Molecular Biology, Master Studies Programme, 2024

Institution		Department/Laboratory	Themes
VU Life Sciences Center	**Institute of Biosciences**	Department of Biochemistry and Molecular Biology	RIPK3 and pMLKL Protein Role in Colorectal Cancer Cell Line HCT116 and HT-29 Survival The Role of Autophagy in Chemoresistance of Colorectal Cancer Cells
	Institute of Biochemistry	Department of Biological Models	Generation and Characterization of Immortalized Mouse Microglial and Astrocyte Cells for Neuroinflammation Research Effect of Mechanical Stimulation with Surfaces of Different Stiffness on Breast Cancer Cell Line MCF-7
	Institute of Biotechnology	Department of Protein – DNA Interactions	*In vitro* and *in vivo* Target Search Mechanism Studies of Cas9 Development of a Single-Molecule Level System for Real-Time Chromosome Breaks Studies in Live Cells Functional Studies of Mrr Domain-Associated Short Prokaryotic Argonaute Proteins
		Department of Eukaryote Gene Engineering	The Effect of TMTC3 Protein on the Solubility of Laminin Subunit B-1 in Saccharomyces cerevisiae Cells Next Generation Sequencing Optimization for Wild Rodent Virome Study Improving Yeast *Saccharomyces cerevisiae* Surface Display for the Acinetobacter baumannii Blp1 Protein C-terminal Fragment Development of a *Kluyveromyces marxianus* Yeast Strain for Secretion of Recombinant Antibodies
		Department of Single Cell Analytics	Investigation of Barcoding Throughput of Droplet-Based Single-Cell RNA Sequencing Platform
		Sector of Applied Biocatalysis	Identification of Polyurethane Degrading Enzymes in Wild-type Bacteria

	LSC-EMBL European Molecular Biology Laboratory Partnership Institute	Laboratory of Dr. Lina Malinauskaitė	Structural and Functional Studies of a Type I-F1 CRISPR-Cas Adaptation Complex Interaction with Prespacers
Centre of Innovative Medicine	**Department of Regenerative Medicine**		Toxicity Studies of Aerosol Nanoparticles Using a Novel *in vitro* "Cells-on-Particles" Exposure Model; System Testing and Validation
Tallinn University of Technology		Department of Chemistry and Biotechnology, Replication and Genome stability laboratory	Using Proximity Labeling split-TurboID System to Study The Roles of TIMELESS in DNA Replication
UAB Droplet Genomics			Single Cell DNA Sequencing Using Semi-permeable Capsules
Thermo Fisher Scientific Baltics			The Development of Reverse Transcriptase Inhibitory Proteins Development of Strain-Specific *E. coli* ELISA Platform for Detection of HCP Impurities Mutagenesis and Characterization Studies of Tth DNA Polymerase