

NETWATCH

edited by JOCELYN KAISER

DNA Patent Free-for-All

SITE VISIT

Hoping to foster debate in a controversial area, a nonprofit group recently began posting U.S. DNA patents on a free online database. The purpose, writes the Foundation for Genetic Medicine Inc. (geneticmedicine.org), is "to provide information on some of the most fundamental policy questions in biotechnology," including the patenting of human DNA.

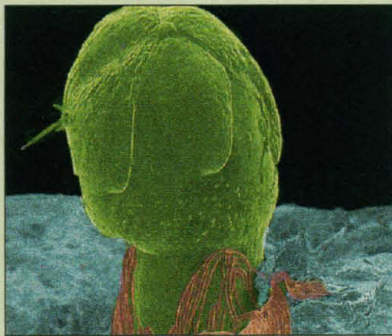
The site, run jointly with Georgetown University's Kennedy Institute of Ethics, contains more than 9000 nonplant, DNA-based patents

issued from 1980 through December 1997; it will be updated quarterly. The full text of all these patents would cost \$27,000 if purchased from the U.S. Patent and Trademark Office, says the foundation's Stephen McCormack, who built the database with Robert Cook-Deegan, a research fellow at the Kennedy Institute. The patents can be searched by key word, sequence, or inventor. A few clicks reveal, for example, how many

claims are registered for human DNA (1914), and how many are held by William Haseltine, head of Human Genome Sciences Inc. (13). One can skim the three patents for the BRCA1 and BRCA2 breast cancer genes, or the 286 assigned to the United States of America.

McCormack hopes the database will attract everyone from researchers to bioethicists and biotech CEOs. Massachusetts Institute of Technology molecular biologist Jonathan King, who opposes DNA patents, says it should be "very useful" for following trends, especially because many people can't afford the patent search services used by law firms. "The world of patent law is quite exclusive," King says.

Small world. This micrograph of a waterlily bud (magnified 60 times) comes from The Nanoworld, a Web site run by Duncan Waddell of the Centre for Microscopy and Microanalysis at the University of Queensland in Australia (www.uq.oz.au/nanoworld/gallery.html). The site features 175 finely detailed images, some color enhanced, from the center's 17-year-old collection of electron-microscopy negatives: a house fly's ornately bristled foot, a staphylococcus chunk of intestine, a mollusk's spiny teeth, sperm swarming over an ovum. Visitors can also guess the identity of mystery images. Waddell says the gallery will soon grow much larger, as the center can now capture digitized images directly from its microscopes.



COURTESY OF GEORGE MUSIL

NET PICS

Research cheerleaders. Be an armchair quarterback as the Science Coalition, a group of universities and scientific societies, spearheads a drive to get Congress to fatten university research budgets. The lobby group's site also spotlights new research discoveries. www.sciencecoalition.org

HOT PICKS

Brunt of bad weather. The economic toll of the tornadoes that ripped across the southern United States this year is among topics explored by Societal Aspects of Weather, a National Center for Atmospheric Research project. The site aims to connect climate and social scientists with news, links, and resources. www.dir.ucar.edu/esig/socasp/

Have extra energy? You can now browse the full text of 25,000 Department of Energy reports on physics, chemistry, environmental cleanup, and other R&D areas at www.doe.gov/bridge

Can Internet Help Peg Healthy Lifestyles?

Some health researchers are scrapping their No. 2 pencils and stacks of forms and turning to the Web to conduct surveys. Last month, epidemiologists launched the National Health Survey (www.healthsurvey.org), which hopes to get 20 million Americans to share their exercise habits, diets, and cholesterol levels so researchers can tie them to outcomes like life-span and heart disease. But some experts question how useful the data will be.

According to survey director Paul Williams of Lawrence Berkeley National Lab, computers offer benefits to participants that aren't possible with "paper-and-pencil" surveys. If you indicate you're a runner, for instance, his site can work out how your running times compare to those of other people your age. Or, if you wish, it will send your dietary analysis to your doctor. One huge advantage for researchers is that the survey will cost pennies per person, versus at least \$10 a head for postage, data entry, and other costs of paper surveys, Williams says.

But Web surveys have drawbacks. Harvard's I.-Min Lee notes that the survey could lose its cost advantage when researchers have to track down participants who have dropped off the Internet because they're ill. In addition, the survey won't reflect health trends for the average American but only for a wealthier subset: people with Internet access and

enough interest to fill out the forms. Williams predicts the surveys will reach a broader population over time: "Ten or 15 years from now, computers are going to be as ubiquitous as telephones."

Yet another problem may be getting people to follow up, says Lawrence Kushi of the University of Minnesota, Minneapolis, who started a similar survey last June (www.epi.umn.edu/health_survey/). Like Williams, Kushi is reminding participants (1279 so far) by e-mail to update their data, but the response rate has been about 30%—less than he'd hoped. Still, he says, although Internet surveys are "definitely experimental," he thinks they could reach far more people than conventional approaches.

NEWS

SCIENCE ONLINE

Science Online has just launched a new experiment: an interactive Web site called NeuroAIDS. Funded with a grant from the National Institute of Mental Health, the free site will offer peer-reviewed digital papers, news, discussions, and other resources on how HIV affects the nervous system. NeuroAIDS's creators want to see if a content-rich site encompassing one research area can foster scientific collaboration, and they encourage you to participate. www.sciencemag.org/NAIDS

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