OPS Organización Panamericana de la Salud | Organización Mundial de la Salud Américas

BIREME
Centro Latinoamericano y del Caribe de Información en Ciencias de la Salud

V Jornada LatinREV

INNOVACIONES Y TENDENCIAS EN LA GESTIÓN EDITORIAL ACADÉMICA: RECORRIDOS EN AMÉRICA LATINA

La información científica sobre COVID-19 y la confiabilidad de los preprints

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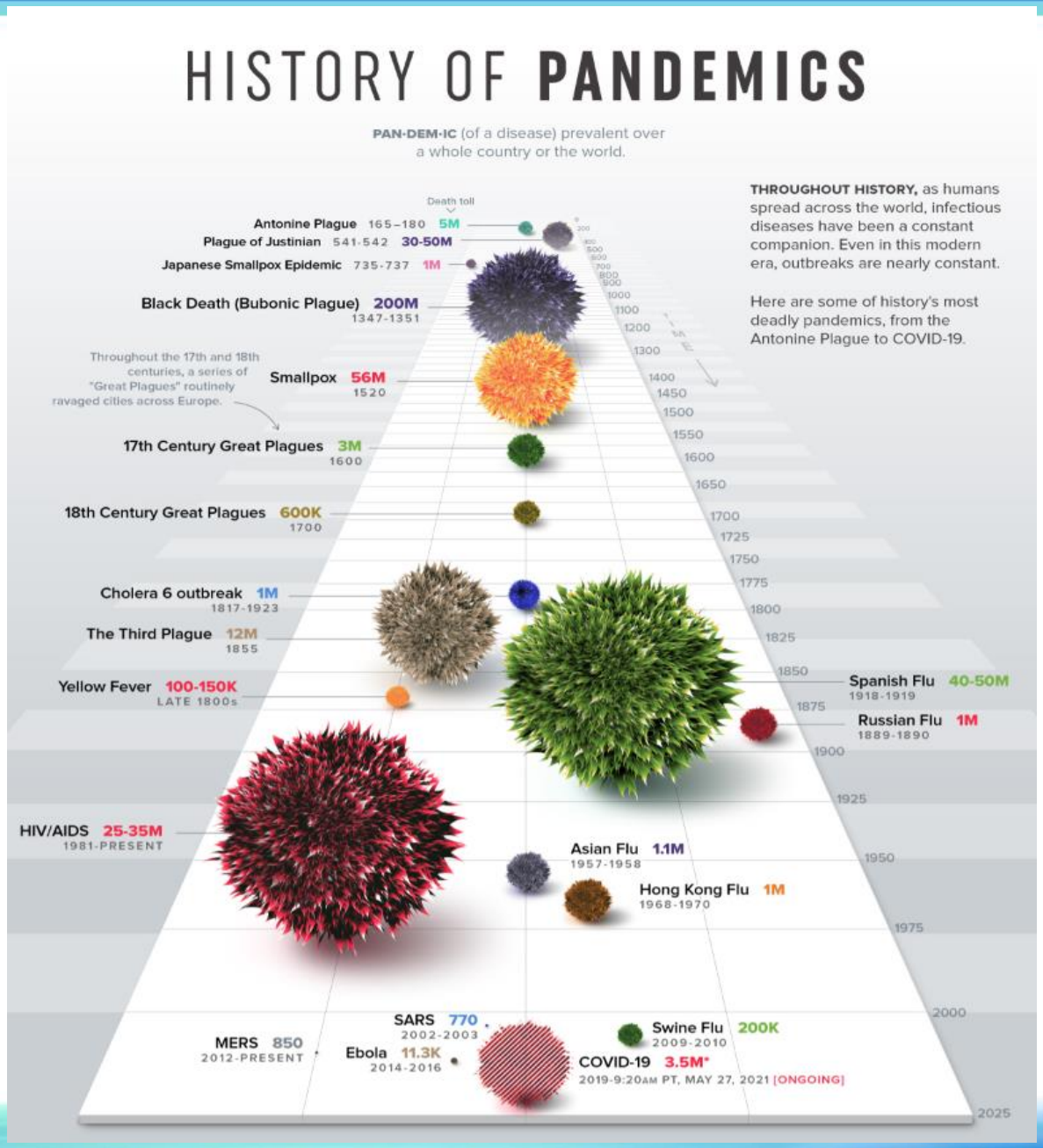
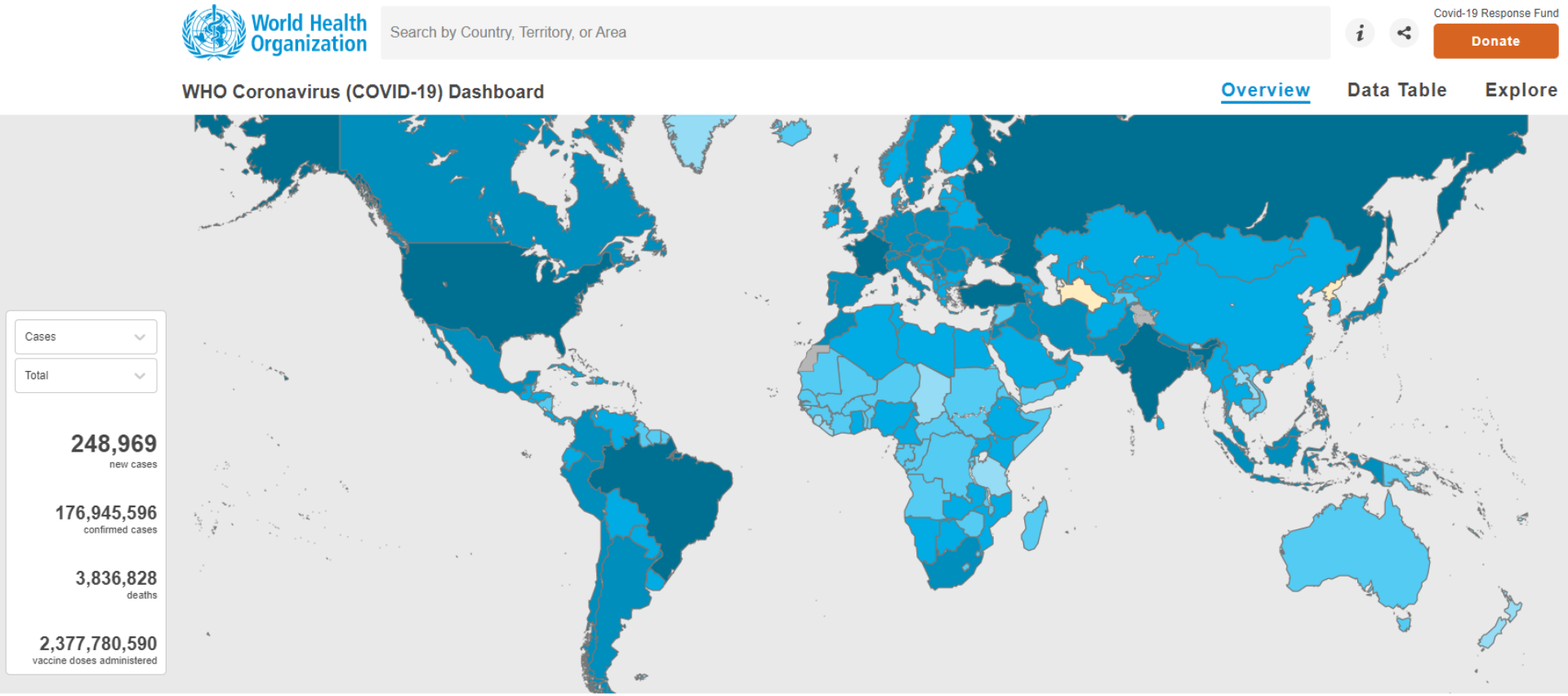


Fuente: https://www.visualcapitalist.com/history-of-pandemics-deadliest/



https://covid19.who.int/

2002 – Eysenbach cria el término infodemiología como una disciplina y metodología de investigación interdisciplinar que estudia los determinantes y la distribución de información y desinformación en salud.

Fuente: Arroyo-Sanchez, A. et at. Infodemia, la outra pandemia. SciELO Preprints. https://preprints.scielo.org/index.php/scielo/preprint/view/367

"We're not just fighting an epidemic; we're fighting an infodemic"

Tedros Adhanon Gebreyesus, Diretor-General de la OMS en la Conferencia sobre Seguridad en Múnich, Alemania, febrero de 2020

La Organización Mundial de la Salud y todo el mundo pasan a utilizar el término infodemia para se referir al exceso de información, confiable o no, asociado a un evento específico, que puede multiplicarse exponencialmente en poco tiempo, como es el caso de la pandemia de COVID-19*. En esta situación, surgen rumores y desinformación, además de la manipulación de información con dudosa intención. En la era de la información, este fenómeno se ve amplificado por las redes sociales y se propaga más rápidamente, de manera similar al virus.

*causada por el virus SARS-CoV-2

Los artículos científicos, para ser publicados, pasan por el proceso de verificación llamado revisión por pares (peer review)

***Peer review*:** Consiste en someter el trabajo científico al escrutinio de uno o más especialistas (pares) designados por el editor de la revista. Estos revisores anónimos suelen hacer comentarios o sugerir revisiones al trabajo analizado, *contribuyendo a la calidad del artículo* que se publicará

¿Qué esperamos de la ciencia en relación con la investigación sobre COVID-19 (y la investigación en general)?

Integridad de la investigación

- ✓ Transparencia
- ✓ Metodología adecuada
- ✓ Análisis objetiva de los resultados
- ✓ Conclusiones basadas en los resultados
- ✓ Ausencia de sesgos o conflictos de interés
- ✓ Ausencia de plagio o datos falsos

Entendimiento de la ciencia por parte de la sociedad

- Confiable
- Reproducible
- Relevante
- Original

Es esperado que estas calidades deben ser aseguradas por la revisión por pares

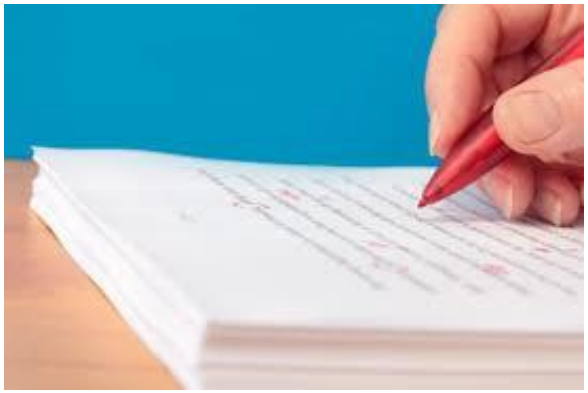
¿Qué está realmente dentro del alcance de la revisión por pares?

El público, en general, interpreta la "revisión por pares" como un sello de aprobación o un mecanismo que tiene el poder de proteger a la sociedad del caos informativo..

¿Qué está realmente dentro del alcance de la revisión por pares?

- ✓ Transparencia ni siempre
- ✓ Metodología adecuada si
- ✓ Análisis objetiva de los resultados si
- ✓ Conclusiones basadas en los resultados si
- ✓ Ausencia de sesgos o conflictos de interés no
- ✓ Ausencia de plagio o datos falsos ni siempre
- ✓ Reproducibilidad ciertamente no
- ✓ Relevancia no de inmediato
- ✓ Originalidad ni siempre

Y la revisión por pares en tiempos de Covid-19?



Pré-Covid-19

mediana 90 días

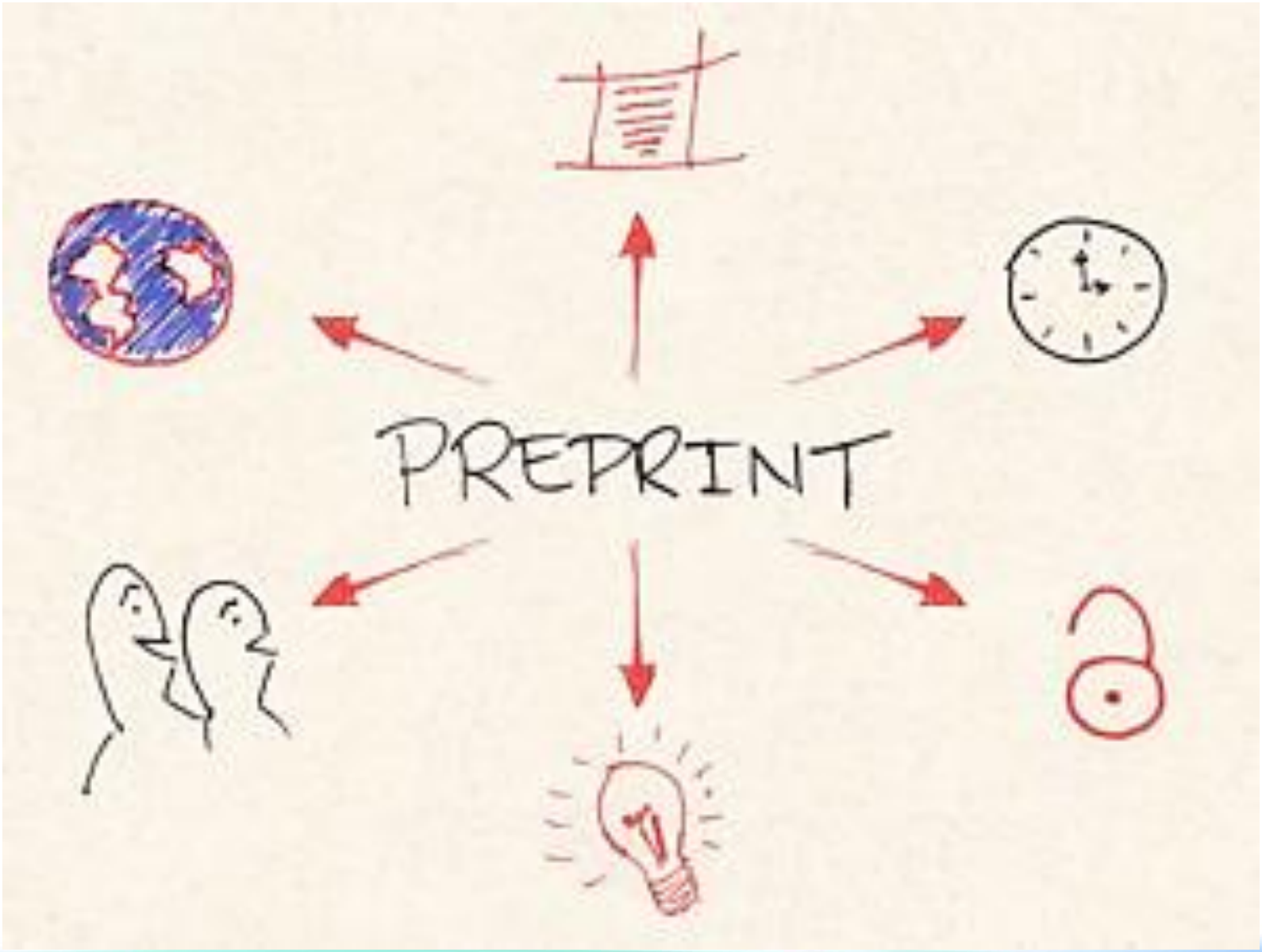
mediana 7 días

Covid-19

ARTICLES

Crystal structure of the p27^{Kip1} cyclin-dependent-kinase inhibitor bound to the cyclin A–Cdk2 complex

Alicia A. Russo, Philip D. Jeffrey, Andrew K. Patten, Joan Massagué* & Nikola P. Pavletich


PREPRINT

preprints rápidos, no revisados por pares
revistas más lentos, revisados por los pares

canales de comunicación complementares para la investigación científica

ArXiv – 1992 – *Cornell University Library* – Física, Astronomía, Matemática, Computer Sciences > 1,9 millones de preprints

Figshare - 2011 – Consorcio de Universidades – Multidisciplinar > 10 mil preprints

bioRxiv- 2013 – Cold Spring Harbor Laboratory – Biologia y Life Sciences > 125 mil preprints

PeerJ Preprints – 2013 – Biología/Medicina y Computer Sciences. > 5 mil preprints

medRxiv – 2019 - Cold Spring Harbor Laboratory – Ciencias de la Salud > 21 mil preprints

ChemRxiv – 2016 – *American Chemical Society*

EngrXiv – 2018 – *Cornell University*

PsyArXiv – 2016 – *Cornell University* – Psicología y Life Sciences

SocArXiv – 2016 – *Open Science Framework* – Artes y Humanidades, Derecho, Educación, Ciencias del Comportamiento y Ciencias Sociales.

SciELO Preprints 2020 – Multidisciplinar > acerca de 1.000 preprints

AgriXiv

2017

AUTHOREA

2019

Afric ArXiv

2019

BITSS Berkeley Initiative for Transparency in the Social Sciences

2017

CERN Document Server

2000

ChinaXiv 中国科学院科技论文预发布平台

2016

Earth ArXiv

2017

LawArXiv Legal Scholarship in the Open

2017

NutriXiv

2017

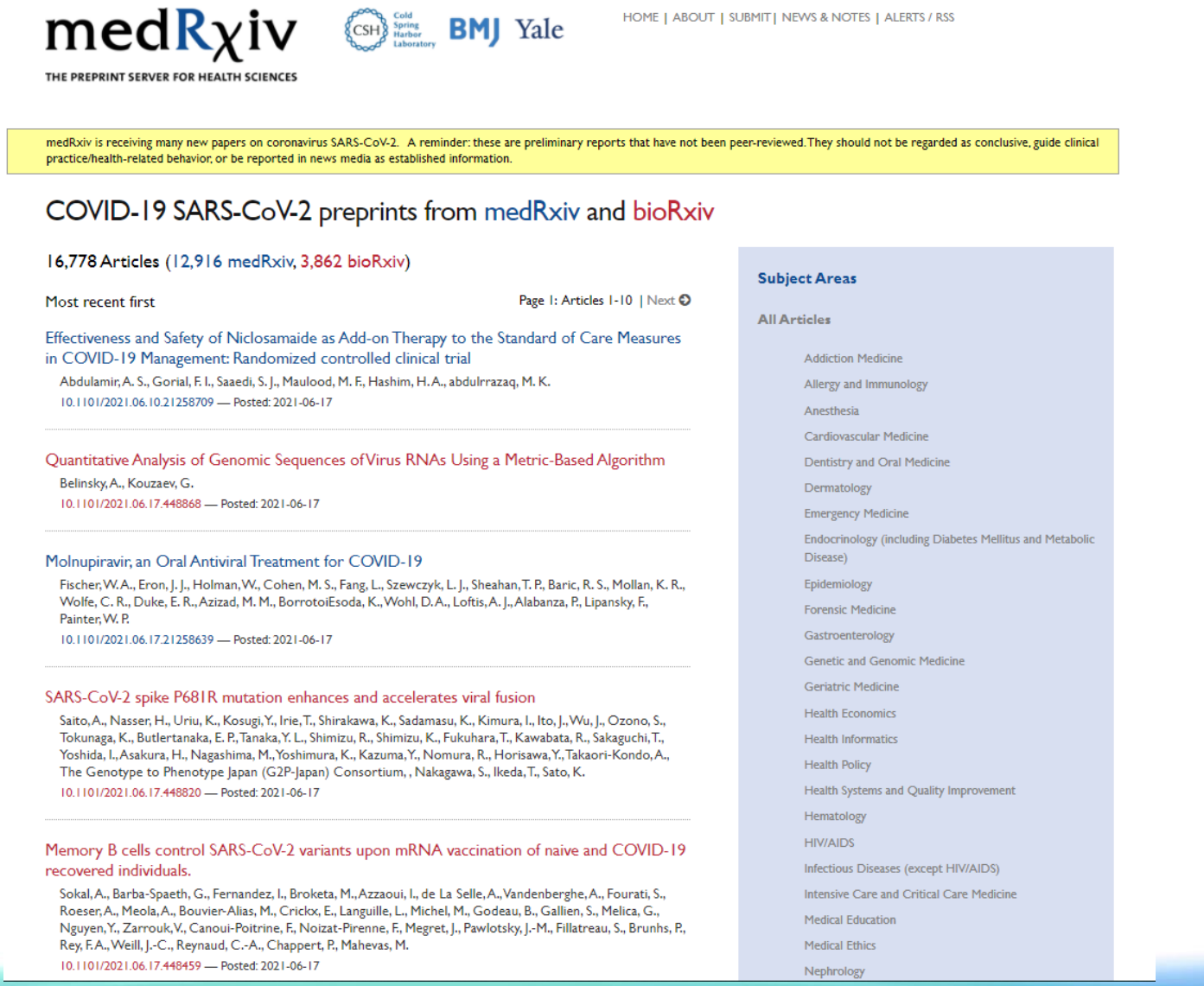
paleorxiv

2017

RePEc

2005

Preprints en medRxiv & bioRxiv sobre COVID-19



medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES

Cold Spring Harbor Laboratory · BMJ · Yale

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medRxiv is receiving many new papers on coronavirus SARS-CoV-2. A reminder: these are preliminary reports that have not been peer-reviewed. They should not be regarded as conclusive, guide clinical practice/health-related behavior, or be reported in news media as established information.

COVID-19 SARS-CoV-2 preprints from medRxiv and bioRxiv

16,778 Articles (12,916 medRxiv, 3,862 bioRxiv)

Most recent first — Page 1: Articles 1-10 | Next

Effectiveness and Safety of Niclosamaide as Add-on Therapy to the Standard of Care Measures in COVID-19 Management: Randomized controlled clinical trial
Abdulamir, A. S., Gorial, F. I., Saaedi, S. J., Maulood, M. F., Hashim, H. A., abdulrrazaq, M. K.
10.1101/2021.06.10.21258709 — Posted: 2021-06-17

Quantitative Analysis of Genomic Sequences of Virus RNAs Using a Metric-Based Algorithm
Belinsky, A., Kouzaev, G.
10.1101/2021.06.17.448868 — Posted: 2021-06-17

Molnupiravir, an Oral Antiviral Treatment for COVID-19
Fischer, W. A., Eron, J. J., Holman, W., Cohen, M. S., Fang, L., Szewczyk, L. J., Sheahan, T. P., Baric, R. S., Mollan, K. R., Wolfe, C. R., Duke, E. R., Azizad, M. M., BorrotoiEsoda, K., Wohl, D. A., Loftis, A. J., Alabanza, P., Lipansky, F., Painter, W. P.
10.1101/2021.06.17.21258639 — Posted: 2021-06-17

SARS-CoV-2 spike P681R mutation enhances and accelerates viral fusion
Saito, A., Nasser, H., Uriu, K., Kosugi, Y., Irie, T., Shirakawa, K., Sadamasu, K., Kimura, I., Ito, J., Wu, J., Ozono, S., Tokunaga, K., Butlertanaka, E. P., Tanaka, Y. L., Shimizu, R., Shimizu, K., Fukuhara, T., Kawabata, R., Sakaguchi, T., Yoshida, I., Asakura, H., Nagashima, M., Yoshimura, K., Kazuma, Y., Nomura, R., Horisawa, Y., Takaori-Kondo, A., The Genotype to Phenotype Japan (G2P-Japan) Consortium, , Nakagawa, S., Ikeda, T., Sato, K.
10.1101/2021.06.17.448820 — Posted: 2021-06-17

Memory B cells control SARS-CoV-2 variants upon mRNA vaccination of naive and COVID-19 recovered individuals.
Sokal, A., Barba-Spaeth, G., Fernandez, I., Broketa, M., Azzaoui, I., de La Selle, A., Vandenberghe, A., Fourati, S., Roeser, A., Meola, A., Bouvier-Alias, M., Crickx, E., Languille, L., Michel, M., Godeau, B., Gallien, S., Melica, G., Nguyen, Y., Zarrouk, V., Canoui-Poitrine, F., Noizat-Pirenne, F., Megret, J., Pawlotsky, J.-M., Fillatreau, S., Brunhs, P., Rey, F. A., Weill, J.-C., Reynaud, C.-A., Chappert, P., Mahevas, M.
10.1101/2021.06.17.448459 — Posted: 2021-06-17

Subject Areas

All Articles

- Addiction Medicine
- Allergy and Immunology
- Anesthesia
- Cardiovascular Medicine
- Dentistry and Oral Medicine
- Dermatology
- Emergency Medicine
- Endocrinology (including Diabetes Mellitus and Metabolic Disease)
- Epidemiology
- Forensic Medicine
- Gastroenterology
- Genetic and Genomic Medicine
- Geriatric Medicine
- Health Economics
- Health Informatics
- Health Policy
- Health Systems and Quality Improvement
- Hematology
- HIV/AIDS
- Infectious Diseases (except HIV/AIDS)
- Intensive Care and Critical Care Medicine
- Medical Education
- Medical Ethics
- Nephrology

https://connect.medrxiv.org/relate/content/181

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https://www.medrxiv.org/content/10.1101/2020.04.14.20062463v2#disqus_thread

Comments (578)

COVID-19 Antibody Seroprevalence in Santa Clara County, California

Eran Bendavid, Bianca Mulaney, Neeraj Sood, Soleil Shah, Emilia Ling, Rebecca Bromley-Dulfano, Cara Lai, Zoe Weissberg, Rodrigo Saavedra-Walker, James Tedrow, Dona Tversky, Andrew Bogan, Thomas Kupiec, Daniel Eichner, Ribhav Gupta, John Ioannidis, Jay Bhattacharya

doi: https://doi.org/10.1101/2020.04.14.20062463

Abstract

Background Addressing COVID-19 is a pressing health and social concern. To date, many epidemic projections and policies addressing COVID-19 have been designed without seroprevalence data to inform epidemic parameters. We measured the seroprevalence of antibodies to SARS-CoV-2 in a community sample drawn from Santa Clara County. Methods On April 3-4, 2020, we tested county residents for antibodies to SARS-CoV-2 using a lateral flow immunoassay. Participants were recruited using Facebook ads targeting a sample of individuals living within the county by demographic and geographic characteristics. We estimate weights to adjust our sample to match the zip code, sex, and race/ethnicity distribution within the county. We report both the weighted and unweighted prevalence of antibodies to SARS-CoV-2. We also adjust for test performance characteristics by combining data from 16 independent samples obtained from manufacturer's data, regulatory submissions, and independent evaluations: 13 samples for specificity (3,324 specimens) and 3 samples

Join the discussion…

Alfred_Packer • a month ago

This research was done very early, and has the imperfections inherent in such an early effort- but they appear to have been pretty close to the actual IFR. At the time it was seen as impossibly low and a dozen researchers beat this study up. So how did such a flawed study get the right answer, basically?

Reply • Share ›

Mysterious Man ➚ Alfred_Packer • 10 days ago

Because while the study was flawed, it had less flaws than the data that others were working with and advocating. And several things turned out in its favor, such as pre-existing T-Cell immunity and waning antibody levels. Turns out this study was probably too high in its estimate of how many people had positive antibodies, but too low or just right in its estimate of prevalence because many people never develop antibodies and/or they fade quickly.

Reply • Share ›

Maria Ribando Burmaster • 3 months ago

Good study. I would be interested in comments from MDs and epidemiologists as well as other working scientists.

Reply • Share ›

Animesh Ray • 3 months ago

Once again, this study uses previous studies' data (by the kit manufacturers) to estimate CL of their specificity estimate. This is flawed--a classic Type I error. In other words, the authors use "meta-analysis" of other studies data to establish the bounds of their own data interpretation. Meta-analysis requires very careful calibration of admissible data using several well-known metrics. None of that has been done here. These results will remain flawed until the authors use their kits under their own experimental conditions to determine the true negative frequencies using sufficient (at least 200) pre-COVID19 samples. Even then I will be worried because these samplings will be conducted non-contemporaneously with their main study. In other words, these studies have little hope of being salvaged because of their fundamentally flawed study design.

5 | Reply • Share ›

Slowdive • 3 months ago

Something critical that hasn't been asked to my knowledge is what percentage of counted Covid-19 deaths could be attributed to flu or other illnesses? Why is no one asking this question? It's as if the very sketchy data on fatalities is taken as gospel and there are no error bars.

4 | 1 • Reply • Share ›

Mullet Boy ➚ Slowdive • 2 months ago • edited

This is called co-mortality.
In past Flu seasons, after detailed CDC investigation of the cases, official Flu deaths have been reduced 25% due to these co-mortalities.
The CDC says their official 2020 COVID-19 death number will be official by December 2021.

1 | Reply • Share ›

Nicholas Magers ➚ Slowdive • 2 months ago

Colorado decided to ask. The death from covid was split from death with covid. The number was elevated by 25%. The infection rate is much higher than shown, to keep the death rate artificially high.

1 | Reply • Share ›

llewis1951 ➚ Nicholas Magers • 2 months ago

As someone who has filled out death certificates, I can tell you it is not an easy distinction to differentiate death from Covid and death with Covid. We know that besides respiratory failure, Covid can cause strokes, MI, and PE. So unless someone gets hit by a car or has end-stage cancer, it can be hard to say. I agree with the statement below, we are likely undercounting.

2 | Reply • Share ›

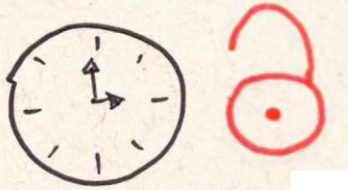
Steve Condie ➚ Slowdive • 3 months ago

The "normal" number of deaths due to "normal" causes is fairly accurately predictable from past data. There have been more "excess deaths" over the past three months than the number of deaths officially designated as Covid-19 deaths. That means that it is far more probable that deaths which are actually due to Covid-19 have not been correctly attributed to the contagion than the opposite. In other words, the "death" number swe're seeing is almost certainly an undercount, not an overcount.

2 | Reply • Share ›

Ventajas de los preprints

Compatibles con la publicación formal



38% de bioRxiv son comentados
67% de los artículos se publican en revistas arbitradas em hasta 2 años

PREPRINT

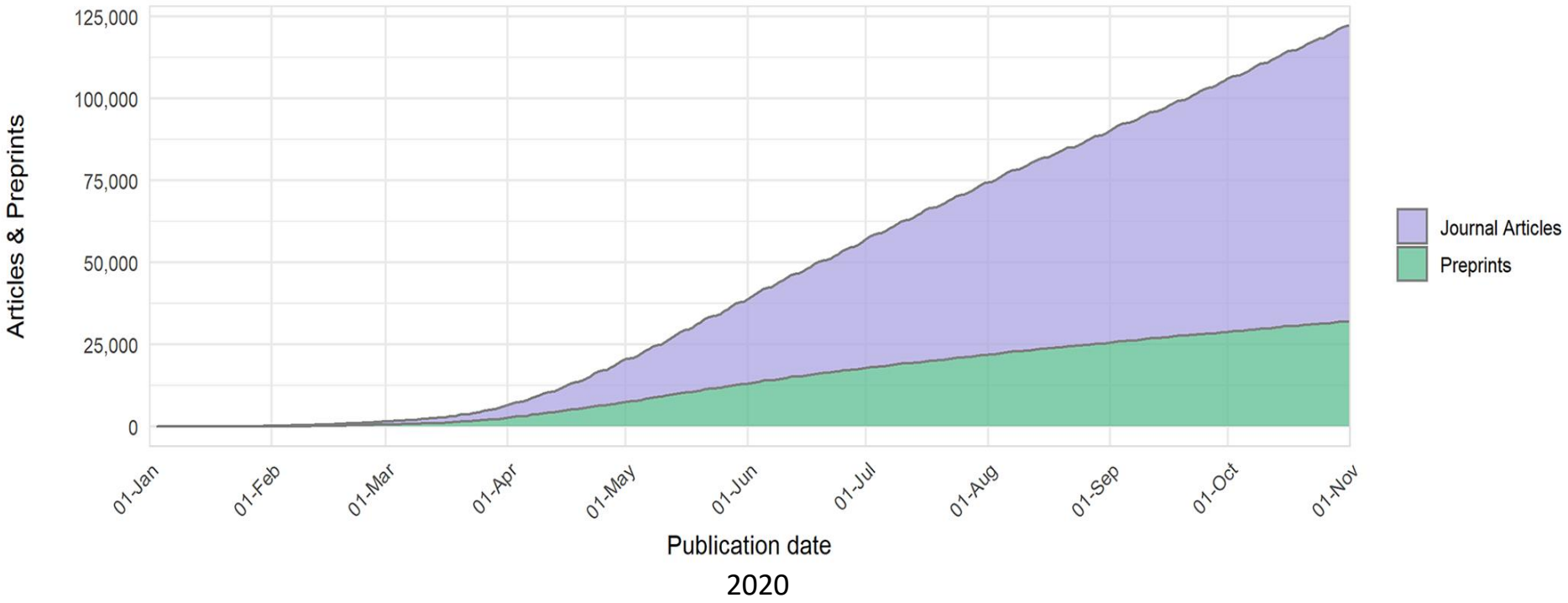
Open Science Framework

National Institutes of Health

wellcome

Google Scholar

doi



Fuente: Fraser, N. et al. 2020. Preprinting a pandemic: the role of preprints in the COVID-19 pandemic. bioRxiv. https://doi.org/10.1101/2020.05.22.111294

El artículo de Lancet llevó a la OMS a suspender los ensayos *Solidarity* sobre el uso de la hidroxicloroquina para tratamiento de la COVID-19

Publicado en **Lancet** en 22 de mayo 2020
Retractado en 5 de junio de 2020

Lancet. 2020 May 22
doi: 10.1016/S0140-6736(20)31180-6 [Epub ahead of print]
PMCID: PMC7255293
PMID: 32450107

This article has been retracted.
Retraction in: Lancet. 2020 May 22; : See also: PMC Retraction Policy

This article has been retracted.
Retraction in: Lancet. 2020 June 5; : See also: PMC Retraction Policy

RETRACTED: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

Mandeep R Mehra, Prof, MD,[a,*] Sapan S Desai, MD,[b] Frank Ruschitzka, Prof, MD,[c] and Amit N Patel, MD[d,e]

Author information · Copyright and License information Disclaimer

This article has been corrected. See Lancet. 2020 May 30; :.
This article has been retracted. See Lancet. 2020 May 22; :.
This article has been retracted. See Lancet. 2020 June 5; :.
An expression of concern has been published for this article. See Lancet. 2020 June 3; :.
This article has been corrected. See Lancet. 2020; 396(10245): e2.

This article has been cited by other articles in PMC.

Associated Data

Supplementary Materials

Summary

Go to:

Background

Hydroxychloroquine or chloroquine, often in combination with a second-generation macrolide, are being widely used for treatment of COVID-19, despite no conclusive evidence of their benefit. Although generally safe when used for approved indications such as autoimmune disease or malaria, the safety and benefit of these treatment regimens are poorly evaluated in COVID-19.

Methods

We did a multinational registry analysis of the use of hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19. The registry comprised data from 671 hospitals in six continents. We included patients hospitalised between Dec 20, 2019, and April 14, 2020, with a positive laboratory finding for SARS-CoV-2. Patients who received one of the treatments of interest within 48 h of diagnosis were included in one of four treatment groups (chloroquine alone, chloroquine with a macrolide, hydroxychloroquine alone, or hydroxychloroquine with a macrolide), and patients who received none of these treatments formed the control group. Patients for whom one of the treatments of interest was initiated more than 48 h after diagnosis or while they were on mechanical ventilation, as well as patients who received remdesivir, were excluded. The main outcomes of interest were in-hospital mortality and the occurrence of de-novo ventricular arrhythmias (non-sustained or sustained ventricular tachycardia or ventricular fibrillation).

En común, los dos artículos utilizaron la base de datos de Surgisphere, que no pudo explicar como obtuve una cantidad tan grande de datos de pacientes de COVID-19 en tan poco tiempo

Publicado en **NEJM** en 1° de mayo 2020
Retractado en 4 de junio de 2020

Retraction: Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. N Engl J Med. DOI: 10.1056/NEJMoa2007621.

TO THE EDITOR: Because all the authors were not granted access to the raw data and the raw data could not be made available to a third-party auditor, we are unable to validate the primary data sources underlying our article, "Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19."[1] We therefore request that the article be retracted. We apologize to the editors and to readers of the *Journal* for the difficulties that this has caused.

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This letter was published on June 4, 2020, at NEJM.org.

1. Mehra MR, Desai SS, Kuy S, Henry TD, Patel AN. Cardiovascular disease, drug therapy, and mortality in Covid-19. N Engl J Med 2020;382:e102.

DOI: 10.1056/NEJMc2021225

CORRECTION

Prevention of Early Ventilator-Associated Pneumonia (N Engl J Med 2020;382:1671-1674). In the third letter in the Correspondence regarding the article by François et al. (page 1672), the first author's surname should have been Llitjos, rather than Llithos. The letter is correct at NEJM.org.

¿Y los preprints, se pueden retractar o retirar de los servidores?

Los preprints, una vez publicadas, no pueden ser retirados por los autores después de haber asignado un DOI, por razones triviales. Pero pueden ser actualizados innumerables veces.

Sin embargo, el editor del servidor de preprints o el comité asesor puede decidir editar o retirar un preprint por una de las siguientes razones :

- Mala conducta como plagio o falsificación de datos
- Errores científicos graves que no se pueden corregir actualizando o editando el preprint
- Cuando el mantenimiento del preprint en línea constituye un acto ilegal, incluida la infracción de derechos de autor
- En estas circunstancias, los metadatos del preprint generalmente se mantienen

bioRxiv is receiving many new papers on coronavirus SARS-CoV-2. A reminder: these are preliminary reports that have not been peer-reviewed. They should not be regarded as conclusive, guide clinical practice/health-related behavior, or be reported in news media as established information.

WITHDRAWN

Comments (122)

Previous Next

Uncanny similarity of unique inserts in the 2019-nCoV spike protein to HIV-1 gp120 and Gag

Prashant Pradhan, Ashutosh Kumar Pandey, Akhilesh Mishra, Parul Gupta, Praveen Kumar Tripathi, Manoj Balakrishnan Menon, James Gomes, Perumal Vivekanandan, Bishwajit Kundu

doi: https://doi.org/10.1101/2020.01.30.927871

Posted February 02, 2020.

This article is a preprint and has not been certified by peer review [what does this mean?].

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Abstract

This paper has been withdrawn by its authors. They intend to revise it in response to comments received from the research community on their technical approach and their interpretation of the results. If you have any questions, please contact the corresponding author.

COVID-19 SARS-CoV-2 preprints from medRxiv and bioRxiv

Subject Area

Evolutionary Biology

Subject Areas

All Articles

Animal Behavior and Cognition
Biochemistry
Bioengineering

Anteproyecto de Recomendación de la UNESCO sobre la Ciencia Abierta

"[…] promover la ciencia abierta desde el inicio del proceso de investigación y ampliar los principios de apertura a todas las etapas del proceso científico, entre otros mediante el ***fomento de los preprints****, a fin de acelerar la difusión e impulsar el rápido crecimiento del conocimiento científico"*

Recomendación a ser adoptada en la 40° Asamblea General de la UNESCO en 2021

https://unesdoc.unesco.org/ark:/48223/pf0000374837_spa