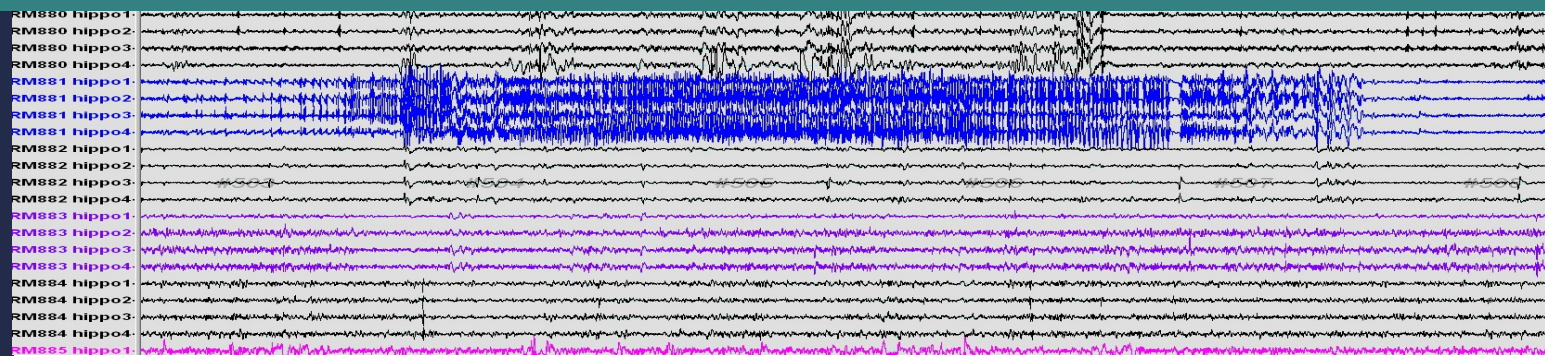
Animal EEG and Electrophysiology Core



About Us

The UVA Animal EEG and Electrophysiology Core is a newly established provisional core designed to connect researchers with electroencephalography and electrophysiology services and expertise at UVA. Support for the core comes in part through the School of Medicine and the Grand Challenges Research Investments in Brain and Neuroscience.

The recording of brain rhythms using electroencephalography (EEG) serves as a readout for the function of brain networks. UVA has long been recognized for its ability to record small animal EEGs, and with an increasing focus on understanding the development of brain circuits, there is more demand for related services and instrumentation. A core that is dedicated to the acquisition neurophysiological (EEG), in combination with animal behavior and genomic data from animal models, enables direct comparison to humans.

Our Services

Consultation

Physiological assays (video EEG and related biosignals such as:

- Electrocardiography,
- Core temperature,
- Electromyography
- Actigraphy

Data storage and analysis

Enhancing Research, Rigor and Reliability

Instrumentation

The Animal EEG Core facilitate investments in new neurophysiology systems awarded through a shared instrumentation competitive award process.

- Pinnacle Technology Inc. 8200-K1: 3-Channel EEG/EMG Mouse system
  - The 3-channel mouse system is a configurable tethered setup capable of recording 2 EEG and 1 EMG for sleep or seizure or 3 EEG for seizure studies in mice. EEG and EMG waveforms are amplified and filtered at the head of the mouse by the 100X mouse preamplifier. Signals are then passed through the low torque mouse commutator/swivel to the data conditioning and acquisition system for final stage conditioning and filtering.
- ADInstruments – 32 channel video/EEG recording rig (16 Channel Extracellular Differential AC Amplifier (115V/60Hz); SL6C/SB COMMUTATOR 6 CH; Qcwox HD 1/3 Sony CCD 1000TVL 3.6mm 10pcs IR LEDs Mini CCTV Security Camera Surveillance; Evertech 8 Channel Analog CCTV Video Multiplexer Color Quad Processor Screen Splitter with Remote Control
- Plexiglass cage designed for EEG recordings; 2020 Latest HP OMEN 30L Desktop PC (RGB Liquid Cooled Intel i9-10900K, NVIDIA RTX 2080 Ti, Z490 Mobo, 750 Watt Platinum PSU, Windows 10 Pro, 1TB WD Black SSD + 2TB HDD, 32GB RGB RAM)
- HPE ProLiant ML350 Gen10 4214 1P 32GB-R P408i-a 8SFF 1x800W RPS Server)

OurTeam

Amy Fansler, MPH
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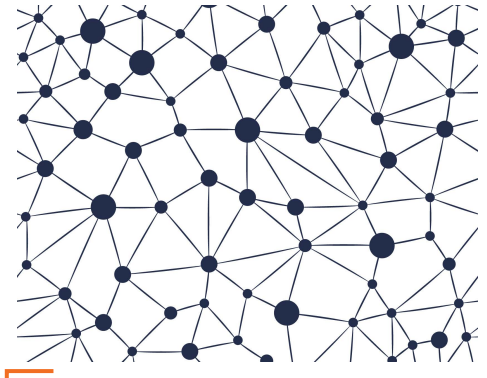
Jaideep Kapur, MD, PhD
Professor of Neurology,
Faculty Advisor



The AEC excels in

understanding brain circuits

Contact

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Request Services on:
uva.corefacilities.org/account/login

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