,088	6,464	4,685	57,872
2 Etiology	0	0	0	0	0	0	0	0	22	1,850	1,881	1,881	1,831	1,800	9,266
3 Prevention	0	0	0	757	190	190	190	0	0	0	0	0	0	0	1,326
4 Early Detection, Diagnosis, and Prognosis	148	148	226	226	462	462	462	384	552	1,427	1,351	862	1,175	1,060	8,945
5 Treatment	106	338	670	1,274	1,908	3,113	3,280	4,277	4,502	5,249	5,557	4,120	4,244	3,322	41,960
6 Cancer Control, Survivorship, and Outcomes Research	420	497	490	490	671	450	2,447	2,988	2,986	2,725	2,739	2,739	2,833	614	23,088
others	386	1,060	1,826	3,608	6,272	7,821	7,089	7,604	8,602	11,768	16,784	18,261	15,673	13,464	120,219
合計	1,460	3,695	5,740	10,107	12,570	15,333	17,821	19,642	21,222	27,571	34,096	33,951	32,220	24,945	260,373

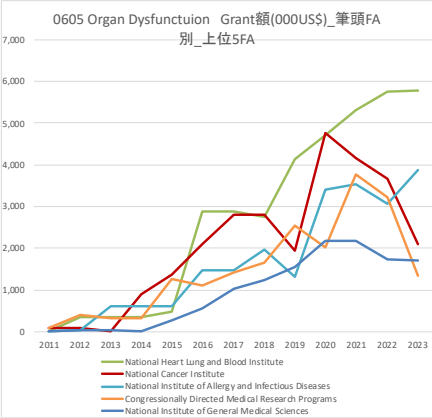
0605 Organ Dysfunctuion Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	49.3%	55.1%	52.3%	41.8%	27.7%	22.1%	25.0%	22.4%	21.5%	16.6%	17.0%	17.9%	20.1%	18.8%	22.2%
2 Etiology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	6.7%	5.5%	5.5%	5.7%	7.2%	3.6%
3 Prevention	0.0%	0.0%	0.0%	7.5%	1.5%	1.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
4 Early Detection, Diagnosis, and Prognosis	10.2%	4.0%	3.9%	2.2%	3.7%	3.0%	2.6%	2.0%	2.6%	5.2%	4.0%	2.5%	3.6%	4.2%	3.4%
5 Treatment	7.2%	9.1%	11.7%	12.6%	15.2%	20.3%	18.4%	21.8%	21.2%	19.0%	16.3%	12.1%	13.2%	13.3%	16.1%
6 Cancer Control, Survivorship, and Outcomes Research	28.8%	13.4%	8.5%	4.9%	5.3%	2.9%	13.7%	15.2%	14.1%	9.9%	8.0%	8.1%	8.8%	2.5%	8.9%
others	26.5%	28.7%	31.8%	35.7%	49.9%	51.0%	39.8%	38.7%	40.5%	42.7%	49.2%	53.8%	48.6%	54.0%	46.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Organ Dysfunction の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く経年的にも増加傾向が顕著と推計された。



0605 Organ Dysfunctuion Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	758	1,757	2,186	2,811	2,598	2,817	4,436	5,497	5,035	8,402	9,662	11,227	11,483	9,381	78,051
Leukemia / Leukaemia	0	14	303	289	756	1,398	1,398	1,570	2,076	1,763	2,276	1,400	1,434	691	15,368
Liver Cancer	389	663	299	1,055	1,100	1,100	1,538	1,309	1,429	1,276	1,497	304	272	272	12,502
Lung Cancer	0	0	1,069	1,069	467	467	716	681	1,164	1,302	1,302	1,302	1,552	250	11,339
Breast Cancer	88	88	0	898	1,040	1,105	1,183	1,155	601	337	872	294	263	145	8,069
Pancreatic Cancer	0	335	387	369	374	16	280	289	284	412	670	660	860	211	5,148
Colon and Rectal Cancer	17	76	76	58	0	163	500	500	589	589	711	374	245	157	4,053
Blood Cancer	0	0	0	0	0	125	125	125	0	670	670	713	748	705	3,882
Prostate Cancer	0	0	0	0	0	53	429	429	429	376	376	376	376	376	3,220
Non-Hodgkin's Lymphoma	101	101	101	101	101	102	0	0	141	141	141	406	594	524	2,558

Organ Dysfunction の FA 別の研究費配分額は、米国 National Heart Lung and Blood Institute が最も多く、経年的にも増加傾向が大きいと推計された。ついで米国 NCI が多いと推計された。



0605 Organ Dysfunctuion Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Heart Lung and Blood Institute	0	337	337	337	469	2,895	2,895	2,763	4,126	4,701	5,324	5,769	5,776	3,767	39,494	United States
National Cancer Institute	100	100	0	898	1,359	2,087	2,800	2,800	1,953	4,766	4,168	3,666	2,101	1,169	27,967	United States
National Institute of Allergy and Infectious Diseases	0	38	603	603	603	1,485	1,485	1,961	1,323	3,393	3,536	3,067	3,872	3,501	25,468	United States
Congressionally Directed Medical Research Programs	88	405	317	317	1,260	1,107	1,418	1,653	2,532	2,028	3,775	3,223	1,352	958	20,432	United States
National Institute of General Medical Sciences	0	34	34	0	270	549	1,016	1,236	1,556	2,181	2,181	1,735	1,707	1,775	14,274	United States
National Institute of Diabetes and Digestive and Kidney Diseases	0	0	0	0	384	384	384	718	816	1,102	1,411	929	1,568	1,568	9,266	United States
Canadian Institutes of Health Research	250	268	277	417	260	413	297	945	979	1,086	1,110	528	599	279	7,708	Canada
Eunice Kennedy Shriver National Institute of Child Health and Human Development	0	0	0	120	120	120	120	0	488	488	948	948	1,001	1,001	5,352	United States
Ministry of Science and Higher Education	0	0	7	1,294	2,468	1,174	0	0	0	0	0	0	0	0	4,942	Poland
National Center for Advancing Translational Sciences	103	103	1,069	1,069	431	431	431	431	431	0	105	105	105	0	4,815	United States

9.5.4. 主要論文、引用、研究費

＜論文＞

Publication: 0605 Organ Dysfunctuion

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Needle in a haystack or elephant in the room? Identifying germline predisposition syndromes in the setting of a new myeloid malignancy diagnosis	Reinig, Erica F.; Rubinstein, Jeremy D.; Patil, Apoorva T.; Schussman, Amanda L.; Horner, Vanessa L.; Kanagal-Shamanna, Rashmi; Churpek, Jane E.; Matson, Daniel R.	Leukemia	United States	2023	3	Review Article
2	Impact of COVID-19 in patients on active melanoma therapy and with history of melanoma	Johnson, Douglas B.; Atkins, Michael B.; Hennessy, Cassandra; Wise-Draper, Trisha; Heilman, Hannah; Awosika, Joy; Bakouny, Ziad; Labaki, Chris; Saliby, Renee Maria; Hwang, Clara; Singh, Sunny R. K.; Balanchivadze, Nino; Friese, Christopher R.; Fecher, Leslie A.; Yoon, James J.; Hayes-Lattin, Brandon; Bilen, Mehmet A.; Castellano, Cecilia A.; Lyman, Gary H.; Tachiki, Lisa; Shah, Sumit A.; Glover, Michael J.; Flora, Daniel B.; Wulff-Burchfield, Elizabeth; Kasi, Anup; Abbasi, Saqib H.; Farmakiotis, Dimitrios; Viera, Kendra; Klein, Elizabeth J.; Weissman, Lisa B.; Jani, Chinmay; Puc, Matthew; Fahey, Catherine C.; Reuben, Daniel Y.; Mishra, Sanjay; Beeghly-Fadiel, Alicia; French, Benjamin; Warner, Jeremy L.	BMC Cancer	United States	2023	2	Research Article
3	Usefulness of the qSOFA score for predicting hospital mortality in cancer patients	Olvera-Alanis, Georgina; Ñamendys-Silva, Silvio A; Córdova-Sánchez, Bertha M; Mejía-Mejía, José A; García-Guillén, Francisco J	Gaceta Médica de México	Mexico	2024	0	Research Article
4	Functional outcomes at PICU discharge in hemato-oncology children at a tertiary oncology center in Hong Kong	Leung, Karen K. Y.; Ray, Samiran; Chan, Godfrey C. F.; Hon, Kam Lun	International Journal of Clinical Oncology	United Kingdom	2022	0	Research Article
5	Performance status and acute organ dysfunction influence hospital mortality in critically ill patients with cancer and suspected infection: a retrospective cohort analysis	Costa, Ramon Teixeira; Zampieri, Fernando Godinho; Caruso, Pedro; Júnior, Antonio Paulo Nassar	Revista Brasileira de Terapia Intensiva	Brazil	2021	5	Research Article
6	Multiple organ dysfunction due to inferior vena cava thrombosis diagnosed by point-of-care ultrasound in the intensive care unit	Cheong, Issac	Journal of Clinical Ultrasound		2022	0	Research Article
7	Prediction of Subclinical and Clinical Multiple Organ Failure Dysfunction in Breast Cancer Patients—A Review Using AI Tools	Ionescu, Andreea-Iuliana; Atasiei, Dimitrie-Ionut; Ionescu, Radu-Tudor; Ultimescu, Flavia; Barnonschi, Andrei-Alexandru; Anghel, Alexandra-Valentina; Anghel, Cătălin-Alexandru; Antone-Iordache, Ionuț-Lucian; Mitre, Ruxandra; Bobolocu, Alexandra Maria; Zamfir, Andreea; Lișcu, Horia-Dan; Coniac, Simona; Șandru, Florica	Cancers	Romania	2024	3	Review Article
8	Urgent Chemotherapy for Life-Threatening Complications Related to Solid Neoplasms	Zerbib, Yoann; Rabbat, Antoine; Fartoukh, Muriel; Bigé, Naïke; Andréjak, Claire; Mayaux, Julien; De Prost, Nicolas; Misset, Benoît; Lemiale, Virginie; Bruneel, Fabrice; Maizel, Julien; Ricome, Sylvie; Jacobs, Frédéric; Bornstain, Caroline; Dupont, Hervé; Baudin, François; Azoulay, Elie; Pène, Frédéric	Critical Care Medicine	France	2017	8	Research Article
9	The sCD14-ST predictive value in the development of adverse outcomes in operated colorectal cancer patients (diagnostic study)	Turgunov, Yermek; Ogizbayeva, Alina; Avdiyenko, Olga; Mugazov, Miras; Shakeyev, Kayrat; Komarov, Timofey; Asamidanova, Sofiko	Annals of Medicine and Surgery	Kazakhstan	2023	0	Research Article
10	Safety and efficacy of anti-PD-1 in patients with baseline cardiac, renal, or hepatic dysfunction	Kanz, Bridgette A.; Pollack, Megan H.; Johnpulle, Romany; Puzanov, Igor; Horn, Leora; Morgans, Alicia; Sosman, Jeffrey A.; Rapisuwon, Suthee; Conry, R. Martin; Eroglu, Zeynep; Johnson, Douglas B.	Journal for ImmunoTherapy of Cancer	United States	2016	19	Research Article

＜引用＞

Citation: 0605 Organ Dysfunctuion

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The 2016 update of the International Study Group (ISGPS) definition and grading of postoperative pancreatic fistula: 11 Years After	Bassi, Claudio; Marchegiani, Giovanni; Dervenis, Christos; Sarr, Micheal; Abu Hilal, Mohammad; Adham, Mustapha; Allen, Peter; Andersson, Roland; Asbun, Horacio J.; Besselink, Marc G.; Conlon, Kevin; Del Chiaro, Marco; Falconi, Massimo; Fernandez-Cruz, Laureano; Castillo, Carlos Fernandez-del; Fingerhut, Abe; Friess, Helmut; Gouma, Dirk J; Hackert, Thilo; Izbicki, Jakob; Lillemoe, Keith D.; Neoptolemos, John P.; Olah, Attila; Schulick, Richard; Shrikhande, Shailesh V.; Takada, Tadahiro; Takaori, Kyoichi; Traverso, William; Vollmer, Charles R.; Wolfgang, Christopher L.; Yeo, Charles J.; Salvia, Roberto; Buchler, Marcus; Surgery, International Study Group on Pancreatic	Surgery	Italy	2016	1288	Review Article
2	Non-steroidal anti-inflammatory drugs (NSAIDs) and organ damage: A current perspective	Bindu, Samik; Mazumder, Somnath; Bandyopadhyay, Uday	Biochemical Pharmacology	India	2020	686	Review Article
3	Subphenotypes in acute respiratory distress syndrome: latent class analysis of data from two randomised controlled trials	Calfee, Carolyn S; Delucchi, Kevin; Parsons, Polly E; Thompson, B Taylor; Ware, Lorraine B; Matthay, Michael A; Network, the NHLBI ARDS	The Lancet Respiratory Medicine	United States	2014	378	Research Article
4	Prognostic factors for severity and mortality in patients infected with COVID-19: A systematic review	Izcovich, Ariel; Ragusa, Martín Alberto; Tortosa, Fernando; Marzio, María Andrea Lavena; Agnoletti, Camila; Bengolea, Agustín; Ceirano, Agustina; Espinosa, Federico; Saavedra, Ezequiel; Sanguine, Verónica; Tassara, Alfredo; Cid, Candelaria; Catalano, Hugo Norberto; Agarwal, Arnav; Foroutan, Farid; Rada, Gabriel	PLOS ONE	Canada	2020	364	Review Article
5	Mechanisms of muscle atrophy and hypertrophy: implications in health and disease	Sartori, Roberta; Romanello, Vanina; Sandri, Marco	Nature Communications	Italy	2021	363	Review Article
6	Neuroimmune Interactions: From the Brain to the Immune System and Vice Versa	Dantzer, Robert	Physiological Reviews	United States	2017	349	Review Article
7	Sepsis: pathophysiology and clinical management	Gotts, Jeffrey E; Matthay, Michael A	The BMJ	United States	2016	345	Review Article
8	Factors Associated With Death in Critically Ill Patients With Coronavirus Disease 2019 in the US	Shruti Gupta; Salim S. Hayek; Wei Wang; Lili Chan; Kusum S. Mathews; Michal L. Melamed; Samantha K. Brenner; Amanda Leonberg-Yoo; Edward J. Schenck; Jared Radbel; Jochen Reiser; Anip Bansal; Anand Srivastava; Yan Zhou; Anne Sutherland; Adam Green; Alexandre M. Shehata; Nitender Goyal; Anitha Vijayan; Juan Carlos Q. Velez; Shahzad Shaefi; Chirag R. Parikh; Justin Arunthamakun; Ambarish M. Athavale; Allon N. Friedman; Samuel A. P. Short; Zoe A. Kibbelaar; Samah Abu	JAMA Internal Medicine	United States	2020	339	Research Article
9	Toxicities of chimeric antigen receptor T cells: recognition and management	Brudno, Jennifer N; Kochenderfer, James N	Blood	United States	2016	335	Review Article
10	Durvalumab, with or without tremelimumab, plus platinum-etoposide versus platinum-etoposide alone in first-line treatment of extensive-stage small-cell lung cancer (CASPIAN): updated results from a randomised, controlled, open-label, phase 3 trial	Jonathan W Goldman; Mikhail Dvorkin; Yuanbin Chen; Niels Reinmuth; Katsuyuki Hotta; Dmytro Trukhin; Galina Statsenko; Maximilian J Hochmair; Mustafa Özgüroğlu; Jun Ho Ji; Marina Chiara Garassino; Oleksandr Voitko; Artem Poltoratskiy; Santiago Ponce; Francesco Verderame; Libor Havel; Igor Bondarenko; Andrzej Każarnowicz; György Losonczy; Nikolay V Conev; Jon	The Lancet Oncology	Spain	2020	332	Research Article

＜研究費＞

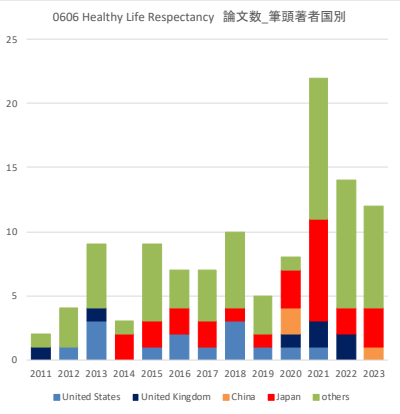
Grant: 0605 Organ Dysfunctuion

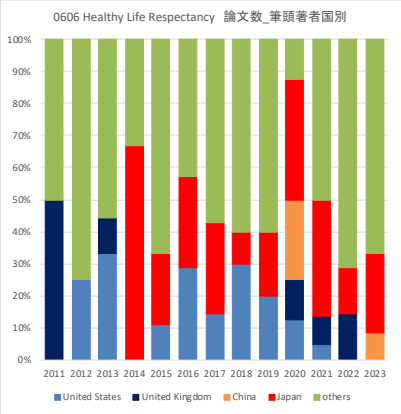
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Protein Glycosylation in the Coagulopathy and Inflammation of Sepsis	JAMEY MARTH, DZUNG T LE, JEFFREY W SMITH, MICHAEL J MAHAN, JEFFREY D ESKO	National Heart Lung and Blood Institute	United States	20,899,426	2016	2026
2	The Wake Forest Nonhuman Primate Radiation Survivor Cohort	J. MARK CLINE	National Institute of Allergy and Infectious Diseases	United States	14,116,910	2020	2027
3	Comparing Two Ways to Provide Palliative Care to Older Adults with Serious Illness	Keith S. Goldfeld	Patient-Centered Outcomes Research Institute	United States	12,243,682	2017	2023
4	Gene-edited T cells combating IgA Nephropathy. A blueprint approach for safe & efficient genome editing of T cells to sustainably combat several immune diseases and cancers related to B-cell pathology	0	European Commission	Belgium	6,178,018	2022	2026
5	Targeting trained immunity in transplantation	ZAHI A. FAYAD, JOREN C MADSEN, JORDI OCHANDO, WILLEM MULDER, ABRAHAM TEUNISSEN	National Institute of Allergy and Infectious Diseases	United States	6,030,933	2023	2028
6	The Swiss Transplant Cohort Study (STCS)	Swiss Transplant Cohort Study, Vanessa Banz, Isabelle Binet, Pierre-Yves Bochud, Sabina De Geest, Michel A. Duchosal, Michael Koller, Alexander Benedikt Leichtle, Oriol Manuel, Valérie McLin, Nicolas Mueller, Manuel Pascual, Stefan Schaub, Thierry Sengstag, Jürg Ulrich Steiger, Christian van Delden, Sonja Beckmann, Nadine Beerli, Anne-Laure Berger, Florian Bogopolsky, Joana Borrego Pinto, Sanda Branca-Dragan, Joshy Cyriac, Matilde D'Asaro, Domenico Dongiovanni, Gilles Freund, Jaromil Dennis Frossard, Aynur Gubelmann, Rebecca Lea Gugger, Catherine Haenlin, Irene Hegglin, Linard Hoessly, Mirjam Laager, Lisbeth Langhammer, Bettina Lässer, Tobias Lüscher, Maria Matache, Katell Mellac, Jannik Neumann, Magali Pasin, Juliane Rick, Simona Rossi, Silvia Rothlin, Susanne Stampf, Thomas Stauffer, Barbara Treuthardt, Andreas Triantafyllos, Gabriela Voramwald Zurbrügg, Ming Zou, Andi Zuberi	Swiss National Science Foundation	Switzerland	5,673,876	2021	2024
7	Epidemiology and Genetics of Susceptibility to COVID-19 Infection Supplemental	SHARON A. SAVAGE	National Cancer Institute	United States	4,783,441	2020	2022
8	Structural studies of molecular targets for drug development	DAVID S WAUGH	National Cancer Institute	United States	4,491,969	2014	2018
9	Telomere extension using nucleoside-modified mRNA and exosomes as a novel therape	HELEN M BLAU	National Institute of Arthritis and Musculoskeletal and Skin Diseases	United States	4,299,300	2012	2018
10	New Therapies to Restore Vascular Integrity During Sepsis	SHANNON J ODELBERG, ANDREW S WEYRICH, GUY A. ZIMMERMAN	National Heart Lung and Blood Institute	United States	3,679,835	2016	2022

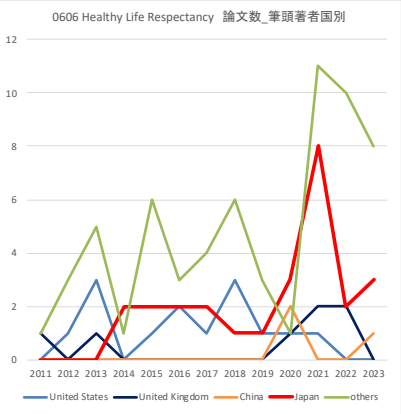
9.6. 0606 Healthy Life Respectancy

9.6.1. 論文数

Healthy Life Expectancy の論文数は 2021 年に大きく増加したが、いまだに論文数が少ないのが現状である。国別の論文数は、わが国の論文数が多い傾向が見られた。



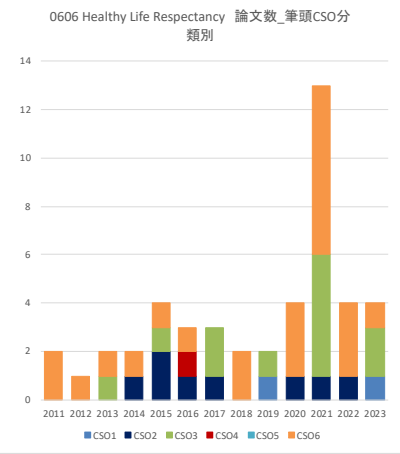


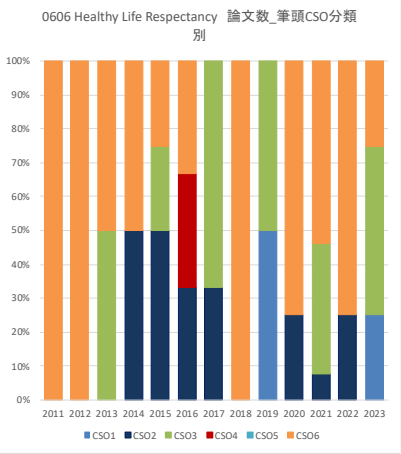


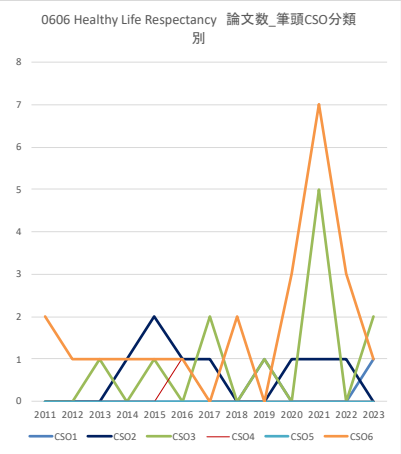
0606 Healthy Life Respectancy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	1	3	0	1	2	1	3	1	1	1	0	0	1	15
United Kingdom	1	0	1	0	0	0	0	0	0	1	2	2	0	1	8
China	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3
Japan	0	0	0	2	2	2	2	1	1	3	8	2	3	3	29
others	1	3	5	1	6	3	4	6	3	1	11	10	8	3	65
合計	2	4	9	3	9	7	7	10	5	8	22	14	12	8	120

0606 Healthy Life Respectancy 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0.0%	25.0%	33.3%	0.0%	11.1%	28.6%	14.3%	30.0%	20.0%	12.5%	4.5%	0.0%	0.0%	12.5%	12.5%
United Kingdom	50.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	9.1%	14.3%	0.0%	12.5%	6.7%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	8.3%	0.0%	2.5%
Japan	0.0%	0.0%	0.0%	66.7%	22.2%	28.6%	28.6%	10.0%	20.0%	37.5%	36.4%	14.3%	25.0%	37.5%	24.2%
others	50.0%	75.0%	55.6%	33.3%	66.7%	42.9%	57.1%	60.0%	60.0%	12.5%	50.0%	71.4%	66.7%	37.5%	54.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Healthy Life Expectancy の CSO 分類別の論文数は、CSO6 Cancer Control, Survivorship, and Outcomes Research が最も多く、ついで CSO3 Prevention が多いと推計された。



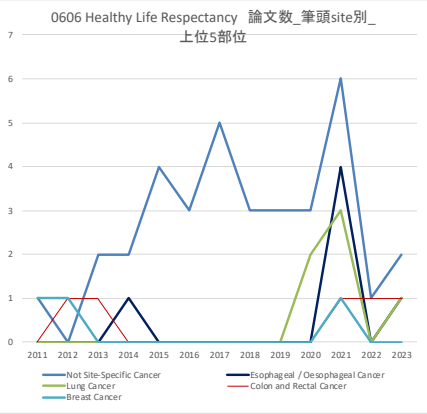




0606 Healthy Life Respectancy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
2 Etiology	0	0	0	1	2	1	1	0	0	1	1	1	0	0	8
3 Prevention	0	0	1	0	1	0	2	0	1	0	5	0	2	2	14
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cancer Control, Survivorship, and Outcomes Research	2	1	1	1	1	1	0	2	0	3	7	3	1	0	23
others	0	3	7	1	5	4	4	8	3	4	9	10	8	6	72
合計	2	4	9	3	9	7	7	10	5	8	22	14	12	8	120

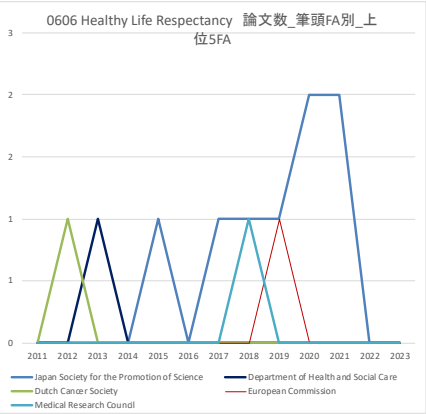
0606 Healthy Life Respectancy 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	8.3%	0.0%	1.7%
2 Etiology	0.0%	0.0%	0.0%	33.3%	22.2%	14.3%	14.3%	0.0%	0.0%	12.5%	4.5%	7.1%	0.0%	0.0%	6.7%
3 Prevention	0.0%	0.0%	11.1%	0.0%	11.1%	0.0%	28.6%	0.0%	20.0%	0.0%	22.7%	0.0%	16.7%	25.0%	11.7%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6 Cancer Control, Survivorship, and Outcomes Research	100.0%	25.0%	11.1%	33.3%	11.1%	14.3%	0.0%	20.0%	0.0%	37.5%	31.8%	21.4%	8.3%	0.0%	19.2%
others	0.0%	75.0%	77.8%	33.3%	55.6%	57.1%	57.1%	80.0%	60.0%	50.0%	40.9%	71.4%	66.7%	75.0%	60.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Healthy Life Expectancy の臓器別の論文数は、Not Site-specific Cancer が最も多いと推計された。



0606 Healthy Life Respectancy 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	1	0	2	2	4	3	5	3	3	3	6	1	2	2	37
Esophageal / Oesophageal Cancer	0	0	0	1	0	0	0	0	0	0	4	0	1	2	8
Lung Cancer	0	0	0	0	0	0	0	0	0	2	3	0	1	0	6
Colon and Rectal Cancer	0	1	1	0	0	0	0	0	0	0	1	1	1	0	5
Breast Cancer	1	1	0	0	0	0	0	0	0	0	1	0	0	0	3
Oral Cavity and Lip Cancer	0	0	0	0	0	1	0	0	0	1	0	1	0	0	3
Hodgkin's Disease	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Laryngeal Cancer	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
Kidney Cancer	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Prostate Cancer	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1

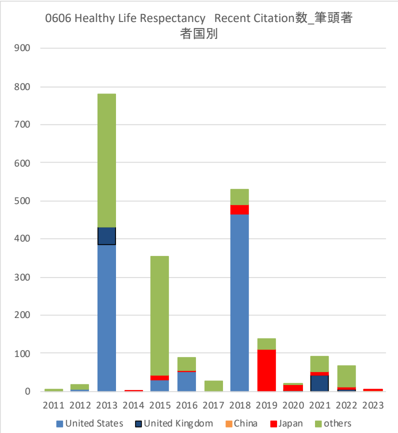
Healthy Life Expectancy の FA 別の論文数は、わが国の JSPS が最も多いと推計された。

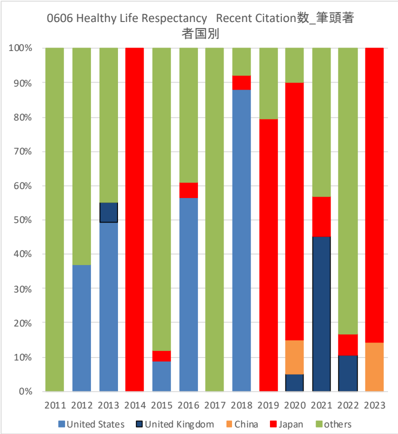


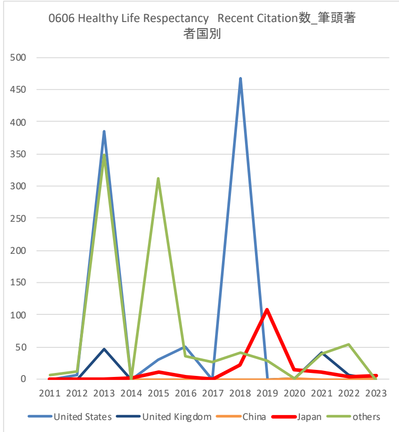
0606 Healthy Life Respectancy 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Japan Society for the Promotion of Science	0	0	0	0	1	0	1	1	1	2	2	0	0	1	9
Department of Health and Social Care	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Dutch Cancer Society	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
European Commission	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Medical Research Council	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Ministero della Salute	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Ministry of Science and Technology of the People's Republic of China	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
National Institute on Aging	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1

9.6.2. Recent Citation 数

Healthy Life Expectancy の引用数は年により差が見られた。国別の引用数が最も多いのは米国、ついで日本と推計された。



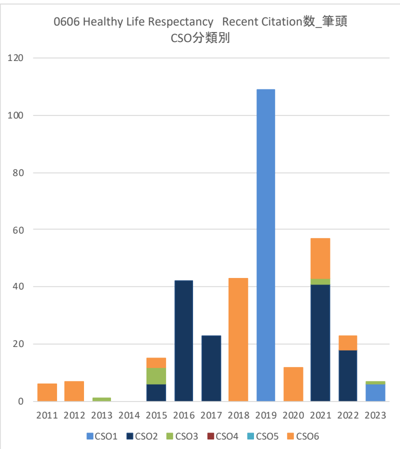


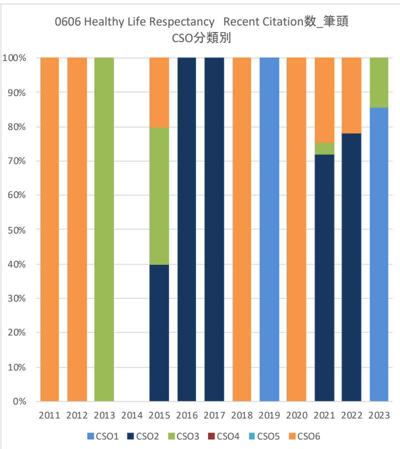


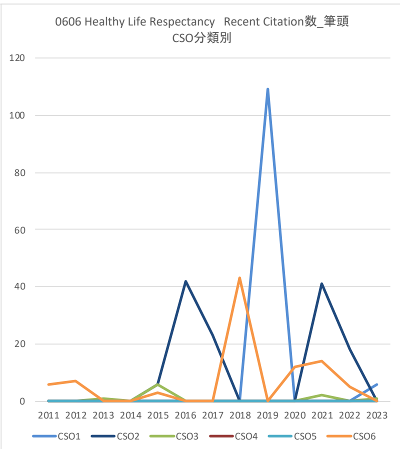
0606 Healthy Life Respectancy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	7	386	0	31	51	0	467	0	0	0	0	0	0	942
United Kingdom	0	0	46	0	0	0	0	0	0	1	42	7	0	0	96
China	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3
Japan	0	0	0	2	11	4	0	22	109	15	11	4	6	0	184
others	6	12	349	0	312	35	27	41	28	2	40	55	0	0	907
合計	6	19	781	2	354	90	27	530	137	20	93	66	7	0	2,132

0606 Healthy Life Respectancy Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0.0%	36.8%	49.4%	0.0%	8.8%	56.7%	0.0%	88.1%	0.0%	0.0%	0.0%	0.0%	0.0%		44.2%
United Kingdom	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	45.2%	10.6%	0.0%		4.5%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	14.3%		0.1%
Japan	0.0%	0.0%	0.0%	100.0%	3.1%	4.4%	0.0%	4.2%	79.6%	75.0%	11.8%	6.1%	85.7%		8.6%
others	100.0%	63.2%	44.7%	0.0%	88.1%	38.9%	100.0%	7.7%	20.4%	10.0%	43.0%	83.3%	0.0%		42.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

Healthy Life Expectancy の CSO 分類別の引用数は、CSO2 Etiology、CSO1 Biology、CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



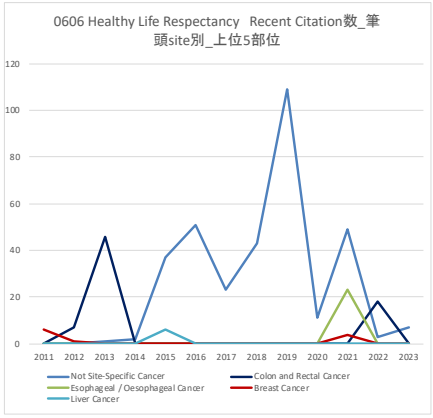




0606 Healthy Life Respectancy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	0	0	0	109	0	0	0	6	0	115
2 Etiology	0	0	0	0	6	42	23	0	0	0	41	18	0	0	130
3 Prevention	0	0	1	0	6	0	0	0	0	0	2	0	1	0	10
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cancer Control, Survivorship, and Outcomes Research	6	7	0	0	3	0	0	43	0	12	14	5	0	0	90
others	0	12	780	2	339	48	4	487	28	8	36	43	0	0	1,787
合計	6	19	781	2	354	90	27	530	137	20	93	66	7	0	2,132

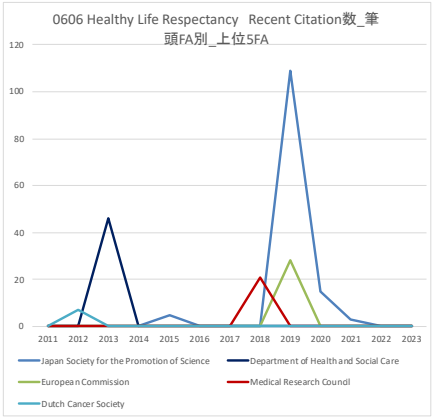
0606 Healthy Life Respectancy Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.6%	0.0%	0.0%	0.0%	85.7%		5.4%
2 Etiology	0.0%	0.0%	0.0%	0.0%	1.7%	46.7%	85.2%	0.0%	0.0%	0.0%	44.1%	27.3%	0.0%		6.1%
3 Prevention	0.0%	0.0%	0.1%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	14.3%		0.5%
4 Early Detection, Diagnosis, and Prognosis	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
5 Treatment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
6 Cancer Control, Survivorship, and Outcomes Research	100.0%	36.8%	0.0%	0.0%	0.8%	0.0%	0.0%	8.1%	0.0%	60.0%	15.1%	7.6%	0.0%		4.2%
others	0.0%	63.2%	99.9%	100.0%	95.8%	53.3%	14.8%	91.9%	20.4%	40.0%	38.7%	65.2%	0.0%		83.8%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

Healthy Life Expectancy の臓器別の引用数は、Not Site-specific Cancer が多く、ついで大腸がんが多いと推計された。



0606 Healthy Life Respectancy Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	0	0	1	2	37	51	23	43	109	11	49	3	7	0	336
Colon and Rectal Cancer	0	7	46	0	0	0	0	0	0	0	0	18	0	0	71
Esophageal / Oesophageal Cancer	0	0	0	0	0	0	0	0	0	0	23	0	0	0	23
Breast Cancer	6	1	0	0	0	0	0	0	0	0	4	0	0	0	11
Liver Cancer	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6
Prostate Cancer	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
Laryngeal Cancer	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Oral Cavity and Lip Cancer	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Hodgkin's Disease	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Ovarian Cancer	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3

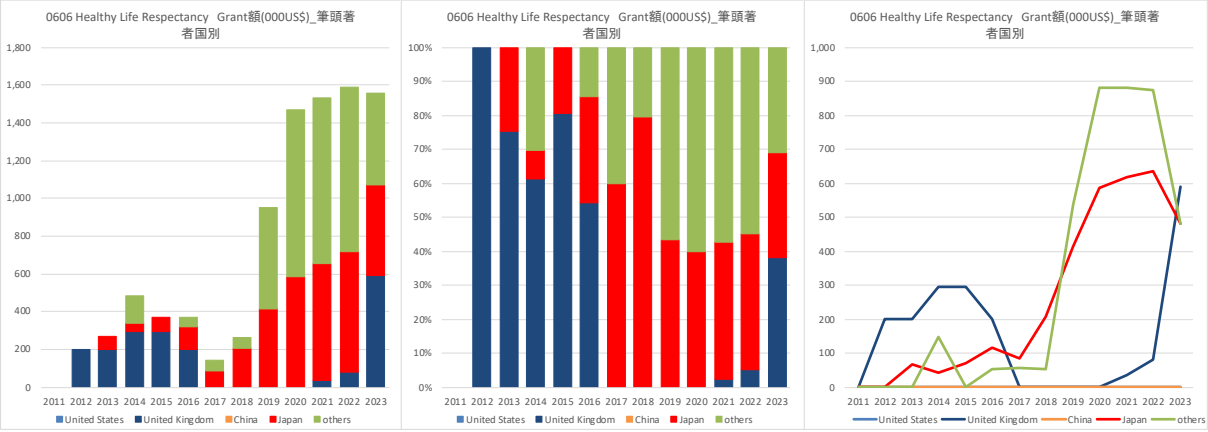
Healthy Life Expectancy の FA 別の引用数は、わが国の JSPS が最も多く、ついで米国 Department of Health and Social Care と推計された。



0606 Healthy Life Respectancy Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Japan Society for the Promotion of Science	0	0	0	0	5	0	0	0	109	15	3	0	0	0	132
Department of Health and Social Care	0	0	46	0	0	0	0	0	0	0	0	0	0	0	46
European Commission	0	0	0	0	0	0	0	0	28	0	0	0	0	0	28
Medical Research Council	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
Dutch Cancer Society	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
National Institute for Health and Care Research	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3

9.6.3. Grant(000US$)額

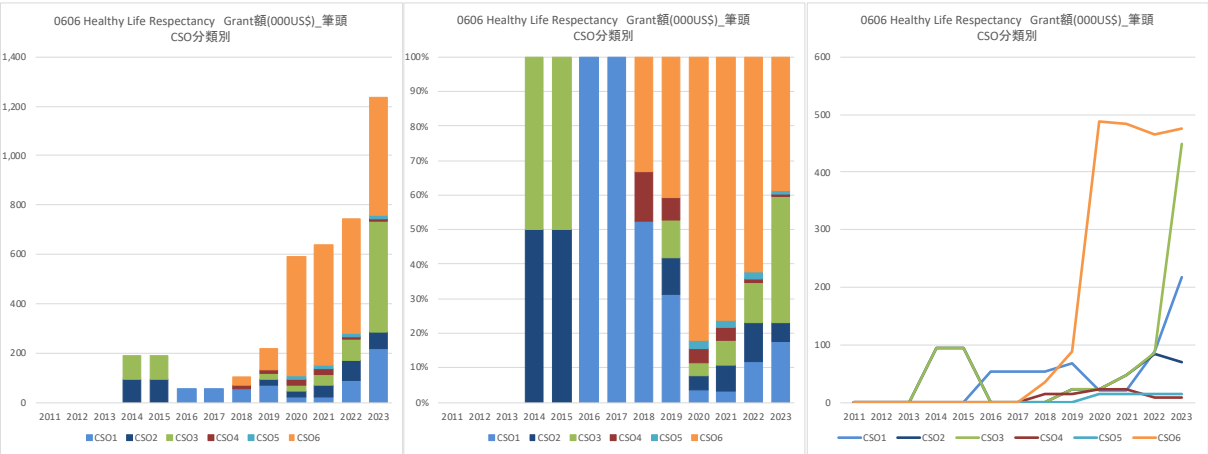
Healthy Life Expectancy の研究費総額は、近年大きく増加傾向にある。国別の研究費配分額は、その他の国を除くとわが国が多く、また英国での配分額が増加傾向にあると推計された。



0606 Healthy Life Respectancy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	201	201	297	297	201	0	0	0	0	35	80	591	591	2,494
China	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	0	0	66	41	72	117	84	206	413	586	617	637	482	362	3,684
others	0	0	0	147	0	54	56	54	538	881	881	874	481	2,230	6,196
合計	0	201	267	485	369	372	140	260	951	1,467	1,533	1,591	1,554	3,183	12,374

0606 Healthy Life Respectancy Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
United Kingdom		100.0%	75.4%	61.2%	80.5%	54.1%	0.0%	0.0%	0.0%	0.0%	2.3%	5.0%	38.0%	18.6%	20.2%
China		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan		0.0%	24.6%	8.5%	19.5%	31.5%	59.9%	79.4%	43.5%	39.9%	40.3%	40.0%	31.0%	11.4%	29.8%
others		0.0%	0.0%	30.3%	0.0%	14.4%	40.1%	20.6%	56.5%	60.1%	57.5%	54.9%	31.0%	70.1%	50.1%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

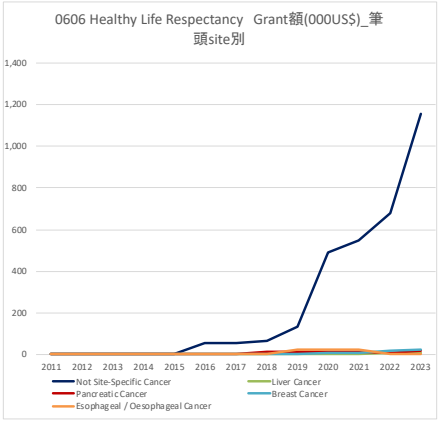
Healthy Life Expectancy の CSO 分類別の研究費配分額は、CSO4 Early Detection, Diagnosis and Prognosis と CSO6 Cancer Control, Survivorship, and Outcomes Research が多いと推計された。



0606 Healthy Life Respectancy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	0	0	0	0	0	54	54	54	68	21	21	88	217	217	794
2 Etiology	0	0	0	95	95	0	0	0	23	23	46	84	70	62	499
3 Prevention	0	0	0	95	95	0	0	0	23	23	47	86	449	449	1,268
4 Early Detection, Diagnosis, and Prognosis	0	0	0	0	0	0	0	15	15	24	24	9	9	2,139	2,233
5 Treatment	0	0	0	0	0	0	0	0	0	14	14	14	14	0	55
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	0	0	0	34	89	487	484	466	476	64	2,100
others	0	201	267	389	273	319	87	163	809	950	1,007	947	407	339	6,157
合計	0	201	267	485	369	372	140	260	951	1,467	1,533	1,591	1,554	3,183	12,374

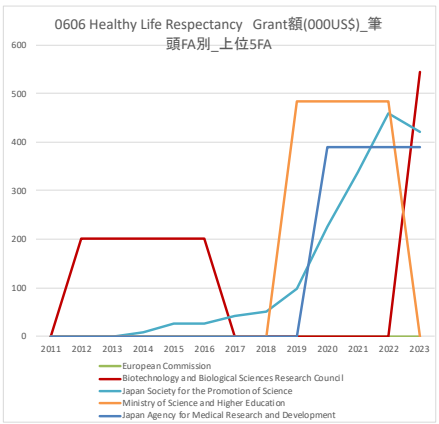
0606 Healthy Life Respectancy Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology		0.0%	0.0%	0.0%	0.0%	14.4%	38.2%	20.6%	7.2%	1.5%	1.4%	5.5%	14.0%	6.8%	6.4%
2 Etiology		0.0%	0.0%	19.7%	25.9%	0.0%	0.0%	0.0%	2.5%	1.6%	3.0%	5.3%	4.5%	1.9%	4.0%
3 Prevention		0.0%	0.0%	19.7%	25.9%	0.0%	0.0%	0.0%	2.5%	1.6%	3.1%	5.4%	28.9%	14.1%	10.2%
4 Early Detection, Diagnosis, and Prognosis		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	1.5%	1.6%	1.5%	0.6%	0.6%	67.2%	18.0%
5 Treatment		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	0.9%	0.9%	0.0%	0.4%
6 Cancer Control, Survivorship, and Outcomes Research		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	9.3%	33.2%	31.6%	29.3%	30.6%	2.0%	17.0%
others		100.0%	100.0%	80.3%	74.1%	85.6%	61.8%	62.5%	85.0%	64.8%	65.7%	59.5%	26.2%	10.7%	49.8%
合計		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Healthy Life Expectancy の臓器別の研究費配分額は、Not Site-specific Cancer が最も多く、ついで肝がん、膵がんが多いと推計された。



0606 Healthy Life Respectancy Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Not Site-Specific Cancer	0	0	0	0	0	54	54	65	134	491	548	677	1,154	729	3,904
Liver Cancer	0	0	0	0	0	0	0	0	0	0	0	8	8	2,146	2,162
Pancreatic Cancer	0	0	0	0	0	0	0	15	15	15	15	8	16	16	99
Breast Cancer	0	0	0	0	0	0	0	0	0	9	9	17	26	17	77
Esophageal / Oesophageal Cancer	0	0	0	0	0	0	0	0	23	23	23	0	0	0	70
Colon and Rectal Cancer	0	0	0	0	0	0	0	23	23	23	0	0	0	0	69
Lung Cancer	0	0	0	0	0	0	0	0	0	9	9	9	13	4	44
Oral Cavity and Lip Cancer	0	0	0	0	0	0	0	0	0	9	9	9	9	0	34
Prostate Cancer	0	0	0	0	0	0	0	0	0	0	0	0	9	9	17

Healthy Life Expectancy の FA 別の研究費配分額は、European Commission が最も多く、ついで英国 Biotechnology and Biological Sciences Research Council、わが国の JSPS の順と推計された。



0606 Healthy Life Respectancy Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
European Commission	0	0	0	0	0	0	0	0	0	0	0	0	0	2,139	2,139	Belgium
Biotechnology and Biological Sciences Research Council	0	201	201	201	201	201	0	0	0	0	0	0	545	545	2,098	United Kingdom
Japan Society for the Promotion of Science	0	0	0	9	25	25	42	52	97	225	339	458	420	300	1,993	Japan
Ministry of Science and Higher Education	0	0	0	0	0	0	0	0	484	484	484	484	0	0	1,938	Poland
Japan Agency for Medical Research and Development	0	0	0	0	0	0	0	0	0	390	390	390	390	0	1,560	Japan
National Science Center	0	0	0	0	0	0	0	0	0	0	0	0	91	91	183	Poland
Canadian Institutes of Health Research	0	0	0	0	0	0	0	0	0	7	7	0	0	0	13	Canada

9.6.4. 主要論文、引用、研究費

＜論文＞

Publication: 0606 Healthy Life Respectancy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Healthy life expectancy of oral squamous cell carcinoma patients aged 75years and older	Yamada, Shin-ichi; Kurita, Hiroshi; Tomioka, Takahiro; Ohta, Ryousuke; Yoshimura, Nobuhiko; Nishimaki, Fumihiro; Koyama, Yoshihito; Kondo, Eiji; Kamata, Takahiro	Oral Oncology	Japan	2016	4	Research Article
2	Surgical Management for Prostate Cancer.	Kim, Eric H; Bullock, Arnold D	Missouri Medicine	United States	2018	5	Research Article
3	Association between the Standardized Mortality Ratio and Healthy Life Expectancy in Japan	Hosokawa, Rikuya; Ojima, Toshiyuki; Myojin, Tomoya; Aida, Jun; Kondo, Katsunori; Kondo, Naoki	JMA Journal	Japan	2022	1	Research Article
4	Estimation of disability free life expectancy in non small cell lung cancer based on real world data	Lin, Shin-Mao; Yang, Szu-Chun; Wu, Tzu-I.; Wang, Jung-Der; Liu, Li-Fan	Scientific Reports	Taiwan	2023	0	Research Article
5	A cost-effectiveness analysis of an integrated clinical-radiogenomic screening program for the identification of BRCA 1/2 carriers (e-PROBE study)	Di Pilla, A.; Nero, C.; Specchia, M. L.; Ciccarone, F.; Boldrini, L.; Lenkowicz, J.; Alberghetti, B.; Fagotti, A.; Testa, A. C.; Valentini, V.; Sala, E.; Scambia, G.	Scientific Reports	Italy	2024	0	Research Article
6	Choices in Surgery for Older Women with Breast Cancer	Swaminathan, Vikram; Spiliopoulos, Markos K; Audisio, Riccardo A	Breast Care	Greece	2012	1	Review Article
7	A nationwide web-based survey of oncologic surgeons to clarify the current status of preoperative assessment for elderly cancer surgery patients in Japan	Inoue, Daisuke; Yamamoto, Makoto; Arima, Hisatomi; Tamura, Kazuo; Yoshida, Yoshio	Scientific Reports	Japan	2021	2	Research Article
8	Most colorectal cancer survivors live a large proportion of their remaining life in good health	Soerjomataram, Isabelle; Thong, Melissa S. Y.; Ezzati, Majid; Lamont, Elizabeth B.; Nusselder, Wilma J.; van de Poll-Franse, Lonneke V.	Cancer Causes & Control	United States	2012	7	Research Article
9	Average and healthy life expectancies and self-rated health in the European country	Hasegawa, Takashi	Nippon Ronen Igakkai Zasshi Japanese Journal of Geriatrics	Japan	2014	2	Research Article
10	Socioeconomic differences in healthy and disease-free life expectancy between ages 50 and 75: a multi-cohort study	Head, Jenny; Chungkham, Holendro Singh; Hyde, Martin; Zaninotto, Paola; Alexanderson, Kristina; Stenholm, Sari; Salo, Paula; Kivimäki, Mika; Goldberg, Marcel; Zins, Marie; Vahtera, Jussi; Westerlund, Hugo	European Journal of Public Health	Finland	2018	21	Research Article

＜引用＞

Citation: 0606 Healthy Life Respectancy

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	The State of US Health, 1990-2016: Burden of Diseases, Injuries, and Risk Factors Among US States	Ali H. Mokdad; Katherine Ballestros; Michelle Echko; Scott Glenn; Helen E. Olsen; Erin Mullany; Alex Lee; Abdur Rahman Khan; Alireza Ahmadi; Alize J. Ferrari; Amir Kasaeian; Andrea Werdecker; Austin Carter; Ben Zipkin; Benn Sartorius; Berrin Serdar; Bryan L. Sykes; Chris Troeger; Christina Fitzmaurice; Colin D. Rehm; Damian Santomauro; Daniel Kim; Danny Colombara; David C. Schwebel; Derrick Tsoi; Dhaval Kolte; Elaine Nsoesie; Emma Nichols; Eyal Oren; Fiona J. Charlson; George C. Patton; Gregory A. Roth; H. Dean Hosgood; Harvey A. Whiteford;	JAMA	United States	2018	462	Research Article
2	Rapid health transition in China, 1990-2010: findings from the Global Burden of Disease Study 2010	Yang, Gonghuan; Wang, Yu; Zeng, Yixin; Gao, George F; Liang, Xiaofeng; Zhou, Maigeng; Wan, Xia; Yu, Shicheng; Jiang, Yuhong; Naghavi, Mohsen; Vos, Theo; Wang, Haidong; Lopez, Alan D; Murray, Christopher JL	The Lancet	Australia	2013	348	Research Article
3	The State of US Health, 1990-2010: Burden of Diseases, Injuries, and Risk Factors	Christopher J L Murray; Charles Atkinson; Kavi Bhalla; Gretchen Birbeck; Roy Burstein; David Chou; Robert Dellavalle; Goodarz Danaei; Majid Ezzati; A Fahimi; D Flaxman; Foreman; Sherine Gabriel; Emmanuela Gakidou; Nicholas Kassebaum; Shahab Khatibzadeh; Stephen Lim; Steven E Lipshultz; Stephanie London; Lopez; Michael F MacIntyre; A H Mokdad; A Moran; Andrew E Moran; Dariush Mozaffarian; Tasha Murphy; Moshen	JAMA	United States	2013	340	Research Article
4	Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: quantifying the epidemiological transition	GBD 2013 DALYs and HALE Collaborators; Christopher J L Murray; Ryan M Barber; Kyle J Foreman; Ayse Abbasoglu Ozgoren; Foad Abd-Allah; Semaw F Abera; Victor Aboyans; Jerry P Abraham; Ibrahim Abubakar; Laith J Abu-Raddad; Niveen M Abu-Rmeileh; Tom Achoki; Ilana N Ackerman; Zanfina Ademi; Ars ène K Adou; José C Adsuar; Ashkan Afshin; Emilie E Agardh; Sayed Saidul Alam; Deena Alasfoor; Mohammed I Albittar; Miguel	The Lancet		2015	303	Research Article
5	Chronic Inflammation as an Immunological Abnormality and Effectiveness of Exercise	Suzuki, Katsuhiko	Biomolecules	Japan	2019	109	Review Article
6	The clinical consequences of an ageing world and preventive strategies	Lunenfeld, Bruno; Stratton, Pamela	Best Practice & Research Clinical Obstetrics & Gynaecology	United States	2013	46	Research Article
7							
8	Smoking, physical inactivity and obesity as predictors of healthy and disease-free life expectancy between ages 50 and 75: a multicohort study	Stenholm, Sari; Head, Jenny; Kivimäki, Mika; Kawachi, Ichiro; Aalto, Ville; Zins, Marie; Goldberg, Marcel; Zaninotto, Paola; Hanson, Linda Magnuson; Westerlund, Hugo; Vahtera, Jussi	International Journal of Epidemiology	United States	2016	42	Research Article
9	Exploring health in the UK Biobank: associations with sociodemographic characteristics, psychosocial factors, lifestyle and environmental exposures	Mutz, Julian; Roscoe, Charlotte J.; Lewis, Cathryn M.	BMC Medicine	United Kingdom	2021	41	Research Article
10	Dissonant health transition in the states of Mexico, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013	Gómez-Dantés, Héctor; Fullman, Nancy; Lamadrid-Figueroa, Héctor; Cahuana-Hurtado, Lucero; Darney, Blair; Avila-Burgos, Leticia; Correa-Rotter, Ricardo; Rivera, Juan A; Barquera, Simon; González-Pier, Eduardo; Aburto-Soto, Tania; de Castro, Elga Filipa Amorin; Barrientos-Gutiérrez, Tonatiuh; Basto-Abreu, Ana C; Batis, Carolina; Borges, Guilherme; Campos-Nonato, Ismael; Campuzano-Rincón, Julio C; de Jesús Cantoral-Preciado, Alejandra; Contreras-Manzano, Alejandra G; Cuevas-Nasu, Lucia;	The Lancet	Mexico	2016	35	Research Article

＜研究費＞

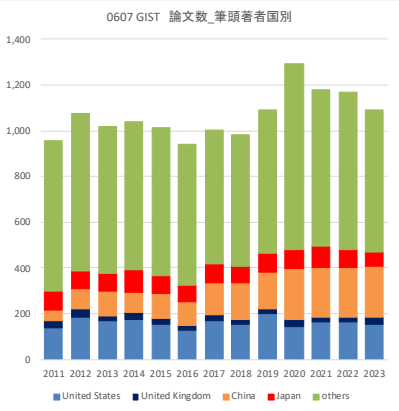
Grant: 0606 Healthy Life Respectancy

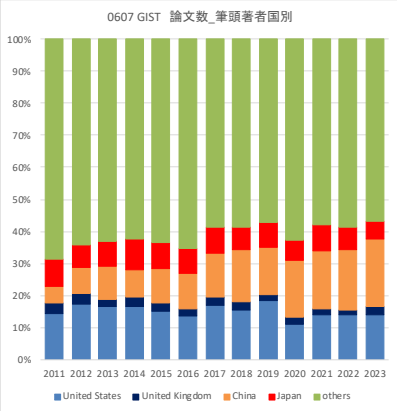
	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	A Biomarker-Based Platform for Early Diagnosis of Chronic Liver Disease to Enable Personalized Therapy	0	European Commission	Belgium	14,970,886	2024	2030
2	Center for Research and Implementation of Strategies Supporting Healthy Aging	Andrzej Matecki	Ministry of Science and Higher Education	Poland	1,937,686	2019	2022
3	Development and commercialization of a device to prevent exacerbation of lymphedema, which leads to a significant decrease in QOL of cancer prognosis	Tsuyoshi Takamichi	Japan Agency for Medical Research and Development	Japan	1,559,599	2020	2023
4	BBSRC Institute Strategic Programme: Food Microbiome and Health (FMH) Partner grant	Gary Frost, Tamas Korcsmaros	Biotechnology and Biological Sciences Research Council	United Kingdom	1,368,390	2023	2028
5	Inflammatory signals regulate neuroendocrine control of growth and energy balance through re-modelling of mammalian hypothalamus	Peter Morgan, Peter McCaffery, Alexander Ross	Biotechnology and Biological Sciences Research Council	United Kingdom	1,006,908	2012	2016
6	BBSRC Institute Strategic Programme: Food Microbiome and Health (FMH) – Partner Grant	Susan Lanham-New	Biotechnology and Biological Sciences Research Council	United Kingdom	1,003,773	2023	2028
7	BBSRC Institute Strategic Programme: Food Microbiome and Health (FMH) – Partner Grant	Stuart Rushworth	Biotechnology and Biological Sciences Research Council	United Kingdom	900,401	2023	2028
8	Investigation of cellular responses to ribosomal protein oxidation during aging	Katarzyna Jonak	National Science Center	Poland	365,907	2023	2026
9	Development of mice model for elucidating the mechanism of healthy life expectancy extension	Kenji KAMIYA, Hidehiko KAWAI, Megumi SASATANI, Koomi Hayashida, Saori Kamidai, ELENA ZAHARIEVA	Japan Society for the Promotion of Science	Japan	232,160	2020	2022
10	Multiple long-term conditions and social inequalities in ageing: Dunhill Medical Trust PhD Cohort	B Hanratty	Dunhill Medical Trust	United Kingdom	226,697	2022	2026

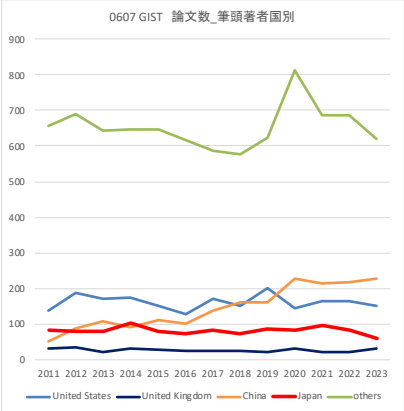
9.7. 0607 GIST

9.7.1. 論文数

GIST の論文数は、経年的には横ばい傾向と推計された。国別の論文数は、その他の国を除くと中国が近年最も多く、ついで米国、日本の順と推計された。



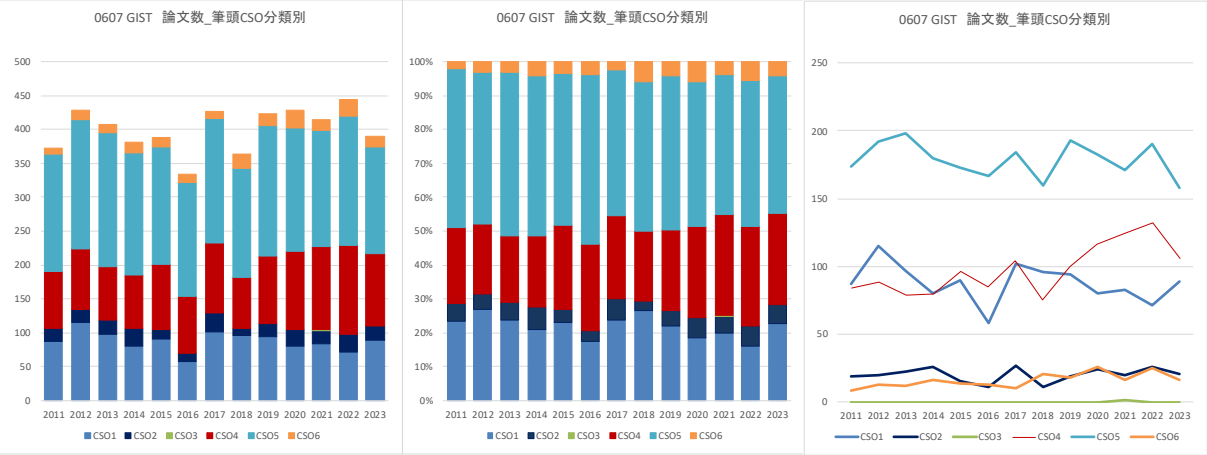




0607 GIST 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	136	186	169	172	151	126	171	151	201	144	165	163	151	55	2,141
United Kingdom	31	35	22	31	27	24	24	25	21	29	22	19	31	4	345
China	50	86	106	89	111	102	138	159	160	226	213	218	227	70	1,955
Japan	83	78	78	101	79	73	83	71	84	82	95	82	60	26	1,075
others	655	689	643	647	645	617	587	575	624	813	685	688	621	219	8,708
合計	955	1,074	1,018	1,040	1,013	942	1,003	981	1,090	1,294	1,180	1,170	1,090	374	14,224

0607 GIST 論文数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	14.2%	17.3%	16.6%	16.5%	14.9%	13.4%	17.0%	15.4%	18.4%	11.1%	14.0%	13.9%	13.9%	14.7%	15.1%
United Kingdom	3.2%	3.3%	2.2%	3.0%	2.7%	2.5%	2.4%	2.5%	1.9%	2.2%	1.9%	1.6%	2.8%	1.1%	2.4%
China	5.2%	8.0%	10.4%	8.6%	11.0%	10.8%	13.8%	16.2%	14.7%	17.5%	18.1%	18.6%	20.8%	18.7%	13.7%
Japan	8.7%	7.3%	7.7%	9.7%	7.8%	7.7%	8.3%	7.2%	7.7%	6.3%	8.1%	7.0%	5.5%	7.0%	7.6%
others	68.6%	64.2%	63.2%	62.2%	63.7%	65.5%	58.5%	58.6%	57.2%	62.8%	58.1%	58.8%	57.0%	58.6%	61.2%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

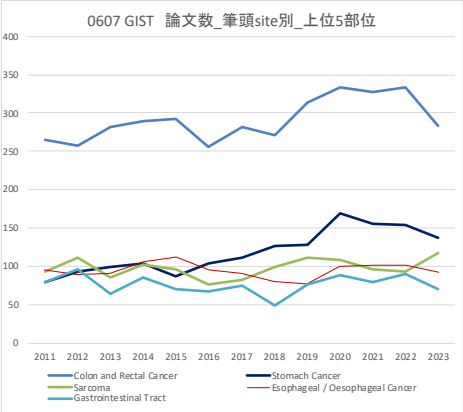
GIST の CSO 分類別の論文数は、CSO5 Treatment が最も多く、ついで CSO4 Early Detection, Diagnosis and Prognosis、CSO1 Biology が多いと推計された。



0607 GIST 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	87	115	97	80	90	58	102	96	94	80	83	71	89	24	1,166
2 Etiology	19	20	22	26	15	11	27	11	19	24	20	26	21	7	268
3 Prevention	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4 Early Detection, Diagnosis, and Prognosis	84	88	79	80	96	85	104	75	100	116	124	132	106	46	1,315
5 Treatment	174	192	198	180	173	167	184	160	193	182	171	190	158	47	2,369
6 Cancer Control, Survivorship, and Outcomes Research	8	13	12	16	14	13	10	21	18	26	16	25	16	13	221
others	583	646	610	658	625	608	576	618	666	866	765	726	700	237	8,884
合計	955	1,074	1,018	1,040	1,013	942	1,003	981	1,090	1,294	1,180	1,170	1,090	374	14,224

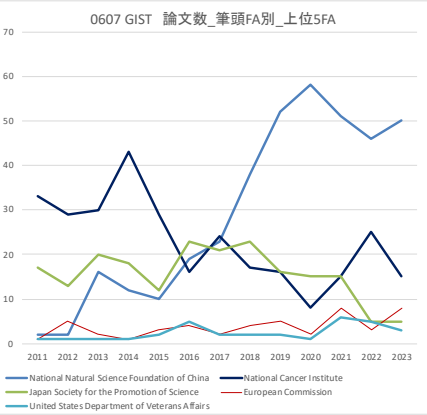
0607 GIST 論文数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	9.1%	10.7%	9.5%	7.7%	8.9%	6.2%	10.2%	9.8%	8.6%	6.2%	7.0%	6.1%	8.2%	6.4%	8.2%
2 Etiology	2.0%	1.9%	2.2%	2.5%	1.5%	1.2%	2.7%	1.1%	1.7%	1.9%	1.7%	2.2%	1.9%	1.9%	1.9%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	8.8%	8.2%	7.8%	7.7%	9.5%	9.0%	10.4%	7.6%	9.2%	9.0%	10.5%	11.3%	9.7%	12.3%	9.2%
5 Treatment	18.2%	17.9%	19.4%	17.3%	17.1%	17.7%	18.3%	16.3%	17.7%	14.1%	14.5%	16.2%	14.5%	12.6%	16.7%
6 Cancer Control, Survivorship, and Outcomes Research	0.8%	1.2%	1.2%	1.5%	1.4%	1.4%	1.0%	2.1%	1.7%	2.0%	1.4%	2.1%	1.5%	3.5%	1.6%
others	61.0%	60.1%	59.9%	63.3%	61.7%	64.5%	57.4%	63.0%	61.1%	66.9%	64.8%	62.1%	64.2%	63.4%	62.5%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GIST の臓器別の論文数は、大腸がん、胃がん、肉腫の順と推計された。



0607 GIST 論文数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	265	257	282	289	293	256	282	271	314	334	327	334	283	95	3,882
Stomach Cancer	80	94	100	104	87	104	111	127	129	169	155	154	138	54	1,606
Sarcoma	93	112	85	103	96	77	82	100	111	108	97	93	117	29	1,303
Esophageal / Oesophageal Cancer	96	90	91	106	112	96	91	80	77	100	102	101	92	36	1,270
Gastrointestinal Tract	80	96	65	86	70	68	75	50	77	89	79	90	71	30	1,026
Not Site-Specific Cancer	11	17	20	14	15	12	26	15	15	16	18	14	19	5	217
Leukemia / Leukaemia	26	12	26	16	17	18	9	16	24	12	6	12	13	3	210
Breast Cancer	19	19	14	11	10	15	13	10	15	18	21	17	17	8	207
Kidney Cancer	16	17	17	15	12	15	14	13	12	14	11	8	7	0	171
Small Intestine Cancer	8	10	14	11	5	11	9	7	7	7	13	12	9	2	125

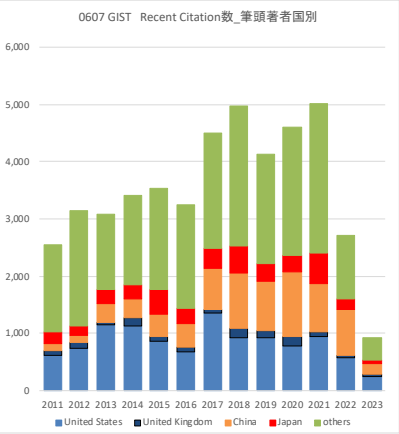
GIST の FA 別の論文数は、中国 NSFC が最も多く経年的に増加傾向が見られた。ついで、米国 NCI、わが国の JSPS の順と推計された。

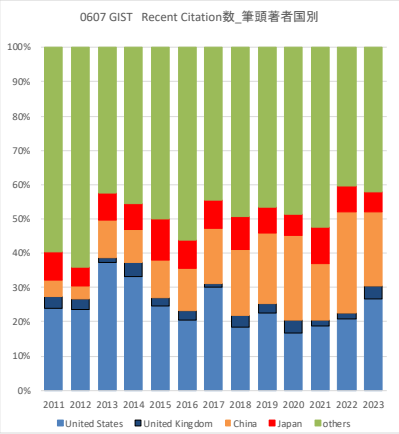


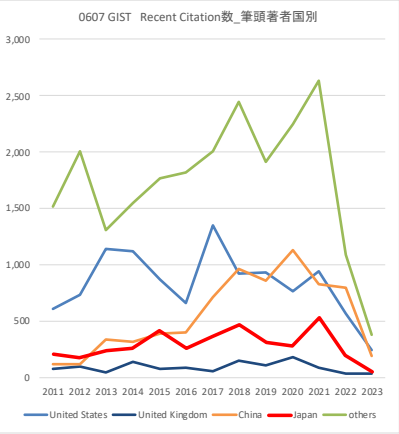
0607 GIST 論文数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Natural Science Foundation of China	2	2	16	12	10	19	23	38	52	58	51	46	50	21	400
National Cancer Institute	33	29	30	43	29	16	24	17	16	8	15	25	15	3	303
Japan Society for the Promotion of Science	17	13	20	18	12	23	21	23	16	15	15	5	5	2	205
European Commission	1	5	2	1	3	4	2	4	5	2	8	3	8	0	48
United States Department of Veterans Affairs	1	1	1	1	2	5	2	2	2	1	6	5	3	6	38
Ministry of Science and Technology of the People's Republic of China	0	2	0	1	2	2	2	3	8	4	2	3	6	0	35
National Center for Advancing Translational Sciences	0	5	4	2	2	3	3	1	3	3	2	1	1	1	31
National Research Foundation of Korea	0	0	2	2	2	1	0	2	3	2	3	1	4	1	23
National Institute for Health and Care Research	1	0	2	2	3	3	3	0	1	3	2	1	1	0	22
Eunice Kennedy Shriver National Institute of Child Health and Human Development	2	2	1	3	3	3	3	0	1	0	3	0	0	0	21

9.7.2. Recent Citation 数

GIST の引用数は経年的に増加傾向が見られた。国別の引用数は、その他の国を除くと米国と中国、日本の順に多いと推計された。



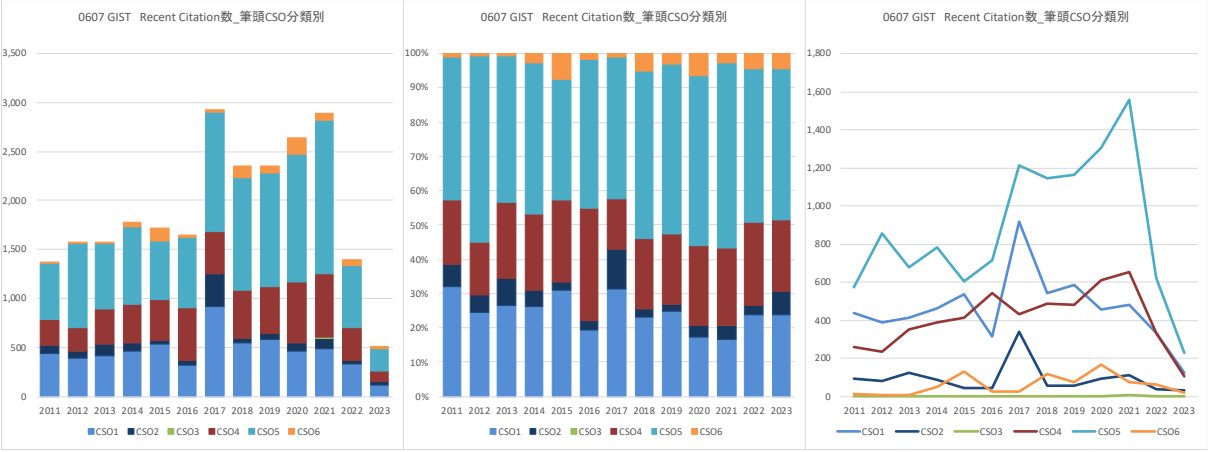




0607 GIST Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	612	736	1,144	1,125	869	667	1,349	923	931	771	941	568	245	2	10,883
United Kingdom	82	97	43	146	81	92	60	156	111	180	94	39	35	0	1,216
China	125	124	336	324	392	403	720	969	858	1,129	828	802	195	4	7,209
Japan	209	175	245	258	423	265	363	475	313	284	531	198	55	4	3,798
others	1,518	2,005	1,309	1,551	1,770	1,822	2,011	2,445	1,917	2,251	2,632	1,096	385	21	22,733
合計	2,546	3,137	3,077	3,404	3,535	3,249	4,503	4,968	4,130	4,615	5,026	2,703	915	31	45,839

0607 GIST Recent Citation数_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	24.0%	23.5%	37.2%	33.0%	24.6%	20.5%	30.0%	18.6%	22.5%	16.7%	18.7%	21.0%	26.8%	6.5%	23.7%
United Kingdom	3.2%	3.1%	1.4%	4.3%	2.3%	2.8%	1.3%	3.1%	2.7%	3.9%	1.9%	1.4%	3.8%	0.0%	2.7%
China	4.9%	4.0%	10.9%	9.5%	11.1%	12.4%	16.0%	19.5%	20.8%	24.5%	16.5%	29.7%	21.3%	12.9%	15.7%
Japan	8.2%	5.6%	8.0%	7.6%	12.0%	8.2%	8.1%	9.6%	7.6%	6.2%	10.6%	7.3%	6.0%	12.9%	8.3%
others	59.6%	63.9%	42.5%	45.6%	50.1%	56.1%	44.7%	49.2%	46.4%	48.8%	52.4%	40.5%	42.1%	67.7%	49.6%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

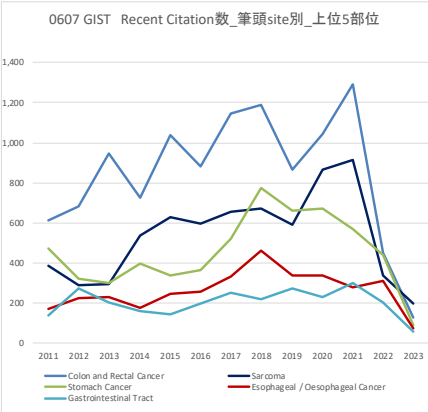
GIST の CSO 分類別の引用数は、CSO5 Treatment が最も多く、ついで CSO1 Biology、CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



0607 GIST Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	438	387	416	464	534	318	917	543	584	459	483	332	122	4	6,001
2 Etiology	91	81	125	89	42	47	340	56	54	92	114	40	35	2	1,208
3 Prevention	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
4 Early Detection, Diagnosis, and Prognosis	258	237	350	391	411	545	429	485	479	612	653	336	107	2	5,295
5 Treatment	574	856	676	785	604	715	1,211	1,145	1,166	1,308	1,558	623	227	6	11,454
6 Cancer Control, Survivorship, and Outcomes Research	13	10	8	49	128	27	25	121	74	169	74	61	23	2	784
others	1,172	1,566	1,502	1,626	1,816	1,597	1,581	2,618	1,773	1,975	2,139	1,311	401	15	21,092
合計	2,546	3,137	3,077	3,404	3,535	3,249	4,503	4,968	4,130	4,615	5,026	2,703	915	31	45,839

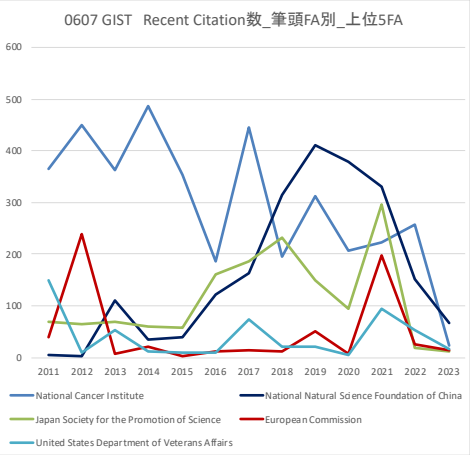
0607 GIST Recent Citation数_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	17.2%	12.3%	13.5%	13.6%	15.1%	9.8%	20.4%	10.9%	14.1%	9.9%	9.6%	12.3%	13.3%	12.9%	13.1%
2 Etiology	3.6%	2.6%	4.1%	2.6%	1.2%	1.4%	7.6%	1.1%	1.3%	2.0%	2.3%	1.5%	3.8%	6.5%	2.6%
3 Prevention	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
4 Early Detection, Diagnosis, and Prognosis	10.1%	7.6%	11.4%	11.5%	11.6%	16.8%	9.5%	9.8%	11.6%	13.3%	13.0%	12.4%	11.7%	6.5%	11.6%
5 Treatment	22.5%	27.3%	22.0%	23.1%	17.1%	22.0%	26.9%	23.0%	28.2%	28.3%	31.0%	23.0%	24.8%	19.4%	25.0%
6 Cancer Control, Survivorship, and Outcomes Research	0.5%	0.3%	0.3%	1.4%	3.6%	0.8%	0.6%	2.4%	1.8%	3.7%	1.5%	2.3%	2.5%	6.5%	1.7%
others	46.0%	49.9%	48.8%	47.8%	51.4%	49.2%	35.1%	52.7%	42.9%	42.8%	42.6%	48.5%	43.8%	48.4%	46.0%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GIST の臓器別の引用数は、大腸がんが最も多く、ついで肉腫、胃がんの順と推計された。



0607 GIST Recent Citation数_筆頭site別_上位5部位	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Colon and Rectal Cancer	613	682	946	724	1,040	882	1,148	1,191	867	1,045	1,289	449	127	6	11,009
Sarcoma	385	289	297	535	627	597	657	674	590	864	915	336	200	9	6,975
Stomach Cancer	472	320	298	397	337	364	520	772	663	670	568	438	88	2	5,909
Esophageal / Oesophageal Cancer	170	224	230	176	247	257	331	460	338	337	281	313	75	2	3,441
Gastrointestinal Tract	138	271	206	160	143	196	254	217	271	231	299	204	56	0	2,646
Not Site-Specific Cancer	11	16	109	359	36	42	462	143	195	158	144	221	39	0	1,935
Leukemia / Leukaemia	129	42	83	195	46	190	26	147	112	66	24	54	23	0	1,137
Kidney Cancer	91	65	69	117	75	64	82	150	62	117	57	10	4	0	963
Breast Cancer	41	31	31	136	29	59	41	41	30	99	265	70	27	0	900
Bone Cancer, Osteosarcoma / Malignant Fibrous Histiocytoma	17	244	4	2	1	13	99	168	117	19	32	19	10	0	745

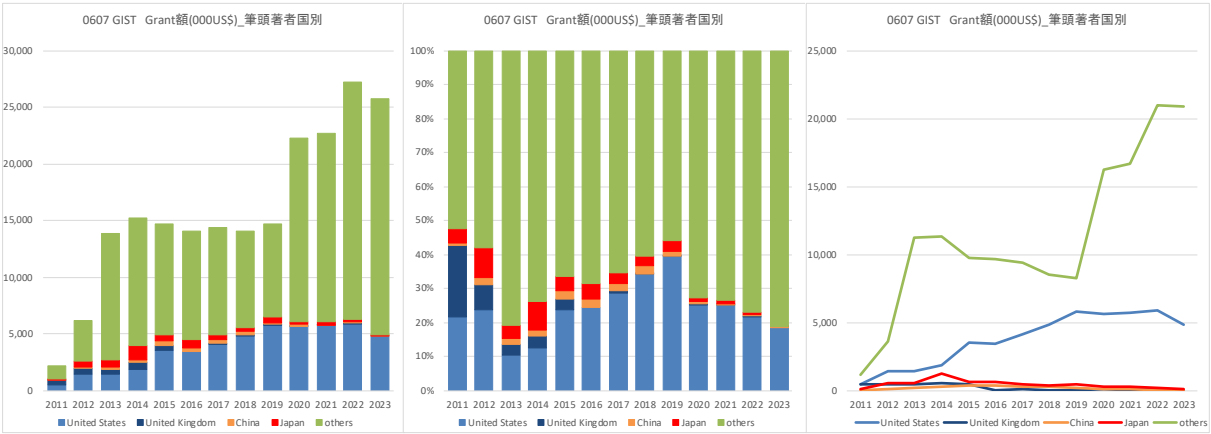
GIST の FA 別の引用数は、米国 NCI が最も多く、ついで中国 NSFC、わが国の JSPS が多いと推計された。



0607 GIST Recent Citation数_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
National Cancer Institute	364	449	362	487	353	185	446	196	312	207	223	257	22	0	3,863
National Natural Science Foundation of China	4	2	111	34	39	122	162	315	412	379	331	151	67	2	2,131
Japan Society for the Promotion of Science	70	64	68	59	57	161	187	233	150	94	295	18	11	2	1,469
European Commission	38	238	6	20	2	12	14	12	51	7	198	26	13	0	637
United States Department of Veterans Affairs	150	9	53	11	10	10	73	20	21	5	95	52	17	8	534
National Center for Advancing Translational Sciences	0	19	34	11	69	57	97	5	10	16	43	16	0	0	377
Ministry of Science and Technology of the People's Republic of China	0	2	0	9	9	20	8	25	89	22	21	154	8	0	367
Eunice Kennedy Shriver National Institute of Child Health and Human Development	16	38	46	42	15	133	52	0	0	0	18	0	0	0	360
Department of Health and Social Care	0	0	3	0	31	0	0	55	13	96	43	0	0	0	241
National Heart Lung and Blood Institute	66	6	22	0	9	0	4	0	0	11	0	0	34	1	153

9.7.3. Grant(000US$)額

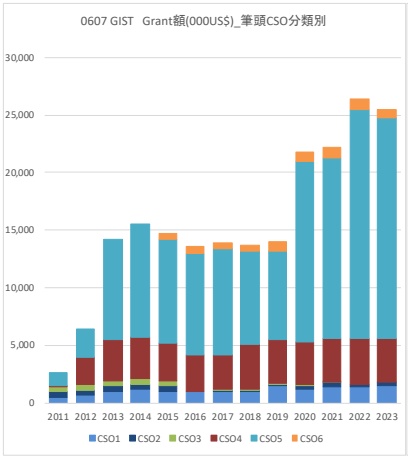
GIST の研究費総額が横ばいであったが、2020 年以降大きく増加傾向が見られた。国別の研究費配分額は、その他の国を除くと米国が最も多く、ついでわが国と推計された。

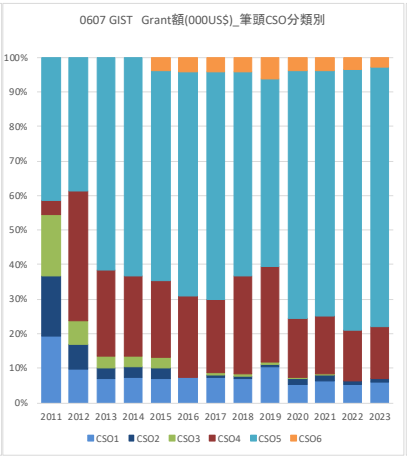


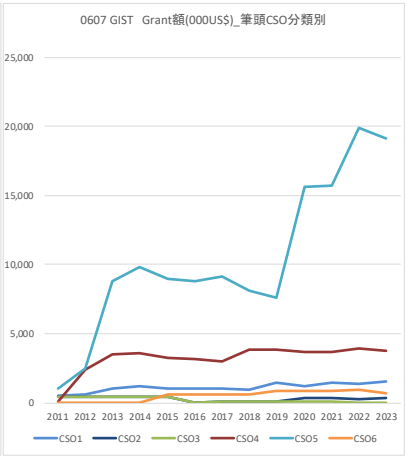
0607 GIST Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	465	1,451	1,426	1,885	3,513	3,415	4,107	4,852	5,799	5,596	5,719	5,896	4,791	4,432	53,346
United Kingdom	456	456	456	564	456	0	84	2	11	84	1	82	0	0	2,652
China	21	132	225	271	368	375	304	316	199	128	63	43	22	0	2,467
Japan	91	538	542	1,260	582	646	454	402	462	253	259	202	70	24	5,785
others	1,133	3,570	11,246	11,291	9,788	9,622	9,395	8,537	8,223	16,259	16,663	20,949	20,913	392	147,982
合計	2,166	6,148	13,895	15,272	14,706	14,058	14,345	14,109	14,692	22,320	22,705	27,172	25,796	4,848	212,232

0607 GIST Grant額(000US$)_筆頭著者国別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
United States	21.4%	23.6%	10.3%	12.3%	23.9%	24.3%	28.6%	34.4%	39.5%	25.1%	25.2%	21.7%	18.6%	91.4%	25.1%
United Kingdom	21.0%	7.4%	3.3%	3.7%	3.1%	0.0%	0.6%	0.0%	0.1%	0.4%	0.0%	0.3%	0.0%	0.0%	1.2%
China	1.0%	2.1%	1.6%	1.8%	2.5%	2.7%	2.1%	2.2%	1.4%	0.6%	0.3%	0.2%	0.1%	0.0%	1.2%
Japan	4.2%	8.8%	3.9%	8.2%	4.0%	4.6%	3.2%	2.9%	3.1%	1.1%	1.1%	0.7%	0.3%	0.5%	2.7%
others	52.3%	58.1%	80.9%	73.9%	66.6%	68.4%	65.5%	60.5%	56.0%	72.8%	73.4%	77.1%	81.1%	8.1%	69.7%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GIST の CSO 分類別の研究費配分額は、CSO5 Treatment が最も多く経年的にも増加傾向が顕著であった。ついで CSO4 Early Detection, Diagnosis and Prognosis が多いと推計された。



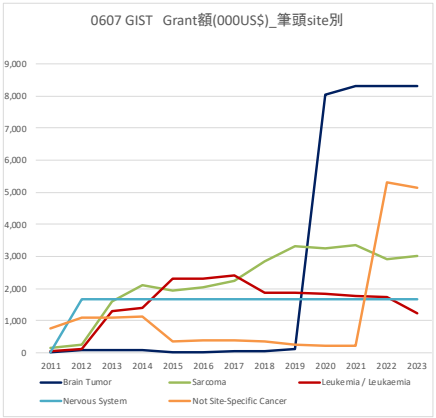




0607 GIST Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	495	633	992	1,166	1,024	1,006	1,008	979	1,463	1,169	1,418	1,399	1,499	1,177	15,426
2 Etiology	456	456	456	456	456	0	92	92	92	330	330	238	317	317	4,086
3 Prevention	456	456	456	456	456	0	92	92	92	92	92	0	0	0	2,738
4 Early Detection, Diagnosis, and Prognosis	106	2,411	3,539	3,631	3,262	3,166	2,988	3,864	3,869	3,705	3,718	3,919	3,778	1,679	43,636
5 Treatment	1,068	2,502	8,770	9,823	8,983	8,825	9,169	8,109	7,631	15,645	15,719	19,862	19,144	763	136,013
6 Cancer Control, Survivorship, and Outcomes Research	0	0	0	0	563	563	563	570	870	870	870	963	686	680	7,200
others	41	146	138	196	418	498	525	495	946	779	828	1,063	489	349	6,910
合計	2,166	6,148	13,895	15,272	14,706	14,058	14,345	14,109	14,692	22,320	22,705	27,172	25,796	4,848	212,232

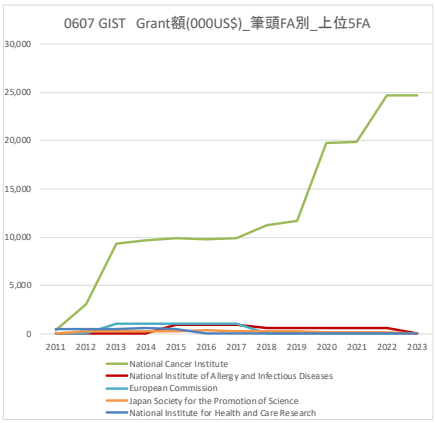
0607 GIST Grant額(000US$)_筆頭CSO分類別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
1 Biology	22.9%	10.3%	7.1%	7.6%	7.0%	7.2%	7.0%	6.9%	10.0%	5.2%	6.2%	5.1%	5.8%	24.3%	7.3%
2 Etiology	21.0%	7.4%	3.3%	3.0%	3.1%	0.0%	0.6%	0.7%	0.6%	1.5%	1.5%	0.9%	1.2%	6.5%	1.9%
3 Prevention	21.0%	7.4%	3.3%	3.0%	3.1%	0.0%	0.6%	0.7%	0.6%	0.4%	0.4%	0.0%	0.0%	0.0%	1.3%
4 Early Detection, Diagnosis, and Prognosis	4.9%	39.2%	25.5%	23.8%	22.2%	22.5%	20.8%	27.4%	26.3%	16.6%	16.4%	14.4%	14.6%	34.6%	20.6%
5 Treatment	49.3%	40.7%	63.1%	64.3%	61.1%	62.8%	63.9%	57.5%	51.9%	70.1%	69.2%	73.1%	74.2%	15.7%	64.1%
6 Cancer Control, Survivorship, and Outcomes Research	0.0%	0.0%	0.0%	0.0%	3.8%	4.0%	3.9%	4.0%	5.9%	3.9%	3.8%	3.5%	2.7%	14.0%	3.4%
others	1.9%	2.4%	1.0%	1.3%	2.8%	3.5%	3.7%	3.5%	6.4%	3.5%	3.6%	3.9%	1.9%	7.2%	3.3%
合計	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GIST の臓器別の研究費配分額は、脳腫瘍、肉腫、白血病の順に多いと推計された。



0607 GIST Grant額(000US$)_筆頭site別	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計
Brain Tumor	0	74	87	87	12	0	35	35	110	8,033	8,306	8,306	8,306	273	33,666
Sarcoma	141	261	1,615	2,115	1,943	2,038	2,229	2,841	3,306	3,246	3,349	2,918	3,022	2,709	31,734
Leukemia / Leukaemia	36	119	1,299	1,413	2,322	2,322	2,419	1,879	1,879	1,826	1,756	1,746	1,240	86	20,341
Nervous System	0	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	0	20,003
Not Site-Specific Cancer	770	1,089	1,101	1,118	359	373	372	353	242	208	208	5,302	5,140	452	17,086
Colon and Rectal Cancer	481	659	703	908	1,526	991	872	881	719	703	791	862	680	661	11,437
Breast Cancer	0	431	431	889	194	286	462	460	434	434	434	155	0	0	4,608
Melanoma	133	561	561	561	561	428	428	0	0	0	0	0	0	0	3,233
Kidney Cancer	42	50	42	0	0	0	0	204	204	442	442	238	238	238	2,141
Gastrointestinal Tract	127	194	292	320	252	190	131	90	90	22	23	23	22	0	1,775

GIST の FA 別の研究費配分額は、米国 NCI、米国 National Institute of Allergy and Infectious Diseases、European Commission が多いと推計された。



0607 GIST Grant額(000US$)_筆頭FA別_上位5FA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	合計	Funder Country
National Cancer Institute	408	3,114	9,364	9,638	9,869	9,772	9,894	11,188	11,629	19,755	19,853	24,675	24,684	3,872	167,715	United States
National Institute of Allergy and Infectious Diseases	0	0	0	0	992	992	992	592	592	592	592	592	0	0	5,934	United States
European Commission	0	0	1,061	1,084	1,084	1,084	1,084	23	0	0	0	0	0	0	5,420	Belgium
Japan Society for the Promotion of Science	91	218	221	256	303	353	309	257	271	166	173	162	70	24	2,875	Japan
National Institute for Health and Care Research	456	456	456	564	456	0	84	0	0	84	0	81	0	0	2,637	United Kingdom
National Natural Science Foundation of China	21	132	225	248	345	352	304	316	199	128	63	43	22	0	2,398	China
Japan Agency for Medical Research and Development	0	0	0	0	0	187	187	391	391	391	391	0	0	0	1,936	Japan
National Institute of General Medical Sciences	0	0	0	0	0	0	0	0	0	0	0	444	444	444	1,331	United States
European Research Council	0	0	0	0	0	0	0	0	0	0	273	273	273	273	1,093	Belgium
National Center for Advancing Translational Sciences	0	0	0	0	167	167	167	167	167	0	0	0	0	0	836	United States

9.7.4. 主要論文、引用、研究費

＜論文＞

Publication: 0607 GIST

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Recent advances for treatment of upper gastrointestinal malignancy	Sestito, Michael; Pratt, Hillary; Schmidt, Carl; Thomay, Alan	Journal of Surgical Oncology	United States	2023	2	Review Article
2	The association of genitourinary cancer among Saudi patients with gastrointestinal stromal tumors and a systematic literature review	Seyam, Raouf; Chaer, Kenan Abou; Abouelkhair, Ahmed; Almouh, Arwa; Alzahrani, Othman; Sayed, Ahmed Gamal; Alghafees, Mohammad; Alhamidi, Razan A.; Al-Gonaim, Ali; Al-Hussain, Turki; Amin, Tarek Mahmoud; Altaweel, Waleed	Scientific Reports	Saudi Arabia	2023	0	Review Article
3	New Tyrosine Kinase Inhibitors for the Treatment of Gastrointestinal Stromal Tumors	Serrano, César; Bauer, Sebastian	Current Oncology Reports	Spain	2022	8	Review Article
4	Analysis of microbiome in gastrointestinal stromal tumors: Looking for different players in tumorigenesis and novel therapeutic options	Ravegnini, Gloria; Fosso, Bruno; Ricci, Riccardo; Gorini, Francesca; Turroni, Silvia; Serrano, Cesar; Pilco-Janeta, Daniel F.; Zhang, Qianqian; Zanotti, Federica; De Robertis, Mariangela; Nannini, Margherita; Pantaleo, Maria Abbondanza; Hrelia, Patrizia; Angelini, Sabrina	Cancer Science	United States	2022	3	Research Article
5	Dataset for reporting of gastrointestinal stromal tumours: recommendations from the International Collaboration on Cancer Reporting (ICCR)	Hornick, Jason L; Webster, Fleur; Dei Tos, Angelo Paolo; Hemmings, Chris; Miettinen, Markku; Oda, Yoshinao; Raut, Chandrajit P; Rubin, Brian P; Von Mehren, Margaret; Wardelmann, Eva; Fletcher, Christopher D M	Histopathology	Germany	2022	1	Review Article
6	Fibrinogen-like protein 2 in gastrointestinal stromal tumour	Pulkka, Olli-Pekka; Viisanen, Leevi; Tynninen, Olli; Laaksonen, Maria; Reichardt, Peter; Reichardt, Annette; Eriksson, Mikael; Hall, Kirsten Sundby; Wardelmann, Eva; Nilsson, Bengt; Sihto, Harri; Joensuu, Heikki	Journal of Cellular and Molecular Medicine	Germany	2022	2	Research Article
7	Advances in immunology and immunotherapy for mesenchymal gastrointestinal cancers	Li, Bo; Chen, Hui; Yang, Shaohua; Chen, Feng; Xu, Liangliang; Li, Yan; Li, Mingzhe; Zhu, Chengming; Shao, Fangyuan; Zhang, Xinhua; Deng, Chuxia; Zeng, Leli; He, Yulong; Zhang, Changhua	Molecular Cancer	China	2023	12	Review Article
8	SEOM-GEIS clinical guideline for gastrointestinal stromal tumors (2022)	Serrano, César; Álvarez, Rosa; Carrasco, Juan Antonio; Marquina, Gloria; Martínez-García, Jerónimo; Martínez-Marín, Virginia; Sala, María Ángeles; Sebio, Ana; Sevilla, Isabel; Martín-Broto, Javier	Clinical and Translational Oncology	Spain	2023	2	Research Article
9	Progress in the Treatment of Small Intestine Cancer	Symons, Rebecca; Daly, Daniel; Gandy, Robert; Goldstein, David; Aghmesheh, Morteza	Current Treatment Options in Oncology	Australia	2023	6	Review Article
10	Jejunal gastrointestinal stromal tumour masquerading as an ovarian cancer: A case report.	Sohail, M; Chua, R H B; Sim, S K; Nik Azim, N A	Medical Journal of Malaysia	Malaysia	2022	1	Research Article

＜引用＞

Citation: 0607 GIST

	Title	Authors	Source title	AuthorCountryFirst	PubYear	Recent citations	Document Type
1	Global epidemiology of gastrointestinal stromal tumours (GIST): A systematic review of population-based cohort studies	Søreide, Kjetil; Sandvik, Oddvar M.; Søreide, Jon Arne; Giljaca, Vanja; Jureckova, Andrea; Bulusu, V. Ramesh	Cancer Epidemiology	Norway	2015	264	Review Article
2	Efficacy and safety of regorafenib for advanced gastrointestinal stromal tumours after failure of imatinib and sunitinib (GRID): an international, multicentre, randomised, placebo-controlled, phase 3 trial	Demetri, George D; Reichardt, Peter; Kang, Yoon-Koo; Blay, Jean-Yves; Rutkowski, Piotr; Gelderblom, Hans; Hohenberger, Peter; Leahy, Michael; von Mehren, Margaret; Joensuu, Heikki; Badalamenti, Giuseppe; Blackstein, Martin; Le Cesne, Axel; Schöffski, Patrick; Maki, Robert G; Bauer, Sebastian; Nguyen, Binh Bui; Xu, Jianming; Nishida, Toshirou; Chung, John; Kappeler, Christian; Kuss, Iris; Laurent, Dirk; Casali, Paolo G; investigators, on behalf of all GRID study	The Lancet	Belgium	2012	240	Research Article
3							
4	WHO classification of soft tissue tumours: an update based on the 2013 (4th) edition	Jo, Vickie Y.; Fletcher, Christopher D.M.	Pathology	United States	2014	233	Research Article
5	Tumor immunoevasion by the conversion of effector NK cells into type 1 innate lymphoid cells	Gao, Yulong; Souza-Fonseca-Guimaraes, Fernando; Bald, Tobias; Ng, Susanna S; Young, Arabella; Ngiow, Shin Foong; Rautela, Jai; Straube, Jasmin; Waddell, Nic; Blake, Stephen J; Yan, Juming; Bartholin, Laurent; Lee, Jason S; Vivier, Eric; Takeda, Kazuyoshi; Messaoudene, Meriem; Zitvogel, Laurence; Teng, Michele W L; Belz, Gabrielle T; Engwerda, Christian R; Huntington, Nicholas D; Nakamura, Kyohei; Hölzel, Michael; Smyth, Mark J	Nature Immunology	Australia	2017	195	Research Article
6	Risk of recurrence of gastrointestinal stromal tumour after surgery: an analysis of pooled population-based cohorts	Joensuu, Heikki; Vehtari, Aki; Riihimäki, Jaakko; Nishida, Toshirou; Steigen, Sonja E; Brabec, Peter; Plank, Lukas; Nilsson, Bengt; Cirilli, Claudia; Braconi, Chiara; Bordoni, Andrea; Magnusson, Magnus K; Linke, Zdenek; Sufliarsky, Jozef; Federico, Massimo; Jonasson, Jon G; Dei Tos, Angelo Paolo; Rutkowski, Piotr	The Lancet Oncology	Norway	2011	192	Research Article
7	Soft Tissue Sarcoma, Version 2.2018, NCCN Clinical Practice Guidelines in Oncology.	von Mehren, Margaret; Randall, R Lor; Benjamin, Robert S; Boles, Sarah; Bui, Marilyn M; Ganjoo, Kristen N; George, Suzanne; Gonzalez, Ricardo J; Heslin, Martin J; Kane, John M; Keedy, Vicki; Kim, Edward; Koon, Henry; Mayerson, Joel; McCarter, Martin; McGarry, Sean V; Meyer, Christian; Morris, Zachary S; O'Donnell, Richard J; Pappo, Alberto S; Paz, I Benjamin; Petersen, Ivy A; Pfeifer, John D; Riedel, Richard F; Ruo, Bernice; Schuetze, Scott; Tap, William D; Wayne, Jeffrey D; Bergman, Mary Anne; Scavone, Jillian L	Journal of the National Comprehensive Cancer Network		2018	189	Research Article
8	Descriptive epidemiology of sarcomas in Europe: Report from the RARECARE project	Stiller, C.A.; Trama, A.; Serraino, D.; Rossi, S.; Navarro, C.; Chirlaque, M.D.; Casali, P.G.; Group, The RARECARE Working	European Journal of Cancer	Italy	2012	188	Research Article
9	Gastrointestinal stromal tumours	Blay, Jean-Yves; Kang, Yoon-Koo; Nishida, Toshiroo; von Mehren, Margaret	Nature Reviews Disease Primers	Japan	2021	183	Review Article
10	Gastrointestinal stromal tumour	Joensuu, Heikki; Hohenberger, Peter; Corless, Christopher L	The Lancet	United States	2013	173	Review Article

＜研究費＞

Grant: 0607 GIST

	Title translated	Researchers	Funder	Funder Country	Funding amount in USD	Start Year	End Year
1	Pediatric Oncology Branch Clinical Care and Education	JOHN GLOD, MELINDA MERCHANT	National Cancer Institute	United States	54,017,148	2013	2023
2	MyPART: My Pediatric and Adult Rare Tumor Network – Cures	BRIGITTE WIDEMANN	National Cancer Institute	United States	32,131,836	2020	2023
3	Immunohistochemical and genomic analysis of tumors	MARKKU MIETTINEN, FREDERIC BARR	National Cancer Institute	United States	20,003,436	2012	2023
4	Pediatric Oncology Branch Behavioral Science Core	JOHN GLOD, MELINDA MERCHANT	National Cancer Institute	United States	12,694,644	2013	2023
5	Singer SPORE Supplement	SAMUEL SINGER, CRISTINA R ANTONESCU, LI-XUAN QIN, WILLIAM D. TAP, ANDREW KOFF, MARC LADANYI, MEERA HAMEED	National Cancer Institute	United States	11,754,672	2018	2024
6	Surgical Oncology Program Training Program	ANDREW BLAKELY	National Cancer Institute	United States	8,567,595	2022	2023
7	Behavioral and Psychosocial Effects on Study Outcomes in End-Stage Cancer Treatment (BEST End-Stage Cancer Study)	HOLLY GWEN PRIGERSON	National Cancer Institute	United States	8,449,591	2015	2029
8	Closed-loop Molecular Environment for Minimally Invasive Treatment of Patients with metastatic Gastrointestinal Stromal Tumours	0	European Commission	Belgium	5,303,964	2013	2017
9	Development of Gleevec for TB and TB/HIV	DANIEL KALMAN, GREGORY P. BISSON, TAWANDA GUMBO, DEEPAK KAUSHAL	National Institute of Allergy and Infectious Diseases	United States	4,733,613	2015	2022
10	Greater west canceropole programme for 2011-2014	François-Régis BATAILLE	French National Cancer Institute	France	3,079,869	2011	2014

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