E-biomed could charge authors a fee—perhaps a low one to handle a simple submission and a higher one for peer-reviewed publication. How high? That will depend on several factors, Varmus says, "but will likely be in the range of $100 to $1000 per article" to cover the participating journals' costs. However, publishers of some FASEB journals report that they already have costs in the range of $1000 to $4000 per page, and that converting from subscriptions to a page-charge method of financing would drive authors away. FASEB members were not reassured when Varmus suggested in a meeting—as in the addendum—that societies should find other ways of raising money, such as raising meeting fees. As one observer said, "People didn't appreciate being told they should go out and sell Girl Scout cookies."

In general, editors who liked the original E-biomed idea are enthusiastic about the addendum; those who didn't are as cool as ever. But many society chiefs are reluctant to sound off in public, says Michele Hogan, executive editor of the *Journal of Immunology*. The E-biomed plan casts them as defenders of the status quo, even though many journals have led the way to e-publishing, she says: "We're a little afraid of how the scientific societies are going to look." Some will have a chance to air their views at a "summit meeting" of electronic publishers being held at the National Academy of Sciences in Washington, D.C., this week. But no matter what attendees think of E-biomed, says Marincola, it appears that Varmus considers this "possibly one of the most important things he's done as NIH director."

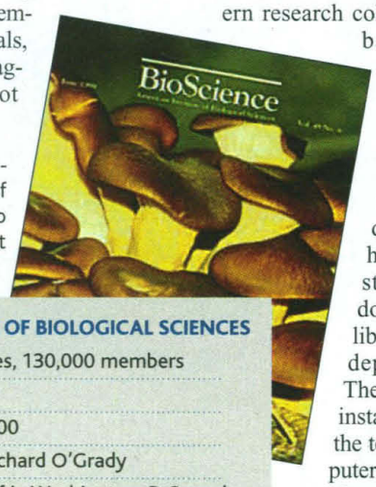
–ELIOT MARSHALL

ACADEMIC PUBLISHING

## Library-Society Alliance Puts Bio Journals Online

Research libraries are taking their fight to hold down the cost of journals into cyberspace. This week the American Institute of Biological Sciences (AIBS) announced it will work with major U.S. research libraries and a private printer to distribute electronically dozens of nonmedical biological journals published by its 55 member societies. The arrangement is aimed at allowing smaller societies—some of whose journals may be threatened by the advent of preprint servers (see previous story)—to stay in the publishing business, while giving libraries a say on subscription prices, which are rising much faster than inflation, and access to archival material. But some observers predict the collaboration will face many of the same challenges confronting other scientific publishers that have gone online.

The joint venture will create a collection of Web material, called BioONE, that will debut in 2001. BioONE will initially offer about 50 journals published by AIBS member societies, which range from the 6000-member Ecological Society of America to the American Fern Society, with fewer than 1000 members. Most of the journals, including the AIBS's flagship *BioScience*, do not now offer full text online. Without financial help, many of the member societies might be forced to lease or sell their relatively low-cost journals to for-profit publishers, says Rick Johnson of the Scholarly Publishing and Academic Resources Coalition (SPARC), an organization of research libraries. "What's motivating us is the plight of the small society," he says. "If their journals can't make the jump to electronic dissemination, [the society] may get squeezed out of publishing."




**Going electronic.** *BioScience* is the flagship of the AIBS, which plans to put its journals online at BioONE.

**AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES**

**MEMBERSHIP:** 55 societies, 130,000 members

**FOUNDED:** 1947

**JOURNALS:** More than 100

**EXECUTIVE DIRECTOR:** Richard O'Grady

**OFFICES:** 30-person staff in Washington, D.C., and Northern Virginia

Research librarians have become increasingly alarmed in recent years about rising journal prices. Since 1986, median prices for journals issued by both commercial and nonprofit publishers have increased by more than three times the rate of inflation, according to the Association of Research Libraries (ARL) in Washington, D.C., which represents more than 120 collections in the United States and Canada. As a result, library budgets are being stretched to the breaking point to cover key commercial titles that can cost up to $15,000 annually. In 1997 ARL officials formed SPARC, which has helped to sponsor several new journals that compete head to head with pricier existing titles (*Science*, 30 October 1998, p. 853).

SPARC and its allies want to promote competition by helping small, cash-strapped scientific societies jump into online publishing. Over the next 2 years, it will work with the Washington, D.C.–based AIBS, the University of Kansas and Allen Press, both in Lawrence, Kansas, and the Big 12 Plus Libraries Consortium, a group of 23 midwestern research collections, to create a Web-based service that could eventually provide access to 200 journals in the biological, ecological, and environmental sciences.

Although the framework for BioONE is still under discussion, its organizers hope to raise $750,000 in start-up funds and in-kind donations from foundations, libraries, and other university departments, says Johnson. The University of Kansas, for instance, is planning to donate the technical expertise and computers needed to store and operate the database. Campus staff will also work with nearby Allen Press—which already prints more than 100 AIBS journals—to prepare papers for Web publication. The company will be paid for its work.

In return for their support, libraries will have a significant voice in setting BioONE's subscription prices and access policies. One major issue involves electronic back issues. Although libraries routinely store past issues of a printed journal, they are sometimes denied access to archives of electronic publications once a subscription lapses. At the same time, societies are seeking assurances that Web publishing won't shrink revenues by reducing the number of library subscriptions to their print journals.

BioONE isn't the only Web journal publisher looking for a winning formula. In recent years more than a dozen groups—both commercial and nonprofit—have become online "aggregators" of scientific journals, creating Web pages that allow subscribers to retrieve papers from a large number of related titles. The American Chemical Society, for example, has created ChemPort, which pro-

CREDIT: AIBS

vides access to dozens of chemistry journals, while HighWire Press of Stanford University Press in California has created a site with some 130 crosslinked online journals, including *Science* Online. Commercial giant Elsevier Science also has backed several sites, including BioMedNet and ChemWeb, stocked with dozens of its titles.

But many aggregators continue to hunt for the right combination of pricing, advertising, and access policies. And some predict BioONE may have trouble satisfying everyone. Librarians, for instance, may be loath to sign up for the whole collection when they now have the freedom to select individual journals. "It should be a very interesting experiment—they will be wrestling with the same economic issues we do," says Don Muccino, executive vice president of the Online Computer Library Center in Dublin, Ohio, a library-backed nonprofit aggregator that puts more than 1600 journals online.

BioONE backers, however, are confident they can devise a workable solution that others may want to emulate. Says the University of Kansas's Beth Forrest Warner: "We're real excited about the possibility of breaking some new ground here." **–DAVID MALAKOFF**

SCIENCE IN SOCIETY

## Panel Discounts Implant Disease Risk

A blue-ribbon panel has concluded that silicone breast implants do not increase the risk of diseases such as lupus or cancer, rejecting a theory invoked in countless claims against implant manufacturers. But the report, released earlier this week, is unlikely to be the last chapter in the lawsuit-weary saga: The Institute of Medicine (IOM) panel cites evidence that silicone implants can leak and cause infections or painful scarring around the implants.

Anecdotal reports blaming implants for serious health problems first arose in the late 1980s and led to billions of dollars worth of legal claims against manufacturers. Most of those claims are now being resolved, as Dow Corning, Bristol-Myers Squibb, and other manufacturers have agreed to create settlement funds totaling about $7.2 billion. In the meantime, studies on implants and chronic disease risk have been coming up empty-handed. The IOM panel "is simply saying over again what we already knew—that the case for autoimmune disease was extremely weak," says Yale University immunobiologist Charles Janeway. But he and others say the imprimatur of the nation's top medical advisory body gives that conclusion more weight, shifting the scientific focus and legal battleground from systemic disease to local problems caused by ruptured implants.

The IOM stepped into the thorny arena of implant science in late 1997, at the request of the Department of Health and Human Services. The 13 panelists, led by Stuart Bondurant, a professor of medicine at the University of North Carolina, Chapel Hill, examined some 2000 peer-reviewed studies and 1200 other data sets and reports, searching for links between implants and lupus, rheumatoid arthritis or other connective tissue diseases, cancer, or neurological diseases. The committee also heard testimony from sick women and was "moved by their suffering," it said.

But the touching personal stories failed to sway the panel's views on the data. It concluded that the 1.5 million to 1.8 million U.S. women with implants are no more susceptible to serious diseases than are women without implants, according to available evidence. This conclusion, the panelists noted, is consistent with reports in the past year from U.K. experts and a panel appointed by a U.S. judge overseeing breast cancer litigation (*Science*, 11 December 1998, p. 1963).

But the panel did not give implants a clean bill of health. Essentially plastic bags filled with silicone gel, implants can rupture in an unknown percentage of women—studies have cited rates as low as 0.3% or as high as 77%. The pain of breast tissue contracting around implants, as well as infections and other health risks from surgery to replace implants, are "the primary safety issue[s] with silicone breast implants," the report found. The panel recommends more research to track women with implants to get a better handle on problems such as rupturing and second surgeries, and improved tests to gauge silicone concentrations in body fluids and tissues.

> **The IOM panel "is simply saying over again what we already knew."**
>
> **—Charles Janeway**

Some observers who are not ready to dismiss the disease threat say they are waiting for the results of a major epidemiological study on women with implants by the National Cancer Institute (NCI), due out later this year. That study, however, may be predetermined to find problems, says IOM president Kenneth Shine: Materials for recruiting participants may have "encouraged women with symptoms and problems to enroll," he says, rather than gathering a sample that would include healthy women with implants

CREDIT: TECHNICAL UNIVERSITY OF MUNICH

## ScienceScope

**Enriching Debate** An expert panel has presented the German government with some choices for a controversial new reactor near Munich that's designed to produce neutrons for materials science and other research. The $500 million FRM-II neutron source, due to be completed in 2001, would be fueled by highly enriched uranium, which can be used to make weapons. Nonproliferation advocates want the reactor to be reconfigured to use a low-enriched uranium fuel. The German government appointed a committee in January to review alternatives (*Science*, 5 February, p. 785).

This week, the seven-member panel concluded that it would be costly and time-consuming to alter FRM-II's design this late in the game. But the panel, led by science ministry official Wolf-Michael Catenhusen, said that the reactor might be able to make a less costly switch by 2008 to a low-enriched uranium fuel in development.

The German cabinet is expected to decide how to proceed within a few months. But any changes in the FRM-II must be coordinated with the state of Bavaria, which oversees the project.

**Biology Boost** An alumnus who made a fortune selling car insurance has pledged $35 million to a new genome research center at Princeton University. The gift from Peter Lewis, CEO of Progressive Corp. in Cleveland, Ohio, will cover almost half the planned $75 million budget of the Institute for Integrative Genomics.

The donation marks the latest gain for genome studies at major research universities. Harvard recently decided to spend $40 million on a center to apply genomics to the study of evolution, while the California Institute of Technology is more than halfway toward a goal of raising $100 million for interdisciplinary research on the brain and development. The Princeton center, launched last year, is probing how a cell's many molecular components fit together as a functional unit of life, says cell biologist Shirley Tilghman, the institute's director.

"This is a trend you are going to see more of," says Bruce Umminger, division director of integrative biology and neuroscience at the National Science Foundation.