NETWATCH

edited by JOCELYN KAISER

CREDIT: (TOP) RUSSELL KEMPTON/NEW ENGLAND METEORITICAL SERVICES

COOL IMAGES

Rock of Contention

It may look like a boring old moss-covered rock, but this chestnut-size greenish chunk is actually a bit of meteorite from Mars and hence one of the most exciting things a planetary scientist can lay her sterilized gloves on. The Nakhla meteorite, named for where it fell in Egypt in 1911, made headlines last year when scientists claimed that, like an earlier rock in 1996, it contained possible evidence of microbial life on Mars. The clumps of minerals in the meteorites found on Earth—20,000 and counting—offer clues to the origin of our solar system. You can read up on the basic classes of meteorites at this Web site from a commercial lab.* For a gigantic gallery of meteorite images annotated with scientific details, check out this site run by a collector.† For more on the 14 known martian meteorites, try this NASA site.‡

* www.meteorlab.com/homepage.htm
† www.geocities.com/~dweir
‡ www.jpl.nasa.gov/snc

NET NEWS

India to Pave On-Ramp to Information Superhighway

Indian scientists are lauding their government's approval of a new research network that will connect universities to each other and to the global Internet at first-world speeds. Run by a joint venture affiliated with Carnegie Mellon University (CMU) in Pittsburgh, the net's broad bandwidth should also usher into remote villages technologies such as telemedicine and online classes.

India's Department of Telecommunications and a CMU spin-off company called IUNet agreed in late 1998 to set up a National High Speed Interuniversity Data Network (also known as Sankhya Vahini, or "river of numbers" in Sanskrit). On 19 January, the Cabinet finally gave the project its stamp of approval. The $250 million deal is being financed roughly 50/50 by IUNet and Indian agencies and educational institutions, over 100 of which will be connected. The network, which will also sell commercial connections, will tap into 10,000 kilometers of fiber-optic cable already laid in India by the telecom department. It will operate at 2.5 to 40 gigabits per second—comparable to today's commercial Internet traffic in the United States and as much as 10,000 times faster than typical speeds in India. Even India's best connected research institutes have only a 100-kilobit-per-second outside link, says CMU engineering professor V. S. Arunachalam.

Besides helping researchers, Indian officials envision that the network's high bandwidth will pave the way for things like teaching village doctors to perform surgeries via video and giving farmers access to databases on insect pests. Arunachalam says the network should begin operating in about a year.

HOT PICKS

One-stop shopping. Looking for the freshest research in your field? The new PrePRINT Network trolls more than 20 databases—such as the Los Alamos e-print server—and scores of departmental Web pages for preprints in physics, math, chemistry, environmental science, and other areas funded by the Department of Energy. www.osti.gov/preprints

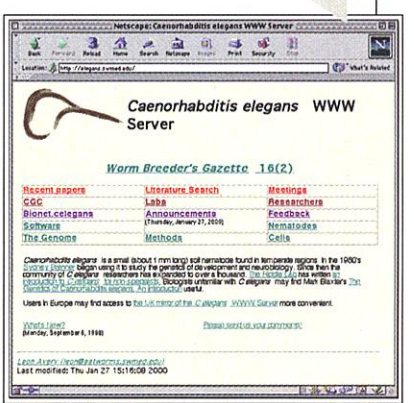
Color me purple. Dress them in ribbons, assemble them as balls and sticks, or put them in movies: Those are among the options offered by Visual Molecular Dynamics (VMD), a free software package for modeling proteins, lipid bilayers, and nucleic acids. Just released for Windows (there's also a UNIX version), VMD also has a sister program for simulating molecular dynamics. www.ks.uiuc.edu/Research/vmd

Patent peeves. Riled by patent claims on DNA fragments, or concerned that the U.S. government is handing out software patents like candy? The editor of a well-known e-newsletter has assembled this site of "legal resources and tools for surviving the patenting frenzy." Although it's partly subscription based, free sections include papers on biotech patenting and a list of software patents that were eventually deemed invalid. www.bustPATENTS.COM

SITE VISIT

Lair of the Roundworm

elegans.swmed.edu



It's tiny, simple, transparent, and fecund—qualities that have endeared the nematode *Caenorhabditis elegans* to biologists and made it one of the most informative model organisms. Scientists have mapped the worm's development in unparalleled detail, tracing the lineage of each of the adult's 959 cells back through every division to the fertilized egg. And in December 1998, *C. elegans* became the first animal to have its genome completely sequenced.

If you'd like to get to know this wonderworm better, try the *Caenorhabditis elegans* WWW Server, a clearinghouse of resources curated by neurogeneticist Leon Avery of the University of Texas Southwestern Medical Center in Dallas. Here users can search the worm's genome, download graphics and genomics software, study tutorials on lab techniques and equipment (such as how to build a fluorescent dissecting stereomicroscope), post a question or comment in the worm newsgroup, and even dig for worm-related jobs. The most popular feature, Avery says, is the bibliography with 3500-and-counting abstracts of published papers and conference proceedings. And for announcing new findings informally, the site offers the *Worm Breeder's Gazette*, an online newsletter. Other links lead to more than 100 labs worldwide that are probing the ecology and evolution of these soil-dwellers and their role as agricultural pests.

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