

Roslin Institute upset by human cloning suggestions

In an interview with *Nature Medicine*, the scientific director of the Roslin Institute, Harry Griffin, reacted angrily to a January TV report claiming the group had turned its back on promises not to clone people. Interviews with Ian Wilmut and other scientists had been "selectively edited" by Newsnight, a BBC current affairs program, to ignore the distinction between reproductive cloning of humans and human embryo cloning to generate stem cells for so-called 'spare part' transplants, says Griffin, adding, "we are pretty annoyed about [it]."

Griffin rejected criticism that the institute—which, shortly after announcing Dolly's arrival, stressed that the technology would be used to produce large quantities of biopharmaceuticals in farm animals (pharming)—was moving too rapidly into the forefront of human medicine. The institute, says Griffin, will continue to work on animals. "We know very little about how a somatic cell is re-programmed. That has wide implications for human stem-cell research and the creation of elite farm animals. There is a lot of work to be done in animals first," says Griffin.

But the idea that the institute, and Wilmut in particular, has transferred its interests to the human rather than the livestock side of research has been put forward by more than just the BBC. In January it was widely reported that that Wilmut was believed to be in discussions with Geron, the company that funded the recent breakthrough in stem cell research at the University of Madison-Wisconsin (*Science* 282 1145-7; 1998). And last year the institute entered into a xenotransplantation agreement with Kimeragen, which has developed a technique for selectively knocking-out unwanted genes, such as that for alpha (1-3) galactose, a carbohydrate moiety found on cell-surface glycoproteins that is involved in rejection of transplanted organs.

The misunderstanding may lie in where the institute ends and Roslin's biotechnology companies begin. The creation of Dolly has not only thrust the once obscure Roslin Institute into the human cloning limelight, but also onto the stock market. At the time that Dolly was created, UK government organizations were not allowed to hold shares in spin-off companies. As a result, none of the Institute's scientists benefited when PPL Therapeutics was established in 1997 to exploit the Institute's nuclear transfer technique to produce drugs in milk.

But the rules have now been changed.

The institute stands to make money from its 43 percent stake in Roslin Bio-Med, a second spin-off created last year to commercialize the institute's nuclear transfer technology, when the company is floated on the stock exchange or sold to a bigger biotech company in 5-7 years' time. Roslin Bio-Med has an exclusive license to use the institute's nuclear transfer technology for biomedical applications of genetically modified



animals.

The new company is owned jointly by the institute and UK venture capital group 3i, which has committed £6 million to fund the project for three years. As much as 16 percent of Roslin Bio-Med's shares, worth an estimated £2 million, have been put aside as stock options to reward research staff. Wilmut is the scientific director of Roslin Bio-Med and now divides his time equally between public service and private enterprise, reaffirming the idea that he is no longer focused solely on pharming.

DAVID FIRN, LONDON

Increased budget for German science ministry

For the first time in a decade, Germany's federal government is to increase its expenditure on science, research and education by a substantial amount. The official budget proposal calls for an extra DM904 million (US\$515 million) for the science ministry this year, bringing the total to DM15 billion—a 6.4 percent increase over last year's budget.

While those numbers compare very favorably with an overall budget increase of 1.7 percent, they are a long way from the promises made by Gerhard Schroeder during the recent election campaign to "double the investments within five years" (*Nature Med.*, 4, 1348; 1998).

Nevertheless, Secretary for Science Edelgard Bulmahn, insists that "education and research will now return to being a top priority." The increase was backed by Treasury Secretary Oskar Lafontaine, a physicist by training, who is widely regarded the most powerful member of cabinet.

Among the main beneficiaries are Germany's ailing universities, where DM200 million will be added mostly for building renovation and improving infrastructure. Another DM142 million will be given to the federal grant system Bafög, to compensate students for funding cuts endured under the Kohl government. The main grant-giving agency Deutsche Forschungsgemeinschaft (DFG), the Max-Planck-Gesellschaft and the more technologically oriented Fraunhofer-Gesellschaft each will receive a five percent increase, bringing their total combined budgets to around DM3 billion.

Particularly pleased will be post-doctoral researchers funded by DFG; their program is up 150 percent to DM30 million. Medical research, public health and biotechnology are all among the winners in the category

of project-based funding, with above-average increases between 9 and 14 percent for a total of DM444 million.

MICHAEL SIMM, OFFENBURG

Wellcome Trust builds African research center

The Liverpool School of Tropical Medicine and the Universities of Liverpool and Malawi have opened a malaria research facility in Blantyre, Malawi. The center was funded by a Wellcome Trust grant of £460,000 (US\$770,000) and provides facilities for scientists studying malarial pathology, diversity of the malaria parasite and the basis of drug resistance to malaria in addition to work on HIV, meningitis, anemia and rotavirus diarrhea.

The new Wellcome Trust Centre for Research in Clinical Tropical Medicine building is the result of a long partnership between British and Malawian investigators. "The Centre's research in Malawi could not be done at all if we were not in a real partnership with the College of Medicine," explains Peter Winstanley, who co-directs the center from his Liverpool base.

Malcom Molyneux is the center's other co-director and has worked in the region since the 1970s. Molyneux helped to establish a College of Medicine at the University of Malawi five years ago in an effort to improve the shortage of medical practitioners and researchers. Although there are no immediate plans to expand the new facility, the Wellcome Trust is now considering an application to fund the center for the next five years. A decision is expected by September.

STEPHEN CASS, NEW YORK