

**LIST OF PHD RESEARCH TOPICS AND SUPERVISORS FOR THE FIELD OF MEDICINE IN  
THE AREA OF MEDICAL AND HEALTH SCIENCES FOR 2024**

<b>No.</b>	<b>Department</b>	<b>Research topic</b>	<b>Supervisor</b>	<b>Consultant</b>
1	Institute of Endocrinology General Endocrinology laboratory	Investigation of predictors of invasiveness and course of non-functioning pituitary neuroendocrine tumors	Prof. B. Žilaitienė	Prof. A. Tamašauskas
2	Institute of Cardiology Automation of Cardiovascular Investigation laboratory	Application of explanatory artificial intelligence for automated detection of chronic ischemic heart disease by evaluating the size and hemodynamic significance of coronary artery stenosis in cardiac computed tomography images	Prof. G. Šakalytė	
3	Institute of Cardiology Clinical Cardiology Laboratory	Atrial cardiomyopathy and its clinical and prognostic value in patients with left heart valvular disease	Prof. J. J. Vaškelytė	
4	Institute of Cardiology Preclinical Research Laboratory for Medicinal Products	Role of exosomes in protecting neurons against cerebral ischemia-reperfusion injury and artificial blood circulation-induced systemic inflammatory response	Prof. R. Benetis	Dr. Z. Balion
5	Faculty of Medicine Department Ophtalmology	Features of the eye surface and their connections with the microbiota of the eye surface, mouth and intestines	Prof. R. Žemaitienė	Dr. U. Kūlokienė; Prof. D. Lukšienė
6	Faculty of Medicine Department Ophtalmology	Associations of dry eye syndrome with cataract surgery	Prof. R. Žemaitienė	Prof. D. Urbonienė
7	Faculty of Medicine Department of Obstetrics and Gynaecology	Manifestation of systemic inflammation in endometriosis and its relationship with disease progression	Assoc. Prof. K. Jarienė	Assoc. Prof. A. Dambrauskienė
8	Faculty of Medicine Department of Anaesthesiology	Postoperative pain management after brain tumor removal operations	Prof. D. Bilskienė	
9	Faculty of Medicine Department of Anaesthesiology	Predicting the course and outcomes of the perioperative period of surgical treatment of adrenal tumors	Prof. A. Macas	Prof. A. Daukša
10	Faculty of Medicine Department of Otorhinolaryngology	Associations between phenotypic and endotypic groups, risk factors and immune imbalance and genetic variation in chronic rhinosinusitis patients	Prof. A. Vitkauskienė	Assoc. Prof. E. Padervinskis
11	Faculty of Medicine Department of Surgery	Investigation of cellular and subcellular processes influencing outcome after major liver surgery	Assoc. Prof. T. Vanagas	
12	Faculty of Medicine Department of Surgery	Compilation of an artificial intelligence algorithm and determination of accuracy in the assessment of metastases in the sentinel lymph node in breast cancer	Prof. M. Kiudelis	
13	Faculty of Medicine Department of Surgery	The prognostic significance of genetic and epigenetic markers for prognosis of colon cancer progression and treatment efficiency	Assoc. Prof. S. Švagždys	
14	Faculty of Medicine Department of Disaster Medicine	Opportunities to expand medical service provision capacities (Surge Capacity) in	Assoc. Prof. P. Dobožinskas	Prof. D. Vaitkaitis

		health care institutions during critical events		
15	Faculty of Medicine Department of Gastroenterology	Multiscale molecular studies of response to biological therapy in inflammatory bowel disease: identification of genetic, proteomic and microbiome markers	Prof. J. Kupčinskas	
16	Faculty of Medicine Department of Infection Diseases	Infection of cardiovascular prostheses and devices: risk factors, diagnosis, features and duration of treatment, outcome, assessment of treatment effectiveness	Dr. D. Važnaisienė	Assoc. Prof. V. Mizarienė
17	Faculty of Medicine Department of Immunology and Allergology	Biomarkers of ligamentum flavum hypertrophy and their prognostic value in spinal stenosis	Prof. B. Gradauskienė	Assoc. Prof. A. Radžiūnas
18	Faculty of Medicine Department of Cardiology	Changes in perivascular, epicardial and paracardial adipose tissue and their comparative analysis in chronic and acute coronary syndromes	Assoc. Prof. E. Rumbinaitė	
19	Faculty of Medicine Department of Laboratory Medicine	Associations of community-acquired pneumonia agents, patient risk factors, and systemic inflammatory response with disease severity	Prof. A. Vitkauskienė	
20	Faculty of Medicine Department of Nephrology	The kidney-gut axis: microbiome-metabolism relationship and effects of probiotic-prebiotic substances and physical activity in chronic dialysis patients	Prof. E. Žiginskienė	Assoc. Prof. C. Avesani (Karolinska institute, Sweden)
21	Faculty of Medicine Department of Neurology	The effect of a ketogenic diet on cognitive function and quality of life in children with treatment-resistant epilepsy	Prof. G. Jurkevičienė	
22	Faculty of Medicine Institute of Oncology	Significance of novel imaging and genetic markers for predicting cardiotoxicity in anthracycline anticancer therapy in breast cancer patients	Prof. E. Juozaitytė	Prof. T. Lapinskas
23	Faculty of Medicine Department of Pathological Anatomy	Analysis of the expression of invasion factors in colon adenocarcinoma with microsatellite instability using the principle of digital image analysis and the possibilities of applying prognostic models	Assoc. Prof. L. Poškienė	Prof. V. Lesauskaitė
24	Faculty of Medicine Department of Plastic and Reconstructive Surgery	Comparison of the results of breast reconstructions using soluble polyglactin and polydioxanone meshes	Prof. E. Ereminienė	
25	Faculty of Medicine Department of Pulmonology	Investigation of clinical, microbiological, and genetic characteristics of multidrug-resistant tuberculosis in Lithuania	Prof. S. Miliauskas	Prof. A. Vitkauskienė
26	Faculty of Medicine Department of Radiology	Synthesis and quality control of radiopharmaceuticals labeled with the radionuclide C-11 in accordance with the requirements of good manufacturing practice and their preclinical studies	Prof. D. Vajauskas	Dr. V. Pichler (University of Vienna)
27	Faculty of Medicine Department of Radiology	Optimization of synthesis and quality control processes of radiopharmaceuticals labeled with Ga-68 and F-18 radionuclides according to Good Manufacturing Practice standards and their application to preclinical studies	Prof. D. Vajauskas	Dr. V. Pichler (University of Vienna)

28	Faculty of Medicine Department of Emergency Medicine	Telemedicine in emergency departments for patients with acute diseases of the circulatory system: formation of the patient path and methodology, evaluation of efficiency and quality, recommendations of good practice	Prof. K. Stašaitis	Prof. L. Jankauskaitė
29	Faculty of Medicine Department of Urology	Study of the effectiveness of systemic therapy used in clinical practice in the treatment of metastatic castration-resistant prostate cancer	Prof. M. Jievaltas	
30	Faculty of Medicine Department of Pediatrics	Study of quality of life and non-invasive diagnosis of exacerbations of chronic inflammatory skin diseases in children	Prof. L. Jankauskaitė	
31	Faculty of Medicine Department of Internal Medicine	Assessment of atrial and ventricular strain and biochemical inflammatory and other biomarkers in patients with acute pancreatitis to predict severity, outcome, and risk of cardiovascular complications	Prof. S. Sadauskas	Prof. D. Žaliaduonytė
32	Neuroscience Institute Behavioral Medicine Laboratory	Hemodynamic parameters, cognitive functioning, individual sensitivity to weather and the effect of the natural environment as prognostic markers in the assessment of psychophysiological reactions to physical stress and the outcome of the disease in patients with ischemic heart disease	Prof. O. Dobilienė	Prof. V. Steiblienė