



Letters

The Public Library of Science

While it is regrettable that an unenthusiastic—if slightly misinformed—commentary on the Public Library of Science (PLoS) should be the catalyst, a recent letter to *ASM News* (December 2004, p. 554) might ideally open an important discussion within the microbiology community on the topic of open access to the results of scientific research.

PLoS, a nonprofit advocacy organization and publisher founded by Nobel laureate and former National Institutes of Health (NIH) Director Harold Varmus, is hardly a lone voice in its advocacy for open access. Dozens of the leading scientific institutions in the world have recently signed the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities; the United Nations World Summit on the Information Society has declared “We strive to promote. . .open access initiatives for scientific publishing;” and 25 Nobel Prize winners have sent an open letter to the U.S. Congress arguing that “open access. . .is the best path for accelerating multidisciplinary breakthroughs in research.”

Those endorsements aside, we welcome the opportunity to discuss the merits of both our publishing operation, and of open-access initiatives more broadly. The issues that Dr. Bradley’s letter raises are by and large precisely those that PLoS has considered in designing our journals’ policies—including concerns about archiving, copyright, and financial fairness.

On the first count, one of the benefits of open-access publishing is its advantages for the archiving of electronic journals (A. Gass, H. Doyle, and R. Kennison, *PLoS Biology* vol. 2, issue 1, July 2004). The role of publisher as archivist is a unique product of the Internet age, and has raised a number of hurdles for libraries that pay site-license fees and want a lasting

record of the content they subscribe to. Since open-access journals can legally be hosted on multiple servers, they skirt many problems that subscription-based journals pose for librarians trying to maintain permanent collections of online publications. For the print editions of *PLoS Biology* and *PLoS Medicine*, which we sell at cost (\$160 per year for individuals or institutions), archiving is of course no different than for any other serial.

Second, as Dr. Bradley notes, the issue of financial fairness, not just on the reader’s side but on the author’s as well, is an extremely important one in scientific publishing. It’s worth mentioning, however, that ASM publications such as the *Journal of Bacteriology* mandate author-side payments for most papers. According to its 2005 Instructions to Authors, the cost to the author to publish an 11-page paper in the journal is at minimum \$790 for ASM members, and \$910 for all others—with additional charges for posting supplemental material. Waivers of the fees are available only to authors whose research was neither supported by grants nor conducted in the course of employment, pending ASM’s review of requests to that end.

Given the obviously high quality of ASM publications, it is clear that simply charging author-side fees does not a “vanity press” make. In any case, PLoS waives its \$1,500 open-access publication charge, in whole or in part, for any authors who say they can’t afford it, no questions asked—through a process that is invisible to our professional editors, academic editors, and peer reviewers.

Finally, the assertion that “PLoS fails to build upon the experience of others” is patently absurd. My past role as Editor of *Cell* aside, PLoS benefits from personnel whose qualifications and relevant expertise are quite simply unassailable. Our editors and other staff have joined PLoS from *The Lancet*, *Nature*, and *The British Medical Journal*, among other publications, as well as renowned nonprofit organizations

including Business for Social Responsibility and the Packard Foundation. Our Board of Directors includes not just Dr. Varmus, who as NIH Director established PubMed Central (a fact which argues against PLoS’s ignoring it), but also Paul Ginsparg, who founded ArXiv.org; Lawrence Lessig, founder of Stanford Law School’s Center for Internet and Society as well as Creative Commons; and others of the world’s most accomplished, innovative, and knowledgeable figures in biomedicine, scientific publishing, and related fields.

I appreciate the opportunity to clarify a few of the PLoS policies and practices mentioned by Dr. Bradley, and look forward to an ongoing conversation among microbiologists on the subject of open-access publishing.

Vivian Siegel

Public Library of Science
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Response from Samuel Kaplan, Chair, ASM Publication Board:

I am responding as Chair of the ASM Publications Board. Having read both Vivian Siegel’s letter and the letter submitted by Gaylen Bradley I conclude they are unrelated and speak to different issues.

However, there are some facts salient to her comments. The calculation of the cost of a paper to an author in the *Journal of Bacteriology* (JB) is approximately correct and it is less than PLoS, but as we know, the fees that an author is charged yield revenue that is less than the actual cost to publish a paper in both print and electronically in JB, so the remainder must come from elsewhere (that has been our business model). Herein is the major distinction between the PLoS and ASM business models. When I go to the PLoS website and read their description of costs etc., it appears to be approximately \$75.00 per electronic page equivalent, or approximately \$1,070 for an 11-page article,



without including overhead. That is the expense for pages actually published. There is no indication of the expense associated with rejected manuscripts. ASM published over 64,000 pages (>7,600 articles) in 2004. Approximately half the manuscripts submitted each year are rejected, but even rejected manuscripts have handling/reviewing costs associated with them. There are more than 130 editors' offices supported by ASM.

Siegel mentions other sources of revenue beyond author payments. On their website they note that it is possible to be a "friend" of PLoS by making a donation. That is all well and good, but the issue of sustainability must be addressed. Can PLoS publish 64,000 pages with that model? It is fair to ask how long will their sponsors, "friends," "members" support them, and most importantly of all, how many scientific society publishers could be sustained using a model heavily reliant on benefactors. It seems that that is a pretty thin rack to hang one's coat on. Citing the numbers of notables who support this model or concept is wonderful, but it provides no omniscient view of the universe. It is at best an irrelevancy.

I wish PLoS the best. If they have a model which will last for the long term with 100 times the number of pages and is exportable to hundreds of additional publishers, then the ASM should not hesitate to join. In the meantime, I will continue to wear the free tee shirt they gave me. Does that require a gift?

As for our philosophy, ASM will continue to review, produce, and distribute the highest quality science at the most reasonable price to our members and other subscribers. We are conducting an intensive review of all our activities and will publish an article in the near future in *ASM News*.

The Origins of HIV and AIDS

While neatly sidestepping the issue of contaminated vaccines in the origins of the HIV pandemic in humans, Preston Marx misses an important point in the biology of virus infections (*ASM News*, January 2005, p. 15). Not only have the primate lentiviruses gone from simians to humans,

the other lentiviruses seem likely to have made similar transitions. The known species of lentiviruses with similar genomic arrangements have appeared in domestic mammals as varied as cats, goats, sheep, and horses without any evidence as to how this occurred. One is faced with two possibilities. Are these the transitions of a same "protolentiviral" species that somehow arose in all these animals independently, or was there a species jump somewhere in the past from one type of animal to another? This possibility was sorely tested during the slaughter of sheep to eliminate visna/maedi in sheep in Iceland during the 1960s. There were reports of seroconversion of farmers exposed to slaughtered animals but no evidence of disease.

Whether viruses jump species, or somehow are derived independently, is and will be unknown for some time.

Cecil H. Fox
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Nitrate and Virulence

A story in the November 2004 Journal Highlights section does not accurately reflect results published in the article "Denitrification genes regulate *Brucella* virulence in mice" by Baek et al. (*J. Bacteriol.* 186:6025–6031, 2004). The authors are claimed to have demonstrated that insertion of three denitrification genes into *Brucella neotomae* confers the ability to sicken mice. In fact, their results show that presence of the additional genes renders the bacterium less virulent. Quoting the final sentence of the article abstract: "The wild-type strain killed all the infected mice, whereas most of the mice infected with *B. neotomae* containing *nirD*, *nirV*, and *nirA* survived."

The Journal Highlights story attempts to fit the results of the article with the hypothesis that macrophages produce NO in order to kill ingested bacteria. However, it is difficult to assess the results of Baek et al. in relation to NO toxicity, since macrophages of the IRF1-/IRF1-mice utilized in their in vivo study have been shown to produce little or no NO (Kamijo et al., *Science* 263:1612–1615, 1994). The data in Baek et al. are more consistent with a

role for nitrite reduction in the amelioration of virulence.

Michael F. Cohen
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Thanks to ASM

We recently received a letter from our newest partner in Ethiopia and thought you might like to see how ASM has been able to positively affect the development of the AlShaday Children's Village. Tigray, where the clinic is located, is one of the poorest regions in Ethiopia. The poverty has been compounded by repeated natural and manmade disasters such as war, famine, and the severe drought of the mid-1980s that caused the deaths of approximately 800,000 people and which was centered in the Tigray region. AlShaday Children's Village was founded by Mr. Yemane Wolde Mariam in 1988 to provide a permanent home for child victims of the famine and civil conflict. Fifty-six percent of the population lives in areas affected with malaria. Other major health problems include respiratory problems, childhood diseases because of lack of immunizations and/or proper medications, eye problems because of strong and dusty winds, and HIV/AIDS. AlShaday Children's Village also operates income-generating projects, such as a small dairy and a vegetable farm which yields income that covers some of the operating expenses of the village.

The expressed vision of the clinic is to "be an exemplary, suitable and comfortable place for orphans and unaccompanied children in order to bring about a sustainable and wholesome development of all children with respect to their rights." In pursuit of this, the organization, which runs under the name of ERDT (Elshaday Relief and Development Tigray), has established two orphanage villages and two primary schools in the villages of Wukro and Kalamino, three primary schools between Mekelle and Adigrate, and supports 228 orphans and unaccompanied pupils in other primary and secondary schools, colleges, and universities.

On 1 July and 22 August 2004, Direct Relief was able to send out our first two shipments to help support the needs of the



program. Thanks to the generous contributions made by companies like ASM, Direct Relief was able to send a number of different kinds of pharmaceuticals, medical supplies and equipment that will aid the AlShaday Children's Village in treating the unfortunate children of the region

who would not be able to get help otherwise.

Over \$1,000 worth of products donated by ASM were contributed in the shipments, including Diagnostic Parasitology medical books and Cumitechs (abstracts of lab topics). We thank you very much for

your commitment and partnership, and we look forward to continuing our collaborations.

Rose Shuman

DirectRelief International
Santa Barbara, Calif.

6th International Conference on Legionella

OCTOBER 16-20, 2005

HYATT REGENCY, CHICAGO, IL

This conference will cover all aspects of Legionella, including genetics, physiology, pathogenesis and ecology, host immunity and susceptibility, epidemiology and taxonomy, clinical and laboratory diagnosis, disease treatment, environmental detection, risk assessment, and disease prevention. Reflective of the remarkable growth in Legionella research, the 6th International Conference has been expanded to last four days and to include nearly 40 invited lectures, over 100 poster presentations, 3 panel discussions, and numerous opportunities for fostering scientific collaboration.



IMPORTANT DATES (in 2005):

ABSTRACTS

April 1	Abstract submission open
June 15	Abstract submission deadline
July 20	Abstract disposition notification sent via email

REGISTRATION

April 1	Pre-registration open
September 30	Pre-registration closed
October 16	On-site registration (registration fee will increase \$50.00)

For more information, please visit www.legionellaconf.org