

Editorial

Edward N. Pugh Jr., Editor

The Journal of General Physiology

ASSOCIATE EDITOR: CHRISTOPHER MILLER

JGP is pleased to announce that Christopher Miller of Brandeis University has become an associate editor. Chris is professor and former chair of biochemistry at Brandeis. Among his distinctions are the K.S. Cole Award in Membrane Biophysics (1986), the presidency of the Biophysical Society (2000–2001), and election to the National Academy of Science (2007). Chris has been a Howard Hughes Medical Institute investigator since 1989. Chris brings to his editorial service a rich experience in investigating the molecular structure and physiological function of ion channels and exchangers.

SUPPLEMENTS, SUPPLEMENTS

National Institutes of Health (NIH) funding through the American Recovery and Reinvestment Act (ARRA)

The entire biomedical community in the U.S. seems to be focused on applying for NIH supplementary funds, a component of the ARRA proposed by the president and passed by the Congress to promote economic recovery. This unprecedentedly synchronous intellectual activity in the physiology community will no doubt have strongly positive consequences for research, particularly in allowing the purchase of new equipment and in encouraging the implementation of novel technologies across the community. The splash of ARRA funds should also ripple out through the national and international economy to the manufacturers of biomedical technology and their suppliers. We wish all our authors the best in acquiring funds, and hope that your success will translate into even better science and many exciting submissions to the *JGP*.

Online supplemental material

Of increasing general concern to the scientific community, and of particular concern to the *JGP*, is another kind of supplement, the “Supplemental Material” that now accompanies most submissions. The current *JGP* policy on this matter is straightforward:

“An ‘Online Supplemental Material’ section, providing a brief description of any materials submitted for online only publication (such as videos, data sets, or supplemental figures), should appear at the end of

MATERIALS AND METHODS. The supplemental material will be linked to the online version. *All supplemental material*—whether tables, figures, detailed derivations of equations, or movies that depict the results of experiments or simulations—*will be subject to the same rigorous review as the main manuscript.*” (from <http://jgp.rupress.org/misc/ifora.shtml#supplements>, “Instructions to Authors”; emphasis mine)

The explicit goal of the current policy is to serve notice to authors that Supplemental Material is subject to the same standard of reviewing as all the other scientific content of a manuscript. Implicit is the understanding that Online Supplemental Material can play a variety of legitimate roles in a paper, including presenting materials (such as videos) that cannot be in a printed article, streamlining a manuscript by removing from the text necessary (but perhaps tedious) control experiments, archiving material (such as current traces from mutagenized channels), etc.

Several pressures now call for a review of policy on Supplemental Material. One pressure comes from the growing use of such material by other journals as an omnibus substitute for publishing scientific material. Increasingly, methods, theory, and even primary results are offloaded to supplements. As a community, we need to question such practices, asking whether they are dictated by the goals of science or by financial expediency, and inquire as to the short- and long-term consequences of such practices for science. At the *JGP*, we are fully committed to policies and procedures that promote the core values of thoroughly reviewed and transparently presented science. The stance of the *JGP* on Supplemental Material aims to promote these values:

“...the guiding principle for what to include in the Supplemental Material section is that the article should be read and understood without consulting the Supplemental Materials section.” (<http://jgp.rupress.org/misc/policies.shtml#practice>, “The Role of Supplemental Material”)

Another pressure is the ongoing and inevitable conversion of all scientific journals, including the *JGP*, to fully digital media. In a publishing era when all journal content will appear on a progressively level digital plane, it would be painful for scientists to find some of their best efforts relegated to the limbo of uncertain permanence. At the *JGP* we are committed not only to publishing the

best of general physiology, but to insuring that the entirety of the scientific content of an accepted manuscript becomes a permanent part of the scientific record. *JGP* policy reflects this commitment: as of December 2008, a PDF version of every published article can be downloaded with the Supplemental Material.

Yet another pressure is cost. *JGP* is a not-for-profit journal, but must pay its operating costs, and price policy must reflect this reality. Analysis by The Rockefeller Press suggests that a reasonable way to deal with costs in the digital era will be to charge authors a fixed fee (\$150) for Supplemental Material.

As a further step toward a forward-looking policy, *JGP* will soon include one or more checkboxes in its reviewer form with queries about the quality, clarity, and relevance

of Supplemental Material. While serving primarily in the review process, the checkbox data will also serve as information for ongoing policy review. In addition, we hereby solicit the viewpoints and opinions of our authors and readers on the matter.

The gist of these ideas is straightforward but deserves public report. Thus, let it be known that, in keeping with previous policy statements (Pugh, 2009), the *JGP* is committed to the full review of the scientific content of submissions, and to the publication and archiving of the entirety of manuscripts that pass muster in review.

REFERENCE

Pugh, E.N. Jr. 2009. Kudos to reviewers for the JGP: you make our science better. *J. Gen. Physiol.* 133:129–130.