What’s in a name?

Peter D. Wagner
Department of Medicine, University of California, San Diego, La Jolla, California

My first 1st-authored paper was in this Journal in 1967. My second most recent paper is in this Journal. This has been my foremost scientific home for more than 40 years, and I have never questioned its excellence. Strange then, that it carries the moniker “Applied” and I have not questioned it. As if there should also be a Journal of Pure Physiology (as in Pure and Applied Mathematics). Is my beloved Journal then by implication impure? Void of novel intellectual content? Second class? Of course not.

The word “applied” could be taken to mean no more than using already existing physiological knowledge and applying it to different states and conditions much as a production line turns out cars, where the real innovation was in the concept and creation of the production line (pure). Producing the cars was then cranking the wheel and absent intellectual thought (applied).

I see “applied” as much more than that, and this has helped me think through directions for the Journal as I step into the very large shoes of Jerry Dempsey, Editor Emeritus. Jerry has done a spectacular job and is to be greatly thanked. I see no need to drastically alter the path he has followed to make the Journal an ever more interesting meeting ground for physiologists. His special features (Highlighted Topics, Point:Counterpoint, Reviews, Viewpoints, and Invited Editorials) will continue as long as we can identify interesting targets and willing authors. I agree with his philosophy of using peer review to publish only the most worthy science.

That does not mean I will simply follow suit, though. First, to compete for high quality submissions, we need to raise our impact factor, now just over 3.7. I hate it, the tail is wagging the dog, but we can’t ignore reality. I hear that in some institutions, papers from journals with an impact factor below 3.7 may not count, and that is unacceptable. Second, turnaround time has become a new obsession. With essentially instantaneous electronic publication, time in peer review has become the limiting factor to rapid publication. To our loyal and trusted reviewers: two weeks or less will have to become the norm. Competing journals are pushing this, and so must we. For the sake of the Journal, we reviewers will all have to apply ourselves even more. Third, we will seriously tackle the rising burden of reviewer requests for additional studies. It is fine to demand additional studies when the “n” is too small to be reliable or when necessary controls or quality assurance procedures have not been done. But it is unreasonable to require studies forcing authors to next steps (and a year’s delay) if the original question has been answered and the work is novel and important. We will apply reasonable standards to such requests.

Fourth, the editorial team will apply to you, our authors, to submit more of your papers to the Journal. By assuring reviews of substance, a short turnaround time, and a strong impact factor, we will make the Journal even more attractive as the place for your best work. We will apply several strategies to this objective.

The preceding lists some procedural issues of concern. In addition, I would like to raise some academic issues. My primary vision is that our journals should be more than a place to publish and discuss physiological science among physiologists. Our journals should also be a tool for restoring the glory of (and funding for) physiology as a scientific discipline. NIH, and indeed also Congress, is currently all about “Translation.” Read: applied. Physiological research is the essential link between genes and clinical care: applying genetic and genomic knowledge via physiological models and methods to understand the genetic and environmental basis of health and disease is my definition of translation. Physiology cannot therefore be ignored if the promise of the past three decades is to be realized. The genomic revolution has inadvertently applied pressure to push physiology, and our journals, back into scientific center stage. No matter that some call it Systems Biology. We will solicit research papers that apply genomic and environmental basic science to understand physiological and clinical problems. We will solicit occasional reviews that apply known physiology to important clinical problems with the goal of providing physiological information to health sciences practitioners that they can apply in their clinical duties. This could be one reincarnation of the “APS Physiology in Medicine” series that appeared in the Annals of Internal Medicine.

Now is the time to drive home the importance of physiology well beyond the physiological community. That is what I mean by using the Journal as a tool, not just a place to publish. My vision is to disseminate interesting and important physiological research both up and down the food chain: to apply knowledge outside the physiological community. We will inform both Congress and NIH (and other major funding agencies) when significant physiological breakthroughs are published via short lay summaries focusing on significance—potential applications—of the findings. We will target undergraduate and high school student and teacher populations in a similar manner, but for different reasons—to excite students to apply to physiological programs of study as they grow. There is no better or more important opportunity to promote physiology than now and by applying the technological results of the revolution in electronic communication to our publications, we should be able to do it.

So I think the word “applied” is actually a great choice for our Journal name at this time in history. Even if you still have doubts, of one thing you can be sure—the editorial team and I will certainly apply ourselves to making the Journal even better than it is now.