

# ANIMAL RESEARCH PLATFORM

Monash University Malaysia's Animal Research Platform (ARP) provides a scaffold for animal research through the supply of high-quality laboratory animals and the provision of essential amenities such as ABSL-2, SPF, and Transgenic Fish Facilities.

We also provide technical resources, contract research services using RG 2 category infectious agents, and animal procedural training.

This platform upholds a high standard of management processes, ensuring the welfare and well-being of animals as specified in the relevant Codes of Practice, to support both national and international biomedical research.

## EXPERTISE

ARP's staff are experienced in animal breeding and providing animals for biomedical research studies, training, and educational purposes.

We provide facility access to users such as the ABSL-2, SPF, Transgenic Fish and Fish Facilities to conduct various types of research such as infectious, therapeutics, neuroscience, behavioural, and fundamental studies.

Our animal behaviour analysis systems are used for motor coordination, learning and memory, social interaction, addiction, circadian rhythm, depression, and anxiety.

Users are also able to access imaging equipment (in conjunction with Monash University Malaysia's Optical Imaging Platform) such as the microinjection system for drug treatment and creation of transgenic animals, and fluorescence microscopy for drug screening and observing cell activities.

We also organise seminars and technical workshops related to animal research to bring users together from a wide range of research, providing a forum for collegial interaction and collaboration.

## KEY INSTRUMENTATION

- Class II biosafety cabinet
- Individually ventilated cages (IVC)
- Rodent and zebrafish behaviour systems
- CO<sub>2</sub> and isoflurane anaesthesia chambers
- Rat metabolic cages

## WORKING WITH US

- Fee for service
- Collaborative research
- Training
- Consultancies

## Specialist Services

Our Animal Facility supplies rodents including mice, rats and hamsters. We also house zebrafish and tilapia fish. Several animal facilities such as the ABSL-2 for infectious disease research, Rodent Conventional and SPF Facility and the Fish and Transgenic Fish Facility are available for research purposes. We also conduct in-house training on animal handling and care for all researchers using these facilities.

### Specialist Service #1: ABSL-2 Facility

The ABSL-2 Facility is designed for researchers to conduct animal studies using infectious agents of RG 2. Training on the biosafety and working procedures when using the facility will be provided prior to the commencement of each of the projects. Biosafety procedures and practices are well adhered to maintain the integrity of the ABSL-2 facility.

### Specialist Service #2: SPF Facility

SPF facility complies with SPF standards of care and use of all SPF-designated animals for breeding, housing, and all animal experiments. Our SPF animal facility has strong support for biomedical research and teaching for internal and external users.

### Specialist Service #3: Transgenic Fish Facility

We house transgenic and mutant strains of zebrafish that are imported from research collaborators and licensed zebrafish facilities. We also have a microinjection system that allows the generation of transgenic and mutant zebrafish via single cell zebrafish embryo microinjection.

### Specialist Service #4: Rodent Facility

We provide various strains of high quality and healthy mice and rats for animal research including:

- Mice strains: BALB/c, C57BL/6J and ICR
- Rat strains: Sprague-Dawley, Wistar and SHR rats
- Hamster: Golden Syrian

### Other Capabilities

- Animal behaviour analysis (motor coordination, learning and memory, social interaction, addiction, circadian rhythm, depression, and anxiety)
- Imaging of animal samples (organs, slides, zebrafish embryos) - in conjunction with MUM Optical Imaging
- Rat for metabolic studies
- Operation system (microinjection, intracerebroventricular injection, brain surgery)

## ANIMAL RESEARCH PLATFORM

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