

Neurobiophysics Bachelor Studies Programme, 2025

Institution		Department/Laboratory	Themes
VU Life Sciences Center (GMC)	Institute of Biosciences (GMC)	Department of Neurobiology and Biophysics	<p>Image recognition by presenting them in gamma frequency</p> <p>Modeling Alcohol Use Disorder in male rats</p> <p>The relationship between alpha wave activity and attention during auditory steady-state stimulation</p> <p>The role of circadian rhythms in brain activity</p> <p>Recognition of sequentially presented multiple objects of the same and different categories</p> <p>Assessment of males' reactivity to psychosocial stress using psychophysiological methods</p> <p>Adaptation of the rat inflammatory model of depression</p> <p>Investigating Emotion Regulation in Males: An Analysis of EEG Data and Self-Reported Measures</p> <p>The Effects of Anesthesia on the Electrical Activity of the Mouse Cerebral Cortex</p> <p>Analysis of steroid hormones in the fur of of juvenile grey seals (<i>Halichoerus grypus</i>)</p> <p>The Effect of Electronic Cigarettes on Resting-State EEG Alpha Rhythm</p> <p>The effect of sound on the morphological and physiological characteristics of <i>Lepidium sativum</i> and <i>Nitellopsis obtuse</i></p> <p>Research on the effects of electromagnetic fields on cordyceps militaris</p> <p>Gaze strategy of Humboldt penguins (<i>Spheniscus humboldti</i>) during U-shaped underwater turns</p> <p>Analysis of periodic and aperiodic components of the power spectrum of EEG signal during auditory steady-state stimulation</p>

			<p>The Relationship Between Cognitive Functions and Individual Gamma Frequency Identified via Amplitude-Modulated Chirp Stimuli</p> <p>The Effect of Ketamine on the Cerebral Cortex's Ability to Synchronize</p> <p>Evaluation of the impact of EEG data quality and processing strategies on motor imagery classification accuracy</p>
	Institute of Biotechnology	Department of Single Cell Analytics	High-Throughput Detection of Target Gene Expression in Single Cells Using Fluorescent in Situ Hybridization
	Institute of Biochemistry	Department of Bioanalysis	<p>Sudy of Electrochemical Biosensor Using D-Amino Acid Oxidase</p> <p>Tyrosinase Based Electrochemical Biosensors for Dopamine Sensing</p>
		Department of Biological Models	<p>Investigating the Effects of Tryptamine Derivatives on Cell Physiological Functions</p> <p>Evaluation of the Biological Effects of Tryptamine Analogs: Behavior, Tolerance and Pharmacokinetics in Mice</p> <p>Impact of High-Fat Diet on the Morphology of Microglia in Older Age</p> <p><i>In vivo</i> Synergistic Effects of <i>Lactacaseibacillus paracasei</i> 11W and Galactooligosaccharide on the Behavior of Female Mice fed a high-fat diet Targeting the Microbiota-Gut-Brain Axis</p>
Faculty of Physics		Laser Research Center	Changes in Autofluorescence of Unicellular Green Algae Induced by Different Hydrophilic Quantum Dots
Vilnius Psychiatric Hospital			Changes in Heart Rhythm Variability and EEG Parameters Under the Influence of a Virtual Reality Session
Center for Physical Sciences and Technology	Department of Functional Materials and Electronics	Bioelectrics Laboratory	Evaluation of the Effect of Poly-D-lysine Coating on C6 Glioma Cell Adhesion in a Microfluidic Chip