Molecular Biology Master Studies Programme, 2021

Institution		Department/Laboratory	Themes
Life Sciences Center	**Institute of Biosciences**	Department of Biochemistry and Molecular Biology	Investigation of Soil Origin Chryseobacterium spp. β-lactamases Cell Death Pathway Research in Chemoresistant Colorectal Cancer Cells Investigation of the Impact of *Acinetobacter baumannii* Regulatory System BfmRS on the Type VI Secretion System
		Department of Botany and Genetics	Analysis of Potential Epigenetic Biomarkers for Non-Invasive Renal Cancer Diagnosis and Monitoring Disease Progression
	Institute of Biochemistry	Department of Bioelekctrochemistry and Biospectroscopy	Phospholipid Composition Effects on Membrane Damage Inflicted by Alpha Hemolysin from *Staphylococcus aureus*
		Department of Molecular Cell Biology	Ex Vivo Studies of Endometrium-Derived Stem Cells
		Department of Molecular Microbiology and Biotechnology	Analysis of Physiochemical and Genetic Properties of Newly Isolated Bacteriophages from Myoviridae Family
		Proteomics Centre	Investigation of p53 Isoforms Influence on Cell Death Induction using CRISPR/Cas9 Gene Knockout Technology in Human Colorectal Carcinoma Cells
	Institute of Biotechnology	Department of Eukaryote Gene Engineering	Synthesis of Recombinant Allergen Components Art v 3, Bet v 4 and Mal d 3 in *E. coli* and Evaluation of their Antigenicity
		Department of Immunology and Cell Biology	Investigation of NLRP3 Inflammasome Activation by Viral Oligomeric Proteins in Macrophage Model Systems The Influence of Hypoxia on Neurodegenerative Disease Related Gene Alternative Pre-mRNA Splicing
		Sector of Mikrotechnologies	Single-cell RNA-Seq of Human Kidney: Comparison of Healthy and Tumor Tissues
Centre of Innovative Medicine	**Department of Stem Cell Biology**		Effects of Wild-Type and 3Tg-AD Astrocyte-derived Extracellular Vesicles on Oxidative Stress and Inflammatory Gene Expression in Brain Endothelial Cells

Thermo Fisher Scientific Baltics			Studies of Polymerases Capability to Incorporate Modified Nucleotides Engineering of Recombinant anti CD3, CD19 and CD28 Antibodies Characteristics of T7 RNA Polymerase Mutants