

DFG head supports stronger sanctions for scientific fraud

Quirin Schiermeier, Munich

The president of the DFG, the German research agency, has blasted what he regards as the light punishment given to researchers involved in a major case of scientific fraud.

An independent task force, set up in 1998 by the DFG to investigate accusations of fraud in several scientific papers, concluded that nearly 100 papers contained falsified data. But those implicated in the fraud were simply banned from serving as peer reviewers for up to five years.

Writing in the DFG's publication *Forschung*, the agency's president, Ernst-Ludwig Winnacker, strongly criticizes the



Ernst-Ludwig Winnacker: keen to beat scientific fraud.

fact that Roland Mertelsmann is still head of a department at the University of Freiburg. Mertelsmann's name appeared on some of the fraudulent papers. "This is an affront to scientific research," he writes. "No wonder that the absence of consequences is perceived in public as a failure of the system."

Winnacker also expresses regret that Mertelsmann and his co-authors were not subjected to stronger disciplinary or criminal proceedings. "Neither police nor public prosecutors are interested in scientific misconduct," he says. "The sufferer is science, the public reputation of which is lastingly damaged."

Winnacker says that the fraud investigations were impeded by "walls of silence" that some of the accused put up around themselves.

Members of the task force complained that the DFG is essentially protecting clinical researchers involved in the case from appropriate sanctions for publishing papers with false data (see *Nature* 415, 3; 2002). But Winnacker defends the DFG, which he says has limited powers for dealing with such cases.

The sanctions that it can implement, he pointed out to *Nature*, are limited to preventing identified fraudsters from receiving grants or advising the DFG in any capacity for a period of two to five years.

On the positive side, the fraud case has led the DFG and other German scientific organizations to set up new rules for scientific conduct, Winnacker says. From next summer, only institutes that have such rules will be able to apply for DFG grants. ■

Live lung tissue enlisted in fight against tuberculosis

Alison Abbott, Berlin

For the first time in over a century, researchers are to use live human lung tissue in a systematic study of tuberculosis.

A collaboration between German and Russian scientists hopes to gain a better understanding of the biology behind the multidrug-resistant (MDR) strain of *Mycobacterium tuberculosis*, the microorganism that causes the disease.

The tissue samples will come from infected patients in Russia, and the ready availability of the material reflects the rampant spread of MDR tuberculosis among the country's poor. For the first time in decades, many patients there are resorting to surgery to remove infected tissue, because they cannot afford the sophisticated drug treatments needed to tackle MDR disease.

Under an agreement worked out last December, the Russian Academy of Medical Sciences' Central Research Institute of Tuberculosis in Moscow will acquire some of the removed tissue, subject to the patients' consent. The samples will be sent to the Max Planck Institute for Infection Biology in Berlin for analysis.

More than 50 million people worldwide are infected with MDR tuberculosis. In some places, as many as one in seven new cases of tuberculosis are caused by MDR strains of *M. tuberculosis*. In Russia, MDR tuberculosis is particularly concentrated in overcrowded prisons.

"The new source of tissue gives us a unique research tool," says Timo Ulrichs, of the Berlin institute, one of the collaboration's coordinators. "Little is known about the immune reactions that go on in the lungs during human infection," he says.

The researchers will study the expression of genes and proteins in the tissue in an attempt to improve understanding of what happens during infection, in both the host and the pathogen. They also hope to work out why some patients are more susceptible than others — 95% of those infected with *M. tuberculosis* do not develop the disease. Lung tumour tissue taken from cancer patients will be used as a control.

But the collaborators have not yet decided how to transport the infected material from Russia to the Berlin laboratory. They have permission to import the infected tissue into Germany, but they are still trying to persuade the Russian foreign ministry to grant export permission. They are also trying to find a carrier that is willing and able to transport the material frozen in dry ice — moving dangerous biological tissues has become more difficult, they say, since the anthrax



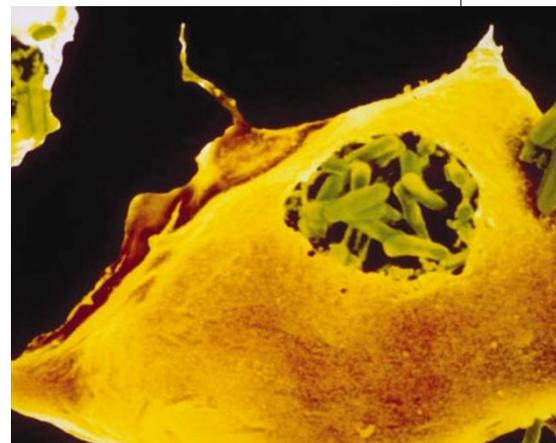
Optimistic: Stefan Kaufmann hopes that a German–Russian collaboration will lead to new therapies or vaccines for tuberculosis.

attacks in the United States last autumn.

The tissue is "a very precious reagent" for the study of the disease, says Bill Jacobs, a tuberculosis molecular geneticist at the Albert Einstein College of Medicine in New York. Tuberculosis researchers have generally been restricted to working with animal models and blood samples from patients.

Some of the biochemistry and immunology planned under the collaboration is already under way in Moscow, and George Kosmiadi, a senior scientist there and Russian coordinator of the project, says he hopes that work on live tissue will start in the next few months. "The transport problem is entirely solvable," he says.

Stefan Kaufmann, a co-director of the Berlin institute, who initiated and now coordinates the collaboration, is also optimistic about the prospects for the work. "The approach could generate new targets for therapy or vaccination," he says. ■



On the rise: tuberculosis bacilli (green), shown here inside an immune cell, are on the rampage across many parts of the world.