

Germany rejects genome data 'isolation'

[MUNICH] The German research ministry is expected to reverse its controversial decision to grant companies three months' privileged access to human genome sequence data generated with public funds, because of fears that German scientists could be isolated by the international scientific community (see *Nature* 387, 111; 1997).

The agreement on privileged access was made last year between the ministry and a new German industrial funding association, the Verein zur Förderung der Humangenomforschung. It angered scientists in other countries, particularly the United States, because it contravenes an informal agreement to make sequence data from publicly funded human genome-sequencing centres immediately available on the Internet.

At a meeting between the ministry, scientists and industry in Bonn last week, all sides agreed that the threat by geneticists in the United States and Britain to exclude German scientists from international collaborations in the Human Genome Project, and to block their access to vital biological material, outweighed the advantage to industry of the relatively short period of privileged access that had been agreed.

"We don't want to uncouple ourselves from the international scientific community," says Knut Bauer, head of the life sciences department in the research ministry. Rudolf Balling, head of the mammalian genetics department at the National Research Centre for Environment and Health in Munich, agrees. "Germany must be integrated with the international research community, as there is no such thing as a German Human Genome Project," he says.

But although the immediate conflict over the German rules seems to be over, many aspects of the complex issue of data release

remain unresolved. Bauer says that negotiations between industry and scientists will continue over the next month to find a compromise that will satisfy all sides. No one is willing to comment on what form such a compromise might take.

At the heart of the conflict lie differences between US and European patent laws, which industry, as well as the ministry and some patent experts, believes puts Europe at a competitive disadvantage.

Raw sequence data need extensive — and time-consuming — analysis to identify genes and their functions. European patent laws exclude patents on any gene whose sequence has already been published. In contrast, US patent laws offer scientists a grace period of one year after publication in which to seek a patent.

German industry wanted a period of privileged access to buy the necessary time for analysis, before German scientists lost their right to patent sequences by publishing them on the Internet.

Joseph Straus, a patent lawyer who chaired the Bonn meeting last week, says that while German industry may compete for patents in the United States, this would encourage companies to shift their research and development there, a trend the German government wants to reverse.

Feelings on the issue of the release of sequencing data have been running very high in Germany. André Rosenthal, a department head at the Institute for Molecular Biotechnology in Jena, who is coordinator of the German human genome-sequencing effort, had threatened to refuse his approved ministry grant of nearly DM20 million (US\$12 million) to set up his sequencing laboratory unless he was allowed to publish his data immediately on the Internet.

In particular, Rosenthal feels that German industry is paying too little for the privileged access it was demanding. "If industry wants to gain from sequence data", he says, "it should make the necessary heavy investment in-house."

The industrial association in Germany has been taken aback by the strength of feeling, but representatives say that it is eager to compromise with Rosenthal and others sharing his views. Thomas von Rüden, head of molecular biology at Boehringer Ingelheim's Vienna-based research and development centre, the Institute of Molecular Pathology, says the agreement with the ministry appears to be in line with the Bermuda agreement, which prescribes that publication should be "as fast as possible".

Having apparently won his case, Rosenthal is now campaigning on behalf of other ministry-funded scientists working in smaller laboratories who will still be obliged to offer to the industrial association sequence data from non-human species, and complementary DNA data. These are not covered in the Bermuda agreement, and he predicts that similar rows will break out in the future within these other related scientific communities.

But the Bermuda agreement covers only human genome sequence data generated at publicly funded, large-scale, high-throughput sequencing centres, such as that being built up by Rosenthal, which are intended as a service to a wide scientific community. Michael Morgan, a director of the Wellcome Trust, which funds the United Kingdom's large Sanger sequencing centre jointly with the Medical Research Council, believes that it is not necessarily appropriate for smaller laboratories to hook up to an Internet system of data publication.

However, he points out that a new trend for similar international agreements relating to pathogenic microorganisms of significant public health concern is gathering momentum.

Just as the row in Germany is about to be defused, a similar row in France may be imminent. The new, publicly funded Centre National de Séquençage in Paris, which will start operating in the summer, is at present debating its own rules about data release.

Its director, Jean Weissenbach, says a decision about whether to place all its data on the Internet or to grant French industry privileged access is due this month. The new German position may influence the decision in the direction of immediate publication, he says. But the outcome is not certain and, like Rosenthal, he fears the possibility of ostracism by the international community.

Alison Abbott

European ethics advisers back cloning ban

[PARIS] The cloning of humans for reproductive purposes is "ethically unacceptable", according to the nine-member group that advises the European Commission on the ethical implications of biotechnology. But, in an "opinion" issued last week, the group also stated that cloning animals is acceptable, provided it does not harm their welfare.

Widely viewed as a body set up by the commission to help adjudicate on disputes between the biotechnology industry and environmental

lobbies, the group has given few explanations of how it reached the conclusions of its seven-page opinion, which was agreed during a series of closed meetings (see *Nature* 387, 321; 1997).

The opinion recommends a ban on reproductive cloning of humans by nuclear transfer, arguing that "consideration of instrumentalization and eugenics" makes this unethical, and that such techniques would also be unsafe. It says that cloning by embryo splitting, "however

understandable" (see *Nature* 387, 324; 1997), should also be prohibited.

In contrast, the ethics advisory group says that research using cloning techniques should be permitted under strict licensing arrangements, provided that the research throws light on the cause of human disease or "alleviates suffering". But it adds that such research should not go as far as allowing the implementation of a manipulated embryo in the uterus. Declan Butler