USC University of Southern California

OFFICE OF RESEARCH
Randolph W. Hall, Ph.D.
Vice President of Research
rwhall@usc.edu

MEMORANDUM

To: USC Faculty

From: Randolph W. Hall

Date: May 3, 2016

Regarding: Rigor and Transparency in Research and the Open Science Framework

Validation of research hypotheses through experimentation has been part of the scientific tradition for more than four centuries. An essential element of this approach is to rigorously document and standardize experimental design so that others can reproduce results under like conditions. Just as experiments by Torricelli modeling the atmosphere in the 1600s could be replicated through precise construction of glass barometers, we today seek to conduct experiments across all areas of science and the social sciences that can be reproduced.

Centuries ago, the spread of scientific methods would not have been possible without the adoption of printing technology. Today, communication technology is again altering scientific practice, as we have enhanced our abilities to spread knowledge and information, offering an immediacy and completeness that was not possible in the past. With these changes has come increased scrutiny of scientific rigor along with a desire for openness surrounding research methods and results.

I am happy to relay that the Academic Senate has passed a resolution endorsing a report of the Joint Academic Senate/Provost Committee on Research that recommends best practices and strategies for USC to excel in research through rigor and transparency, in light of what technology offers today. The committee and senate have recommended that USC exhibit leadership in "cutting edge research, using innovative methods that can be counted on to be the gold standard of scientific inquiry."

As one step toward the report's goals, USC has developed a partnership with the Center for Open Science:

- COS held a workshop on May 2 at USC on Increasing Openness & Reproducibility in Quantitative Research, which was attended by faculty, students and postdocs.
- The OSF now offers a landing page designed for USC investigators (osf.usc.edu). You may log in to OSF with your USC Shibboleth ID and password. The center's *Open Science Framework* (OSF; http://osf.io) is a data sharing network that facilitates collaborative research by providing individual researchers a means for centralizing data storage, and integration and sharing across the research lifecycle. The site will allow USC researchers to store their research within a common portal.

Please consider using the OSF in your future research, and please also review the recommendations for achieving best practice in research. I would appreciate any suggestions you may have on following through on the recommendations.

Additional Resources:
http://digital.usc.edu/ for tools to enable research collaboration and communication
http://research.usc.edu/facilities/computing-statistics-informatics/ for computing, statistics and informatics resources at USC.