The UCD Rodent In Vivo Neurophysiology Core

The core facility provides continuous rodent behavioral and neurophysiological/EEG monitoring (including cerebral electrical patterns during waking and sleep, heart rate, respiration, EMG). This type of monitoring will permit investigators at UCD to more thoroughly phenotype the rodents they are using in their research and specifically address issues of whether they have abnormalities of neurophysiological functioning such as interictal epileptiform discharges, sleep disturbances and seizures. This can be important for the characterization of translational models of nervous system disorders including stroke, epilepsy, head trauma, neurodegenerative, psychiatric, genetic and developmental disorders. Equipment available in the Rodent In Vivo Neurophysiology Monitoring Core facility includes an inhalational anesthesia system, Angle 2 stereotactic apparatus with rat and mouse atlases and video microscope for electrode placement and cerebral injections, microinfusion pump, and 48 cages (32 rat and 16 mouse) equipped for video EEG monitoring (Stellate and Pinnacle systems).

Core Personnel

Yogendra H. Raol, PhD (Director) is an Assistant Professor in the Department of Pediatrics, School of Medicine. Dr. Raol has over 14 years of experience with in vivo neurophysiological recording in rodents. Dr. Raol is responsible for the management of the daily operations of the core facility, and training and supervision of the technicians.

Doron Shmueli, is a technician for the core. He obtained his BS degree in Engineering from the University of Colorado. Doron is an expert in intracranial electrode implantation, EEG recording and analyses and was trained with neurologist Dr. Andy White at University of Colorado Denver.

Services
Neurophysiology/EEG monitoring $8.35/day
Electrode implantation surgery (surgery performed by core personnel) $140/procedure
Use of surgical supplies/facilities for electrode implantation (surgery perform by investigator) $46/procedure

Location
University of Colorado Denver- Anschutz Medical Campus
Research Complex II, Lab Animal Facility
12700 E 19th Avenue, MS 8605
Aurora, CO 80045

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