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:
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.