

Physiology . . . IUPS . . . Wearing Multiple Hats

Walter F. Boron

Physiology 25:2, 2010. ;

doi: 10.1152/physiol.00003.2010

You might find this additional info useful...

Updated information and services including high resolution figures, can be found at:

<http://physiologyonline.physiology.org/content/25/1/2.full>

Additional material and information about *Physiology* can be found at:

<http://www.the-aps.org/publications/physiol>

This information is current as of August 21, 2013.

Physiology (formerly published as News in Physiological Science) publishes brief review articles on major physiological developments. It is published bimonthly in February, April, June, August, October, and December by the American Physiological Society, 9650 Rockville Pike, Bethesda MD 20814-3991. Copyright © 2010 the American Physiological Society. ESSN: 1548-9221. Visit our website at <http://www.the-aps.org/>.

Physiology . . . IUPS . . . Wearing Multiple Hats

Upon reaching a certain point in our careers, many of us find ourselves wearing more than one hat . . . and I now have one more than I did a year ago. At the 36th Congress of the International Union of Physiological Sciences (IUPS), I had the honor of being elected the new Secretary General of IUPS. Ole Petersen performed admirably in that position during the previous 8 years, and I feel the challenge of proving myself a worthy successor as I formally assume the position as Secretary General, effective January 1, 2010.

My preexisting hats were all fairly distinct from one another. In order of inception, they are: head of a research laboratory, teacher, co-editor of a physiology textbook, editor of this journal, and chair of an academic department. Although some might worry that the investment one makes in one hat may take away from progress with another—and it is true that a day has only 24 hours—I have found that my activities in one academic arena often cross-pollinate my activities in another . . . sometimes in unexpected ways. For example, when I was a newly minted assistant professor, my Department Chair Emile Boulpaep waltzed into my humble office to announce to me that he needed someone to teach respiratory physiology to the medical students. According to his logic, I was a pH guy, the lung helps control blood pH, and, therefore, I was designated as the new respiratory physiology teacher! Fifteen years later, when Paul De Weer—in jest—suggested that a hypothetical gas channel (or lack thereof) might explain some data we published concerning the differential permeability of apical vs. basolateral membranes to CO₂ and NH₃ in gastric glands, my continuous exposure to respiratory physiology began to pay dividends. I reasoned that if a gas channel existed, 1) it would be present in a cell that does large amounts of gas transport for a living (e.g., an erythrocyte), 2) the protein would be one that the cell had in abundance, and 3) the “function” of this

hypothetical protein would either be unknown or, if known, not match the physiological mission of that cell. The water channel AQP1 came to mind, and we then demonstrated that AQP1 is permeable to CO₂. We are now busy determining whether AQPs are permeable to O₂ and whether gas permeability through channels plays a physiological role in external respiration . . . all triggered and guided by my experience as a teacher of respiratory physiology. Time will tell whether gas channels are important, but it has been an interesting journey, and I certainly am glad that Emile waltzed into my office and forced me to become an amateur respiratory physiologist . . . so that my teaching hat was in a position to foster my science hat.

In my publishing career, an opportunity for cross-pollination arose when I was invited to become the new Editor-in-Chief of the journal that morphed into *Physiology*. Emile and I had just published the first edition of *Medical Physiology* and had a wonderful experience working with the art studio JB Woolsey & Associates, which created the artwork for the textbook. We were especially appreciative of the Woolsey approach, which involved working with rather minimal “scrap” artwork provided by us, consulting with us personally to learn what we were trying to achieve with the figure, and gaining additional insights by reading the manuscript. The result was attractive artwork that helps tell the author’s story in an efficient and effective way . . . and artwork that was consistent throughout the book. When approaching the new journal, I immediately thought of using Woolsey—which, upon the retirement of the Woolseys, morphed into Penumbra Design. Thanks to the support that we received from the American Physiological Society (APS), Penumbra has been producing the impressive artwork to which we have now become accustomed in *Physiology*. Here, my textbook hat helped my journal hat.

What about my newest hat with the IUPS? An interesting overlap of hats is that the APS and IUPS jointly publish *Physiology*. I am an active member of the APS, a former President of the Society, and I have a very soft spot in my heart for the APS. Of course, I am also quite fond of *Physiology*, which—with much help from my friends at the IUPS and especially at the APS—I helped create in 2004 from *News in Physiological Science*. And finally, I have loyalty to IUPS, which I now serve as Secretary General. From my perspective, the success of each of the three entities is interdependent. If the journal does well from an academic perspective, the discipline of physiology will benefit worldwide . . . and this generic benefit to physiology-the-discipline will have a positive impact on the APS and IUPS. If *Physiology* does well from a business perspective and eventually turns a profit, both the APS and IUPS would be able to invest the proceeds in valuable programs.

One of the items on the table is a cooperative effort between the APS and IUPS in marketing *Physiology*. For example, would it be possible to make at least the online version of the journal available—at a reasonable cost—to individual physiologists around the globe? Moreover, working with physiologists around the globe, might we be able to convince more libraries around the globe to subscribe to *Physiology* on behalf of their scientists and students?

Another area in which *Physiology* could play an important role for the IUPS and national societies worldwide—including the APS—is in communications. One of the goals of IUPS President Denis Noble is to reach out to national societies of physiology and increase their involvement in the business of the IUPS. *Physiology* already publishes two editorials per year from the IUPS. We might also invite national societies of physiology to contribute editorials on matters that they deem to be pressing.

I invite our readers and the various national societies—including the APS—to suggest ways by which the editorial policies of *Physiology* might better serve the national societies and their membership. You may contact me via e-mail at walter.boron@case.edu; please copy leslie.price@case.edu. ■