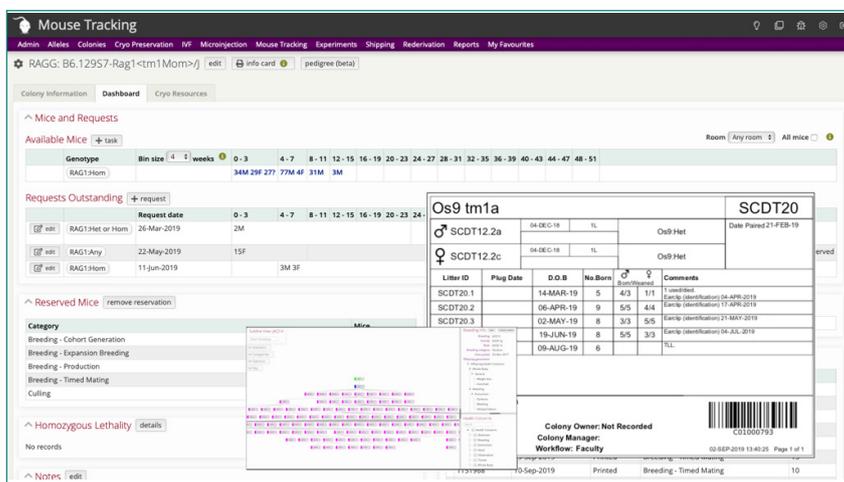


# MCMS: MOUSE COLONY MANAGEMENT SYSTEM

## ADVANTAGES

- ENABLES control over mouse colony sizes ensuring active use and helps to reduce duplication.
- ENSURES background colonies match demand.
- COMPREHENSIVE tracking of each animal, location, genotype, procedural history, pedigree and more.
- REPORTS on all areas including colony progression and data for regulatory reports such as Home Office returns.
- SUPPORTS both single and multi-allele compound models.
- EXPERIMENTAL support for short and long-term studies.
- MULTI-TENNANT capable, utilising separate database schemas for secure data segregation.
- TRACKS archiving and recovery of cryopreserved lines.
- WEB-DELIVERED and CLOUD-HOSTED at the Wellcome Sanger Institute, no need for local set up and configuration.



## BACKGROUND

A bespoke system built on more than a decade of close collaboration with researchers, scientists and technicians, this system has been engineered with the user in mind. Focused on both the mouse and the experiment, the system encapsulates all the requirements for rodent colony management by design. The Mouse Colony Management System (MCMS) delivers everything from colony generation, genotyping, cryo, health and data gathering through to end reporting.

## APPLICATIONS

MCMS is a web delivered solution that scales as your facility grows, it enables full visibility of the animals on the shelf, providing detailed cage cards, logging of health issues and a wealth of reporting across all the key areas of the database. Delivered as a complete system without the need to purchase additional features or modules, the database allows you to move your facility into new application and subject areas at your own pace.

MCMS offers a clear advantage for users (essential to drive adoption) providing a single definitive location for information aligned with UK Home Office legislation.

# MCMS: MOUSE COLONY MANAGEMENT SYSTEM

## TECHNOLOGIES

### COMPARABLE TECHNOLOGIES

Most commercially available approaches prioritise generic facility management functions such as shipping and tracking over scientific utility. Locally hosted colony management software can be complicated to set up, often requiring additional IT resource to implement and incurring additional costs. Similarly, other modular management systems may initially appear a lower cost solution, but can quickly become expensive when more functionalities are required as add-ons. MCMS was purpose-built to support science from its inception, and comes as a complete system out of the box.

### TECHNOLOGY

MCMS is a web-delivered Java application built on the Spring Framework and backed by a high availability Oracle database. Hosted within the Wellcome Sanger Institute Data Centre, it is controlled and monitored with comprehensive off-site backups for resiliency. MCMS provides a standardised application for all users, and has an established process for user submitted feature requests and report changes. Following the closure of the mouse facilities at the Wellcome Sanger Institute (RSF), the ownership and running of MCMS has transferred to the University of Cambridge.

### PUBLICATIONS

Principles and application of LIMS in mouse clinics:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4602070/>

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