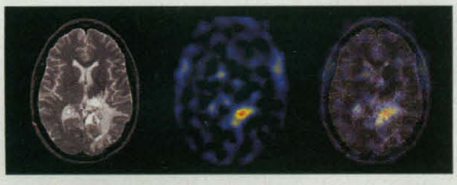
IMAGES

Internet Brainstorm

These scans of a brain tumor come from the Whole Brain Atlas, a Web site that holds thousands of images of the normal brain and about 32 medical conditions, from Alzheimer's disease to stroke and multiple sclerosis. Massachusetts Institute of Technology physics grad student Alex Becker explains that he and Harvard neurologist Keith Johnson turned to the Internet 4 years ago to do something no medical textbook can: "Make a very, very large amount of data quickly and efficiently accessible to anybody who wants to look at it." The site allows one to zoom through brain slices, see movies that follow a patient's condition over months, and superimpose scans from different machines. (Here, structural information from magnetic resonance imaging and color images of tumor activity, known as SPECT.) www.med.harvard.edu/AANLIB/home.html



CREDIT: (TOP) KEITH A. JOHNSON AND J. ALEX BECKER

HOT PICKS

Breast cancer and environment. Could pesticides or diet influence a woman's risk of getting breast cancer? This site gives the lowdown on what studies show about environmental risk factors and breast cancer and includes a bibliographic database for researchers. www.cfe.cornell.edu/bcerf

Palatable physics. Get a taste for what's appearing in this week's *Physical Review Letters* with these summaries of selected papers written for those armed with at least freshman physics. publish.aps.org/FOCUS

NET NEWS

Superfast Network Goes Global

U.S. researchers who need high-speed computer lines to collaborate with colleagues abroad can look forward to a whole new world of possibilities—or a big chunk of the world, anyway. The National Science Foundation (NSF) announced last week that it's hitching up its high-speed network to computers in Russia and the Pacific Rim. The connections should help scientists collaborate across oceans on everything from remote microscopy to astronomy and nuclear weapons control.

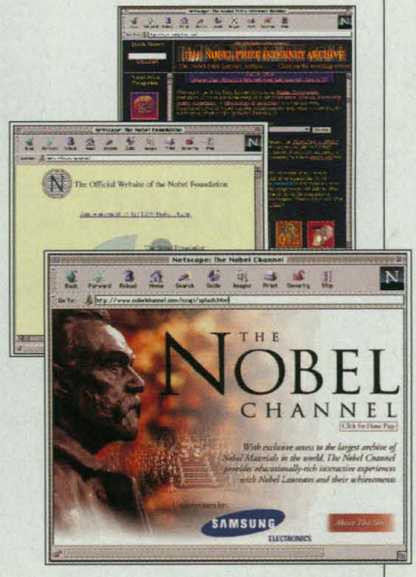
NSF director Rita Colwell unveiled the international hookups to the agency's very high speed Backbone Network Service (vBNS), which currently connects 56 U.S. research institutions. The links will run on underwater fiber-optic cables already in place between the United States and Japan and Russia and will be managed by Indiana University and the University of Tennessee. "For the first time, we are poised to extend a high-speed network for research ... all around the globe," Colwell said. The connections follow vBNS links to Singapore and Canada established last year.

In Asia, the 34 million bit per second (Mbps) pipeline called TransPAC will be hooked to an existing research network connecting Japan, Korea, Singapore, and Australia. MirNET, Russia's link, is still about 60 days away from being operational and will operate at a mere 6 Mbps. (That compares to a dizzying 622 Mbps for the vBNS—fast enough to send 46 copies of a 300-page book every second.) "This doesn't sound like very much," says NSF International Networking Program director Steven Goldstein, but it will make a big difference for researchers now sharing crowded computer lines. Imagine having "your own two-lane road with nobody else on it," he says. More links are in the works: Israel, France, five Nordic countries, the Netherlands, and Taiwan are expected to connect to the vBNS within the next few months.

SITE VISIT

Winning Nobel Sites

Along with crisp air and fall colors, October brings a tingle of anticipation as the Nobel Foundation in Sweden gets ready to announce the year's prizewinners. For the straight scoop on the Nobel prizes—awarded in chemistry, physics, physiology or medicine, peace, and literature—check out the foundation's official site (www.nobel.se). Here you can browse a database of laureates, learn how much the award's value has climbed since 1901 (50-fold, to 7,600,000 Swedish krona, or $962,920, in 1998), see reports from the awards ceremony this December, or bone up on Alfred Nobel, the explosives inventor and industrialist who established the prizes. The site, which also covers the related economics prize, is metamorphosing into the Electronic Nobel Museum, a huge hypermedia archive set for completion in 2001.



Those who can't wait for a multimedia experience should surf over to the new Nobel Channel, set up by Samsung Electronics (nobelchannel.com). Provided you've loaded your plug-ins and have ample memory, you can see film footage of laureates discussing their prizes or a video animation about the 1988 winners' discovery of the muon neutrino, among many snazzy features. Finally, for a grassroots look, try the Nobel Prize Internet Archive, run by a couple of Massachusetts Institute of Technology grads–turned–Internet entrepreneurs (nobelprizes.com). Besides basic info on Nobelists, there's a gossip board, a link to the spoof Ig Nobel prizes, and a form for adding your own links. Or take a trivia quiz with questions such as, Which secondary school has had the most Nobel laureates? Hint: It's in the northeastern United States.

Science ONLINE

Some say small is beautiful. In the case of nanotechnology, the manipulation of single atoms on a billionth-of-a-meter scale, it's also proving to be hot stuff. On Next Wave this week, an international panel of experts takes a magnified look at the research, business, and career aspects of this growing field. www.nextwave.org

Send Internet news and great Web site suggestions to netwatch@aaas.org