INTEGRITY IN SCIENTIFIC RESEARCH: WHERE ARE WE NOW?

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The Registered Reports project: A vaccine against research bias?

In 2013 the journal *Cortex* became the first outlet to offer Registered Reports, a format of preregistered empirical publication in which peer review happens prior to data collection and
analysis (see https://cos.io/rr/). The philosophy of Registered Reports is that in order to
counteract publication bias and various forms of researcher bias (such as *p*-hacking and
hindsight bias), the publishability of a scientific study should be decided by the importance of
the research question and rigour of the methodology, and never based on the results of
hypothesis testing. In this talk I will provide an update on the progress of Registered Reports
at *Cortex* and beyond, including uptake by more than 40 journals. I will focus in particular on
some of the emerging challenges of the format as it has expanded, together with insights it
has offered into forms of bias within both research and the peer review process. Together
with allied initiatives, Registered Reports are helping to reshape the incentive structure of the
life sciences to place transparency and reproducibility on par with conventional indicators of
scientific quality.