## **Biochemistry, Master Studies Programme, 2023**

Institution		Department/Laboratory	Themes
VU Life Sciences Center	Institute of Biochemistry	Department of Molecular Microbiology and Biotechnology	Synthesis of Modified Nucleotides Utilizing Recombinant Deoxycytidine Kinase from <i>Bacillus subtilis</i>
			Host Range Determinants of Bacteriophages of the Genus Dibbivirus
		Department of Biological Models	Influence of Gut Microbiota on the Expression of Components of the Endocannabinoid System during Ageing
			Influence of Diet on Microglia Function in Ageing Mice
	Institute of Biotechnology	Department of Protein – DNA Interactions	Structural and Functional Studies of a Type II-C CRISPR-Cas Integrase Complex
			Structural and Functional Studies of Type II-A CRISPR-Cas Adaptation Stage
			Investigation of a Bacterial Antiviral Defense System Thoeris Mechanism of Action
			Characterization of the <i>Archaeoglobus fulgidus</i> Argonaute and Associated Proteins
		Department of Biological DNA Modification	Functional Analysis of Small Regulatory RNAs System sLLM1238 in Lactic Acid Bacteria <i>Lactococcus lactis</i>
		Department of Immunology	Impact of Chemoterapeutic Agents on mRNA Isoform Formation in 2D and 3D Nerve Cell Cultures
		Department of Single Cell Analytics	Droplet-based Microfluidics Approach for High-throughput Screening of Catalytically Active Enzymes
Thermo Fisher Scientific Baltics			Site-directed Mutagenesis of M-MuLV Reverse Transcriptase Cysteine Residues and Characterization of Mutants
			Increasing of in vitro Transcription Efficiency
			High-concentration Biotin Effect on T Cell Activation