# Preprintanje: prednosti, predbacivanja, predrasude, predviđanja

#### Homolak, Jan

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# Preprintanje: predrasude, predbacivanja, prednosti, predviđanja

Jan Homolak





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Can usually only be shared if published by a gold OA or hybrid journal





#### THE PREPRINT SERVER FOR BIOLOGY



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

Subject Areas			
All Articles			
Animal Behavior and Cognition	Ecology	Paleontology	
Riochemistry	Enidemiology*	Pathology	

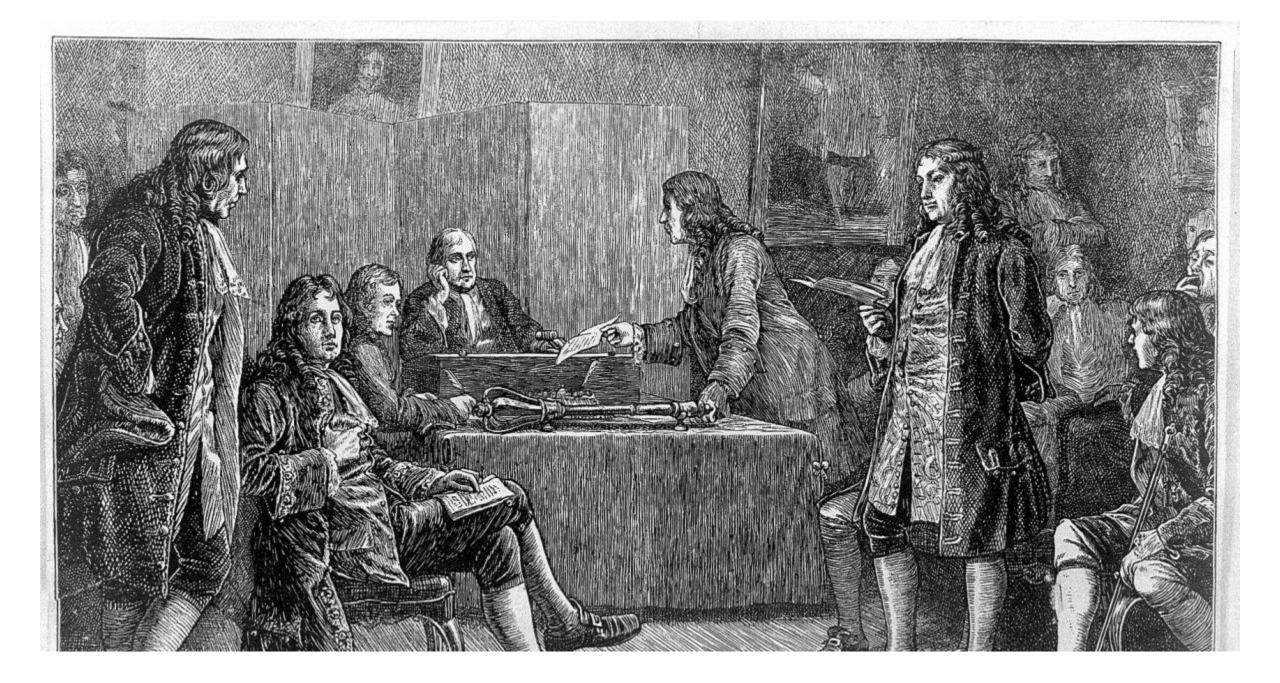
Novo

Nepouzdano

Neozbiljno

Nesigurno (autorska prava, novelty, ...)

Nekonvencionalno



# The Information Exchange Group -- an Experiment in Communication

bу

#### Errett C. Albritton

# Presented before The Institute on Advances in Biomedical Communication American Univ. and George Washington Univ.

# The Seven Information Exchange Groups as of March 1, 1965

	Scientific Area	Age	Chairman; Co-Chairman
IEG #1	Oxidative Phosphorylation & Terminal Electron Transport	4.0 yr	David E. Green
IEG #2	Hemostasis	1.0 yr	Theodore Spaet
IEG #3	Computer Simulation of Biological Systems	0.8 yr	Homer Warner
IEG #4	Molecular Basis of Muscle Contraction	0.4 yr	John Gergely
IEG #5	Immunopathology	0.4 yr	William Dameshek G.V.T. Nossal
IEG #6	Interferon	0.3 yr	Alick Isaacs Samuel Baron
IEG #7	Nucleic Acid & the Genetic Code	1 mo	James D. Watson Marshall Nirenberg

## Information exchange groups to be discontinued 🕾

#### **E A Confrey**

PMID: 6003532(\*\*) IF: 63.714 Q1 DOI: 10.1126/science.154.3751.843(\*\*) IF: 63.714 Q1

No abstract available



There are two primary reasons for taking this action. First, the original purpose of the experiment has been achieved. The IEG concept is workable, if the chosen research area is focused to an easily described and identifiable research phenomenon or problem around which the group can be built.

Second, the rapid growth of IEG in the last two years has now reached the threshold limit for the NIH facilities to accommodate. Further, once the original concept has been tested, it does not appear equitable to all research areas to continue IEG services to a few groups on a service basis alone. If IEG cannot continue the present course, it must either expand to a larger number of areas or be suspended. We have decided to conclude and assess the experiment.

Novo

Nepouzdano

Neozbiljno

Nesigurno (autorska prava, novelty, ...)

Nekonvencionalno

# Do we need journal peer review? Changes between 121 epidemiology preprints and their subsequent journal publications

Mario Malički, 1\* Ana Jerončić, 2 Gerben ter Riet, 3 Lex M. Bouter, 4 IJsbrand Jan Aalbersberg, 5 John P.A. Ioannidis, 1 Steven N. Goodman 1,6

#### Affiliations:

- Meta-Research Innovation Center at Stanford (METRICS), Stanford University, Stanford, CA, USA
- <sup>2</sup> Department of Research in Biomedicine and Health, University of Split School of Medicine, Split, Croatia
- 3 Urban Vitality Centre of Expertise, Amsterdam University of Applied Sciences, Amsterdam, the Netherlands
- 4 Amsterdam University Medical Centers, Vrije Universiteit, Department of Epidemiology and Data Science, Amsterdam, the Netherlands
- 5 Elsevier, Amsterdam, the Netherlands
- Department of Epidemiology and Population Health, Stanford University School of Medicine, Stanford, CA, USA

#### unding:

Elsevier funding was awarded to Stanford University for a METRICS postdoctoral position that supported Mario Malički's work on the project.

#### Project details:

https://data.mendeley.com/datasets/zrtfry5fsd/

#### \*Corresponding author:

Mario Malički, MD, MA, PhD Postdoc at METRICS Stanford https://metrics.stanford.edu/

Co-Editor-in-Chief of Research Integrity and Peer Review

https://researchintegrityjournal.biomedcentral.com ORCID ID: http://orcid.org/0000-0003-0698-1939



## Objective

To identify changes between epidemiology preprints posted on bioRxiv and their subsequent journal publications.

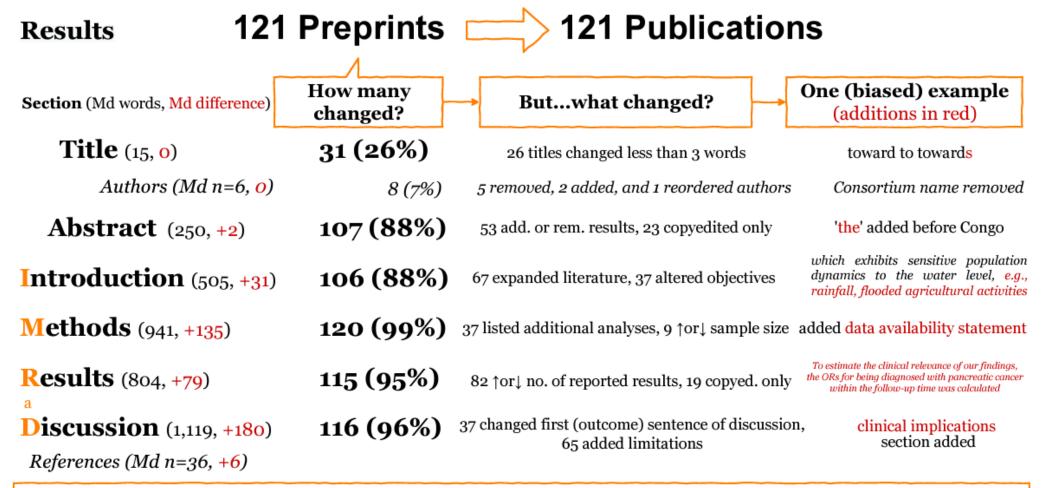
#### Methods

Till 31 December 2019 there were 1,538 epidemiology preprints posted on bioRxiv. On 5 January 2021, 844 (55%) of those were subsequently published as journal articles, of which 622 (74%) had only one preprint version. Based on our sample size calculation for representative sampling with 8% margin of error estimates, we randomly sampled 121 of those 622 preprints and compared them to their journal versions of record using quantitative and qualitative analyses. Statistical analyses were performed using MedCalc version 19.6.4. Preliminary results (study is ongoing) are presented below.

121 bioRxiv Preprints Published in 73 journals (Median IF 4)

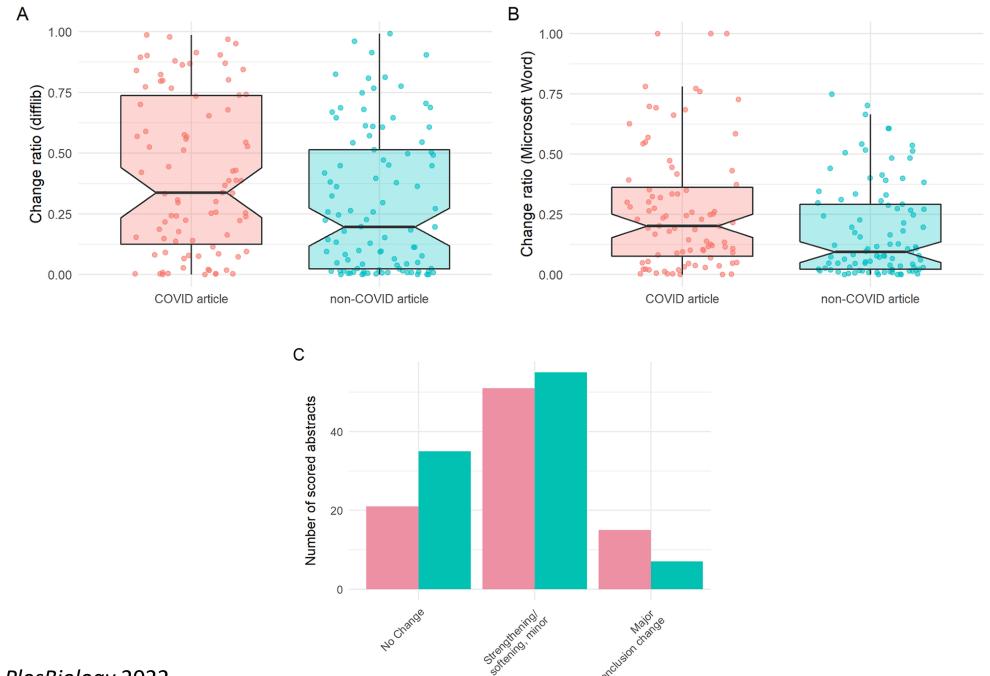
27% submitted ≥10 days before posting of the preprint 34% submitted
9 days around
posting of the preprint

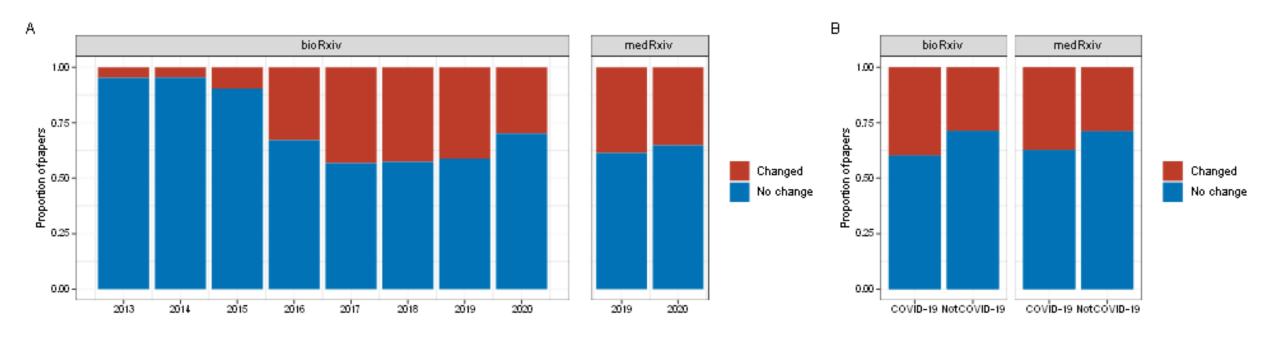
39% submitted
≥10 days after
posting of the preprint



Questions (instead of conclusions) to those looking at the poster: What changes do you feel prove the value or need for peer review? Would the lack of any (significant) change imply that the review provided a seal of approval for a study well done? How do we measure the effect of introduced changes on the scientific community? Or that those changes were indeed needed? Or that without them these studies would've been perceived to have lower quality or impact?

**Recommendations:** To increase transparency and provide evidence for the value and need of peer review, journals and review platforms should describe changes that occurred to manuscripts due to peer review. And they should list all (quality) checks that were conducted during manuscript evaluation.





# Novo

Nepouzdano

Neozbiljno

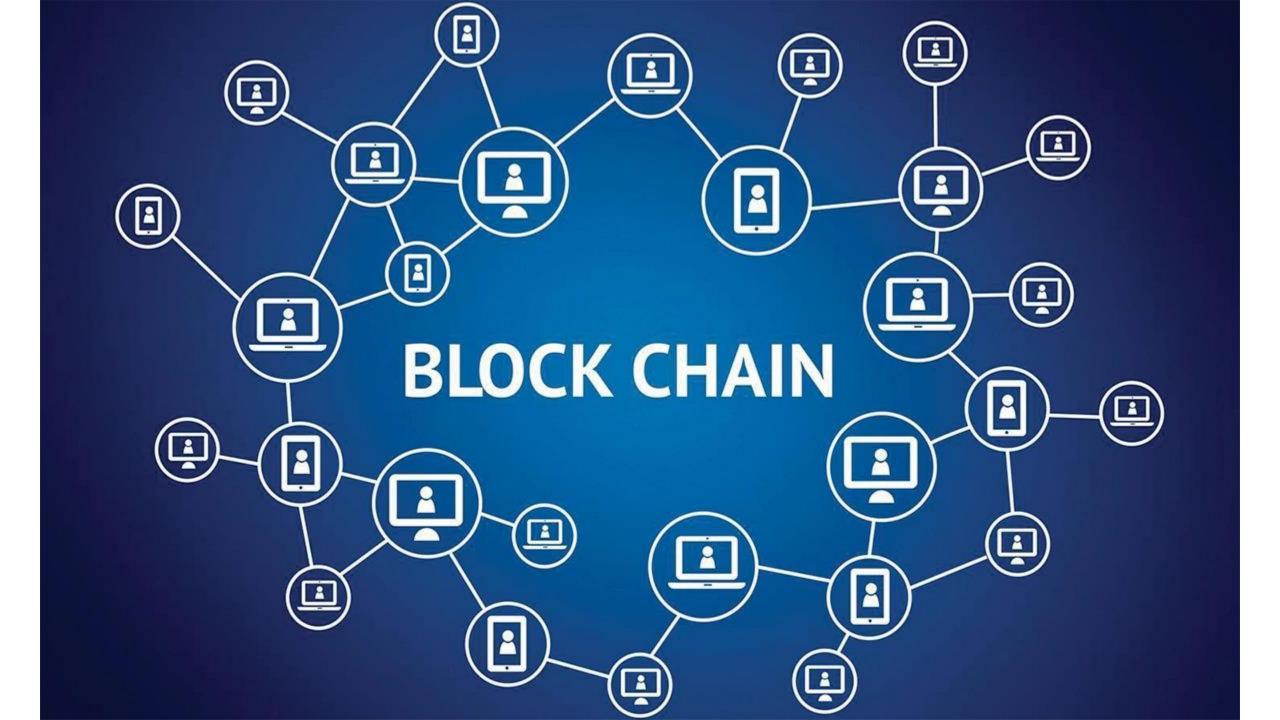
Nesigurno (autorska prava, novelty, ...)

Nekonvencionalno

Protection of Priority: This matter of priority was understandably one of prime concern to prospective members when the first IEG was being organized; for in venturing to reveal to a hundred or two or three hundred other scientists in his research area the findings he had written up for publication, the scientist was aware he was stepping onto untested terrain. What was to prevent some other scientist from hurriedly gathering a few observations and publishing them in a journal that has a very short lag time between receiving a paper and publishing it? Scientists trust colleagues they know personally, and in

It may seem a paradox, but I believe I am safe in saying that this venture beyond the priority barrier has strengthened rather than weakened the security of priority. All the leading scientists in each research area, worldwide, are members of the IEG for that area.

Hardy indeed would be the individual who would attempt to claim credit for another man's discovery, with a jury of up to two or three hundred of his peers frowning down upon him.



# Novo

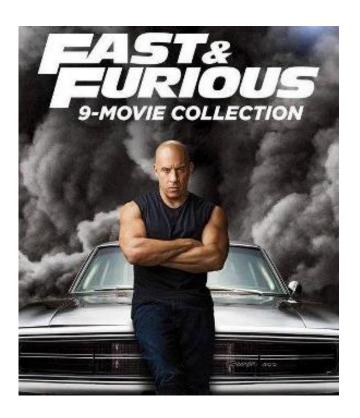
Nepouzdano

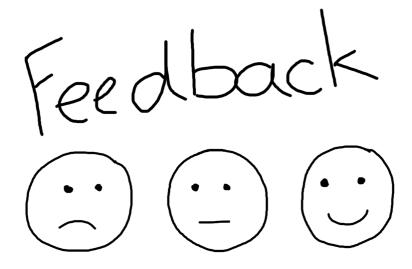
Neozbiljno

Nesigurno (autorska prava, novelty, ...)

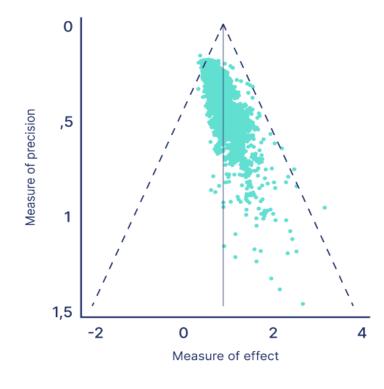
Nekonvencionalno

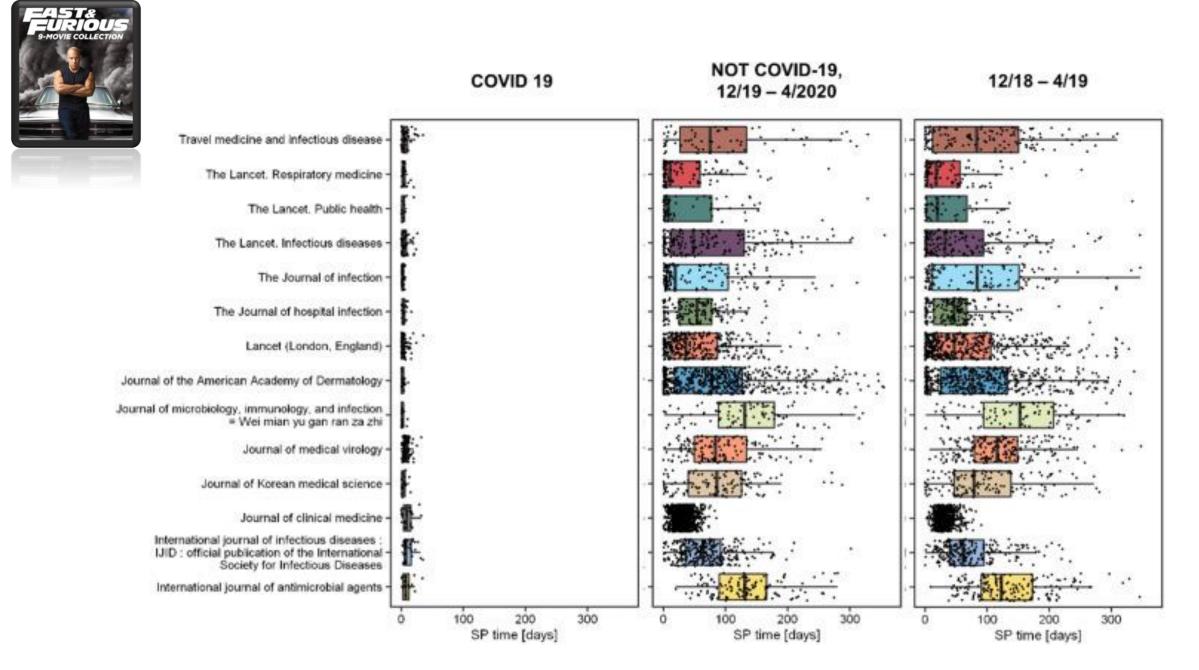
# Prednosti





## **High publication bias**







## About this article



# Cite this article

Maier, L., Goemans, C.V., Wirbel, J. *et al.* Unravelling the collateral damage of antibiotics on gut bacteria. *Nature* **599**, 120–124 (2021). https://doi.org/10.1038/s41586-021-03986-2(\*\*) IF: 69.504 Q1

# <u>Download citation</u> <u>**±**</u>

Received Accepted Published

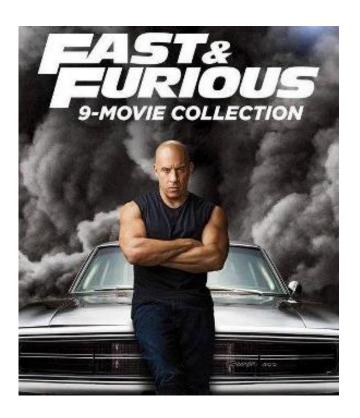
Issue Date

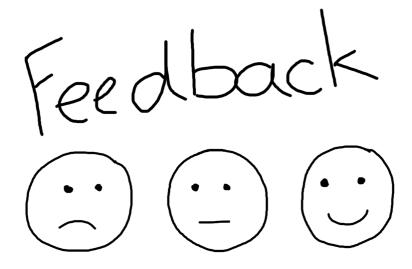
04 November 2021

DOI

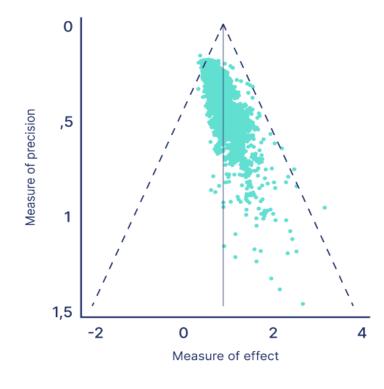
https://doi.org/10.1038/s41586-021-03986-2(\*\*) IF: 69.504 Q1

# Prednosti





## **High publication bias**





New Results

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#### Publishing of COVID-19 Preprints in Peer-reviewed Journals, Preprinting Trends, Public Discussion and Quality Issues

Davor Virag, Vladimir Trkulja 🗓 Ivan Kodvanj, 🗓 Jan Homolak, 🗓 Davor Virag, 🗓 Vladimir Trkulja doi: https://doi.org/10.1101/2020.11.23.394577 (\*\*)

Now published in Scientometrics doi: 10.1007/s11192-021-04249-7(1) IF: 3.801 Q2



Info/History

Preview PDF

#### ABSTRACT

Introduction COVID-19-related (vs. non-related) articles appear to be more expeditiously processed and published in peer-reviewed journals. We aimed to evaluate: (i) whether COVID-19-related preprints were favoured for publication, (ii) preprinting trends and public discussion of the preprints and (iii) relationship between the publication topic (COVID-19-related or not) and quality issues.

Methods Manuscripts deposited at bioRxiv and medRxiv between January 1 and October 21 were assessed for the probability of publishing in peer-reviewed journals, and those published were evaluated for submission-to-acceptance time. The extent of public discussion was assessed based on Altmetric and Disgus data. The Retraction Watch database and PubMed were used to explore the retraction of COVID-19 and non-COVID-19 articles and preprints.

Results With adjustment for the preprinting server and number of deposited versions, COVID-19-related preprints were more likely to be published within 120 days since the deposition of the first version (OR=2.41, 95%Cl 2.17-2.69) as well as over the entire observed period (OR=1.77, 95%CI 1.65-1.91). Submission-to-acceptance was by 38.57 days (95%CI 34.76-42.39) shorter for COVID-19 articles. Public discussion of preprints was modest and COVID-19 articles were overrepresented in the pool of retracted articles in 2020.

#### Evaluation/discussion of this paper

TRiP 0 Comments 2 Community 1 Automated 0 Blogs/Media 1 Video 0 Tweets 19



#### Clarissa F. D. Carneiro

3 years ago

The article is well written and of interest to all stakeholders involved in fast dissemination of knowledge. I have only a few notes on readability and presentation of the data. Please note that I did not review the data itself or data analysis at this moment.

- Overall, I missed more interaction with the current literature both in the introduction and in the discussion sections. Although some of it is cited, the goals and results presented here are not well contextualized.
- On the other hand, the introduction is quite extensive about history of preprints, but the data presented is not proportionally focused on their usage or acceptance in the scientific community. While it is well-written, I do not see it as essential.
- One important issue for me that is lacking in the discussion is: if there is a favoring of publication of COVID-related research, are other diseases being neglected or are they still being published at the same quantities and speed? In other words, is the speed of COVID publication impacting the natural speed of other fields in biomedical sciences or is it a proof-of-concept that we can do better? If you think answering these questions is outside the scope of the current project, maybe these points can be raised and discussed at least based on the available literature.
- Supplementary materials are only referred to in the discussion section, but I believe they should also be described in the results section.
- I did not understand the use of colors on figures 1 and 2. If they should represent a particular distinction, it should be mentioned in the figures' legends.
- Color codes are representing different things in different figures and panels. While there is a legend for all of them, I'd suggest reviewing the figures so that the variables used for different colors, bars and subpanels are constant.
- Would it be possible to also separate the data presented on fig 3B by COVID and non-COVID (as in fig 3A)? I think there could be useful information lost and highly recommend this change.
- Lastly, I'd recommend shifting each figure so that they appear closer to (ideally immediately after) its first mention in the text.

☐ 0 Reply • Share>



Preprint

File available

# The Effect of a Color Tattoo on the Local Skin Redox Regulatory Network: An N-of-1 Study

May 2020

DOI: 10.20944/preprints202006.0166.v2(\*\*)

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Published version · The effect of a color tattoo on the local skin redox regulatory network: an N-of-1 study

Jan Homolak



Yolanda Hedberg added a comment

Jun 30, 2020 V

Interesting! Do you know whether the samples included traces of the tattoo ink itself? Do you know which pigment(s) the blue tattoo consisted of? These might also contribute to the redox chemistry.

Recommended Reply

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1 Reply · 1 Recommendation



Jul 14, 2020 V

Dear Jan.

thank you for sharing this interesting study!

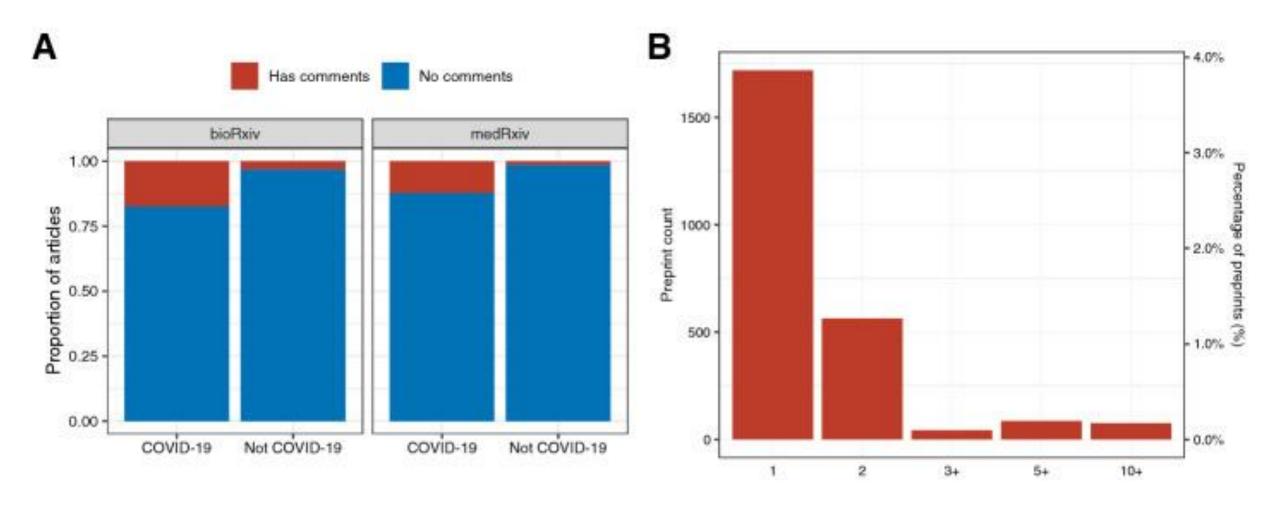
Since the ORP measurements are conducted on the skin surface, they might be influenced by the microorganisms on the skin. My question would be how old the tattoo was and if you used a special creme / sunblocker for this area?

The redox measurements with capillary fluid came as a surprise to me. The pigments are enclosed in skin cells and therefore likely not in direct contact to the fluid. It is currently discussed that the tattoo pigments may protect cells in the lower dermis from sun induced damage. Have you been in the sun (even for a short time) a few days before the measurements? If you extend your study, it would be interesting to protect the skin from light or opposite.

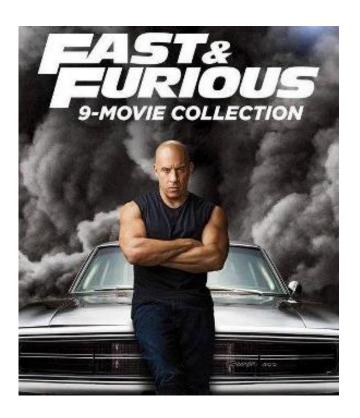
for the color: the lighter parts of your tattoo may also consist of titanium dioxide (white pigment) mixed with Cu-Phthalocyanine to generate light-blue ink

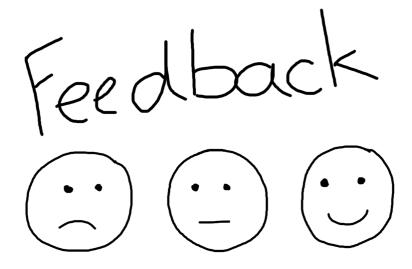
kind regards, Ines

Recommended Reply Share 2 Recommendations

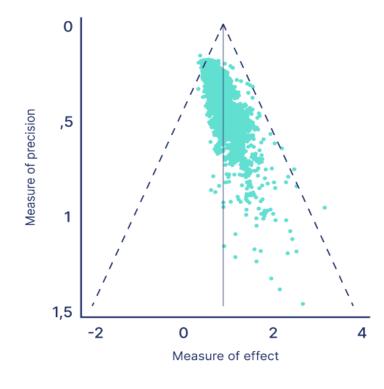


# Prednosti





## **High publication bias**



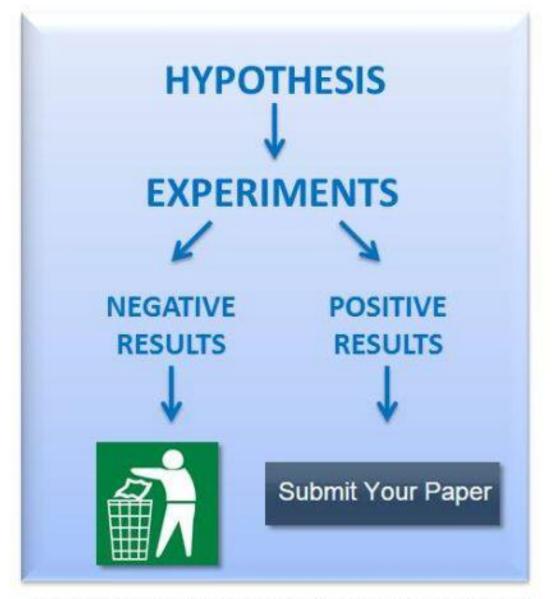
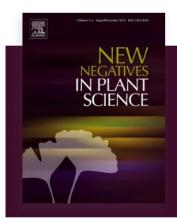


Figure 1: The most common approach taken by journals, in which only those experiments yielding positive results end up as publication material.



Figure 2: A more neutral approach, in which all results are published, as long as they are generated by well-carried out experiments based on sound hypotheses.

Granqvist (https://www.elsevier.com/connect/authors-update/why-science-needs-to-publish-negative-results)



## New Negatives in Plant Science

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Articles & Issues V

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Volumes 3-4

August-December 2016

## About the journal

Title discontinued as of 2017;

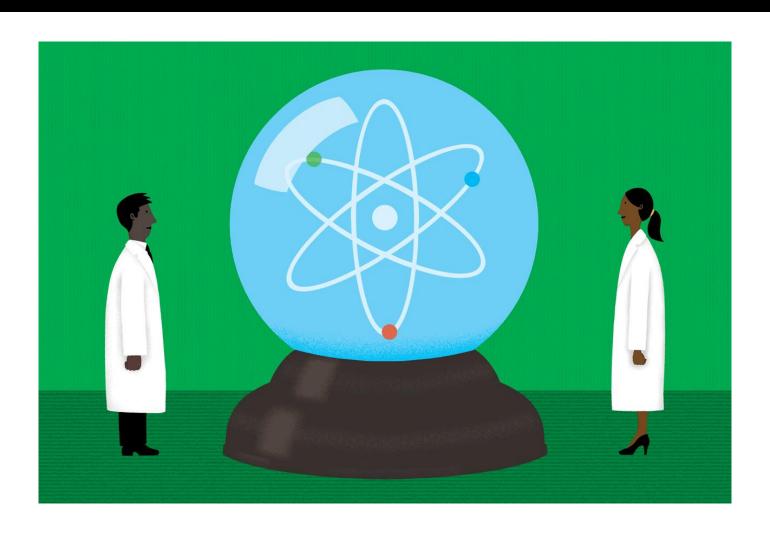
## Journal of Articles in Support of the Null Hypothesis



INDEX ABOUT MANUSCRIPT REVIEWER EDITORIAL CONTACT SUBMISSION SUBMISSION BOARD

Welcome to the *Journal of Articles in Support of the Null Hypothesis*. In the past other journals and reviewers have exhibited a bias against articles that did not reject the null hypothesis. We seek to change that by offering an outlet for experiments that do not reach the traditional significance levels (p < .05). Thus, reducing the file drawer problem, and reducing the bias in psychological literature. Without such a resource researchers could be wasting their time examining empirical questions that have already been examined. We collect these articles and provide them to the scientific community free of cost.

# Predviđanja



communication: No one means supplies all the needs; each has its excellences and its shortcomings in comparison with each of the others. If there is a heierarchy or pecking-order of indispensableness, journals are at the top.

Admittedly, journals do not provide either the speed or the medium for back and forth discussion that IEG memos do, but journals have always had and still have the option of doing so. They recognize that speed is desirable and seek to increase it, but not at the expense of scientific standards. They recognize the desirability of

Magazine | Editorial

# Peer Review: Implementing a "publish, then review" model of publishing

From July 2021 eLife will only review manuscripts already published as preprints, and will focus its editorial process on producing public reviews to be posted alongside the preprints.

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Home » Browse » Effect of in-office bleaching agent on the surface roughness and microhardness...

RESEARCH ARTICLE



roughness and microhardness of nanofilled and nanohybrid composite resins [version 2; peer review: 1 approved, 1 approved with reservations]

Previous title 'Effect of vital bleaching on surface roughness and microhardness of nanofilled and nanohybrid composite resins'

Anindita Chakraborty<sup>1</sup>, **Tina Purayil** io <sup>1</sup>, Kishore Ginjupalli<sup>2</sup>, Kalyana-Chakravarthy Pentapati io <sup>3</sup>, Neetha Shenoy<sup>1</sup>

Author details



This article is included in the Manipal Academy of Higher Education gateway.

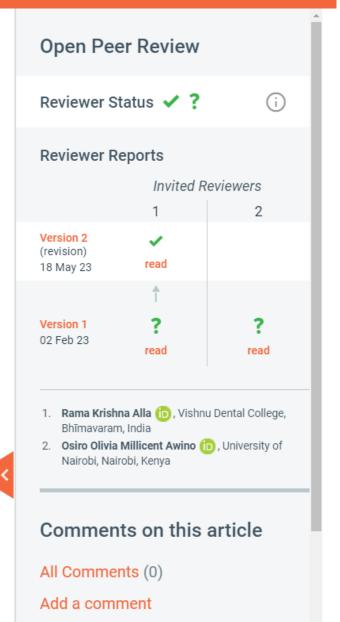
#### **Abstract**

**Background**: To compare the surface roughness and microhardness of Ceram.x® SphereTEC™ one and Filtek Z350 XT after in-office bleaching with Pola office.

Methods: Twenty samples each of (10 mm diameter and 2 mm height) Ceram.x® SphereTEC™ one and Filtek Z350 XT were prepared. The samples were subjected to three bleaching sessions with 35% hydrogen peroxide (Pola office) with a seven-day interval between each session. Surface roughness and microhardness of the prepared samples prior to and after the bleaching regimen were measured using a profilometer and Vickers hardness tester, respectively.

Results: A significant reduction (p <0.001) in the surface hardness of Filtek Z350 XT from 27.67 ± 2.10 to 17.83 ± 1.36 Vickers hardness number (VHN) was observed after the bleaching whereas no significant reduction in surface hardness was observed with Ceram.x® SphereTEC™ one. The adjusted mean (estimated marginal mean) microhardness after







# The Effect of Acute Oral Galactose Administration on the Redox System of the Rat Small Intestine

Antioxidants 2022, 11(1), 37; https://doi.org/10.3390/antiox11010037 (1) IF: 7.675 Q1

by Jan Homolak <sup>1,2,\*</sup>  $\boxtimes$   $\bigcirc$  , Ana Babic Perhoc <sup>1,2</sup>  $\boxtimes$   $\bigcirc$  , Ana Knezovic <sup>1,2</sup>  $\boxtimes$   $\bigcirc$  , Jelena Osmanovic Barilar <sup>1,2</sup>  $\boxtimes$  , Davor Virag <sup>1,2</sup>  $\boxtimes$   $\bigcirc$  , Mihovil Joja <sup>1,2</sup>  $\boxtimes$  and Melita Salkovic-Petrisic <sup>1,2</sup>  $\boxtimes$ 

Reviewer 1: Anonymous

Reviewer 2: Anonymous

Antioxidants 2022, 11(1), 37; https://doi.org/10.3390/antiox11010037 IF: 7.675 Q1

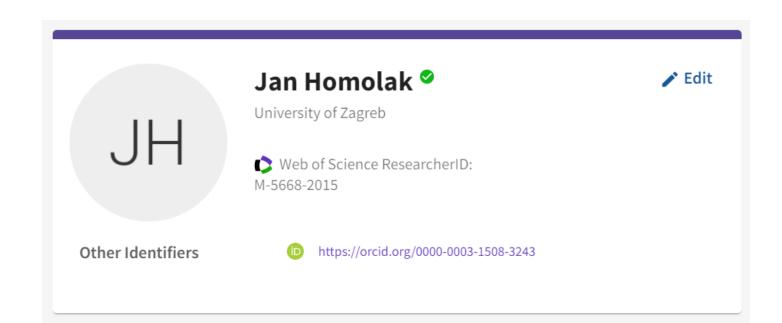
Received: 20 November 2021 / Revised: 22 December 2021 / Accepted: 22 December 2021 / Published: 24 December 2021 (This article belongs to the Special Issue Efficacy of Dietary Molecules in the Modulation of Redox Homeostasis of Rodent Models)

#### Round 1

#### Reviewer 1 Report

The subject of the manuscript is very interesting and is within the scope of the Journal. There is a strong need to understand the mechanism of action of galactose towards free radicals generation, and to reveal differences in the biological effects between parenteral and oral administration of that substance. Below are my recommendations to improve the manuscript:

- The Introduction part is to long and should be shortened. Moreover, sometimes it is hard to understand in what conditions
  galactose acts as OS stimulant, and when it provides beneficial effects to cognitive functions. It must be clearly stated (like in
  the Abstract), that chronic parenteral galactose administration triggers OS, and oral administration provides beneficial effects to
  the body.
- 2. Did the Authors obtain the approval of the appropriate ethic comitee?
- 3. The Authors wrote that studies on the role of galactose in animals are bias and their scientific value may be low. But, going through the manuscript I do not see any information how many repetitions of each measurments were performed. How can we be sure that these results are reliable and reproducible?
- 4. line 633 "The intestine is the primary organ for food digestion, absorption, and metabolism". Rather, the first organ involved in digestion is the stomach, not the intestine.
- 5. In general, both parts Results and also Discussion, are too extensive, and it is difficult to understand what the research actually



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## Verified peer reviews

- 2 International Journal of Molecular Sciences
- 1 Applied Computing and Informatics
- 1 Cellular and Molecular Life Sciences
- 1 Drug Research
- Journal of Clinical Medicine

#### VIEWING 5 COMBINED AUTHOR RECORDS

# Homolak, Jan This is an algorithmically generated author record ©

University of Zagreb

Sch Med

ZAGREB, CROATIA

Published names Homolak, Jan Homolak, J. Homoalak, Jan

Published Organizations University of Zagreb, Sch Med

Subject Categories Neurosciences & Neurology; Biochemistry & Molecular Biology; Pharmacology

& Pharmacy; Computer Science; Endocrinology & Metabolism

₩eb of Science ResearcherID: DUL-5236-2022

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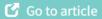
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#### Unexpected detection of SARS-CoV-2 antibodies in the prepandemic period in Italy

Tumori Journal (2021) - 9 Comments

doi: 10.1177/0300891620974755(\*\*) IF: 2.149 Q4 issn: 0300-8916 issn: 2038-2529 pubmed: 33176598

Giovanni Apolone 🗞 Emanuele Montomoli, Alessandro Manenti, Mattia Boeri, Federica Sabia, Inesa Hyseni, Livia Mazzini, Donata Martinuzzi, Laura Cantone, Gianluca Milanese, Stefano Sestini, Paola Suatoni, Alfonso Marchianò, Valentina Bollati, Gabriella Sozzi 📀, Ugo Pastorino



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#### #3 Jan Homolak commented November 2020

The conclusions are based on the results obtained by means of RBD-based ELISA developed in-house. Authors state "In our preliminary study, an excellent correlation between the neutralization titer and the IgG, IgM, and immunoglobulin A ELISA response against the RBD of the S-protein was observed,4 confirming that the RBDbased ELISA can be used as a valid surrogate for neutralization". However, reference [4] is their non-peer review article published on bioRxiv. A cursory look at the preprinted manuscript reveals serious potential flaws. E.g. cross-reactivity with other coronaviruses has not been evaluated [?]. Furthermore, insufficient details related to the methodology are provided ("data not shown"). On top of that, even (most likely) unrealistic data related to the sensitivity and specificity of the assay, when used in the setting described in the original article (retrospective analysis of samples from before the pandemic) with prevalence not set to ~10% as shown in the article would yield erroneous results. Even a very unrealistic assumption of 1% disease prevalence gives the positive predictive value of 31,45% [CI 6,04 - 76,60%]. Although the idea of the manuscript is interesting, severe methodological flaws are evident, and the fact that authors based their conclusions on the presented data is unscientific at best, especially considering the consequences of communicating such highly uncertain findings with the wider audience.



● report < permalink</p>





> Tumori. 2021 Oct;107(5):446-451. doi: 10.1177/0300891620974755(\*\*) IF: 2.149 Q4 . Epub 2020 Nov 11.

# Unexpected detection of SARS-CoV-2 antibodies in the prepandemic period in Italy 🖏

Giovanni Apolone <sup>1</sup>, Emanuele Montomoli <sup>2</sup> <sup>3</sup>, Alessandro Manenti <sup>3</sup> <sup>4</sup>, Mattia Boeri <sup>1</sup>, Federica Sabia <sup>1</sup>, Inesa Hyseni <sup>4</sup>, Livia Mazzini <sup>2</sup> <sup>4</sup>, Donata Martinuzzi <sup>4</sup>, Laura Cantone <sup>5</sup>, Gianluca Milanese <sup>6</sup>, Stefano Sestini <sup>1</sup>, Paola Suatoni <sup>1</sup>, Alfonso Marchianò <sup>1</sup>, Valentina Bollati <sup>5</sup>, Gabriella Sozzi <sup>1</sup>, Ugo Pastorino <sup>1</sup>

Affiliations + expand

PMID: 33176598<sup>(o)</sup> IF: 2.149 Q4

This article has an expression of concern and there are 9 comments on PubPeer (by: Hebeloma Saliciphilum, Fridtjof Lund-Johansen, Jan Homolak, Marin, Grevillea Oleoides, Gymnosporangium Ellisii, Luyue Zhao)

PMCID: PMC8529295(\*\*) IF: 2.149 Q4 DOI: 10.1177/0300891620974755(\*\*) IF: 2.149 Q4

Free PMC article

### **Abstract**

There are no robust data on the real onset of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and spread in the prepandemic period worldwide. We investigated the presence of

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Title & authors

**Abstract** 

# Preprintanje: predrasude, predbacivanja, prednosti, predviđanja

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