ANIMAL RESEARCH

Genomics institute to close animal lab

Sanger's decision worries some scientists.

One of the world's leading genomics centres — the Wellcome Sanger Institute in Hinxton, UK — has decided to close a 13-year-old laboratory dedicated to animal research that supplies mouse strains to thousands of genetic researchers worldwide.

Set up in 2006, the animal facility, built at a cost of £30 million (US$38 million) hosts mice, zebrafish, rats and frogs used in research, and employs about 70 people.

The institute says that the closure, announced on 16 May, is a consequence of a move towards using alternative technologies, such as cell lines and organoids — 3D biological structures that can be grown in a dish — in genetics research, instead of animals. But Sanger scientists studying complex diseases such as cancer, which require an understanding of how genes interact in whole organisms, will still use mice in individual labs on-site until the facility closes, in 2022 at the latest. They might also continue to do some mouse research at nearby institutes. "This decision has been driven by the institute's scientific strategy" and was based on a rigorous review and consultation, says director Mike Stratton.

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The Sanger institute is best known for its role in the Human Genome Project, decoding one-third of human DNA. One of the centre's most famous animal-research initiatives was part of a project in which researchers 'knocked out' every gene in the mouse genome one by one.

"The current trend is to move towards *in vitro* systems to study human biology," says Ramiro Alberio, a developmental biologist at the University of Nottingham, UK, who was not surprised by the closure.

But some scientists worry that it's too soon for Sanger to scale back animal research — and that the move will curtail the centre's ability to do cutting-edge science, which still relies on experiments using animal models of disease.

The closure is a "giant step backwards" and is premature by a decade or two, says Robert Weinberg, a cancer biologist at the Whitehead Institute for Biomedical Research in Cambridge, Massachusetts, who uses animals in his research. He says that as scientists learn more about diseases including cancer, they are increasingly realizing that genome analysis alone will not provide all the answers. Mice are particularly useful for studying complex tissues. "Mouse models are irreplaceable and have not been obviated by complex data sets," he says.

The animal facility at Sanger is one of the best in the world, says Monica Justice, a molecular geneticist at the Hospital for Sick Children in Toronto, Canada. She says that the Sanger facility was set up to help scientists understand what mouse genes do, and that many mouse programmes in this field — called functional genomics — are now ending because they have made progress. But she says that other institutes are expanding their mouse research. Mouse models are increasingly used in preclinical research, for instance. ■