Mikrobiology Bachelor Studies Programme, 2024

Institution		Department/Laboratory	Themes
Life Sciences Center	**Institute of Biosciences**	Department of Microbiology and Biotechnology	Biosynthesis and Characterization of Bacteriocins from Thermophilic Bacteria Antimicrobial Photoinactivation of Thermophilic Food Spoilage Bacteria Immobilization of Microbial Lipolytic Enzymes and the Analysis of Immobilized Preparations Search and Analysis of Plant Growth Promoting Microorganisms in Saline Environments Antibiotic Resistance in Campylobacter Molecular Epidemiology Studies of Invasive *Listeria monocytogenes* Isolates Evaluation of Microplastic Degradation Potential of *Trichoderma viride*, *Aspergillus fumigatus* and Mold Isolates Antimicrobial Effect of Lanthanum Compounds on Skin Pathogens Effect of Peppermint and Eucalyptus Essential Oils on [PSI+] Prion Formation in *Saccharomyces cerevisiae* Cells Optimization of *Photobacterium phosphoreum* bioluminescence and growth conditions The Search on Bacteriocins Active Against Phytopathogenic Microorganisms Development of Yeast *Saccharomyces cerevisiae* Sup35 Protein Mutant Variant SUP35delM-MCHERRY-URA3 Antimicrobial Effect of Cobalt Oxide Nanoparticles Investigation of Natural Photosensitizers-mediated Antimicrobial Photoinactivation Against Molds Antibiotic Resistance Genes in an *In Vivo* Mice Model System

			Molecular Epidemiology Studies of Clinical *Klebsiella pneumoniae* Isolates Search, Purification and Analysis of Pyrethroids-degrading and Other Biotechnologically Applicable Lipolytic Enzymes Development of the M124C Mutant Variant of the Yeast Protein Sup35 Studies on the Sensitivity of Yeast to Photoinactivation, Optimisation of Conditions Genomic Epidemiology of *Haemophilus influenzae*: *In silico* Analysis of European Isolates Genetic Analysis of Hospital Antibiotic-resistant *E. coli* Isolates Evaluation of *Pseudomonas aeruginosa G*rowth Changes and Biofilm Formation in the Presence of Microplastic Particles Influence of Ethanolamines on *[PSI] P*rion Formation in *Saccharomyces cerevisiae* Cells
		Department of Biochemistry and Molecular Biology	Quantification of Outer Membrane Vesicles and Capsular Polysaccharides Produced by *Acinetobacter baumannii* During the Stress Caused by Antibacterial Agents
		Department of Botany and Genetics	Effect of Cobalt Compounds on *Haematococcus pluvialis* Growth, Morphology and Astaxanthin Concentration in Biomass
		Center of Ecology and Environment	Study of Pharmaceuticals Ecotoxicity Using Bacterial Bioluminescence Inhibition Tests
		Department of Zoology	Shell Proteomics: Characterising Unionida Shell Proteoms for Species Discrimination
	Institute of Biochemistry	Department of Biological Models	*In vitro* Investigation of Psychobiotic Properties of Lactic Acid Bacteria Isolated from Homemade Lithuanian Fermented Foods
		Department of Molecular Microbiology and Biotechnology	Optimisation of the Method for Isolating and Propagating Jumbo Bacteriophages

			Isolation and Characterization of *Klebsiella* sp. Bacteriophage p15, Including Identification of Depolymerase and its Enzymatic Specificity, Demonstrating a Possible Application Investigation of Thermophilic Bacillus-group Bacteria and Their Bacteriophages Isolated from Compost Samples Investigating the Effect of Diet on the Diversity of Aerobically Cultured Bacteriophages from the Gut of *Mus musculus* Study of Non-classical Cytosolic Protein Secretion in *E. coli*
	Institute of Biotechnology	Sector of Amyloid Research	Optimization of the Synthesis and Purification of Recombinant TDP-43 Protein
	LSC-EMBL European Molecular Biology Laboratory Partnership Institute	Laboratory of Dr. Stephen Knox Jones	Constructing an Adaptable Library of DNA Targets to Benchmark Programmable Nucleases
VU Faculty of Physics	**Institute of Photonics and Nanotechnology**	Lighting Research Group	Application of Copper Chlorophyllin-based Antimicrobial Photodynamic Inactivation Against the Plant Pathogen *Pseudomonas syringae*
Nature Research Centre		Laboratory of Genetics	Yeast Isolation from Pastures and Determination of Their Biocidal Profiles Detection of *Sarcocystis* spp. Parasitic Protozoa in Water Samples and Their Viability Assessment Study of β-carotene Synthesis in Rhodotorula Yeasts
		Laboratory of Plant Pathology	Investigation of Genetic Diversity of Fungi Colonising Pine Trees Detection and Identification of Phytoplasmas in Plants of the Genera *Vaccinium* and *Rubus*
		Laboratory of Algology and Mikrobial Ecology	Dynamics of Water Microorganism Communities During the Seasonal Cyanobacterial Bloom Application of Mechanical-physical Methods for Cell Envelope Disruption and Biocomponent Isolation in *Microcystis* Cyanobacteria

			The Amounts of Lipids and Phycobiliproteins in the Biomass of Planktonic Freshwater Cyanobacterias, Which Were Collected During Water Blooming Periods Characterization of Cyanophage vB_AphaS_CL131 Infection in the Cyanobacteria *Aphanizomenon flos-aquae*
		Laboratory of Ecotoxicology	Assessment of Oomycetes Impact on Atlantic Salmon (*Salmo salar* L.) Embryos and Larvae Using Oxidative Stress Biomarkers Evaluation of the Toxic Potential of Nanoparticles by Studying Their Effect on Green Microalgae
		Laboratory of Biodeterioration Research	Influence of Biotic and Abiotic Factors on Soil Enzymatic Activity
National Cancer Institute	**Research Departments**	Laboratory of Immunology	Effects of Exercise-induced Exosomes on the Development and Microenvironment of Murine Breast Tumours
UAB Imunodiagnostika			Expression, Purification and Characterization of Antigenic Properties of Mal d 3 Allergen