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Ronald Naumann

Max Planck Institute of Molecular Cell Biology and Genetics, Germany

Managing a successful transgenic mouse facility under full-cost accounting

Today, the mouse is a widely used animal model in the scientific community. The Transgenic Core Facility (TCF) at the MPI-CBG provides a centralized resource and state-of-the-art technology in production of Knock-Out (-IN) mice by injection or aggregation of embryonic stem cells into mouse embryos, and transgenic mice by injection of DNA or CRISPR into the cytoplasm or pronuclear of mouse zygotes. Our transgenic service facility generated about 70 mutant mouse lines per year. As backups in any cases, we use sperm freezing and embryo freezing to store all our mouse lines in safety conditions. We work very successful and efficient in full cost accounting. I would like to talk about management, 3R's animal welfare, budget, animal and personal resources and the generating of mutant mice in a high health level (SPF). We show that using of fresh or frozen mouse embryos from breeding companies as donor for ES-cell injection is a flexible tool to provide customized projects. All the CRISPR, plasmid or BAC injections into zygotes will be made in specific user background to reduce the numbers of re-crossing generations. An important role as facility leader is also the motivation of employees through its effective incentive plans so that the employees provide fullest co-operation.

Biography

Ronald Naumann received Diploma as graduate engineer in 1993 from Fachhochschule Anhalt Bernburg; Germany. Before his military service, he received education as zoo technician from 1984 to 1986. He started his career as Manager for agriculture in estate Kaltenbrunn, Germany. In 1995 he joined Max Planck Institute of Biochemistry as Foreman and animal breeder in 1995. Over the years, Ronald had established multiple successful transgenic facilities within Europe. He founded transgenic facilities at University of Manchester in 2001, at European Institute of Oncology, Italy in 2005, at University of Freiburg, Germany in 2011 and at University of Jena, Germany in 2015. Currently, Ronald is the Group Leader of Transgenic Core Facility at Max Planck Institute of Molecular Cell Biology and Genetics in Dresden, Germany since 2002.

naumann@mpi-cbg.de

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