Response: “Why we still need grant peer review”

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Reply to: **S Avin** (in this issue)

While we welcome a discussion on the merits and demerits of possible funding systems, we fundamentally disagree with Avin’s comments. His letter is entitled “Why we still need grant peer review”, but it does not actually make a case for grant peer review. It merely criticizes our proposal in the abstract.

Avin is mistaken about a number of points:

- 1 Of course an ideal funding system must be as efficient, effective, and reliable as possible. Numerous publications show that the existing grant peer review system does not meet these criteria [1,2], hence our proposal.
- 2 Our proposed funding system does evaluate merit by circulating funding through the entire scientific community, somewhat akin to how Google’s PageRank

ranks web pages according to their merit without necessitating that every hyperlink in existence is peer-reviewed for merit.

- 3 Our system protects innovators: they receive a generous base amount and they can receive additional funding from *anyone* in the scientific community who appreciates their work versus a 3–4 person proposal review panel.
- 4 The role of “superstars”: the present distribution of funding is indeed very skewed but may still not match merit [3]. Our proposed funding system can be tuned by its “redistribution factor” to yield an entirely equal or maximally unequal funding distribution, or, if desired, one that matches the present funding distribution.

Rather than making philosophical deductions about what may or may not happen, we propose to conduct realistic tests.

We conducted a large-scale agent-based simulation of our proposed system showing that it can approximate the present distribution of NIH and NSF funding (See <http://arxiv.org/abs/1304.1067>), but at a fraction of the overhead. We are very interested in extending this research to study the social and economic factors involved in operating a collective allocation funding system by “*in vivo*” implementations and/or experiments.

Conflict of interest

The authors declare that they have no conflict of interest.

References

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2. Ismail S, Farrands A, Wooding S (2009) RAND Corporaton Research Brief TR-742-DH
3. Hicks D, Sylvan Katz J (2011) *Minerva* 49, 137–151