Open Science in "Revista do Instituto de Medicina Tropical de São Paulo"

Goals for the 2019-2023 established at the SciELO 20 years event (september 2018) related to Open Science:

- Adopt preprints as an initial step in the flow of scientific communication
- Provide full information on data and other materials (which, with a few exceptions, should be available in open access repositories).
- Progressively open the evaluation of manuscripts.



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Open Science



- Definition: movement to make scientific research (including publications, data, *physical samples** and softwares) acessible to all levels of the society, increasing transparency in an attempt to positively impact scientific knowledge through collaborative networks.
- * Physical samples: Brazilian and foreign researchers will necessarily have to agree and comply with the rules of Resolution 441 of May 12, 2011 (National Health Council, Ministry of Health, Brazil) that regulates the creation, maintenance and use of human biological samples stored in biobanks and biorepositories.
- <u>https://conselho.saude.gov.br/resolucoes/2011/Reso441.pdf</u>
- <u>http://conselho.saude.gov.br/o-que-e-rss/92-</u> comissoes/conep/normativas-conep/642-lista-de-resolucoes-conep

Access to physical samples

- CONEP The National Council of Ethics in Research will necessarily give its opinion on sending samples of Brazilian patients abroad.
- The foreign institution that proposes to receive the samples, will have to comply with the Brazilian law and agree to guarantee access to Brazilian researchers to the same number of samples that they will receive.
- There are also rules on the return of remaining samples to Brazil.



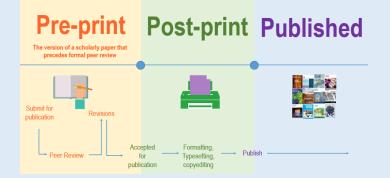
Other concerns

- Use of paid softwares (e.g. bioinformatics), making it difficult to repurpose especially for researchers working in low resources settings.
- Poor language and formatting of data.
- Cultural reluctance to publish data for fear of losing control of how the information is used, and that a research team with more resources could explore preprinted data, go further, obtaining more expressive results than the original authors, in less time.



Preprints

- 30-40% of preprints will never be published, 4/10,000 preprints will be retracted (~60% involve scientific fraud (fabrication, falsification, plagiarism or misconduct - fake peer review), 2% of deliberately manipulated images.
- Withdrawals involves only 1.7% of authors and are the result of deliberate misconduct, not errors; 1/5 of these authors are repeat offenders.
- Even retracted papers can be cited (both DOIs should be cited).
- Preprints are included in the *curriculum vitae* of researchers as if they were publications.
- Preprints have been included in review papers and metanalysis as true publications.



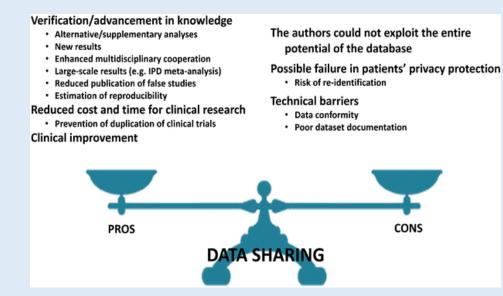
Peer Review

- The peer review system is saturated by the disproportionate increasing number of online publications versus the number of potential reviewers.
- Long time to come to a decision (sometimes more than a year); effectiveness in detecting plagiarism and scientific fraud is controversial.
- SciELO analyzed 79 journals registered, 23 (29%) adopt single-blind review; **53 (67%) double-blind review**; and 3 journals adopt triple-blind.



Open Peer Review: pros and cons

- Although < 20% of researchers believe in the Open Peer Review, it could ensure less corrosive comments, bringing reviewers and authors into a fruitful scientific debate.
- Opponents say it encourages reviewers to be less critical, it can exclude young reviewers, gives "powerful" authors the opportunity to influence the reviewer, besides encouraging the dispute between them.



Types of Open Peer Review

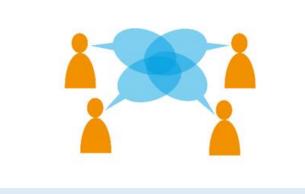
- **Open identities**: authors and reviewers are aware of each other's identity but reviews are not published.
- **Open reports**: review reports are published alongside the accepted version of the article (rather than being kept confidential).
- Open identities + open reports + reviews signed by the reviewer: only 8% of reviewers accepted to sign their reviews.
- Open participation of a third part: the wider community (and not just invited reviewers) are able to contribute to the review process; or the journal wants to share your personal data and reviews with other journals (from the same publisher or not).



REVISTA DO INSTITUTO DE MEDICINA TROPICAL DE SÃO PAULO

Open Science Initiatives

- Necessary and already completed steps: double blind peer review since 2016; systematic use of anti-plagiarism software; propose preprint SciELO to the authors as a way of early disclosure of results to the scientific community; RIMTSP has created an account in SciELO data.
- Implement the Open Peer Review progressively, listening to our reviewers and authors on the possibility of disclosing their identities and reviews to the scientific community.
- The first steps: considering that reviewers who reject articles are, in general, less prone to accept revealing their identities, our first initiative will be to ask the reviewers of accepted articles if they authorize us to publicize revisions in a supplementary file, and if they are willing to sign them.



So many issues to discuss... <u>revimtsp@usp.br</u> <u>thelma.okay@usp.br</u> Thank you!