

LIST OF PHD RESEARCH TOPICS AND SUPERVISORS FOR THE FIELD OF **MEDICINE** IN THE
AREA OF MEDICAL AND HEALTH SCIENCES FOR THE YEAR 2026

No.	Department	Research topic	Supervisor	Consultant
1	Faculty of Medicine Department of Ophthalmology	Identification of retinal and circulating biomarkers for cardiovascular disease prediction	Prof. Dr. R. Žemaitienė	Prof. Dr. I. Čėponienė Prof. Dr. A. Saudargienė
2	Faculty of Medicine Department of Obstetrics and Gynaecology	The significance of epigenetic changes in ovarian cancer cells for optimizing personalized treatment efficacy	Prof. Dr. S. Paškauskas	Dr. A. Jasukaitienė
3	Faculty of Medicine Department of Obstetrics and Gynaecology	Systemic and Endometrial Progesterone Levels and Progesterone Receptor Expression in Preparation for Frozen–Thawed Blastocyst Transfer	Prof. Dr. E. Drejerienė	
4	Faculty of Medicine Department of Obstetrics and Gynaecology	Recurrent pregnancy loss and autoimmune/alloimmune dysfunction	Prof. Dr. M. Kliučinskas	Assoc. Prof. Dr. E. Gasiūniė
5	Faculty of Medicine Institute of Anatomy	Anatomical variations and autonomic innervation of human brain parent and perforating arteries: macroscopic and artificial intelligence-based microscopic analysis	Prof. Dr. N. Paužienė	
6	Faculty of Medicine Department of Anaesthesiology	Immunohistochemical markers of the neuroinflammatory microenvironment as predictors of chronic pain risk after breast surgery	Assoc. Prof. Dr. L. Pilipaitytė	Prof. Dr. A. Macas
7	Faculty of Medicine Department of Anaesthesiology	Development of a methodology for acquiring regional anesthesia skills during residency using theoretical material, human remains and artificial intelligence	Prof. Dr. A. Gelmanas	
8	Faculty of Medicine Department of Otorhinolaryngology	Artificial Intelligence-Driven Modelling of Disease Progression, Treatment Strategies, and Outcome Prediction in Chronic Rhinosinusitis Patients	Prof. Dr. S. Vaitkus	Prof. Dr. R. Maskeliūnas (KTU)
9	Faculty of Medicine Department of Biochemistry	Role of Cytokines, Bioactive Lipids, and Their Synthetic Enzymes in Atherosclerosis Development and Severity Prediction in Cardiac-Renal-Metabolic Disorders	Prof. Dr. A. Mongirdienė	Prof. Dr. J. Laukaitienė
10	Faculty of Medicine Department of Surgery	Beyond KIT/PDGFR: AHR/HSP-HuR Signaling Networks in GIST Tumor Biology and Therapy	Prof. Dr. A. Daukša	Dr. A. Jasukaitienė
11	Faculty of Medicine Department of Surgery	Influence of Gut Hormones on Gastric/Small Intestinal Motility, Symptoms, Weight Loss, and	Prof. Dr. A. Maleckas	Assoc. Prof. Dr. M. Malinauskas

		Glycemic Control in Obese Patients		
12	Faculty of Medicine Department of Gastroenterology	Integrated Non-Invasive Biomarkers (Cellular, Genetic, Microbiome) for Early Diagnosis and Risk Stratification of Colorectal Cancer	Prof. Dr. L.V. Jonaitis	Dr. U. Kūlokienė
13	Faculty of Medicine Department of Gastroenterology	Genomic and Molecular Marker Repertoires and Their Associations with the Pathogenesis of Intestinal Metaplasia and Gastric Cancer	Prof. Habil. Dr. L. Kupčinskas	Dr. R. Steponaitienė
14	Faculty of Medicine Department of Immunology and Allergology	Immune Biomarkers in Women with Unexplained Infertility	Assoc. Prof. Dr. E. Gasiūnienė	Prof. Dr. M. Kliučinskas
15	Faculty of Medicine Department of Nephrology	Kidney-brain axis: assessment of cognitive impairment and its causes in chronic kidney disease patients	Prof. Dr. I. A. Bumblytė	Prof. Dr. B. Žilaitienė
16	Faculty of Medicine Department of Neonatology	Influence of the Breast Milk Microbiota on Morbidity in Very Low Birth Weight Preterm Infants	Prof. Dr. R. Tamelienė	Prof. Dr. J. Skiecevičienė Dr. D. Nikitina
17	Faculty of Medicine Department of Neurology	Associations between the properties of cerebral vascular thrombi, reperfusion therapy, and clinical outcomes	Prof. Dr. V. Matijošaitis	
18	Faculty of Medicine Department of Neurology	Investigation of gut–brain axis biomarkers in patients with Parkinson’s disease and their associations with disease progression	Prof. Dr. K. Petrikonis	Prof. Dr. J. Kupčinskas
19	Faculty of Medicine Department of Neurology	Identification of associations between microRNA biomarkers and disease course and disability in multiple sclerosis using artificial intelligence methods	Prof. Dr. R. Balnytė	Dr. P. Vaitkienė
20	Faculty of Medicine Department of Neurology.	Long-Term Functional and Structural Changes in the Motor Cortex and Corticospinal Tract Across Amyotrophic Lateral Sclerosis Phenotypes	Prof. Dr. K. Petrikonis	
21	Faculty of Medicine Institute of Oncology	A study on the efficacy and safety of adaptive stereotactic MR-guided radiotherapy for the treatment of malignant tumors of the head and neck	Assoc. Prof. Dr. V. Rudžianskas	
22	Faculty of Medicine Institute of Oncology	The impact of methodological bias caused by clonal hematopoiesis of uncertain malignant potential (CHIP) on the prognostic value of ctDNA and the assessment of treatment response in breast cancer	Assoc. Prof. Dr. E. Korobeinikova	
23	Faculty of Medicine Institute of Oncology	Integrated Analysis of Molecular, Metabolic, and Proteomic Markers for Improving Diagnosis and	Assoc. Prof. Dr. D. Vaitiekus	Assoc. Prof. Dr. G. Martinelli (University of Bologna)

		Treatment of Hematologic Malignancies		
24	Faculty of Medicine Department of Pulmonology	Clinical, Biological, and Genetic Factors Associated with Progression of Fibrosing Interstitial Lung Diseases	Prof. Dr. S. Miliauskas	
25	Faculty of Medicine Department of Radiology	Diagnostic and Prognostic Value of Quantitative and Qualitative Nuclear Medicine Imaging Parameters in Inflammatory and Rheumatic Cardiovascular Diseases	Prof. Dr. D. Vajauskas	Prof. Dr. I. Čeponienė
26	Faculty of Medicine Department of Radiology	The significance of multiparametric MRI biomarkers for early detection of true glioblastoma progression and evaluation of peritumoral brain tissue changes	Prof. Dr. S. Lukoševičius	Prof. Dr. P. Demaerel (KU Leuven University)
27	Faculty of Medicine Department of Emergency Medicine	Application of Artificial Intelligence-Based Electrocardiogram Analysis for Rule-Out of Acute Myocardial Infarction and Detection of Left Ventricular Systolic Dysfunction in Emergency Department Patients Presenting with Chest Pain	Prof. Dr. T. Lapinskas	Prof. Dr. K. Stašaitis
28	Faculty of Medicine Heart Centre	Prognostic factors for disease outcome and long-term changes in cardiac mechanics and morphometry in patients with non-ischemic dilated cardiomyopathy	Dr. K. Mėlinytė-Ankudavičė	
29	Faculty of Medicine Heart Centre	Optimization of a Personalized Strategy for Cardiac Pacemaker Implantation in Patients Taking Direct Oral Anticoagulants	Prof. Dr. T. Kazakevičius	
30	Faculty of Medicine Heart Centre	Clinical, Echocardiographic, and Hemodynamic Significance of Iatrogenic Atrial Septal Defect Following Transseptal Puncture After Transcatheter Edge-to-Edge Mitral Valve Repair	Assoc. Prof. Dr. K. Briedis	Assoc. Prof. Dr. M. Biesevičienė
31	Faculty of Medicine Department of Pediatrics	Neuroimmune and Stress-Related Biomarkers Underlying Pain Phenotypes in Pediatric Oncology	Prof. Dr. L. Jankauskaitė	Assoc. Prof. Dr. G. Rutkauskienė
32	Faculty of Medicine Department of Paediatrics	Individualized Prediction of Grit-Type Hypersensitivity Severity and Allergen-Specific Immunotherapy Efficacy in Children: Associations of Specific IgE, IgG4, and IgA with Allergic Disease Outcomes	Prof. Dr. L. Vaideliene	
33	Faculty of Medicine Department of Internal Medicine	Digitalization and appliance of supervised machine learning models of pulmonary ultrasound for heart insufficiency diagnostics	Prof. Dr. D. Žaliaduonytė	Prof. Habil. Dr. A. Naudžiūnas

34	Institute of Cardiology Clinical Cardiology Laboratory	Characterisation of Inflammatory Response and Vascular Permeability Biomarkers in Patients Developing Cardiogenic Shock after Cardiac Surgery	Prof. Dr. P. Jakuška	
35	Neuroscience Institute Laboratory of Molecular Neurooncology	Liquid Biopsy for Glioblastoma Monitoring: Diagnostic and Prognostic Significance of Plasma Extracellular Vesicle microRNAs	Prof. Habil. Dr. A. Tamašauskas	Dr. G. Steponaitis
36	Neuroscience Institute Laboratory of Molecular Neurooncology	Identification of Molecular, Immunological, and Radiological Prognostic Markers to Optimize Gamma Knife Radiosurgery for the Treatment of Intracranial Meningiomas	Assoc. Prof. Dr. A. Radžiūnas	Dr. D. Skiriutė
37	Institute for Digestive Research Surgical Gastroenterology Laboratory	Targeting the AHR–PARP7– EMT axis to overcome radiotherapy resistance in breast cancer	Prof. Dr. Ž. Dambrauskas	Assoc. Prof. Dr. E. Korobeinikova