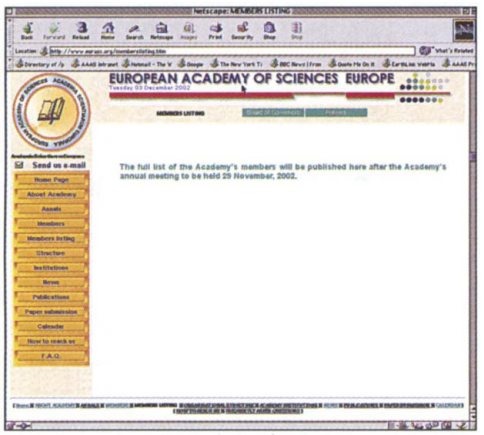
are put together in different ways as they are expressed. "This is a very important point," says project leader Yoshihide Hayashizaki.

While the mouse genome sequencers celebrate their accomplishments, the U.S. team sequencing the rat genome also has cause to cheer. Last week, Richard Gibbs, director of the genome center at Baylor College of Medicine in Houston, Texas, and his colleagues announced that they had completed a high-quality draft of the rat genome. "Mouse and man are fairly far apart," Artzt explains. Having two rodent genomes "will be particularly useful" in interpreting sequences from all three mammalian species—another gift waiting to be pulled out of its box. **–ELIZABETH PENNISI**

EUROPEAN RESEARCH

## Mystery Academy Holds First Powwow in Private

**BRUSSELS**—The headquarters of science academies often are ornate structures and their annual meetings grand affairs involving hundreds of luminaries. Not so the European Academy of Sciences (EAS). Its humble address here is a mailbox on the fifth floor of a drab office building. And its first annual meeting, held on 29 November in a room borrowed from the European Commission (EC), drew 14 people who met behind closed doors.




**Stay tuned.** As *Science* went to press, EAS had not yet posted its full member roll.

CREDITS: (TOP TO BOTTOM) PALLAVA BAGLA; WWW.EURASC.ORG

The newest academy on the block is not off to an auspicious start. On 31 October, the U.K.'s Royal Society issued a statement warning scientists "to exercise due caution before making financial commitments" to EAS, which began earlier this year as a dues-paying organization but now bestows memberships free of charge. The scientists behind the organization admit that they stumbled out of the starting gate. "We made a few mistakes … that obviously led to misunderstandings," says Philip Carrion, scientific adviser to EAS.

The academy is an attempt to transform a pilot project on technology transfer into a broader forum on research commercialization. Earlier this year, Carrion, a materials scientist at the University of Udine, Italy, and 30 colleagues completed an EC-sponsored project in Krakow, Poland, that helped obtain loans for small businesses by providing them with advanced technology from Western Europe. "We now want to expand" that model through EAS, Carrion says. A society of scholars, he explains, is "very important to assure the industrial partners of our academy that the technology is really state-of-the-art."

A few individuals tapped for membership felt the honor warranted telling the world. For instance, the Cedars-Sinai Medical Center in Los Angeles put out a press release in August announcing neurosurgeon Keith Black's selection to the body. Wolfgang Sigmund, a materials scientist at the University of Florida, Gainesville, says that EAS "described my field of research more accurately than I ever did," and he presumed the organization was legitimate partly because he was the only person at his university offered membership. Others are less charitable. Guenter Albrecht-Buehler, a biologist at Northwestern University School of Medicine in Chicago, says that although he was delighted when the academy nominated him in September, he now has misgivings. He told *Science* that as a precaution he has canceled the credit card he used to make the dues payment of $115.

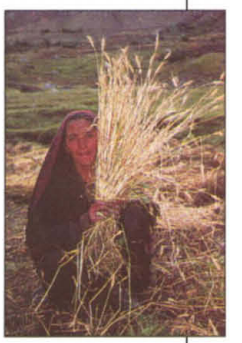
The academy has sought to legitimize itself by applying for membership in the All European Academy, an umbrella organization for national academies from 38 European countries. However, a spokesperson for the All European Academy says that EAS's application was rejected because it is not a national organization. EAS also invited the Royal Society to send an observer to its annual meeting. The society did so; that person was unavailable for an interview before *Science* went to press.

EAS officials barred a reporter from *Science* from attending the meeting. According to participants interviewed after they emerged from the 3-hour event, discussions centered on fundamental issues such as the academy's structure and funding. Apparently, the body has decided to begin publishing annals early next year and intends to hold a nanotechnology meeting in Paris in May 2003.

A total of four of the academy's claimed 250 members attended the gathering, one of whom was Carrion. A second, computer scientist Boris Verkhovsky of the New Jersey Institute of Technology in Newark, told *Science* that he's convinced that "this academy will succeed." Another member present and accounted for, geophysicist Enders Robinson of Columbia University in New York City, says that "there is no such organization in Europe with a similar approach." Few would debate that point. **–PHILIPP WEIS**

## ScienceScope

**Indian Biodiversity** After years of debate, India is close to adopting a biodiversity protection law that regulates foreign access to, and use of, the nation's biological wealth and indigenous knowledge. This week, the lower house of parliament approved a bill requiring overseas collaborators to get permits before conducting research or commercializing discoveries. Some researchers worry that the rules, intended to clarify complex issues, might also add to bureaucratic red tape.



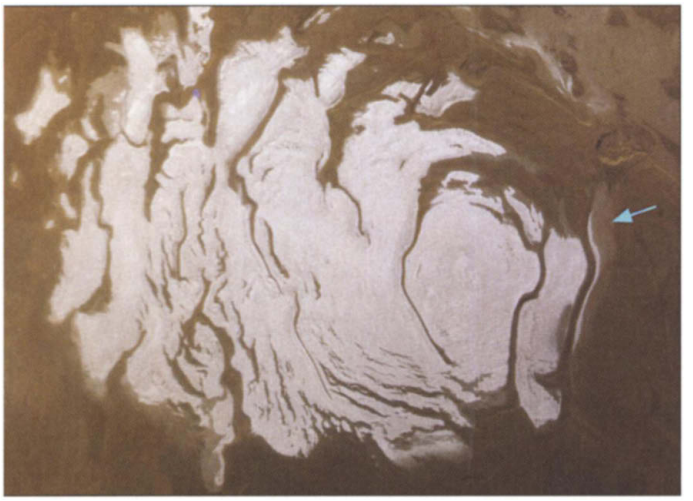
The new rules would require any foreign entity to get permits from India's environment ministry before working with biological resources. The ministry would also assign ownership rights to any related intellectual property. Indian citizens must obtain permission to transfer materials or knowledge to foreign partners.

The new law should bolster collaborations, says Kamaljit Bawa, a biologist at the University of Massachusetts, Boston, and a trustee of the Ashoka Trust for Research in Ecology and the Environment in Bangalore, but it could also delay studies. Researchers in India, he says, already "face far too many hurdles even without regulation." Observers predict that the bill will soon sail through Parliament's upper house.

**Drug Abuse Chief?** Nora Volkow, a psychiatrist who now heads life sciences at Brookhaven National Lab in Upton, New York, has been offered the top job at the National Institute on Drug Abuse—but she hasn't yet decided if she'll take it. The institute, which will have a budget of $970 million in 2003, has lacked a director since Alan Leshner stepped down last year to head AAAS (publisher of *Science*).

Volkow, 46, trained in her native Mexico and uses brain imaging to study the neurobiology of addiction. She has shown that drug addicts tend to have fewer than normal dopamine receptors. She has also found that dopamine signaling could be linked to obesity. "She's a hot-shot researcher who has quite a vision and is not afraid to express it," says Alan Kraut, director of the American Psychological Society.

Volkow's appointment would also fit with the growing emphasis on linking basic and clinical research, says neuroscientist Eric Nestler of the University of Texas, Dallas. "Nora embodies translational research," he says. Volkow expects to make a decision by 1 January.



**Cold shoulder.** Region of water ice (arrow) flanking a vast sheet of frozen $CO_2$, photographed by the Mars Global Surveyor, may be typical of the fringes of Mars's southern ice cap.

detailed measurements made with the spacecraft's infrared camera revealed that the tundralike plain absorbed more heat than did the surrounding terrain during the day and radiated more heat at night. That high "thermal inertia" strongly suggested that the surface was pure water ice.

Christensen's team, which included Timothy Titus and Hugh Kieffer of the U.S. Geological Survey (USGS) in Flagstaff, Arizona, also examined old visible-light photographs of the area taken by NASA's Viking orbiter mission in the 1970s. Sure enough, the photos showed sharp delineations between bright dry ice, medium-bright water ice, and dark rock, in exactly the same places where their infrared camera had seen them. The icy plain, the researchers concluded, is a regular feature that has reappeared every martian summer for at least 25 years. Viking saw many similar medium-brightness patches around the edges of the southern ice cap, so seasonal plains of water ice might be fairly common. This suggests that the permanent layer of carbon dioxide ice might be relatively thin—perhaps only meters thick.

Other researchers say the find is like a Christmas present you have asked for: not a big surprise but good news nevertheless. "It's important to me because I predicted it," says David Paige, a planetary scientist at the University of California, Los Angeles. Several years ago, he and two other scientists studying data from the 1971 Mariner 9 mission found that the spectrum of light reflected from the south pole did not match that of dry ice alone. They speculated that the other ingredient was water ice, but their instruments could not pinpoint its location.

If the ice deposits are indeed accessible from the surface, they might someday provide a record of Mars's climatic history, just as glaciers do on Earth. "In many ways, Mars should be a simpler system than Earth for understanding climate change," says Ken Herkenhoff of USGS. "There are no oceans on Mars, and no biological community that we know of." Thus, Mars could serve as a laboratory for understanding the effects of orbital mechanics and of the sun's variations on climate.

But that understanding will come only if NASA sends a mission to the polar regions of Mars, to replace the Polar Lander that failed to reach its destination in 1999. The inaugural Mars Scout mission, to be launched in 2007, might provide an opportunity. Two of the 10 finalists for this mission, including Paige's "Artemis" proposal, involve polar landings. (The winning proposal was expected to be announced on 5 December.) "I see a groundswell of interest in going to the poles," Paige says. "The poles are where a lot of the action on Mars is." –DANA MACKENZIE

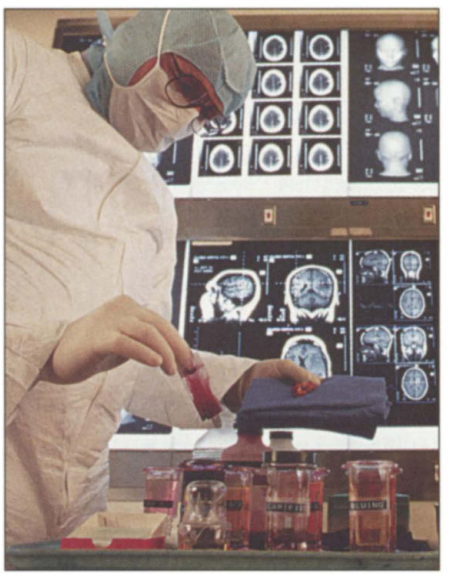
Dana Mackenzie is a writer in Santa Cruz, California.

CREDITS: (TOP TO BOTTOM) NASA/JPL/MALIN SPACE SCIENCE SYSTEMS; ROGER RESSMEYER/CORBIS

MEDICAL RESEARCH

## U.K. Researchers Hope For Clarity in Tissue Use

**CAMBRIDGE, U.K.**—British medical researchers are facing major changes in the rules governing the scientific use of human tissues, the result of a series of scandals in the 1990s. Earlier this year, the U.K. government said it was considering drafting a law to prevent misuse of tissues and asked for



**Consent required.** Slices of tumors are stored in wax before disposal.

## ScienceScope

**Diverse Views** Attempts to create a more diverse scientific work force will be undermined if the Supreme Court prohibits U.S. universities from using race as a criterion for admission, according to the head of the country's leading consortium of research universities. The thorny issue is back in the news this week after the high court agreed to hear two cases involving admissions practices at the University of Michigan.

Nils Hasselmo, president of the 62-member Association of American Universities (AAU), says that affirmative action "has been an effective means of achieving academic diversity," and that it is especially important "at the most selective end of the spectrum." He expects AAU to join other scientific and educational organizations in urging the court to uphold race-based admissions efforts.

But opponents say that several states have come up with alternative ways to increase diversity on campus without discriminating against Caucasian students, two of whom filed lawsuits seeking to overturn Michigan's policies.

**Stressed Out** The average corporate executive is more relaxed than an academic at the Massachusetts Institute of Technology (MIT), according to a university-sponsored survey released this week. More than 60% of MIT's nearly 1000 professors say that they are emotionally and physically drained at the end of the workday—and 78% say they can't get everything done no matter how hard they try, according to the study, which took the pulse of faculty stress. By comparison, just half of corporate executives feel the same way, according to the independent company that analyzed the data.

The study also found that two-thirds of MIT faculty are not happy with their job's pace and pressure. Less than half worked 60 hours a week or more in 1989; now two-thirds do. And more than half say the pressure has a negative effect on family life and professional relationships. Women and untenured professors report feeling more stressed and overworked than their tenured male counterparts do.

The alarming statistics have prompted MIT administrators to order a new committee to look at ways to monitor and ameliorate stress. "We have to learn how to monitor this," says Provost Robert Brown. "But the question is: Will the faculty have time to read the report?"

**Contributors: Pallava Bagla, Jocelyn Kaiser, Jeffrey Mervis, Andrew Lawler**