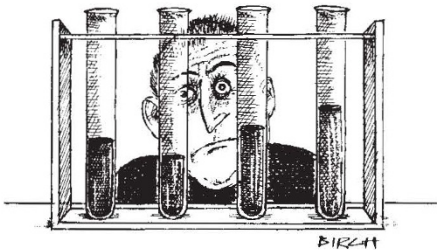


## Chained to the bench

Washington

DEPENDING on one's perspective, one could say that Syed Zaki Salahuddin, a scientist working on AIDS, who had pleaded guilty to misdirecting federal research funds, received an easy sentence



last week. Or if one takes a different view of life at the laboratory bench, one might say the judge threw the book at him. Salahuddin, until recently a member of the National Institutes of Health (NIH) AIDS laboratory of Robert Gallo, was sentenced to spend what amounts to every Saturday for the next four years doing research — without pay.

Now a visiting researcher at the University of Southern California, Salahuddin will spend 1,750 hours investigating the viral origins of chronic fatigue syndrome as part of the sentence. US District Judge John Hargrove also fined him \$12,000, approximately the value of the NIH contracts he steered to Pan Data Systems, a Maryland-based contractor partially owned by his wife (see *Nature* 345, 99; 10 May 1990).

"I thought it would be a good idea to take advantage of his research abilities", says prosecutor Dale Kelberman. In some previous cases involving researchers, doubts were raised on their scientific integrity and they were sentenced to lesser tasks such as computer operating and data entry.

Christopher Anderson

EMBO

## Fellowships for East

Munich

THE European Molecular Biology Organization (EMBO) will next year begin awarding new short-term fellowships to applicants from Eastern Europe who would like to work in a Western European laboratory. The programme will begin with ten three-to-six-month fellowships paid for from the *EMBO Journal's* profits.

According to John Tooze, executive secretary of EMBO, demand from science-starved Eastern Europe is likely to exceed by far the supply of funds available. He sees the new programme as a "gesture" that he hopes will "prime the pump" to induce other foundations or EMBO member states and Eastern European governments to expand the programme.

Steven Dickman

## Germany turns clock back

Munich

THE German Bundestag last week passed a law making research on human embryos a criminal offence punishable by up to five years in prison and imposed severe restrictions on the use of *in vitro* fertilization (IVF). The law, which also includes limits on changes in the human germ line and other invasive genetic procedures, gives Germany the world's strictest embryo research regulations. The new law takes effect on 1 January 1991.

The ban sets a potentially dangerous precedent for research in Germany by calling into question the constitutional protection of freedom of research. But efforts by research organizations to incorporate exceptions to the ban were rebuffed by the shared view of all political parties that such research is unethical (see *Nature* 340, 254; 1989).

The legislation imposing the ban specifies that embryos may not be created for any purpose other than implantation in a woman's uterus. The number of egg cells that may be fertilized for any one IVF operation is limited to three. The use of embryos for any other purpose including research is to be considered a criminal act. Other countries, including the United Kingdom, permit research on embryos until they are 14 days old.

Significantly, although the German law forbids research involving the removal of so-called 'totipotent' cells (which could be used to create a new embryo if removed at the 8-cell stage of the dividing embryo or earlier), it will allow prenatal diagnostic testing of later stages. Physicians can test for genetic diseases on cells removed from the 32-cell or 64-cell stage, known as the morula, without harming the embryo. If a disease is detected, the embryo can be discarded before implantation.

According to Henning Beier, a professor of anatomy and reproductive medicine at the Technical University in Aachen, the law does not present an "insurmountable barrier" to embryology and diagnostics research. Beier says that almost all embryology research in Germany is carried out using animals.

Two large German research organizations, the Max Planck Gesellschaft and the Deutsche Forschungsgemeinschaft, declared in 1988 that they would observe a

## Correction: RITE figures wrong

In the article entitled 'Japan sees gold in warming' (*Nature* 347, 703; 25 October 1990), all budget figures were inadvertently given ten times too large. The money contributed by Japanese companies to the Research Institute for Innovative Technology for the Earth (RITE) is ¥5,000 million (\$40 million) not ¥50,000 million (\$400 million). □

self-imposed moratorium on embryo research until there was a law (see *Nature* 333, 791; 30 June 1988).

Both research organizations supported sections of the law that ban the cloning of human beings and the creation of human-animal chimaeras. But some researchers wanted to allow exceptions to a ban on manipulating the germ line in cases where gene therapy might be of benefit. Harald zur Hausen, director of the German Cancer Research Centre in Heidelberg and an outspoken opponent of the law, said that pressure would soon grow to revise the law in order to allow gene therapy.

The new law would have banned completely the use of preimplantation diagnostic tests to select the sex of the embryo to be implanted. But at the last minute the government chose to add an exception allowing selection against embryos carrying severe sex-linked disorders" such as Duchenne muscular dystrophy in which case the son of a mother who is a carrier has a 50 per cent chance of developing the crippling disease, whereas daughters are rarely affected. Therefore male embryos are not usually implanted.

The opposition Social Democrats and Green Party voted against the law because it did not go far enough. The law gives "legislative blessing to eugenic measures" in Germany [for the first time since 1945], says Anna Waldschmidt, a spokeswoman for the Green Party.

Green parliamentarian Marie-Luise Schmidt strongly criticized the government during a Bundestag debate on 24 October for allowing embryos carrying genetic diseases to be discarded.

Schmidt said that this provision comes dangerously close to the selective measures included in the Nazi laws for the prevention of genetically diseased offspring. "People who were born with muscular dystrophy are apparently meant to find themselves in this law as the objects of a . . . negative selection that defines them as worthy of extermination", she said.

The Green Party opposes IVF in general as a "massive experiment on human subjects," because the techniques do not allow for a high rate of success. Instead, the party urges support for more research into the causes of infertility and into solutions other than IVF.

The Social Democrats opposed the law because the government had failed to address questions they had raised about artificial insemination and inheritance law.

Abortions, which are permitted under different circumstances in what were once East and West Germany, are not affected by the new law. **Steven Dickman**