The peer review process works - but it isn’t perfect.

It's complicated, but, the process relies on its practitioners to spend large amounts of time and energy critiquing each others work in a thoughtful, meaningful and honest way. Peer review relies on human knowledge and ethics and, like humans, is flawed.

Last week, researchers and others took three days out of their busy schedules to travel to Chicago to think critically about the peer review process and ultimately, improve it. The meeting is called the Peer Review Congress (Eighth International Congress on Peer Review and Scientific Publication). The meeting, organized by The Journal of the American Medical Association (JAMA) and the BMJ has been held every four years since 1989. The motto of the meeting is to: enhance the quality and credibility of science.

The Peer Review Congress presents data on any number of issues that are associated with peer review. It's a who's who of issues for scientific research. They take time to do a deep dive into the quality and credibility of peer review and scientific publication. They look at research being done on these issues and think about the topic through the lens of scientific evidence.

The topics covered are, in part, bias, data sharing, integrity and misconduct, common problems in peer review and scientific publication, the overall quality of scientific literature, funding and grant reviews, innovations in the peer review process, and many more.

To get a sense of the types of presentations, some titles are,

- *Bias Associated With Publication of Interim Results of Randomized Trials:*
- A Systematic Review, The Influence of Industry Funding and Other Financial Conflicts of Interest on the Outcomes and Quality of Systematic Reviews,
- Assessing the Outcomes of Introducing a Digital Image Quality Control Review Into the Publication Process for Research Articles at Physiology Journals
- Early Experiences With Journal Data Sharing Policies: A Survey of Published Clinical Trial Investigators
- Optimism Bias in Contemporary National Clinical Trial Network Phase 3 Trials
- Pitfalls in the Use of Statistical Methods in Systematic Reviews of Therapeutic Interventions: A Cross-sectional Study
- Comparison of Acceptance of Peer Reviewer Invitations by Peer Review Model: Open, Single-blind, and Double-blind Peer Review
- Impact of a Change in Editorial Policy at the Nature Publishing Group (NPG) on the Reporting of Biomedical Research
- Authorship for Sale: A Survey Among Predatory Publishers and Journals

The conference attendees are editors and publishers of scientific peer-reviewed journals, researchers, funders, librarians, journalists, policymakers, ethicists, scientific information producers and disseminators - basically anyone who is a cog in the peer review wheel - and wants that wheel to turn a bit more efficiently.