

biotechnology symposium in Chennai, India—will set a precedent for companies with a stake in the necessary technologies. “It may encourage others to work to cut through some of the red tape,” says Ronald Cantrell, IRRI’s director general.

Last week Monsanto also announced progress on its earlier promise to make public a draft of the sequence of the rice genome unveiled this spring in a collaboration with Leroy Hood, then at the University of Washington, Seattle, and now president of the Institute for Systems Biology in Seattle (*Science*, 14 April, p. 239).^{*} The data have already been transferred to Japan’s Rice Genome Research Program (RGP), which is the lead agency for the International Rice Genome Sequencing Project (IRGSP). The Japanese group will pass the Monsanto data to other IRGSP members once legal issues are resolved. Takuji Sasaki, RGP director, says that the Monsanto data, although “rough,” should hasten completion of the sequencing project, whose status will be discussed next month at a meeting in South Carolina.

—DENNIS NORMILE

With reporting by Elizabeth Pennisi.

^{*} Registered researchers will be able to access the sequence data at www.rice-research.org

PUBLIC HEALTH

Gates Foundation on Big Funding Spree

For Eleanor Riley, an immunologist at the London School of Hygiene & Tropical Medicine, it must have felt like Christmas in July. The source of her midsummer cheer: \$40 million from the Seattle-based Bill and Melinda Gates Foundation. “I’m absolutely delighted. This is at least 10 times [the amount of grant money] I would have expected for my entire career,” says Riley, who last Monday received the funding for a 5-year project to develop and test new ways of fighting malaria.

But the grant for Riley and her colleagues was only one slice of the high-calorie funding cake—worth almost \$200 million in all—that the cash-brimming Gates Foundation dished up for scientists in various fields late last month. Other beneficiaries are tuberculosis specialist Jim Yong Kim of Harvard Medical School in Boston, who received almost \$45 million to develop a program to control multidrug-resistant tuberculosis (MDR-TB), and Alfred

Sommer of the Johns Hopkins University School of Hygiene & Public Health in Baltimore. His \$20 million grant “came at a very critical time,” Sommer says. “We are just in the process of starting—and can now scale up—four large field projects in Nepal, Bangladesh, India, and Zanzibar” to study how cheap vitamin and mineral supplements can reduce maternal and child mortality in developing countries.

The grants for research into malaria and TB are the third big chunks of money the Gates Foundation has lobbed into the fight against these major killers within the past year. The foundation—one of the world’s largest science-funding philanthropies, with assets of more than \$20 billion—kicked off its spending spree in mid-July at the XIII International AIDS Conference in Durban, South Africa (*Science*, 14 July, p. 222), by announcing several AIDS/HIV-related grants totaling \$90 million.

With the new money, Riley and her colleagues intend to expand research into new drugs and insecticides and to set up centers of excellence in malaria-endemic areas of Africa. “We hope the Gates money is acting as some sort of catalyst to bring other partners on board,” Riley says. Meanwhile, Kim and his team—in collaboration with the World Health Organization, local health authorities, and other partners—are gearing up to develop a multidrug treatment program for MDR-TB patients in Peru. “This will have an enormous impact,” Kim says, noting that the treatment protocol will be adaptable to other developing countries.

Even greater largesse may be in store. At the July G-8 meeting in Japan, leaders of the world’s economic heavyweights resolved to

THE JULY FUNDING SPREE BY THE GATES FOUNDATION

Amount	Recipient	For what
\$40 million	London School of Hygiene & Tropical Medicine	Develop new treatments and preventive measures for malaria
\$44.7 million	Harvard Medical School	Develop a model for controlling multidrug-resistant tuberculosis
\$20 million	Johns Hopkins School of Hygiene & Public Health	Improve Third World maternal and child health with micronutrient supplements
\$90 million	Various institutions	AIDS/HIV

halve the death toll of malaria, TB, and HIV by 2010. “There are rumors that the European Union will announce a major new investment this fall,” Kim says. Until the noble words are backed by cash, the Gates money is paving the way.

—MICHAEL HAGMANN

ScienceScope

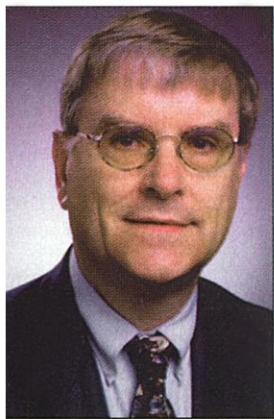
Cells and Cell Phones The government is teaming up with the cell phone industry on studies aimed at settling the debate over mobile phone risks. The Food and Drug Administration (FDA) last week convened a multinational scientific panel to set research priorities for the \$1 million program, which is backed by the Cellular Telecommunications Industry Association (CTIA). Studies have suggested that microwave radiation from cell phones can cause “micronucleation,” a process in which cells form small additional nuclei that could indicate chromosome damage. To better understand micronucleation, the panel recommended funding animal experiments and investigating cellular response to microwave radiation. The FDA will send final recommendations to the CTIA within 2 months.



Polling Panned Should Lawrence Livermore National Laboratory use government funds to improve its public image? The Department of Energy’s (DOE’s) inspector general doesn’t think so. Last month, lab officials announced that a poll of 600 people in the San Francisco area revealed a “favorable view” of the weapons lab, despite press coverage of security problems, discrimination allegations by women and Asian Americans, and massive cost overruns in a laser project.

But in a 19 July report, DOE Inspector General Gregory Friedman concluded that “the use of taxpayer dollars for this kind of exercise is questionable.” He recommended that DOE officials review whether the University of California, which manages Livermore, should be allowed to bill the government for the \$24,000 poll, and find out whether other DOE labs have funded similar image-polishing efforts. Livermore officials say the poll, the fourth they have funded over the last decade, was needed to guide “communications efforts.”

Supergrant The Pittsburgh Supercomputing Center (PSC) has won a \$45 million competition to build one of the world’s fastest civilian science computers. The National Science Foundation (NSF) announced last week that a PSC-led team that includes the University of Pittsburgh and Carnegie Mellon University will host its new Terascale computer, to be built by Compaq. The machine, which will eventually complete 6 trillion operations per second, is expected to be online by early 2001. NSF hopes to fund a second terascale machine next year, but Congress has yet to approve funding.



Punished pundit. International groups are defending Anton Pelinka's freedom of expression.

Neugebauer. Neugebauer is a history professor who directs the Archives of Austrian Resistance, which documents the country's resistance movement during the Nazi era.

Pelinka, a tenured University of Innsbruck professor who heads Vienna's Institute for Conflict Research, told *Science* that he is appealing the ruling to a higher court and, if necessary, will take his case to the European Court of Human Rights. At least two human rights conventions signed by Austria guarantee freedom of expression without undue interference by public authorities.

In the 3 months since the judgment, an array of academic and human rights groups have rushed to Pelinka's defense. "Everything Pelinka said was consistent with normal public discussion about political figures in a democracy," asserts Aaron Rhodes, executive director of the International Helsinki Federation for Human Rights, which is supporting Pelinka's case. Lerch's letter to President Klostil—sent on behalf of the scientific freedom and responsibility committee of the American Association for the Advancement of Science (AAAS, the publisher of *Science*)—states: "We are worried that the judicial system may be exploited for purely political purposes to intimidate scholarship and restrict freedom of expression."

Lerch, who chairs the AAAS panel, says his committee is concerned about possible political influence in the court case, because the man who is now Austria's minister of justice, Dieter Böhmdorfer, had represented Haider when the defamation lawsuit was filed last September. However, an Austrian government spokesperson says that Böhmdorfer withdrew his name from that Vienna law firm when he became justice minister in February—after Haider's Freedom Party became a partner in Austria's new center-right coalition government—and says there is no evidence that he sought to influence the case.

Pelinka—a prolific author on comparative political science and the winner of a 1998 award for his leadership in criticizing neo-Nazism—says he worries about the impact of such defamation judgments on the willingness of untenured professors to speak

candidly on controversial issues. Fearing government reprisals, some academics might toe a less risky line to avoid losing out on tenure, as most Austrian universities are government institutions. "I'm not afraid to say what I think," Pelinka says. "But such rulings could have a chilling effect on the willingness of my younger colleagues to speak out."

—ROBERT KOENIG

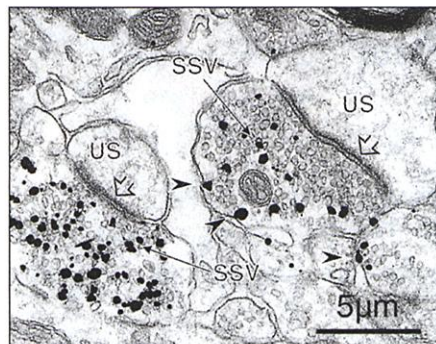
NEUROBIOLOGY

Long-Sought Protein Packages Glutamate

Among neurotransmitters, two stand out as stars, communicating most of the brain's urgent messages. These fast-acting, ubiquitous chemicals—GABA and glutamate—send the basic "stop" and "go" signals that most other neurotransmitters merely modulate. Glutamate is called into action wherever rapid-fire excitatory signals are needed—say, for vision or learning. For decades, researchers have been looking for the protein that packages glutamate for express delivery to other neurons. On page 957, Robert Edwards of the University of California, San Francisco (UCSF), and colleagues report that they've found this elusive transporter. "This has been a long time coming," says neurobiologist Marc Caron of Duke University, who points out that many labs have been on the protein's trail.

To prepare for launching from one neuron to another, neurotransmitters have to be stuffed at high concentrations into bubbles called synaptic vesicles. When it's time to send a signal, these vesicles fuse with the axon wall, and the neurotransmitter within bursts into the space between the cells. Vesicular transporters do the stuffing—they are proteins embedded in the vesicle wall that pump neurotransmitters, which are built in the cytoplasm, into the bubble.

Two other transporter families have been identified to date: the one that escorts GABA and another that waltzes monoamines such as dopamine and serotonin into their respective vesicles. But the glutamate vesicular transporter had defied such efforts, possibly



In the right place. Dark-stained VGLUT1 anchors on synaptic vesicles (SSVs).

ScienceScope

In or Out? A prominent scientific misconduct case has taken another turn. An independent scholarly panel last week concluded that misconduct allegations against University of Arizona (UA) biomedical researcher Marguerite Kay (below) were "without merit," and two members of the panel accused university officials of promoting "a pattern of harassment and unrelenting persecution" of Kay. But the report will have little immediate impact on the legal maneuvering surrounding Kay, an immunologist who was fired in 1998 after two university panels upheld charges of scientific misconduct and mismanagement. She was partially reinstated earlier this year after a court ruled that the university hadn't followed its own rules in dismissing her, and she now faces renewed termination proceedings (*Science*, 18 February, p. 1183).

Kay's supporters, who say that prior reviews of Kay's job performance were conducted by UA academics with little expertise in her field, assembled the five-member panel under university rules that allow faculty members to request an "enhanced" appraisal that includes outside academics. It teamed three researchers from UA's College of Medicine with immunologists Ronald Kennedy of the University of Oklahoma, Norman, and Vera Byers of the University of California, San Francisco. After reviewing documents and interviewing Kay and six other researchers involved in the case—but not prominent accusers—the panel evaluated 14 allegations.

"There has been no scientific misconduct" or lab mismanagement by Kay, the group concluded in its report to John Marchalonis, chair of UA's Department of Microbiology and Immunology and a vocal supporter of Kay. "We urge [her] immediate and full reinstatement." In an addendum, Kennedy and Byers accused UA administrators of making it "impossible for Dr. Kay to receive a fair hearing" at the university. "This is the most sordid, twisted situation I've seen," Kennedy told *Science*.

UA officials did not respond to a request for comment. But this week, they indefinitely postponed termination hearings against Kay, who is being paid but is barred from campus. Meanwhile, Don Awerkamp, Kay's attorney, is pursuing both state and federal lawsuits against the university.



Contributors: John MacNeil, David Malakoff