Internet publishing attracting academics

By Julie Bell, Baltimore Sun  |  August 16, 2004

Baltimore -- Manuel Llinas knew his career was at stake. The young scientist had just finished work on an eye-catching paper on the genome of a parasite that causes malaria. Now he and his lab director faced a critical decision: where to submit the article for publication.

A prestigious journal such as Science would draw attention and help Llinas when he interviewed for faculty jobs at top research institutions. But Llinas and Joseph DeRisi, his mentor at the University of California at San Francisco, chose a once unthinkable journal. They submitted the paper to PLoS Biology, a free online journal that had yet to publish its first edition.

"To publish in a journal that had no history was a bit unsettling," said Llinas, whose work netted him a Princeton University assistant professorship this fall. "But I knew it would be seen."

For more than 100 years, publication of major scientific and medical breakthroughs has been concentrated in a handful of prestigious journals. But the factors driving the shift to so-called open-access journals, including the reach and power of the Internet, rising subscription prices, and pressure from patients, are forcing changes in the world of scientific publishing. Universities are rebelling against rising subscription costs, as scientists chafe at paying for access to research that builds on their own work. One oft-cited example: the journal Brain Research has an institutional list price of $22,386 a year. Patient advocates insist on easy, searchable access to the results of taxpayer-funded studies.

Some among the 1,100 or more open-access journals available solve this problem by charging researchers a fee to publish their articles instead of charging for subscriptions. The Public Library of Science, parent of PLoS Biology and PLoS Medicine (scheduled to launch in October), charges researchers $1,500, but waives the fee for those who can't afford it.

That system isn't better, said Gregory Curfman, executive editor of the New England Journal of Medicine. He argues that having researchers pay for publication creates a potential conflict of interest: Will publishers subconsciously select articles based on the author's ability to pay?

Even so, many librarians and publishers acknowledge that publishing must evolve. Even large research institutions such as Johns Hopkins University are finding it increasingly difficult to pay for journals. Hopkins spent $7.2 million on books and subscriptions during the 2002-2003 academic year.

Some publishers participate in a four-year-old United Nations program that gives health professionals, scientists, and policy makers in the world's poorest countries free, full-text access to some journals.

It's uncertain how university committees that hire faculty and grant tenure will view publication in the new online journals over the long run.

David Botstein, director of the Lewis-Sigler Institute for Integrative Genomics at Princeton, said he wasn't concerned that Llinas's work was published in an open-access journal. Botstein said, "What matters is the quality of the work."