

Peer Review Innovations

STM, April 2019

- **John Sack**, HighWire
- **Jennifer Regala**, Am Society of Plant Biologists
- **Brigitte Shull**, Cambridge University Press
- **Susan King**, Rockefeller University Press
- **John Inglis**, Cold Spring Harbor Laboratory Press



Agenda

- John Sack, HighWire
The recent history of peer review
- Jennifer Regala, Am Soc Plant Biologists
Open peer review at ASPB
- Brigitte Shull, Cambridge University Press
Shared peer review infrastructure
- Susan King, Rockefeller University Press
Cross-publisher manuscript & peer review transfer
- John Inglis, Cold Spring Harbor Laboratory Press
Shifting peer review in time and location

Plus ...Q&A

Peer Review – the recent past and near future /1

- What was once the future, may now be ‘best practice’
 - Testing forms of review became new choices
 - Trial registrations took hold quickly
 - Data sharing, not so quickly
 - ‘Technical’ improvements integrated quickly with online workflow
- Studies that were once important, and those that are now important
 - Peer review process studies
 - Bias, its causes and effects
 - Role of preprints, post publication metrics, online commenting
 - Shift in gender of presenters

Peer Review – the recent past and near future /2

- Important studies, but hard to do well
 - Threats to scientific publication and to science itself
 - Problem of reviewer fatigue
- Studies gaining steam
 - Approaches to reproducibility, open science, collaboration
- Studies on the horizon
 - Value of transfer/cascade
 - AI assistance, and AI biases
 - Publication based on “objective standards”

Peer Review – the recent past and near future /3

- The big problems to address
 - Reviewer fatigue
 - Quality control, and tools for it
 - Training, incentives rewards for peer review
 - Bias

Much of this is covered in an article from early 2018 on the PRC:

"Three Decades of Peer Review Congresses"

by Rennie and Flanagin

JAMA. 2018;319(4):350-353. doi:10.1001/jama.2017.20606

<https://jamanetwork.com/journals/jama/fullarticle/2670234>

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