



## DATA REPRODUCIBILITY TASK FORCE

### COMMITTEE CHARGE

The difficulty in replicating research findings has been at the center of the attention in the specialized and lay press, and also in Congress and the Administration. Various reports indicate the problem of data replication as across-cutting in all areas of research, although it has been studied mostly at the clinical and pre-clinical research level. The magnitude of the problem described in respectable published reports, is disturbing and could possibly undermine scientists' credibility.

Several determinants have been found to be likely contributors to this problem, including, but not limited to:

- a hyper-competitive culture which tends to overemphasize findings, omitting methodological details;
- difficulties in reporting negative results that insert in the published literature a strong selection bias for positive results, which may have been achieved by chance only;
- journal publishing models that do not provide enough space for the Methods sections of articles;
- poor statistical training and experimental design.

The American Society for Cell Biology (ASCB) is troubled by these findings and recognizes the need for an in-depth analysis of the problem, specifically tackled from the basic science and cell biology perspective, which has been overlooked in the various reports detailing the data reproducibility problem.

To achieve this goal, ASCB establishes a *Data Reproducibility Task Force* which, after reviewing and summarizing findings in the literature, will examine eventual evidence for data replication and experimental reproducibility in cell biology and basic science, in general. Clinical and pre-clinical research reproducibility should not be considered the main focus of this committee's work. Also, fraud, misconduct, fabrication and plagiarism are not within the scope of the task force charge. The ASCB task force will follow closely and interact with the Advisory Council to the NIH Director, which is analyzing the problem of data replication and is planning for NIH-wide actions.

ASCB expects that the task force will provide recommendations and propose eventual initiatives to enhance rigor in conducting experimental basic research. Particular attention should be paid to ASCB as a publisher and what actions the Society should take to improve transparency and accountability that ensure reproducibility of findings published in its scholarly journals.