Kvamme was unavailable to comment, but science community leaders familiar with his résumé predict that he will be a strong advocate for science and technology. John Yochelson, president of the Washington, D.C.–based Council on Competitiveness, says Kvamme understands the link between government research spending and economic growth, and he is close enough to Bush to gain his ear.

But some science policy veterans were surprised that the PCAST appointment preceded the selection of a science adviser. D. Allan Bromley, former engineering dean at Yale University and science adviser to the first President Bush, called the timing "a little peculiar."

–DAVID MALAKOFF

GERMANY

A Big Boost for Postgenome Research

BERN—Germany may have been a minor player in the human genome sequencing project, but it is making a bid for the big leagues in the next wave of functional genomics research. Last week, the nation's research ministry said it will channel $175 million over the next 3 years into a National Genome Research Network involving at least 16 universities, several Max Planck institutes, and four national research centers. German research minister Edelgard Bulmahn, who announced the initiative on 30 March in Berlin, said the new program is intended to "put Germany in the forefront of public support for the systematic functional analysis of genes and the use of those research results in the fight against widespread diseases."

The new Genome Research Network—financed by government revenues from last year's licensing of communications frequencies—has three main parts (see table): a "core area" consortium of big nonuniversity research centers, a "disease-oriented genome network" that links research at 16 universities with other centers, and a separate category to fund proteomics and bioinformatics research. In addition, $10 million will be spent to study the ethical, social, and legal impacts of genomics research. Bulmahn said a high-level group of academic and industrial researchers will serve on a panel that will help set overall directions for the network and give advice on which projects to fund.

The core area consortium will get about 38% of the money for functional genomics projects. Funding will be divided among four national research centers—the German Cancer Research Center in Heidelberg, the German Research Center for Biotechnology (GBF) in Braunschweig, the Max Delbrück Center for Molecular Medicine in Berlin, and the National Research Center for Environment and Health in Munich—and the Max Planck Institute for Molecular Genetics in Berlin. Rudi Balling, a prominent mutant-mouse researcher who became the GBF's scientific director earlier this year, said the $10 million in extra funding that the center will receive from the program will help him reorient GBF's research to focus on the genetic basis of infectious diseases. He said the grants will also help the GBF play a role in the rat genome sequencing project.

A nearly equal share of the money will go to a disease-oriented genome network that will include an array of research institutes at 16 universities. The main focus will be on functional genomics related to five types of disease: cardiovascular disorders, cancer, problems of the nervous system (including Alzheimer's disease), infectious diseases, and environment-related illnesses such as asthma. Those university networks are to cooperate with the core area research institutions for specialized work, such as help with sequencing.

For example, seven research groups at the University of Bonn will share about $4.5 million in genome network funds to help identify the genes and mutations that lead to diseases of the central nervous system, including schizophrenia, epilepsy, and manic depression. At the University of Kiel, about $5 mil-

DIVIDING THE WINDFALL

Core Genomics Research Centers ($67 million)

Funds functional genomics research by the Max Planck Institute for Molecular Genetics in Berlin and four national research centers.

Disease-Oriented Genome Network ($66 million)

Funds projects at 16 universities as well as nonuniversity institutes. Focuses on functional genomics related to the circulatory system, cancer, problems of the nervous system, environment-related illnesses (such as asthma), and infectious diseases.

Proteomics and Bioinformatics ($32 million)

Funds proteomics research, bioinformatics, and "platform technologies" related to those two areas.

Another $10 million will be spent on research into the ethical, social, and legal impacts of functional genomics research.

CREDITS: (TOP TO BOTTOM) NASA; SOURCE: GERMAN RESEARCH MINISTRY

ScienceScope

Together Again Exploring Mercury will be an international affair after all. The European, Japanese, and U.S. space agencies announced last week that they will coordinate the operations of two spacecraft headed for the planet in 2004 and 2009. The deal ends European grumbling over U.S. plans to go it alone to Mercury.

Under a plan announced 30 March at a meeting of the European Geophysical Society in Nice, France, NASA's $300 million Messenger orbiter may serve as an advance scout for Bepi Colombo, a $440 million Euro-Japanese mission that includes two orbiters and a lander. Researchers say the arrangement will help them get the most out of Bepi Colombo's instruments, including sensors that will probe the planet's surface and magnetic field. Details, however, still need to be decided. Marcello Coradini, the European Space Agency's coordinator of solar system exploration, says the partners "want to establish a working group as soon as possible to enhance the science return from both missions."

Chattering Class Both the executive branch and Congress need to spend more time and money analyzing the U.S. government's $90 billion investment in R&D. That's the preliminary conclusion of a 2-year study by the National Science Board, which oversees the National Science Foundation.

The report, led by board chair Eamon Kelly, proposes such new wrinkles as a 5-year science plan, updated annually, as well as the revival of something akin to the congressional Office of Technology Assessment, which was killed in 1995. Kelly, an economist and former president of Tulane University in New Orleans, believes that the government also needs to do a better job of tracking the economic payoff from current investments, laying out possible trade-offs, and comparing U.S. results to those of the rest of the world.

The board will hold a symposium in late May to discuss the 20-page report, entitled "The Scientific Allocation of Scientific Resources." It's available at www.nsf.gov/cgi-bin/getpub?nsb0139.

Contributors: Pallava Bagla, Eliot Marshall and Gretchen Vogel, Helen Gavaghan, Jeffrey Mervis

lion in grants will fund research on inflammatory and environment-related diseases.

The third main category of funding—amounting to about $32 million—is proteomics and bioinformatics research, which will fund work at several university and nonuniversity institutes.

Although many scientists welcomed the initiative, some worry that its 3-year time frame—with no clear guarantee of long-term research money—might limit its impact. Germany's main opposition party, the Christian Democrats, has called for even more funding for functional genomics research, as has the nation's main basic research granting agency, the Deutsche Forschungsgemeinschaft.

–ROBERT KOENIG

GERMANY

Old Guard Battles Academic Reforms

BERN—The war of words over efforts to reform Germany's hierarchical university system ratcheted up a level last week. The latest salvo is a 4-page advertisement in the nation's top newspaper, signed by 3759 professors, that criticizes the research ministry's plans to create "junior professors," phase out the Habilitation requirement—a kind of extended postdoc needed to secure academic tenure—and change some work rules that favor professors.

Under the headline "Protect Universities From the Departure of Their Top Talent," the ad urges the German Parliament to reject the proposed reforms. It says they would degrade the quality of professorships under the guise of promoting more independence for younger researchers. Hartmut Schiedermair, a law professor at the University of Cologne, warns that presenting the reforms as "cost neutral" is misleading and that the likely result will be pay cuts that will drive many new professors into industry or abroad. Schiedermair is also president of the main organization of German university professors, the Deutscher Hochschulverband (DHV), which placed the ad in the *Frankfurter Allgemeine Zeitung* newspaper. The signatories represent nearly 12% of the country's 32,000 professors.

The chief target of the DHV's wrath is research minister Edelgard Bulmahn, who has championed the reform package. A ministry spokesperson calls the campaign "unserious and full of errors." For example, she rejects the DHV's assertion that salaries for new professors would fall substantially under the new system. Although it sets a minimum salary, she says, the best professors would likely receive significant pay hikes based on merit.

Supporters of the reforms include the HRK German conference of university rectors and presidents and Ernst-Ludwig Winnacker, president of the DFG (Deutsche Forschungsgemeinschaft) basic research granting agency, who says that the professors' letter is "unfortunate if not counterproductive." They and others argue that the best way to promote the independence of young scientists is to create "junior professorships"—roughly equivalent to U.S.-style assistant professor slots—and to phase out the post-Ph.D. Habilitation requirement, which puts young researchers under the thumb of senior professors for years. The reforms were supported last year by a high-level commission (*Science*, 21 April 2000, p. 413) and more recently by a petition signed by 646 German scientists working abroad.

The lobbying from all sides is converging on Germany's Parliament, which appears likely to make its decision later this year. With one of Germany's leading newspapers describing the fight as "The Bulls Against Bulmahn," the debate promises to be one of the nation's liveliest in years. Many scientists also consider it to be one of the most important to the future of German research.

–ROBERT KOENIG

JAPAN

Court Backs Lab's Safety Practices

TOKYO—A Japanese court has rejected claims by a citizens' group that a major biomedical research facility poses a safety threat to downtown Tokyo. But the plaintiffs aren't finished: They hope that the government's poor record on several health and safety issues will fuel a nationwide campaign against other research facilities.

The suit was brought by some 200 people who live or work near Japan's National Institute of Infectious Diseases (NIID) in central Tokyo. A part of the Ministry of Health, Labor, and Welfare, the NIID is the government's main facility for studying and tracking infectious diseases, including such deadly pathogens as dengue virus and hantavirus. The suit was originally filed in 1989, 3 years before NIID's predecessor moved to the present site. The plaintiffs enlisted European biosafety experts, who detailed numerous violations of World Health Organization (WHO) biosafety standards. The NIID marshaled its own outside experts, who found no problems (*Science*, 9 October 1998, p. 213).

Last week the Tokyo District Court sided with the NIID, finding "no illegality" in the facility's operating practices. The court said that the WHO recommendations have no standing under Japanese law and that the plaintiffs' claims lacked supporting evidence and were based only on a "vague fear of the unfamiliar."

"It is surprising that the court found not a single safety violation," says the plaintiffs' lawyer, Syuichi Shimada. The decision, he adds, appears to endorse an institution's right to both set safety standards and then decide whether those standards are being met. NIID officials failed to respond to requests for comment.

Although most in the scientific community believe that the neighbors' fears are overblown, many feel that the NIID and the Health Ministry mishandled the situation. Ken-Ichi Arai, director of the University of Tokyo's Institute of Medical Science, says that residents living near research facilities should be given adequate explanations of an institute's mission and safety precautions regardless of the level of biohazards involved. The government's slow and clumsy response to the threat of contaminated blood products, which resulted in thousands of hemophiliacs being infected with the AIDS virus, has weakened its credibility, adds Arai, whose institute recently held "many, many meetings" to sooth neighborhood qualms over its expansion plans.

NIID's neighbors are appealing the ruling, although a reversal is unlikely. But although they appear to have lost this battle, they and their supporters plan to fight on. They have set up an organization to aid other grassroots groups who want to combat similar facilities, and some plaintiffs have published a book about their experience as a guide for future legal actions. "I think citizen activism regarding biohazards is likely to increase," says Kenji Urata, a law professor at nearby Waseda University.

–DENNIS NORMILE

Spreading the word. Losing plaintiffs in suit against infectious diseases lab vow to fight on.

CREDIT: D. NORMILE