

生命科学系研究における APCの事例紹介

大学共同利用機関法人 情報・システム研究機構 データサイエンス共同利用基盤施設
ライフサイエンス統合データベースセンター (DBCLS)

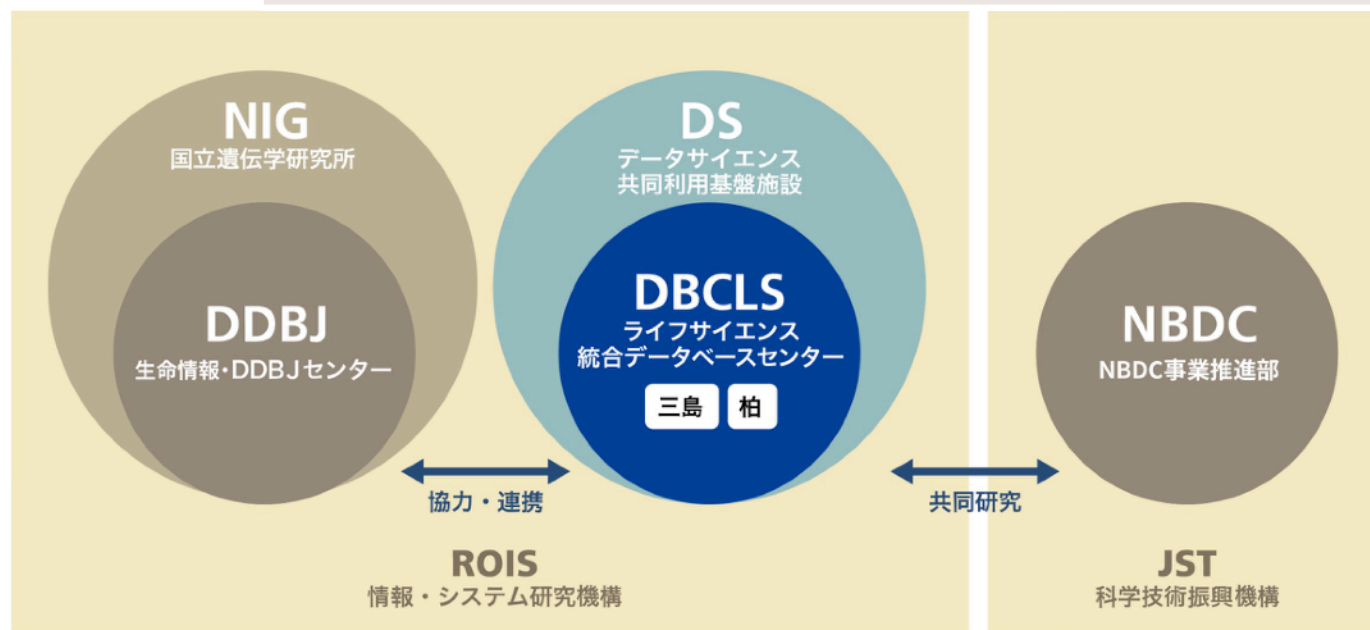
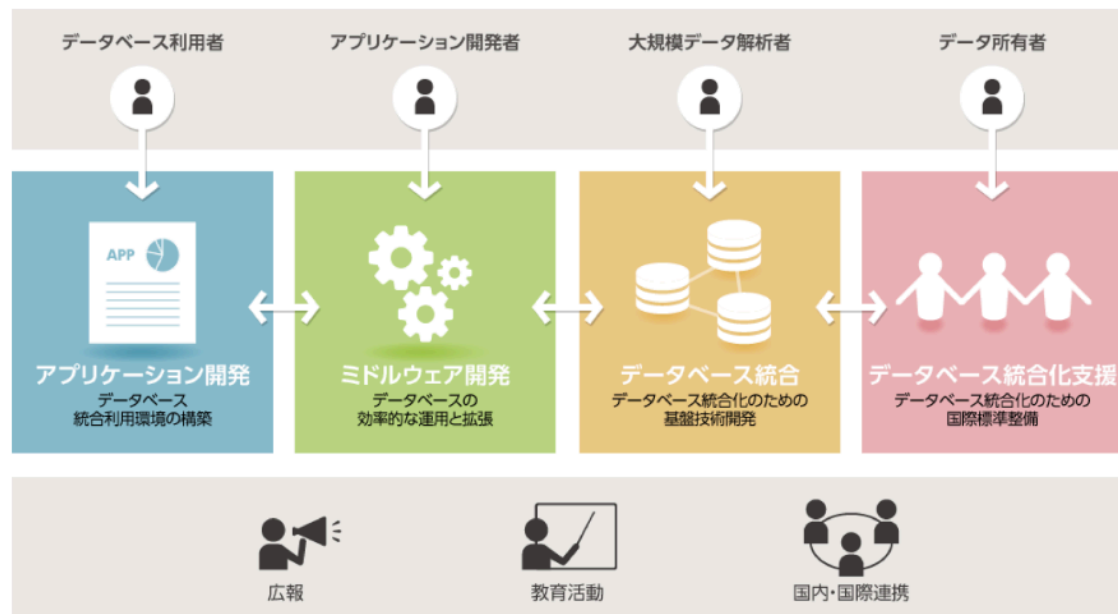
小野 浩雅

DBCLS (ライフサイエンス統合データベースセンター)

情報・システム研究機構(ROIS)に2007年設立

生命科学分野のデータベースの整理・利活用

生命科学のデータサイエンス化に資する
データベース統合のための技術開発



自己紹介



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生命科学分野の有用なデータベース(DB)やウェブツールの活用法を動画で紹介

<https://togotv.dbcls.jp/>

開発者@RefEx

正常組織や細胞株の遺伝子発現データを簡単に検索できるDB

<https://refex.dbcls.jp/>

講師@統合データベース講習会(AJACS)

生命科学分野のDB統合を担う
人材育成(主に遺伝子発現解析を担当)

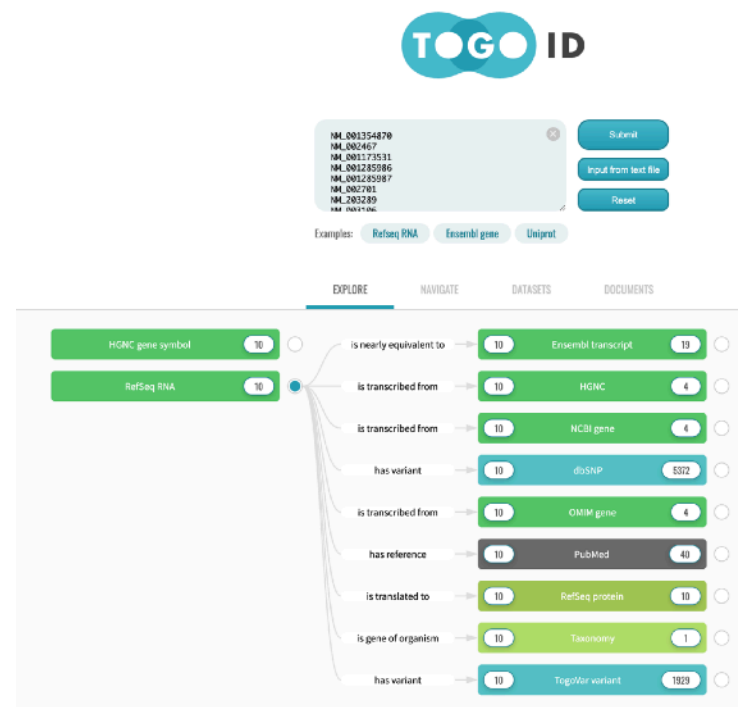
<https://github.com/AJACS-training/>



TogolD <https://togoid.dbcls.jp/>

課題

- 生命科学分野におけるID変換の必要性
 - バイオインフォマティクスで様々なデータベース(DB)を活用するには異なるID間のリンクが重要
 - 使いたい解析ツールが手元にあるIDでは使えない
 - 等価なものに対するID間で変換したい
 - 例: NCBI Gene ID ↔ Ensembl Gene ID
 - 関連する情報を取得したい
 - 遺伝子が関与する疾患、化合物が関与するパスウェイ etc.
- 既存のID変換サービスの問題点
 - 対象としているDBの範囲が限られる
 - 大元のDBの更新に追従していない
 - プログラムから利用できるAPIが提供されていない



TogolD のトップページ

対応

- これらを解決するID変換サービスとしてTogolDを開発

Article Processing Charge for a TogoID paper (24/07/2022)

Bioinformatics, 38(17), 2022, 4194–4199
<https://doi.org/10.1093/bioinformatics/btac491>
Advance Access Publication Date: 8 July 2022
Original Paper

OXFORD

Databases and ontologies

TogoID: an exploratory ID converter to bridge biological datasets

Shuya Ikeda [†], Hiromasa Ono [†], Tazro Ohta , Hirokazu Chiba , Yuki Naito ,
Yuki Moriya , Shuichi Kawashima , Yasunori Yamamoto , Shinobu Okamoto,
Susumu Goto  and Toshiaki Katayama ^{*}

Database Center for Life Science, Joint Support-Center for Data Science Research, Research Organization of Information and Systems, University of Tokyo Kashiwanoha-campus Station Satellite 6F, Kashiwa, Chiba 277-0871, Japan

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Associate Editor: Peter Robinson

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- Manuscript Copyright Agreement Confirmation (24/07/2022)
- For your article you have selected the **Open Access Licence - CC BY option**. Please review the text of the copyright agreement. By confirming below, you are confirming to OUP that you have agreed to the terms of this copyright agreement for your article.
- There is a **£2,260 GBP/\$3,582 USD/€2,921 EURO** charge, subject to tax, for having your article published in *Bioinformatics* using the open access model. Discounts may apply. See the Oxford Open pages for details.
Journal: *Bioinformatics*
DOI: 10.1093/bioinformatics/btac491
Title: TogoID: an exploratory ID converter to bridge biological datasets

\$3,582 USD × 136.31(USD/JPY) = 488,262 円

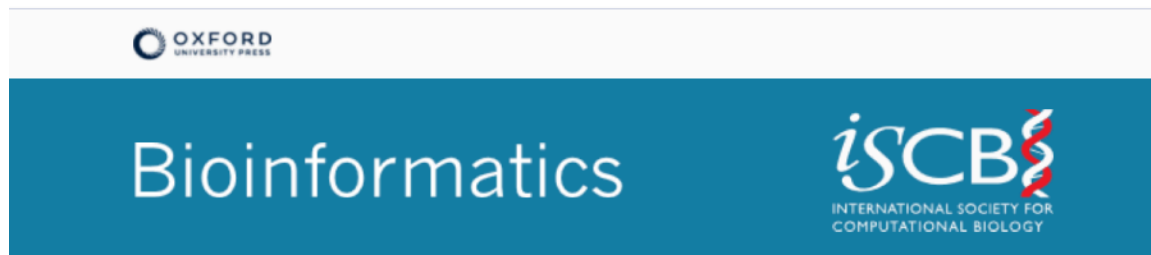
(£2,260 GBP × 163.39(GBP/JPY) = 369,261 円)

(€2,921 EUR × 139.09(EUR/JPY) = 406,282 円)

Bioinformatics is becoming fully open access (04/08/2022)

Bioinformatics will become fully open access January 2023.

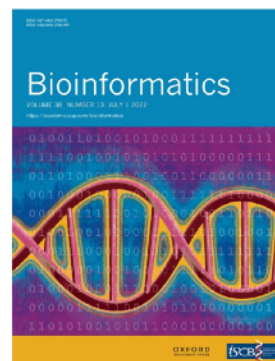
[View online](#)



Bioinformatics is becoming fully open access!

Oxford University Press (OUP) is pleased to announce that *Bioinformatics* will become a fully open access journal beginning in January 2023. OUP is mission-driven to facilitate the widest possible dissemination of high-quality research, and we embrace open access publishing to support this mission. We are thrilled that the transition of *Bioinformatics* to fully open access will expand the reach and accessibility of the field's leading journal.

Visit the journal's open access page to learn more about the timing of the change, licensing options, APCs, and more. For any remaining questions, please contact the editorial office at bioinformatics.editorialoffice@oup.com.



Article Processing Charges (APCs)

Original Articles, Application Notes, and unsolicited Reviews

Standard APC: \$3,618

ISCB member APC: \$3,075



Article Processing Charge for a RefEx paper (29/06/2017)

OPEN ACCESS Article Processing Charge (APC) Payment Form

SPRINGER NATURE

JOURNAL: Scientific Data

Scientific Data is an open access journal, where all journal content is permanently available free of charge to all readers. Articles are therefore subject to an article processing charge in order to support publication costs (as detailed in the 'Instructions to Authors').

It is mandatory to send this completed form and the Open Access Licence to Publish form to the return address (details below). Your manuscript may not be processed for publication until we have received the relevant forms.

Credit terms are 30 days from receipt of invoice. Failure to pay your invoice within the stated credit term may make you liable to such penalties as restrictions on your ability to publish with Springer Nature or this title in the future, involvement of a third party debt collection agency and legal proceedings.

The APC will be charged at the following rate: ¥145,500

VAT or local taxes will be added where applicable: for details please see www.nature.com/TaxInformation

Manuscript Details

Manuscript Number:

SDATA-16-00269

Proposed Title of Article:

RefEx, a reference gene expression dataset as a web tool for the functional analysis of genes

¥ 145,500 JPY / 111.1 (USD/JPY) = \$1,310 USD



APC price list as of January 2023

ELSEVIER

Article Publishing Charge (APC) price list

All prices excluding taxes. Prices as of date: 13-Jan-2023

ISSN	Title	Business	List price *			
			USD	EUR	GBP	JPY
0092-8674	Cell	Hybrid	10,100	9,030	8,090	1,134,840
1535-6108	Cancer Cell	Hybrid	9,080	8,120	7,270	1,020,230
2451-9456	Cell Chemical Biology	Hybrid	9,080	8,120	7,270	1,020,230
1931-3128	Cell Host & Microbe	Hybrid	9,080	8,120	7,270	1,020,230
1550-4131	Cell Metabolism	Hybrid	9,080	8,120	7,270	1,020,230
1934-5909	Cell Stem Cell	Hybrid	9,080	8,120	7,270	1,020,230
2405-4712	Cell Systems	Hybrid	9,080	8,120	7,270	1,020,230
2451-9294	Chem	Hybrid	9,080	8,120	7,270	1,020,230
1534-5807	Developmental Cell	Hybrid	9,080	8,120	7,270	1,020,230
1074-7613	Immunity	Hybrid	9,080	8,120	7,270	1,020,230
2542-4351	Joule	Hybrid	9,080	8,120	7,270	1,020,230
2590-2385	Matter	Hybrid	9,080	8,120	7,270	1,020,230
1097-2765	Molecular Cell	Hybrid	9,080	8,120	7,270	1,020,230
0896-6273	Neuron	Hybrid	9,080	8,120	7,270	1,020,230
0969-2126	Structure	Hybrid	9,080	8,120	7,270	1,020,230
2666-979X	Cell Genomics	Open access	8,900	7,960	7,130	1,000,000
2667-1093	Chem Catalysis	Hybrid	8,900	7,960	7,130	1,000,000
2666-6340	Med	Hybrid	8,900	7,960	7,130	1,000,000
2590-3322	One Earth	Hybrid	8,900	7,960	7,130	1,000,000
2666-3899	Patterns	Open access	8,900	7,960	7,130	1,000,000
0960-9822	Current Biology	Hybrid	6,830	6,110	5,470	767,420
0140-6736	The Lancet	Hybrid	6,830	6,230	5,470	767,420

APC price list as of January 2023

Wiley Article Publication Charges for Hybrid Open Access Journals

Updated: 30 January 2023

Journal Title	Online ISSN	Full Article Publication Charge		
		USD \$	GBP £	EUR €
EMBO Reports	14693178	\$6,100	£ 4,950	€5,500
The EMBO Journal	14602075	\$6,100	£ 4,950	€5,500
New Phytologist	14698137	\$5,510	£ 3,680	€4,620
Clinical Pharmacology & Therapeutics	15326535	\$4,000	£ 5,400	€4,600
Pest Management Science	15264998	\$5,100	£ 3,400	€4,600
Advanced Functional Materials	16163028	\$5,250	£ 3,960	€4,580
Advanced Materials	15214095	\$5,250	£ 3,960	€4,580
Small	16136829	\$5,250	£ 3,960	€4,580
Current Protocols	26911299	\$4,890	£ 3,910	€4,430
Advanced Energy Materials	16146840	\$5,250	£ 3,500	€4,380
Arthritis & Rheumatology	23265205	\$4,940	£ 3,700	€4,320
Molecular Ecology	1365294X	\$4,940	£ 3,700	€4,320
The Journal of Comparative Neurology	10969861	\$4,940	£ 3,700	€4,320
Allergy	13989995	\$4,900	£ 3,650	€4,300
Current Protocols Essential Laboratory Techniques	19483430	\$5,050	£ 3,760	€4,280
Current Protocols in Bioinformatics	1934340X	\$5,050	£ 3,760	€4,280
Current Protocols in Cell Biology	19342616	\$5,050	£ 3,760	€4,280
Current Protocols in Chemical Biology	21604762	\$5,050	£ 3,760	€4,280
Current Protocols in Cytometry	19349300	\$5,050	£ 3,760	€4,280
Current Protocols in Human Genetics	19348258	\$5,050	£ 3,760	€4,280
Current Protocols in Immunology	1934368X	\$5,050	£ 3,760	€4,280

出典: <https://authorservices.wiley.com/author-resources/Journal-Authors/open-access/article-publication-charges.html>



APC price list as of January 2023

Springer Nature Hybrid Journals List 2023

APCs correct as of January 2023

Journal title	eISSN	Imprint	Default License	Main language	EUR '23	USD '23	GBP '23
Nature	1476-4687	Nature Research	CC BY	EN	9750	11690	8490
Nature Aging	2662-8465	Nature Research	CC BY	EN	9750	11690	8490
Nature Astronomy	2397-3366	Nature Research	CC BY	EN	9750	11690	8490
Nature Biomedical Engineering	2157-846X	Nature Research	CC BY	EN	9750	11690	8490
Nature Biotechnology	1546-1696	Nature Research	CC BY	EN	9750	11690	8490
Nature Cancer	2662-1347	Nature Research	CC BY	EN	9750	11690	8490
Nature Cardiovascular Research	2731-0590	Nature Research	CC BY	EN	9750	11690	8490
Nature Catalysis	2520-1158	Nature Research	CC BY	EN	9750	11690	8490
Nature Cell Biology	1476-4679	Nature Research	CC BY	EN	9750	11690	8490
Nature Chemical Biology	1552-4469	Nature Research	CC BY	EN	9750	11690	8490
Nature Chemistry	1755-4349	Nature Research	CC BY	EN	9750	11690	8490
Nature Climate Change	1758-6798	Nature Research	CC BY	EN	9750	11690	8490
Nature Computational Science	2662-8457	Nature Research	CC BY	EN	9750	11690	8490
Nature Ecology & Evolution	2397-334X	Nature Research	CC BY	EN	9750	11690	8490
Nature Electronics	2520-1131	Nature Research	CC BY	EN	9750	11690	8490
Nature Energy	2058-7546	Nature Research	CC BY	EN	9750	11690	8490
Nature Food	2662-1355	Nature Research	CC BY	EN	9750	11690	8490
Nature Genetics	1546-1718	Nature Research	CC BY	EN	9750	11690	8490
Nature Geoscience	1752-0908	Nature Research	CC BY	EN	9750	11690	8490
Nature Human Behaviour	2397-3374	Nature Research	CC BY	EN	9750	11690	8490
Nature Immunology	1529-2916	Nature Research	CC BY	EN	9750	11690	8490
Nature Machine Intelligence	2522-5839	Nature Research	CC BY	EN	9750	11690	8490
Nature Materials	1476-4660	Nature Research	CC BY	EN	9750	11690	8490
Nature Medicine	1546-170X	Nature Research	CC BY	EN	9750	11690	8490
Nature Mental Health	2731-6076	Nature Research	CC BY	EN	9750	11690	8490
Nature Metabolism	2522-5812	Nature Research	CC BY	EN	9750	11690	8490
Nature Methods	1548-7105	Nature Research	CC BY	EN	9750	11690	8490
Nature Microbiology	2058-5276	Nature Research	CC BY	EN	9750	11690	8490
Nature Nanotechnology	1748-3395	Nature Research	CC BY	EN	9750	11690	8490
Nature Neuroscience	1546-1726	Nature Research	CC BY	EN	9750	11690	8490
Nature Photonics	1749-4893	Nature Research	CC BY	EN	9750	11690	8490
Nature Physics	1745-2481	Nature Research	CC BY	EN	9750	11690	8490
Nature Plants	2055-0278	Nature Research	CC BY	EN	9750	11690	8490
Nature Structural & Molecular Biology	1545-9985	Nature Research	CC BY	EN	9750	11690	8490
Nature Sustainability	2398-9629	Nature Research	CC BY	EN	9750	11690	8490
Nature Synthesis	2731-0582	Nature Research	CC BY	EN	9750	11690	8490
Nature Water	2731-6084	Nature Research	CC BY	EN	9750	11690	8490
Oncogene	1476-5594	Springer Nature	CC BY	EN	4390	5490	3790

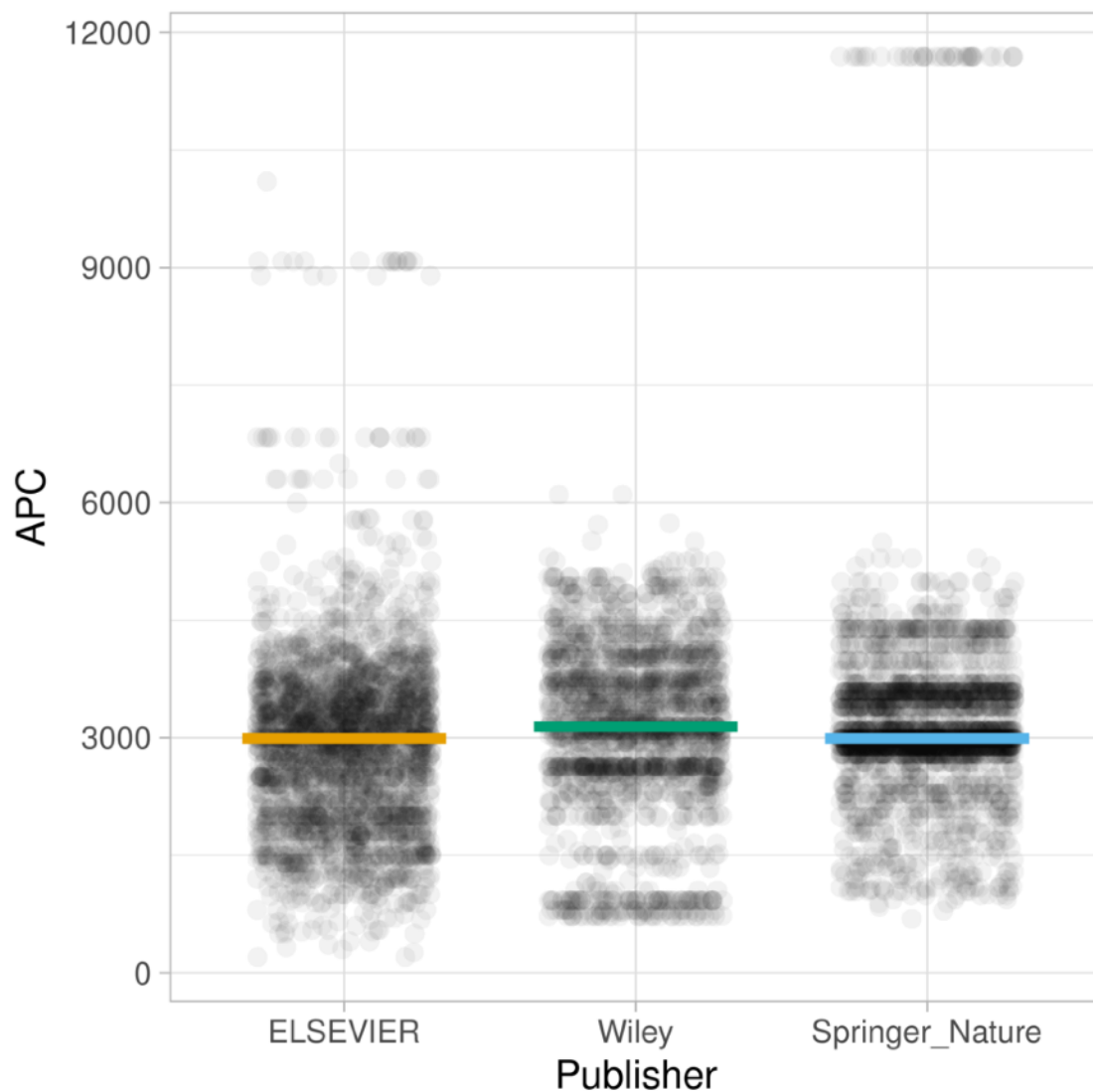
APC price list as of January 2023

Springer Nature Fully OA Journals List 2023

APCs correct as of January 2023

Journal title	eISSN	Imprint	Default license	Main language	EUR '23	USD '23	GBP '23
Nature Communications	2041-1723	Nature Research	CC BY	EN	5190	6290	4590
Genome Biology	1474-760X	BioMed Central	CC BY + CC0	EN	4290	5290	3590
Molecular Cancer	1476-4598	BioMed Central	CC BY + CC0	EN	3990	4890	3490
Blood Cancer Journal	2044-5385	Springer Nature	CC BY	EN	3790	4790	3290
Translational Psychiatry	2158-3188	Springer Nature	CC BY	EN	3590	4790	3190
Genome Medicine	1756-994X	BioMed Central	CC BY + CC0	EN	3790	4690	3190
Microbiome	2049-2618	BioMed Central	CC BY + CC0	EN	3690	4590	3190
Cell Death & Disease	2041-4889	Springer Nature	CC BY	EN	3590	4490	3090
NPG Asia Materials	1884-4057	Nature Research	CC BY	EN	3690	4490	3090
Journal of Hematology & Oncology	1756-8722	BioMed Central	CC BY + CC0	EN	3690	4390	3090
Experimental & Molecular Medicine	2092-6413	Springer Nature	CC BY	EN	3690	4290	3090
Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity	1590-1262	Springer	CC BY	EN	3190	4190	2690
Light: Science & Applications	2047-7538	Springer Nature	CC BY	EN	3090	4095	2730
Microsystems & Nanoengineering	2055-7434	Springer Nature	CC BY	EN	3490	4090	2790
Breast Cancer Research	1465-542X	BioMed Central	CC BY + CC0	EN	3190	3890	2790
Oncogenesis	2157-9024	Springer Nature	CC BY	EN	3190	3890	2690
BMC Medicine	1741-7015	BioMed Central	CC BY + CC0	EN	3090	3790	2690
Critical Care	1364-8535	BioMed Central	CC BY + CC0	EN	3190	3790	2690
Journal of Mammary Gland Biology and Neoplasia	1573-7039	Springer	CC BY	EN	2990	3790	2490
npj Genomic Medicine	2056-7944	Nature Research	CC BY	EN	3190	3790	2790
npj Quantum Information	2056-6387	Nature Research	CC BY	EN	3090	3790	2590
npj Regenerative Medicine	2057-3995	Nature Research	CC BY	EN	3190	3790	2790
Alzheimer's Research & Therapy	1758-9193	BioMed Central	CC BY + CC0	EN	2990	3690	2590
Cardiovascular Diabetology	1475-2840	BioMed Central	CC BY + CC0	EN	3090	3690	2790
Cell Communication and Signaling	1478-811X	BioMed Central	CC BY + CC0	EN	2990	3690	2590
Communications Biology	2399-3642	Nature Research	CC BY	EN	3090	3690	2690
Communications Physics	2399-3650	Nature Research	CC BY	EN	3090	3690	2690
International Journal of Oral Science	2049-3169	Springer Nature	CC BY	EN	2990	3690	2590
npj Biofilms and Microbiomes	2055-5008	Nature Research	CC BY	EN	3090	3690	2690
npj Flexible Electronics	2397-4621	Nature Research	CC BY	EN	2890	3690	2490
Communications Chemistry	2399-3669	Nature Research	CC BY	EN	2990	3590	2590

Stats for APC price of January 2023



Condition	n	mean	median
ELSEVIER	2603	2937.69	2990
Springer_Nature	2578	3203.5	2990
Wiley	1862	3134.27	3140

Preprints are now included in PubMed (Jan. 2023)

PubMed.gov search results for "covid-19 AND preprint[pt]". The search bar shows the query and a "Search" button. Below the search bar, there are buttons for "Save", "Email", "Send to", and "Display options". A green box highlights the text: "除外するときは、検索語 NOT preprint[pt]" (When excluding, use the search term NOT preprint[pt]).

NIH Preprint Pilot FAQs page. The page title is "NIH Preprint Pilot FAQs". Below the title, there is a paragraph: "The below FAQs are focused on the NIH Preprint Pilot and related NIH guidance, and are not intended to address more general questions about preprints." There are several links for "General Pilot FAQs", "NIH Investigators FAQs", and "Preprint Server FAQs".

Article page for "SARS-CoV-2 molecular testing and whole genome sequencing following RNA recovery from used BinaxNOW COVID-19 Antigen Self Tests". The article is by Phuong-Vi Nguyen, Ludy Registre Carmola, Ethan Wang, Leda Bassit, Anuradha Rao, Morgan Greenleaf, Julie A Sullivan, Greg S Martin, Wilbur A Lam, Jesse J Waggoner, and Anne Piantadosi. The article is marked as a preprint and is available for free. The page includes a "Cite" button and a "Collections" button.

NIH Preprint Pilot FAQs page (continued). The "Pilot Status" section states: "Phase 2 of the NIH Preprint Pilot launched January 30, 2023. Phase 2 includes all preprints that 1. Acknowledge direct NIH support and/or have an NIH-affiliated author; and 2. Are posted to an eligible preprint server on January 1, 2023 or later." It also mentions that preprints meeting these criteria are being added to PMC on a weekly basis and are receiving a corresponding citation in PubMed.

- NIH Preprint Pilot Phase 2 がスタート(2023年1月30日～)
 - Phase 1 では、NIHグラントのCOVID19関連研究のみ
- NIHの直接支援あるいは所属者によるすべての論文が対象
- 2023年1月1日以降にbioRxiv、medRxiv、arXiv、Research Squareに掲載されたもの
 - 現時点で700本以上
- Pubmed ID(PMID)も付与される

今後、出版社に高額なAPCを支払ってオープンアクセスにする必要がなくなる??