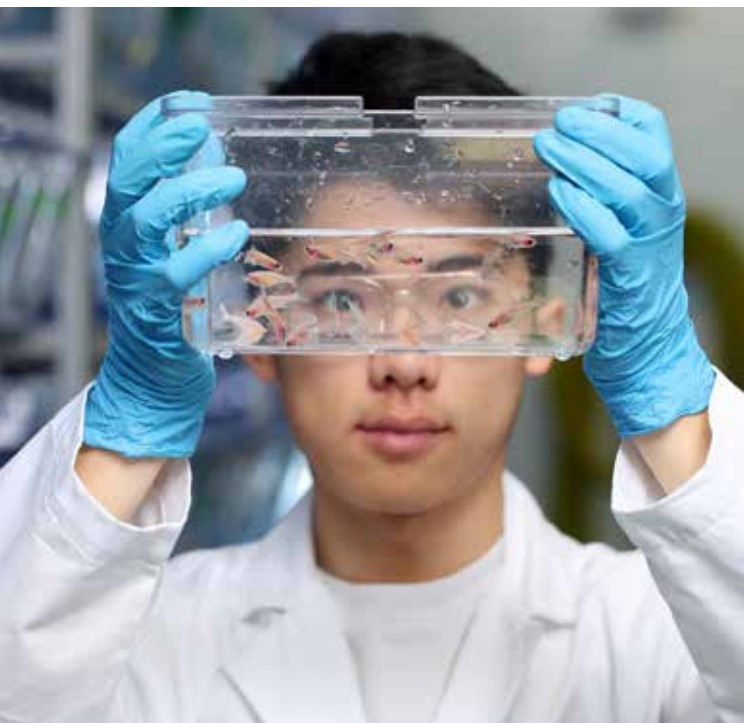




FACULTY OF MEDICINE CORES

ZEBRAFISH FACILITY

The Zebrafish Core Facility provides state-of-the-art equipment and services for researchers using zebrafish as a model for research.



**DALHOUSIE
UNIVERSITY**

FACULTY OF MEDICINE
Zebrafish Core Facility

dal.ca/medicine

SERVICES



Become a Facility User

Rent rack space and your fish lines will be monitored and maintained by trained staff. At the same time, you will receive access to all facility equipment.

Procurement

Choose from commonly used wildtype lines including AB, Casper*, TU and WIK or any of our 32 transgenic lines on either a AB or Casper* background. Most lines can be shipped either as adults or as embryos.

**Casper lines are only available for Canadian institutions.*

Additional Services

The Zebrafish Core Facility can support researchers and facility users through any of the following services. Additional project-specific support for users can be arranged as needed.

- Generating Transgenic Lines (Microinjections)
- Tissue Sampling
- gDNA/mRNA/ Protein Extraction
- Genotyping / Phenotyping
- Fluorescence Screening
- Line Stabilization (selective breeding to F2)
- In-vitro Fertilization
- Sperm Cryopreservation

FACILITIES



▲ Clean Room

The clean room consists of two 15 rack recirculating aquaculture systems, for a combined capacity of 2,600 tanks or >60,000 fish. All fish are health tested prior to entering the facility and regular health monitoring is conducted for health status maintenance. The room features dusking/dawning diurnal lighting with independent lighting controls available on three-racks for alternative lighting protocols. Both systems are equipped with controllers that constantly monitor and maintain key water quality parameters (temperature, pH and conductivity) and alert staff immediately of unacceptable deviations. All husbandry practices including feeding, health checks, breeding and maintenance are conducted by trained personnel.

Behavioral Room

The behavioral room consists of one-standalone rack capable of holding 2,000-3,000 zebrafish. The room includes space for isolated behavioral analyses as well as desk space for associated hardware.

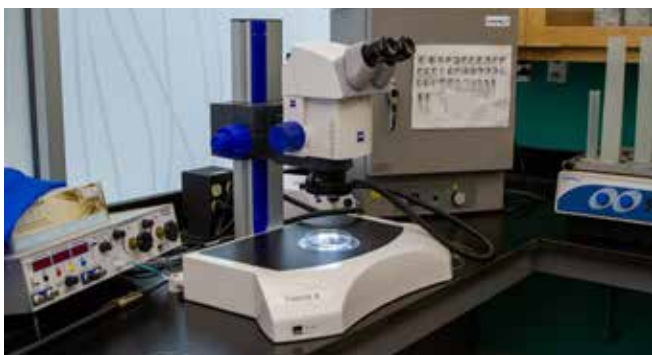


▲ **In-House Quarantine Room**

An in-house quarantine room is available for fish/embryo shipments from within Canada that houses 3 recirculating racks and one flow-through rack. This room is also available for projects that require changes to normal water parameters and/or the addition of harmful/pathogenic agents.

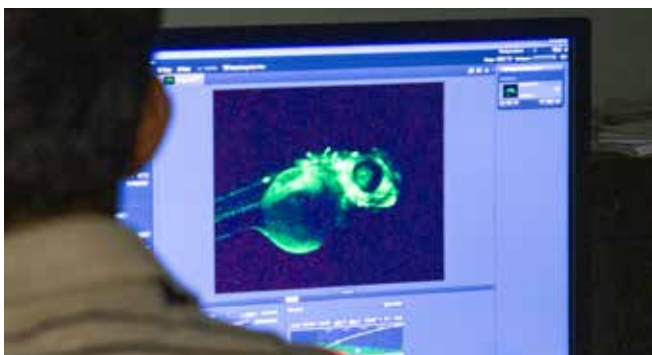
CFIA International Import Quarantine Room

The CFIA import quarantine room houses one-standalone rack with the capacity for large imports (2,000-3,000 fish). All husbandry and dealings with regulatory bodies are handled by Core personnel until fish are released by the CFIA.



▲ **Microinjection and Microbiology Suite**

The microinjection and microbiology suite is equipped with 3 injection stations, complete with a picolitre injector and stereomicroscope, as well as a pipette puller for preparing needles and all hardware required for PCR, gel electrophoresis, western blots, in situ hybridization, and transgenic plasmid generation.



Fluorescence Microscopy Suite

A dark room is provided with 2 fluorescent stereomicroscopes (Leica MZ16F and Zeiss SteREO Discovery.V20) for detection of GFP and RFP, as well as an inverted compound fluorescent microscope (Zeiss AXIO Observer.Z1) for BFP, GFP and RFP. Microscopes are equipped with ZEN PRO imaging software for creating and processing image files.

CONTACT INFORMATION

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