## Molecular Biology, Bachelor Studies Programme, 2024

Institution		Department/Laboratory	Themes
VU Life Sciences Center Institute of Biosciences   Institute of Biosciences Institute of Biosciences	Institute of Biosciences	Department of Biochemistry and Molecular Biology	Inactivation of Opportunistic Pathogen Acinetobacter baumannii by 5- Aminolevulinic Acid Induced Photodynamic Therapy
			Impact of Manganese-Dependent Superoxide Dismutases on Oxidative Stress Resistance of <i>Stenotrophomonas maltophilia</i> After Photodynamic Therapy
			Integrity and encapsulation of <i>Saccharomyces cerevisiae</i> L-BC virus capsids
			Synthesis and Characterisation of <i>Torulaspora delbrueckii</i> TdV1 Virus Capsids
			Prevalence of Antibiotic Resistance Genes in Clinical Isolates of Opportunistic Pathogen <i>Stenotrophomonas maltophilia</i>
			Plasmid Diversity in Clinical Acinetobacter baumannii Isolates
			Study of Function of N-terminal Fragments in Viral Origin Toxins
			Significance of the Notch Signaling Pathway in the Survival of Human Colorectal Cancer HCT116 Cells
			The Role of p62 in Cell Survival of 5-fluorouracil and Oxaliplatin- Resistant Human Colorectal Cancer Cells
			Study of Colorectal Cancer Cells With Innate and Acquired Drug Resistance
		Department of Botany and Genetics	MiRNA and Gene Expression Analysis in Samples of Type 1 Diabetes Mellitus Patients
			Genetic Diversity Analysis of Two Heracleum mantegazzianum Populations Using ISSR and SCoT Markers
		Department of Bioanalysis	Development of a Biosensor for the Detection of Proteolytic Activity
	Department of Molecular Cell Biology	Evaluation of decidualization potential of endometrium and endometriosis-derived stromal cells grown in 2D and 3D systems	

		Department of Molecular Microbiology and Biotechnology	Deletion Mutants of Phage vB_EcoM_VpaE1 for Investigation of Gene Essentiality and their Encoded Functions
	Institute of Biotechnology	Sector of Amyloid Research	The Study of $\alpha$ -synuclein Aggregation in Artificial Cerebrospinal Fluid
		Department of Protein – DNA Interactions	Construction of Random DNA Fragment Libraries of Bacteriophages Study of New Anti-phage Defense Systems
		Department of Biological DNA Modification	Searching for Wuhan mosquito virus 6 in Lithuania
			Analysis of Small Regulatory RNAs in Stress-exposed <i>Lacticaseibacillus paracasei</i> bacteria
		Department of Biothermodynamics and Drug Design	Efficacy of CAIX Inhibitors in Preclinical Solid Tumor Models
		Department of Eukaryote Gene Engineering	Design and Synthesis of Mutant Variants of Common Mugwort Allergen Component Art v 3
		Department of Single Cell Analytics	Development of a System for the Detection of Cas12a Trans-Activity in <i>Escherichia coli</i> Cell Lysates
Nature Research Centre		Laboratory of Molecular Ecology	Identification of Sarcocystis Parasites Species in Red Fox Excrements by Molecular Methods
National Cancer Institute	Research Departments	Laboratory of Molecular Oncology	Investigation of the Contributing Factors in Lung Cancer Progression and Control
Centre of Innovative Medicine	Research Departments	Department of Immunology and Bioelectrochemistry	Optimizing Cancer Cell Transfection by Nanosecond Range Electroporation
National Center of Pathology			Prevalence of EGFR and ALK Gene Mutations in Non-Small Cell Lung Cancer Patient Population
University of Regensburg			Effect of Natural and Synthetic DNA Cytosine 5-position Modifications on Transcription Efficiency
Thermo Fisher Scientific Baltics			Analysis of DNA Ligase Substrate Specificity