

University of Massachusetts Boston Vivarium

The state-of-the-art vivarium in the Integrated Sciences Complex on the UMass Boston campus provides housing for specific pathogen free species including, rodents, frogs, reptiles, and zebra fish. The vivarium consists of a total 7,515 square feet space with 2,744 square feet of dedicated animal housing. The floor plan is of a single corridor design with branching corridors to the cage wash room, various procedure and housing rooms, behavioral test rooms, and suites.

Physical space

Sanitation of cages and equipment is performed in the cage wash room with a pass-through cage washer and autoclave. The facility offers 16 housing rooms; of which four are directly connected to behavioral study rooms; a unique housing cube suite of three cubes each with independent environment controls that can serve for quarantine or other special use; one room designed for fish, one designed for rabbits, a lizard suite, and one barrier suite of two housing rooms. Non-housing rooms consist of, one operation room, one necropsy room, three procedure rooms (one in the barrier suite), seven behavioral testing rooms, and a dual sided (clean/dirty) cage washing area for equipment sanitization with storage space for housing and supplies. Staff space consists of one office, one break room, two single-sex gown-in rooms, one unisex gown-in room at point of entry to the barrier suite, and an interactive meeting room.

Monitoring and environment controls

With the exception of the independently controlled housing cubicles, the vivarium is controlled and monitored for climate by the Building Monitoring System (BMS). The vivarium lighting is programmable with multiple intensity settings to accommodate the workers and the animals. The individually ventilated rodent housing system (IVC) has standard cages and contact-bedding. Security is maintained through camera surveillance and a key-card entry system controlled by the BMS.

Staffing and animal care program

The animal facility is staffed 7-days a week and offers routine husbandry and breeding care for the animals. The staff is comprised of animal health technicians, a facility manager, and a consulting veterinarian. Through daily inspection of each animal, the staff offer high end care of the animals and support research activities through their knowledge of breeding, husbandry, handling, and general health needs of the various species. Food and water are provided ad libitum as well as interactive toys, wheels and other tactile and visual cues for enrichment. The Institutional Animal Care and Use Committee and Veterinarian provide oversight of the animal program, including ongoing reports of practices, protocol, policies, and training activities. Research support services include laboratory safety training classes, standard operating procedure training, and wet labs offered throughout the year or as needed.