



## NEWS RELEASE

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### **Industry and academic leaders collaborate to launch new publishing platform to improve the reproducibility of preclinical research**

*F1000Research* will launch a new publishing channel that will encourage and facilitate open and transparent publication and discussion of confirmatory and non-confirmatory studies in the biomedical research sector.

Championed by Amgen's Senior Vice President for Research, Sasha Kamb, and former Editor-in-Chief of *Science* and *F1000Research* International Advisory Board member Bruce Alberts (University of California, San Francisco), the [Preclinical Reproducibility and Robustness channel](#) is open for everyone to publish and discuss confirmatory or non-confirmatory scientific research results.

An [editorial](#) by Alberts and Kamb highlights why they felt this channel was so important for scientific progress, and why they chose *F1000Research* as the publication of choice for this important effort.

In an increasingly competitive global environment for funding and employment, research scientists feel pressured to 'publish or perish'. This heavy burden sees a lack of encouragement to carry out and publish research that tests, confirms or contests preclinical research findings. This means that much follow-on research builds on study data that have

not been confirmed or reproduced, and which inevitably results in significant research wastage.

Rebecca Lawrence, Managing Director, F1000 said: “Until now, there hasn’t been a dedicated place to discuss why some studies can’t be reproduced in a fair and controlled environment. The *F1000Research* editorial policies and transparent publishing model are well suited to provide such an environment through the provision of all the source data, and open and transparent publication of the whole peer review and post-publication commenting process.”

To address the issue of research reproducibility, in mid-2015 the UK’s Academy of Medical Sciences (AMS), and leading funding bodies for biological and medical research – the Biotechnology and Biological Sciences Research Council (BBSRC), the Medical Research Council (MRC) and the Wellcome Trust – held a symposium to explore the challenges associated with the reliability and reproducibility of biomedical research in the UK, and opportunities for improvements. Dorothy Bishop, Chair of the steering committee for the resulting report, titled [Reproducibility and Reliability of Biomedical Research](#), said: “Tackling the reproducibility issue will need a mixture of ‘top-down’ and ‘bottom-up’ approaches, but a strong community effort is essential to underpin the problems that are felt on the ground by practising scientists.”

Bishop welcomed the new *F1000Research* platform. “This new channel facilitates many of the strategies that our report concluded as important: open methods, open data, post publication peer review and collaboration.” The Preclinical Reproducibility and Robustness channel will provide an environment for reinforcing the acceptability of being open about the results of researchers who are attempting to assess the robustness of major scientific findings, whether they are confirmatory or not.

Amgen is the first to publish three studies on the [Preclinical Reproducibility and Robustness channel](#), which will encourage global discussion centred on the original research and Amgen’s non-confirmatory studies, and accelerate understanding of the underlying science.

The challenges of reproducibility affect both pharma and academia. Larry Tabak, Principal Deputy Director, National Institutes of Health (NIH), the largest funder of academic biomedical research in the US said: “Recently the NIH has put considerable effort into improving the reproducibility of the work it funds”. These efforts include developing a training module on enhancing reproducibility of research findings and promoting and ensuring increased transparency for all NIH-funded clinical trials on [clinicaltrials.gov](https://clinicaltrials.gov). Tabak, went on to say “this effort led by Amgen shows there is an appetite from industry to engage in a constructive dialogue about preclinical studies, and this new channel is something we support and encourage our researchers to contribute to.”

Brian Nosek, Executive Director of the Centre for Open Science and one of the lead coordinators of the [Reproducibility Project: Cancer Biology](#) said: “Trying to build on irreproducible results is wasteful and inefficient. This channel offers an opportunity to identify reproducibility challenges early, and dramatically accelerate the accumulation of knowledge and translation of basic science into effective clinical interventions.”

Alberts, a co-founder of the ‘[Rescuing Biomedical Research](#)’ project, and formerly president of the National Academy of Sciences, strongly supports this use of *F1000Research* to enhance the self-correcting nature of science. He said: "Essential for the advance of science is the ability of a scientist to attempt to reproduce the published findings of another scientist and then readily publish his or her results. In recent years, it has become painfully obvious that the biomedical sciences urgently need an improved mechanism for openly and rapidly publishing non-confirming results, in a way that allows contentious issues to be efficiently exposed and discussed by scientists without editorial bias. To me, the *F1000Research* publishing platform is ideally suited to do this, and I very much hope that the new channel will be widely used for this purpose".

Kamb said: “In discovery research, we dedicate a huge amount of resources to reproduce, and hopefully extend, published studies, and in many instances we can’t. The goal of Amgen and our industry peers is to ensure potential therapies with strong clinical rationales move more quickly through the discovery pipeline. We, like the entire scientific community,

depend on fundamental discoveries made around the world and communicated via publications, and we can restore balance to the publication process by removing some of the bias against non-confirming dataset publication. This will improve efficiency and speed in translating basic discoveries into new medicines by decreasing the waste from redundant, non-publicized attempts to build on non-robust findings, and allowing us to focus more on the real breakthroughs.”

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**About F1000Research**

**F1000Research** is an open science publishing platform for life scientists that offers immediate publication and transparent peer review, avoiding editorial bias and ensuring the inclusion of all source data. This process helps scientists to avoid the traditional, anonymous, pre-publication peer-review process that can cause long delays before new results become visible.

All articles must pass an initial in-house quality check prior to publication on F1000Research. Following open, invited peer review where the referee’s name and affiliation and the referee reports are published alongside the article, authors can make revisions that are then published as new article versions.

Since its launch in January 2013, F1000Research has published over 1000 articles across the life sciences, written by more than 2,500 authors. For more details on F1000Research go to [www.f1000research.com](http://www.f1000research.com).