Breakout Session: Evaluating Scientific Work

Summary Notes:

•Began with the premise of accepting the preprint as a valid form of scientific communication and evidence of productivity, and general agreement that flipping the process to have post publication review would be valuable in accelerating communication of scientific findings and data.

•Need to conceive of and develop a system for conducting peer enrichment of work, we discussed several approaches for this, including: the two track approach as suggested by Eisen and Vosshall, a simple overlay with existing/traditional journal system, better use of blogs and social media tied to preprint communications.

•The group discussed and supported a structure using trusted moderators/editors (not anonymous) selecting reviewers (anonymous). General agreement that it would not be wise to force non-anonymous commenting/reviewing, must allow for a choice and allow anonymity but comments/review must be validated by editor/moderator.

•An open architecture allows people to develop new ways to use manuscripts/data to advance their own work, develop and utilize internet and computational tools for this purpose, need to consider and include mechanism for appropriate citation.

• We discussed possibility of developing a system that provided incentive for providing constructive review, with reviewers getting some credit for constructive participation, use of ORCID # suggested here.

•The group considered the risks and downsides of peer review approaches and spent some time discussing the need and importance of taking this opportunity to improve the peer review process to remove potential for bias, intentional or unintentional to impact outcomes.

•Success will require senior investigators to commit to participating both as authors posting to preprint servers and in commenting and reviewing manuscripts posted to a preprint sever, particularly from their junior colleagues.

•The group discussed other models and enterprises that have evolved with the emergence of new technology/the internet, where there may be some lessons to learn, for example the changes in distribution and sharing in the music industry. The result has been fewer mega stars and more identifiable/known musicians being followed on a variety of platforms.