

How to maximize benefit from good research practice?

Negatives are Positives — How to Publish Negative Data

Thomas Steckler

Janssen Pharmaceutica NV, Belgium

Publishing negative results seems still relatively rare in the scientific literature when compared to the publication of positive, catchy results that seem to confirm the working hypothesis, despite the fact that both positive and negative results are essential for the progress of science. In part, this has to do with the belief that negative results are more difficult to publish or of low interest. A set of criteria has recently been described by Bespalov et al. (2019) that should help scientists, reviewers and editors to publish technically sound, scientifically high-impact negative (or null) results originating from rigorously designed and executed studies. These criteria will be presented and their utility to facilitate the publication of negative data will be discussed.

Bespalov A, Steckler T, Skolnick P (2019) Be positive about negatives - recommendations for the publication of negative (or null) results. *Eur Neuropsychopharmacology* 29, 1312-1320.

Role of Funder in Rewarding High-Quality Research

Chantelle Ferland-Beckham

Cohen Veterans Bioscience, New York, USA

Growing awareness of the difficulties of replicating published findings provides an opportunity for the entire scientific ecosystem to examine the root causes. Poor implementation of the guiding principles of the scientific method leads to challenges while attempting to use or validate data preclinical study data. Many stakeholders play a role in driving a culture shift in how high-quality research is promoted and incentivized. Funders must reward researchers who foster a culture of good scientific citizenship, including data sharing, high-quality methodology, meticulous study design, and open and transparent scientific reporting. Future funding should be prioritized for those researchers who see themselves as playing an essential role in promoting the long-term objectives of science.

Research quality from the perspective of academia

Valentina Vengeliene

Dept. of Neurobiol. and Biophysics, Institute of Biosciences, LSC, Vilnius University, Lithuania

In academia, increasing publication pressure to be competitive for grants, promotions and awards is one of the main reasons for researchers patching up botched studies and publishing unreliable results, contributing to the problem with the irreproducibility of findings. Focus on establishing high research quality may remove many of the reasons that sustain bad practices and increase the overall efficiency of the lab. From bachelor students to senior postdocs, high research rigor, will ensure reliability of the results, reduce the number of failed experiments and ensure that time spent in the lab is valuable. A quality profile will also enhance the opportunities for collaborations with the pharmaceutical industry and receiving grants from funding agencies.

High quality standards as a vehicle to attract collaboration

Malgorzata Pietraszek, Anton Bespalov

PAASP, Hauptstr. 25, Heidelberg, Germany

It is difficult to imagine modern scientific research without collaboration. Collaborative research in biomedical research contributes to boosting knowledge and speeds up development of novel therapeutic strategies. There are different models of research collaborations. However, regardless of collaboration model, success of the collaboration depends to a large extent on the quality of results generated by collaborating parties (Vaudano 2020). Thus, apart from scientific excellence, collaborators need to adhere to high quality standards. This increases confidence in the quality of generated evidence and facilitates decision making regarding selection of collaborators and building of research networks. In this presentation, we will demonstrate why high-quality research is a prerequisite of successful research collaboration.

Vaudano, E. (2020) Research Collaborations and Quality in Research: Foes or Friends? In Bespalov, A., Michel, M.C., Steckler, T. (eds), *Handb Exp Pharmacol.* 257, pp. 383-398.