LIST OF PHD RESEARCH TOPICS AND SUPERVISORS FOR THE FIELD OF BIOLOGY IN THE AREA OF NATURAL SCIENCES FOR YEAR 2024

No.	Department	Research topic	Supervisor	Consultant
1	Institute of Cardiology Molecular Cardiology Laboratory	Influence of viruses and bacteria on platelet aggregation and atherosclerotic plaque rupture	Assoc. Prof. Dr. V. Tatarūnas	Prof. Dr. G. Šakalytė
2	Institute of Cardiology Membrane Biophysics Laboratory	Evaluation of the effect of irreversible electroporation of a newly developed therapeutic technique and changes in the metabolism of affected heart cells in ex vivo and in vivo animal models	Dr. R. Mačianskienė	Dr. V. Zigmantaitė
3	Institute of Cardiology Membrane Biophysics Laboratory	Investigation of the efficacy and effectiveness of new cardiotropic agents in the treatment of various pathologies of the cardiovascular system in in situ and ex vivo animal models	Dr. R. Mačianskienė	Dr. V. Zigmantaitė
4	Faculty of Medicine Department of Genetics and Molecular Medicine	Complex analysis of tandem repeat expansions: study of the diagnostic efficiency of repeat sequence-dependent PCR, long and short DNA fragment sequencing methods	Prof. Dr. R. Ugenskienė	Dr. E. Pajėdienė; Dr. M. Paucar Arce (Karolinska institute, Sweden)
5	Faculty of Medicine Institute of Oncology	Analysis of genetic factors in breast and cervical cancer and study of relationships with tumor phenotype, disease course and radiation therapy-induced side reactions	Prof. Dr. A. Inčiūra	Prof. Dr. R. Ugenskienė
6	Neuroscience Institute Laboratory of Biochemistry	Investigation of the molecular mechanism of microglial activation and primary neuronal phagocytosis induced by pathogenic α-synuclein aggregates	Dr. K. Pampuščenko	Prof. Dr. V. Borutaitė
7	Neuroscience Institute Laboratory of Biochemistry	Study of the role of mitochondria in brain inflammation processes	Prof. Dr. R. Morkūnienė	
8	Neuroscience Institute Laboratory of Molecular Neurobiology	Development of possibilities for the treatment and diagnosis of Parkinson's disease by studying the transcriptomic and epitranscriptomic changes of RNA molecules in blood and models of neurodegenerative diseases	Dr. P. Vaitkienė	

9	Neuroscience Institute Laboratory of Ophthalmology	Search for potential exosomes, immunogenetic and immunohistochemical markers in patients with pituitary adenoma	prof. R. Liutkevičienė	prof. habil. dr. A. Tamašauskas
10	Faculty of Animal Sciences Institute of Biological Systems and Genetic Research	Search for new immunogenetic markers in laryngeal squamous cell carcinoma patients and their correlation with clinical characteristics	dr. A. Vilkevičiūtė	prof. V. Liutkevičius