## Laboratory Animal Care Unit University of Tennessee Health Science Center Memphis, Tennessee

## Animal Resources Overview October 2023

The Laboratory Animal Care Unit (LACU) at the University of Tennessee Health Science Center (UTHSC) administers the facilities and program of animal resources for the entire UTHSC campus. The facilities are comprised of approximately 64,000 gross sq. ft. of animal space located in 6 buildings. The entire centralized animal care program is fully accredited by the Association for Accreditation and Assessment of Laboratory Animal Care, International (AAALAC) and maintains an Animal Welfare Assurance with the NIH Office of Laboratory Animal Welfare (OLAW).

Suitable housing facilities are available for a wide variety of animal species in approximately 97 animal rooms. Animals are housed separately by species, by microbiological status and, when possible, by source. Specialized animal housing spaces include a quarantine suite; dedicated animal biosafety level 2 (ABSL2) rooms; a pathogen free barrier; multi-species large animal holding for canines, swine, and small ruminants; and nonhuman primate housing. Additional support facilities include two fully outfitted surgical suites, a clinical laboratory, procedure rooms, radiology, necropsy, and a pharmacy. Contract laboratory services that are available include parasitology, hematology, clinical chemistry, serology, histopathology, microbiology, and certain molecular diagnostic services. A variety of technical services available to investigators by veterinarians and veterinary technicians include surgical services, anesthesia and perioperative care, sample collection, medication and test substance administration, digital radiography, ultrasonography, necropsy and comparative pathology consultation, and other technical services. Resources available to investigators include high resolution micro ultrasound imaging (Vevo 2100), in vivo bioluminescent imaging, and telemetry. Surgical suites are equipped with modern anesthesia equipment, monitors, and instruments that can fully support both small animal (rodent) and large animal (dogs, pigs, primates, sheep, goats) surgical procedures.

Specialized resources include a Regional Biocontainment Laboratory with a 9,000 net square feet animal biosafety level 3 (ABSL3) facility. The ABSL3 facility consists of two isolatable zones, each with three suites, and a shared aerosol challenge and imaging suite. Each suite consists of an anteroom, procedure room, and animal holding room. The facility will support approximately 2700 mouse cages on 28 biocontainment caging units.

The LACU is administratively responsible for all animal resources and the purchase and care of all animals on the UTHSC campus. There is a technical and professional staff of 40, including three full time veterinarians, one of whom is board certified by the American College of Laboratory Animal Medicine (ACLAM). All the lab animal care technicians are certified by the American Association for Laboratory Animal Science (AALAS). The Department of Comparative Medicine serves as the academic base of the faculty veterinarians. The department has a residency training program for the purpose of educating veterinarians in laboratory animal medicine and preparing them for eligibility to be certified by the American College of Laboratory Animal Medicine. Other academic functions of the DCM include independent and

collaborative research, investigator training, AALAS technician training and compliance/consultative roles in animal research.

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