GERMAN RESEARCH

Gene-War Veteran Seeks New Roles for Granting Agency

MUNICH—The presidency of Germany's basic-research granting agency—the Deutsche Forschungsgemeinschaft (DFG)—is hardly the comfortable administrative chair it once was. These days, German universities are in turmoil over budget cutbacks, prominent scientists grumble about stingy support for research, and the country's science community is still reeling from last year's scandal over falsifications in research (*Science*, 15 August 1997, p. 894, and 19 December 1997, p. 2049). But biochemist Ernst-Ludwig Winnacker, who took over as the DFG's president on 1 January from literature professor Wolfgang Frühwald, is tackling his new position with the confidence of a working scientist who is by all accounts well equipped with the political savvy, communication skills, and management acumen needed for the job.

Describing the 3-year-long DFG post as "quite a challenge," Winnacker told *Science* in an interview that he looks forward to the opportunity "to think on another level, to see the whole picture," and to help lead German science into the new century. A Munich University professor and founder of its Gene Center, Winnacker is an ardent Europeanist who wants to make German research more visible internationally. He is also an advocate of interdisciplinary research who wants to link scientists from different universities and countries, and an educational innovator who wants to foster a "postdoc culture" in Germany by giving bright young researchers more funding and independence.

As DFG president, Winnacker will oversee a $1.1 billion annual budget for research projects at universities and institutes. He will also face new challenges, such as countering the political trend of shifting resources from basic to applied research and helping restore public confidence in the DFG in the wake of the scandal involving two professors accused of falsifying data in biomedical research—one of whom was formerly a member of a DFG advisory panel. "Fraud can never be excluded from any system, but we have to make the system as transparent as possible" to prevent it, he says.

Colleagues say they are confident that Winnacker is up to the job. Biologist Hubert Markl, a former DFG president who now heads the Max Planck Society, told *Science* that Winnacker "is not only an excellent scientist, but he thinks a lot about how science affects society. I've found him to be a clear and deep thinker on such issues, with the courage to take positions."

Fifteen years ago, when genetic research was a hot issue in German politics, Winnacker led the effort to create a Gene Center in Munich. Starting with a loose association of junior researchers and university institutes, the Genzentrum is now one of Germany's leading centers for gene research, with its own new building, 130 scientists, and a $15 million budget. And Winnacker, who was placed on the "hit list" of an extremist anti-genetics group in the mid-1980s, is now more likely to be targeted for advice on advancing German biotech research and industry. "Our windows were made bulletproof back then, but now it's ridiculous. There has been a remarkable turnaround," he says.

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—Ernst-Ludwig Winnacker

Winnacker's advocacy of genetic research has made him enemies in Germany's Green Party, however, and other critics complain that, as a former member of the supervisory board of the chemical giant Bayer AG, he is too close to Germany's powerful chemical industry. But Winnacker says his contacts may prove helpful to German research. He is a firm believer in setting up centers where a "critical mass of good science" can help create new business ventures, as it has in U.S. biotech meccas such as Boston and San Francisco. Such symbiosis was once rare in Germany, but now Munich has emerged as such a center, with new science faculty buildings and biotech businesses springing up around the Genzentrum building on the city's outskirts. Winnacker himself co-founded a biotech firm, MediGene, in 1994 and remains chair of its board. "Seven companies have been founded out of [the Genzentrum] building already, and they are all based around here," says Winnacker.

All the while, the 56-year-old Winnacker has remained an active researcher, spending about half his time in Genzentrum labs until recently. In a recent paper published in *Nature Medicine*, a team led by Winnacker identified a receptor that may allow the malformed prion proteins thought to cause Creutzfeldt-Jakob disease and other conditions to enter brain cells. And in addition to authoring scientific papers, he also writes popular science books, most recently *The Genome* (1996).

Winnacker believes that the DFG, as the basic-science granting agency for universities, can play a greater role in both informing the general public about science and promoting improvements in higher education. "One very important emphasis is to support young, independent scientists," he says. Winnacker, who benefited from postdoc work at both the University of California, Berkeley, and at Stockholm's Karolinska Institute, complains that Germany has no real postdoc culture, because universities do not have a tradition of independent assistant professors. He wants the DFG to help foster such a culture by creating positions and supplying more grants to postdocs.

But Winnacker's DFG will have to contend with a depressed university system. Recent cutbacks in federal support have sparked demonstrations by tens of thousands of students, and Germany's education and research ministry is pushing for changes that it argues are needed to make the overcrowded universities more flexible and competitive in education and research. While Winnacker believes that "German universities are much better than their reputation," he adds that "they could be more efficient and flexible in a number of ways." He also would like to make German science "more visible on an international level. ... Why not fund projects that extend into other countries?"

Another major problem is scarce funding for basic research. Germany's research ministry had promised that both the DFG and Max Planck budgets would increase by 5% each year, but the parliament reduced this year's increase to 3.9%. Winnacker calls that cut "an indicator in the wrong direction. ... In basic science, you need continuity and predictability of funding."

Despite the tight budgets, Winnacker is optimistic about the future of German science, especially in fields such as molecular biology. While the United States and some European nations maintain a wide lead in "classical recombinant-DNA research," he thinks that "the emergence of genome research has changed the picture. ... When that happened, we all had the chance for a new beginning."

–Robert Koenig

Robert Koenig is a writer in Bern.