Publishing in the journals of the APS: Why are authors charged fees?

Why does the American Physiological Society charge its authors fees in the form of page charges and manuscript submission fees, especially in light of the considerable APS endowment? Because publishers of scientific journals recover their costs in various ways, this editorial will explain which costs those fees are designed to defray.

Basically, the large journal program of the APS has long been break-even, sometimes making and sometimes losing money in any given year. Some journals are more financially successful than others, but all serve the purposes of disseminating science and giving physiologists an appropriate venue for publishing their research. In 1995 the APS Council mandated that the publications program be self-sustaining and strive to achieve 10% revenue over expenses to help defray the cost of other member benefits. Since that time, the 10% goal has been achieved only in the last two years, but we must be alert to the uncertainties of publication revenues in future years.

The APS endowment has grown to its present size through wise investment of its funds combined with stock market growth that probably will not continue at the same pace in future years. At a strategic planning retreat held in November 1999, new ways for APS members to benefit from this fund were discussed. The Council will vote on them and announce these innovations later this year. But even before the retreat was held, the endowment’s existence allowed the Society to provide the following journal benefits in 1999: subsidizing scientifically warranted color and giving it free to first or last authors who are APS members, allowing free online access to all journal content 12 months after publication, giving free online access to the journals with the purchase of a print subscription (many publishers charge a separate subscription price for online access in addition to print), and offering to APS members the incredibly low $49.50 price for online access to the entire collection of journals. All of these benefits have affected journal income. Furthermore, the number of institutional subscriptions, which is the most important source of journal income, has fallen with the inception of online publishing. Nevertheless, it is essential for the Society’s publication program to remain fiscally sound.

It has been the philosophy of APS to keep subscription prices as low as possible to allow the broadest distribution among readers and not to burden libraries struggling to keep up with the price increases of some journals during these years of restricted budgets. The data suggest that we are doing quite well in this regard. A recent study performed at the University of Wisconsin-Madison found that when journal subscription prices were examined in terms of cost to a subscriber per printed page and by impact factor, association (i.e., not-for-profit societies like the APS) publications were a much better value than those published by commercial publishers. Among the neuroscience journals, for instance, the range of subscription cost per impact factor was 0.14 to 61.32. The APS’s *Journal of Neurophysiology* had a cost/impact factor of 0.298, an excellent value for the cost of a subscription. The study can be found on the Web at www.library.wisc.edu/projects/glsdo/cost.html.

Like many other association publishers, APS is able to keep subscription prices low by sharing some of the cost of publishing the journals with the authors who submit manuscripts. Some societies minimize page and other charges and underwrite the expenses of the journal program by requiring members to subscribe to their journal as a part of membership dues. Many commercial publishers do not charge authors for publication (i.e., page charges) but have much higher subscription prices and are expected to generate profits for their shareholders. For the APS journals, the cost of quality control and production (e.g., copyediting, proofreading, typesetting, layout, printing, binding, and mailing) averages more than $250 per printed page. We ask authors to contribute $60 a page to offset part of these costs and, in the last 2 years, have made this charge mandatory. These author charges are comparable to those of competing journals (e.g., *Endocrinology*, $85/page; *JBC*, $65/page; *JCI*, $60/page for 1–8 pages, $500/page for 9 or more; *J Immunol*, $60/page for 1–8 pages, $120/page for 9–12 pages, $180/page for more than 12 pages; *J Exp Med*, $55/page; the journals of the American Heart Association, $50/page; *J Gen Physiol*, $40/page). It should be noted that this $250 per page cost does not include the considerable costs of putting the journals online, which is another expense undertaken by APS to disseminate the science as widely as possible.

Recently, we have instituted a $50 manuscript submission fee to help cover the cost of peer review. Again, other journals, such as *J Clin Invest*, *J Exp Med*, and *J Pharmacol Exp Ther*, have manuscript handling fees. The rationale for instituting the manuscript submission fee was to effect a partial recovery of the costs of peer review of manuscripts, including rejected manu-

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scripts (approximately 3,000 rejected manuscripts were processed in 1999). Despite the voluntary contribution of labor by reviewers and editors, the peer review cost for each manuscript is $275. This figure includes the cost of operating editorial offices, paying staff assistants, purchasing or renting copiers, fax machines, and computers, and all of the concomitant telephone and mail costs. All of this is necessary for peer review to be done well, so that no manuscript becomes lost, authors’ work is kept confidential, and reminders are sent to the volunteers who do the reviewing, as authors rightly expect a quick turnaround time for their work. The manuscript submission fee provides a means by which the costs of review can be shared by all contributors that make use of the system.

The implementation of the new web-based tracking system, APSCentral (www.apscentral.org), has been expensive, but it was created to automate much of the process and to give editors, reviewers, and authors the opportunity to work from anywhere in the world with the most up-to-date tools. APSCentral is being implemented for some journals now, but within 18 months it will be operational for all the APS journals. We anticipate some reduction in the cost associated with the peer review process with APSCentral, particularly with mailing. However, even if the postage costs could be entirely eliminated, the costs for peer review processing of a single manuscript would still be $240. Thus we expect the primary advantage of APSCentral will be expedited review and processing of manuscripts rather than significant cost savings.

We clearly depend on the contributions of physiologists (both as submitters and reviewers) throughout the world to maintain the high quality of the articles published in our journals, and we value the association of each author and reviewer with the journal and the society. We realize that it is in the best interest of the physiological community, and in the best interest of the Society, both from a scientific and a business perspective, to have strong journals. Every effort is being made to keep publication costs as low as possible, consistent with maintaining the requisite quality. We are proud to say that we are doing our part to avoid the trend of rising subscription costs by minimizing our increases in subscription rates. The scientific community has put pressure on publishers to make science free to all; unfortunately, not even the E-Biomed proposal of Harold Varmus would have done that. In his proposal, it was intended for publishers to recover their costs by charging authors high submission fees and increased page charges in order to offer the content free to the scientific community and the public. It has been estimated that the costs to an author would be two- to threefold higher than it is now for “free” publishing on E-Biomed, or PubMedCentral, as it is now called.

All of this being said, however, it is still disconcerting as an author to have to pay $500–750 to publish an article in one of the APS journals. The Publications Committee and Council, scientists like you, recognize this because they have to pay the same bill you do. Many constructive suggestions to help defray some of the costs associated with publications have been proposed and are currently being considered. Additionally, a special task force is being assembled that will examine all aspects of our publications program, especially our pricing policy in light of the potential loss of income due to the impact of electronic posting of our journals. Rest assured that our guiding principle in the upcoming analysis will be to keep the cost to contributors and the consumer at a minimum, while at the same time enhancing the quality of the product. While the APS publications program is a $12 million/year operation and its income presently exceeds expenses, this situation can change instantaneously in this age of electronic web-based publishing. Our goal is to have APS publications properly poised to flourish under the prevailing changing and quite unpredictable conditions.

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