

Ordinance No.69 /2026

Of June 30, 2026

**issued by the Rector of the Medical University of Lodz
on the announcement of recruitment and limit of admissions to**

**the International Doctoral School and the list of places at the International Doctoral School
awarded to research and teaching units of the Medical University of Lodz for the academic
year 2026/2027**

Pursuant to Article 23 Item 1 of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2024, Item 1571, as amended), and § 13 Item 2 and § 12 Item 3 of the Statutes of the Medical University of Lodz of June 27 2019, as amended, in connection with § 6 Item 6 of the Resolution No. 2/2026 of January 29, 2026 adopted by the Senate of the Medical University of Lodz on the procedure of recruitment to the International Doctoral School in the academic year 2026/2027, the following Directive is hereby issued:

§ 1

1. The following is hereby announced for the academic year 2026/2027:
 - 1) recruitment to the International Doctoral School, run by the Medical University of Lodz, in the following disciplines: pharmaceutical sciences, medical sciences, health sciences;
 - 2) limit of admissions to the International Doctoral School for each of the disciplines referred to in Point 1, as specified in Appendix No. 1 hereto;
 - 3) list of places at the International Doctoral School awarded to research and teaching units of the Medical University of Lodz, enclosed as Appendix No. 2 hereto.
2. The recruitment to the International Doctoral School is conducted for places awarded to research and teaching units of the Medical University of Lodz, within the limit of admissions referred to in Item 1 Point 2.

§ 2

The Directive becomes effective July 1, 2026.

RECTOR: *prof. Janusz Piekarski, MD, PhD*

Promulgation of the legal act:

- Intranet/Public Information Bulletin

**Admission limits to the International Doctoral School
conducted by the Medical University of Lodz
for the academic year 2026/2027**

Discipline	Admission limit	Program „IMPLEMENTATION DOCTORATE„ admission limit	Competition NCN „OPUS ” admission limit	Competition NCN „SONATA ” admission limit	Competition NCN „PRELUDIUM BIS ” admission limit
Pharmaceutical Sciences	5	0	0	0	0
Medical sciences	53	2	1	1	1
Health Sciences	10	1	0	0	0

**List of places at the International Doctoral School awarded to the University reaserch and teaching units in academic year
 2026/2027**

MEDICAL SCIENCES						
No.	Unit	Head of Unit	Number of places	Proposed supervisor	Topic of dissertation	Candidate's profile (completed field of study)
1	Department of Tumor Biology	prof. dr hab. n.med. Piotr Rieske	1	prof. dr hab. n.med. Piotr Rieske	Research on immunotherapy for cancer patients.	Biotechnology
2	Department of Pharmaceutical Biochemistry and Molecular Diagnostics	prof. dr hab. n. farm. Ewa Balcerczak	1	prof. dr hab. n.farm. Marek Mirowski	The influence of the Tumor Microenvironment on Carcinogenic Processes in Brain Tumors.	Medical Analytics
3	Department of Gastroenterology	dr hab. n.med. Anita Gąsiorowska	2	1. dr hab. n.med. Anita Gąsiorowska	1a. A comparative assessment of histological remission in the context of biological treatment for ulcerative colitis. 1b. Assessment the course of the disease and the effectiveness of treatment in patients with inflammatory bowel diseases.	1a. Medicine 1b. Medicine

4	Department of Biomedicine and Genetics	prof. dr hab. n.med. Ewa Brzezińska-Lasota	1	prof. dr hab. n.med. Ewa Brzezińska-Lasota,	Assessment of the Relationship Between Fusobacterium nucleatum Infection and the Activation of the TGF- β /SMAD Signaling Pathway and It's Epigenetic Regulation in lung cancer.	Medicine Biotechnology Medical Analytics
5	Department of Neurosurgery and Oncology of the Nervous System	prof. dr hab. n.med. Dariusz Jaskólski	3	1.dr hab. n. med. Karol Wiśniewski	1a. Analysis of functional connectivity of the brain in resting-state fMRI in patients with cerebral aneurysm before and after endovascular treatment. 1b. Analysis of the lymphocyte microenvironment in glioblastoma with BRAF mutation and its influence for the prognosis and response for therapy. 1c. Inflammation mediators in haemodynamic stress and their influence on expression of MMP-2, MMP-9 and apoptosis pathways in the cellular model of the cerebral aneurysm wall.	1a. Medicine 1b. Medicine 1c. Medicine
6	Department of Mangement and Logistics in Health Care	dr hab. n.ekon. Remigiusz Kozłowski	2	1. dr hab. n.ekon. Remigiusz Kozłowski	1a. Analysis of serious adverse events (SAEs) in the treatment of acute coronary syndrome with consideration of logistic aspects. 1b. Conditions for the effective use of transtelephonic electrocardiography in clinical practice in the context of cooperation between emergency medical teams and cardiology departments.	1a. Medicine 1b. Medicine
7	Department of Cell Culture and Genomic Analysis	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	2	1. dr hab. n. med. Karolina Kowalska 2. dr hab. n. med. Aleksandra Piechota-Polańczyk	1. Molecular mechanisms of mycotoxins' effects in human cells. 2. Search for new mechanical and hemodynamic markers for analyzing the progression of	1. Medicine Pharmacy Cosmetology Nursing Medical Analytics

					aortic aneurysms before and after surgical repair, using numerical tools including artificial intelligence models.	Midwifery Biotechnology Dietetics Biology 2. Medicine Pharmacy Cosmetology Nursing Midwifery Medical Analytics Public Health Biotechnology Biology
8	Department of Paediatric Cardiology and Rheumatology	prof. dr hab. n.med. Elżbieta Smolewska	2	1. prof. dr hab. n.med. Elżbieta Smolewska	1a. Study among pediatric patients with suspected postural orthostatic tachycardia syndrome (POTS) to confirm the diagnosis, determine the mechanisms of potential pathophysiology and modifiable and non-modifiable factors that may potentially exacerbate the symptoms of syncope and presyncope in children with this syndrome. 1b. Assessment of anthropometric and metabolic parameters in patients with juvenile idiopathic arthritis depending on disease activity and treatment.	1a. Medicine 1b. Medicine
9	Department of Molecular Cancerogenesis	prof. dr hab. n.med. Andrzej Bednarek	2	1. prof. dr hab. n.med. Andrzej Bednarek	1a. Construction of predictive models of disease risk and progression for cancer and lifestyle diseases based on large-scale genomic, transcriptomic and metabolomic data. 1b. Trans-omics integration of large-scale data and modeling of signaling	1a. Biotechnology Biology BioChemistry Bioinformatics Biology Molekularna Public Health Pharmacy

					networks and metabolic processes in cancer and metabolic diseases.	Medicine 1b. Biotechnology Biology BioChemistry Bioinformatics Biology Molekularna Public Health Pharmacy Medicine
10	Department of Biochemistry	prof. dr hab. n.med. Jakub Fichna	4	1. prof. dr hab. n.med. Jakub Fichna 2. prof. dr hab. n. med. Maciej Sałaga 3. prof. dr hab. n. med. Urszula Lewandowska	1. Lipid-dependent signaling pathways as a therapeutic target in pancreatitis and pancreatic cancer. 2. Novel serotonin receptor ligands of natural and synthetic origin with antidiarrheal, analgesic, and anti-inflammatory activity in the gastrointestinal tract: characterization and evaluation of biological activity. 3a. Evaluation of the anticancer potential of encapsulated plant extracts in various cellular models. 3b. The impact of polysaccharide-based encapsulation of bioactive compounds on their anti-inflammatory activity in intestinal cell models.	1. Biotechnology Pharmacy Medicine 2. Biotechnology Medicine Pharmacy Biology 3a. Medicine Pharmacy Biotechnology Dietetics 3b. Biology Medicine Pharmacy Dietetics Biotechnology
11	Department of Oral Mucosa and Periodontal Diseases	dr hab. n.med. Sebastian Kłosek	1	dr hab. n.med. Sebastian Kłosek	The supportive role of artificial intelligence in the diagnosis of oral pathologies.	Medical and Dental
12	Department of Haemostasis and Haemostatic Disorders	prof. dr hab. n.med. Jacek Golański	1	dr hab. n. med. Tomasz Przygodzki	Monitoring of the procoagulant phenotype of platelets in various	Biotechnology

					pathological conditions characterized by increased risk of cardiovascular disease.	
13	Department of Nephrocardiology	dr hab. n.med. Beata Franczyk	1	dr hab. n.med. Beata Franczyk	Mechanisms of atherosclerosis or renal progression in patients with chronic kidney disease.	Medicine
14	Department of Neurology and Stroke	prof. dr hab. n.med. Andrzej Głąbiński	1	prof. dr hab. n.med. Andrzej Głąbiński	Early identification of PIRA (Progression Independent of Relapse Activity) in multiple sclerosis: the role of biochemical markers and functional tests in prediction model.	Medicine
15	Department of Orthopaedics and Child Orthopaedics	prof. dr hab. n.med. Andrzej Borowski	5	1. dr hab. n. med. Adam Kwapisz 2. prof. dr hab. n.med. Andrzej Borowski 3. prof. dr hab. n.med. Marcin Sibiński	1a. Superior Capsular Reconstruction using Long Head Biceps Tendon in massive rotator cuff tears: clinical effect of biceps tendon healing. 1b. The healing process of the rotator cuff tendons affect the development of cuff tear arthropathy in patients after arthroscopic reinsertion. 2a. Evaluation of Clinical, Functional, and Radiological Outcomes in the Treatment of Advanced Knee Osteoarthritis Using Robotic-Assisted Total Knee Arthroplasty. 2b. Evaluation of Clinical, Functional, and Radiological Outcomes in the Treatment of Advanced Knee Osteoarthritis Using Robotic-Assisted Partial Knee Arthroplasty. 3. The value of clinical examination, ultrasound, and magnetic resonance imaging of selected structures compared with arthroscopic imaging in pathologies of the knee joint.	1a. Medicine 1b. Medicine 2a. Medicine 2b. Medicine 3. Medicine

16	Department of Infectious Diseases and Hepatology	prof. dr hab. n.med. Anna Piekarska	1	prof. dr hab. n.med. Anna Piekarska	Clinical and microbiological analysis of bacterial infections in patients with liver cirrhosis.	Medicine
17	Department of Medical Biotechnology	dr hab. n.med. Agata Sakowicz	1	dr hab. n.med. Agata Sakowicz	Molecular mechanism of preeclampsia.	Biotechnology
18	Department of Biomolecular Chemistry	dr hab. n.med. Katarzyna Gach-Janczak	3	1. dr hab. n.med. Katarzyna Gach-Janczak 2. dr hab. n. med. Justyna Piekielna-Ciesielska	1a. Evaluation of the anticancer activity of new synthetic analogs based on the structure of natural compounds. 1b. Taxol and cisplatin resistance in breast cancer: molecular mechanisms and peptide therapeutic strategies. 2. Searching for new peptide ligands with analgesic and anti-inflammatory activity.	1a. Pharmacy, Cosmetology, Nursing, Medical Analytics, Biotechnology, Public Health, Medicine, Elektroradiology, Chemistry, Biology, Genetics Physiotherapy, Environmental protection engineering, 1b. Pharmacy, Cosmetology, Medical Analytics, Biotechnology, Public Health, Elektroradiology, Physiotherapy, Biology, Chemistry, Genetics, Medicine,

						Environmental protection engineering, 2. Pharmacy, Medicine , Cosmetology, Biotechnology, Medical Analytics, Elektroradiology, Physiotherapy, Chemistry, Biology, Public Health, Environmental protection engineering, Medicine,
19	Department of Pathology	dr n.med. Marcin Braun	1	prof. dr hab. n.med. Hanna Romańska-Knight	Predictive and prognostic markers in solid tumors including breast, lung and pancreatic carcinomas.	Medicine
20	Department of Haematology	prof. dr hab. n.med. Agnieszka Wierzbowska	1	dr hab. n. med. Paweł Robak	Innate immunity parameters and characteristics of immune cell subpopulations as predictors of response and infectious complications in multiple myeloma patients treated with bispecific antibodies.	Medicine
21	Department of Oncological Surgery	prof. dr hab. n.med. Janusz Piekarski	1	prof. dr hab. n.med. Janusz Piekarski	Fusobacterium nucleatum in breast cancer. Its effect on breast cancer course and prognosis.	Medicine

22	Clinic of Internal Medicine and Transplant Nephrology	prof. dr hab. n. med. Ilona Kurnatowska	1	prof. dr hab. n. med. Ilona Kurnatowska	Research in nephrology and transplant medicine.	Medicine
23	Clinic of Extrapyraxidal System Diseases	dr hab. n.med. Agata Gajos	1	dr hab. n.med. Agata Gajos	The influence of gut microbiota and chronic inflammation on cardiovascular dysautonomia in Parkinson's disease (PD). Analysis of the relationship/interaction between the gut-heart and gut-brain axis in PD. Identification of novel biomarkers for early diagnosis and monitoring, and new treatment strategies for cardiovascular dysautonomia in PD.	Medicine
24	Department of Dermatology and Venereology	prof. dr hab. n.med. Anna Woźniacka	1	prof. dr hab. n.med. Agnieszka Żebrowska	Assessment of the effectiveness and predictive factors of response to viral wart treatment using the photodynamic method, including dermoscopic analysis.	Medicine
25	Department of Dermatology, Paediatric and Oncological Dermatology	prof. dr hab. n.med. Joanna Narbutt	1	prof. dr hab. n.med. Aleksandra Lesiak	Clinical-oriented pathophysiology of rare skin diseases: analysis of the relationship between clinical manifestations and disease course with consideration of differential diagnosis, diagnostic tools, and treatment strategies.	Medicine
26	Department of Affective and Psychotic Disorders	dr hab. n.med. Dominik Strzelecki	2	1. dr hab. n.med. Dominik Strzelecki	1a. The Role of Gut Microbiota and Its Metabolites in the Modulation of Sex Hormone Profiles and Mental Health in Perimenopausal Women. 1b. Sex differences in emotional crisis trigger and course in patients with borderline personality disorder.	1a. Medicine 1b. Medicine

27	Department of Interventional Cardiology and Cardiac Arrhythmias	dr hab. n.med. Michał Plewka	2	1. dr hab. n.med. Michał Plewka	1a. Atrial cardiomyopathy: a vicious cycle of structural, electrical, and metabolic alterations associated with atrial fibrillation. Identification of diagnostic and prognostic markers using speckle tracking echocardiography. 1b. The role of vitamin D as a modulator of the atrial fibrillation substrate and the impact of vitamin D supplementation on treatment outcomes in patients with atrial fibrillation.	1a. Medicine 1b. Medicine
28	Psychodermatology and Neuroimmunobiology of the Skin Department	dr n.med. Aleksandra Słodka	1	prof. dr hab. n.med. Anna Zalewska-Janowska	Assessment of the correlation between mental well-being parameters (level of mental stress, quality of life and sleep) and neuroimmunoendocrine parameters such as hormones, neuropeptides and cytokines in the context of selected physiotherapeutic procedures in patients after medical interventions.	Physiotherapy
29	Department of General and Transplantation Surgery	prof. dr hab. n.med. Janusz Strzelczyk	1	prof. dr hab. n. med. Adam Durczyński	Coagulation Disorders and Thromboprophylaxis in Pancreatic Cancer.	Medicine Military-medical
30	Department of Nucleic Acid Biochemistry	prof. dr hab. n.med. Agnieszka Śliwińska	3	1. prof. dr hab. n.med. Agnieszka Śliwińska 2. dr hab. n.med. Renata Perlikowska	1. Circulating microRNAs as potential predictive biomarkers of therapeutic response to GLP1-RA. 2a. Neuroprotective potential of peptides in the regulation of cellular processes: molecular mechanisms and therapeutic implications.	1. Biotechnology Medicine Medical Analytics Biology 2a. Medicine Pharmacy Biotechnology Public Health

					2b. Assessment of cytotoxicity and safety of functionalized drug nanocarriers in cancerous and healthy cellular models, and analysis of their interactions with cellular metabolism.	Biology Chemistry 2b. Medicine Pharmacy Biotechnology Biology Chemistry Public Health
31	Department of Clinical Genetics	prof. dr hab. n.med. Agnieszka Zmysłowska	3	1. prof. dr hab. n.med. Agnieszka Zmysłowska 2. prof. dr hab. n.med. Maciej Borowiec 3. dr hab. n.med. Hanna Moczulska	1. Analysis of glucose metabolism disorders and neurodegeneration in patients with mitochondrial diabetes syndromes. 2. Biological and technical sources of NIPT discordance: the role of placental mosaicism and maternal mosaicism and their implications for prenatal diagnosis. 3. Application of Next-Generation Sequencing (NGS) in the prenatal diagnosis of rare genetic diseases.	1. Medicine 2. Medical Analytics 3. Medical Analytics
32	Department of General Dentistry	prof. dr hab. n.med. Jerzy Sokołowski	1	dr hab. n. med. Kinga Bociąg	Dental composites modified with bioactive additives.	Medical and Dental
33	Department of Gastrointestinal Diseases	prof. dr hab. n.med. Ewa Małecka- Wojcieszko	2	1. dr hab. n.med. Anna Mokrowiecka 2. prof. dr hab. n. med. Renata Talar- Wojnarowska	1. New diagnostic and prognostic factors for pancreatic cancer. 2. Disturbances in carbohydrate and lipid metabolism in idiopathic acute pancreatitis.	1. Medicine 2. Medicine
34	Department of Medical Biochemistry	prof. dr hab. n.med. Janusz Szemraj	2	1. dr hab. n. med. Monika Witusik- Perkowska 2. prof. dr hab. n.med. Janusz Szemraj	1. The role of microbiome and potential of bacterial metabolites in the prevention and treatment of diseases affecting women. 2. The role of human visceral adipocytes in exosome-mediated epigenetic	1. Dietetics Biotechnology Pharmacy Medical Analytics Biology 2. Dietetics

					modulation of the insulin signaling pathway at the early stage of glucose metabolism disorders – from insulin resistance to type 2 diabetes.	Biotechnology Medical Analytics Pharmacy Biology
35	Department of Biomedical Chemistry	dr hab. n. med. Katarzyna Lubecka-Gajewska	1	dr hab. n. med. Katarzyna Lubecka-Gajewska	Study of the effect of selected plant bioactive compounds, including berberine, on epigenetic mechanisms of gene expression regulation in various in vitro and in vivo models – identification and validation of epigenetic exposure biomarkers.	Medical Analytics
36	Clinic of Rheumatology	dr hab. n.med. Joanna Makowska	2	1. dr hab. n.med. Joanna Makowska 2. dr hab. n.med. Anna Lewandowska-Polak	1. Phenotypes of the systemic sclerosis–myositis overlap syndrome (SSc–myositis overlap), with a focus on cardiac and cardiovascular involvement. 2. Comparison of tools for assessing disease activity and function in idiopathic inflammatory myopathies: agreement, responsiveness to change, and association with organ involvement – a cohort study.	1. Medicine 2. Medicine
37	Clinic of Geriatrics	prof. dr hab. n.med. Tomasz Kostka	2	1. prof. dr hab. n.med. Tomasz Kostka	1a. Anthropometric correlates of the functional status of older adults. 1b. Somatic and cognitive determinants of functional abilities in older age.	1a. Medicine 1b. Medicine
38	Clinic of Otolaryngology and Laryngological Oncology	prof. dr hab. n.med. Wioletta Pietruszewska	1	prof. dr hab. n.med. Wioletta Pietruszewska	Evaluation of the effectiveness and safety of biologic therapy in patients with CRSwNP, with identification of predictors of treatment response, particularly type 2 inflammation markers, coexisting asthma, previous surgical treatment, and the impact of therapy on quality of life. The aim of the	Medicine

					study is to optimize patient qualification for treatment and support the development of personalized medicine.	
39	Clinic of Child and Adolescent Psychiatry	dr hab. n.med. Magdalena Kotlicka-Antczak	1	dr hab. n. med. Łukasz Mokros	The relationship between suicide risk, emotional dysregulation, and circadian rhythm parameters in selected clinical populations of adolescents, including patients with borderline personality disorder and attention deficit/hyperactivity disorder.	Medicine
40	Clinic of General and Oncological Surgery	prof. dr hab. n. med. Łukasz Dziki	3	1. dr hab. n. med. Michał Spychalski 2. prof. dr hab. n. med. Łukasz Dziki 3. dr hab. n. med. Marcin Włodarczyk	1. Laparoscopic Transabdominal Preperitoneal Repair (TAPP) in Complex Inguinal Hernia Cases: A Prospective Registry-Based Study of Outcomes and Cost-Effectiveness in M3 Hernias, Recurrent Hernias, and Obese Patients. 2. Assessment of Healing Risk in Intestinal Anastomoses and Hepatic Parenchyma Using Indocyanine Green (ICG). 3. Comparison of Surgical Outcomes in Inguinal Hernia Repair Using the Lichtenstein Technique Versus Laparoscopic Transabdominal Preperitoneal Repair in Patients with Frailty Syndrome.	1. Medicine 2. Medicine 3. Medicine
41	Department of Microbiology and Medical Laboratory Immunology	dr hab. n.med. Dorota Pastuszek-Lewandoska	2	1. dr hab. n.med. Małgorzata Brauncajs 2. dr hab. n.med. Dorota Pastuszek-Lewandoska	1. Analysis of tight junction disruption in the ductal epithelium of the labial salivary glands in patients with Sjögren's syndrome – correlation with the presence of bacteria and the severity of lymphocytic infiltration.	1. Medicine 2. Medical Analytics

					2. The role of nitroxoline and 5-nitrofurantoin derivatives in overcoming fluconazole resistance in yeast in urinary tract infections: analysis of mechanisms of action and synergistic effects.	
42	Clinic of Pneumology	prof. dr hab. n. med. Wojciech Piotrowski	2	1. prof. dr hab. n. med. Wojciech Piotrowski 2. dr hab. n. med. Sebastian Majewski	1. Risk factors for the development and progression of interstitial lung disease in the course of connective tissue diseases. 2. Selected epidemiological aspects and risk factors for the development of lung cancer in patients with idiopathic pulmonary fibrosis (IPF).	1. Medicine 2. Medicine
43	Department of Preventive Cardiology and Lipidology	prof. dr hab. n.med. Maciej Banach	1	prof. dr hab. n.med. Maciej Banach	The influence of consuming selected mushroom species in the prevention of cardiovascular diseases.	Dietetics
44	Department of Immunopathology	prof. dr hab. n.med. Rafał Pawliczak	3	1. dr hab. n.med. Joanna Wiczyńska 2. prof. dr hab. n.med. Rafał Pawliczak	1. Immunology in a shot – tumor microenvironment as a key factor in breast cancer therapy resistance. 2a. Environment – airway epithelial cells interplay – the importance in allergy pathogenesis. 2b. Radiogenomic traits in MAPK activation in breast cancer - treatment resistance prediction.	1. Medicine Pharmacy Nursing Medical Analytics Biology Chemistry, BioChemistry Biotechnology 2a. Medicine Pharmacy Biotechnology Nursing Medical Analytics Biology BioChemistry Chemistry, 2b. Medicine Pharmacy Nursing

						Medical Analytics Biotechnology Chemistry Biology BioChemistry
45	Department of Pharmaceutical Microbiology and Biochemistry	prof. dr hab. n. biol. Tomasz Popławski	2	1. prof. dr hab. n. biol. Tomasz Popławski	1a. The role of TRIM21 overexpression in inducing genomic instability and accelerated immunosenescence in Sjögren's syndrome. 1b. Synapsin-1 in systemic lupus erythematosus: autoantibody profiling and molecular dynamics of synapsin-lipid membrane interactions.	1a. Biology MikroBiology Medicine Biotechnology 1b. Medicine
46	Department of Molecular Biology	dr hab. n.med. Ewelina Stoczyńska-Fidelus	2	1. dr hab. n.med. Ewelina Stoczyńska-Fidelus	1a. Molecular determinants of patient stratification for CAR-T immunotherapy in glioblastoma. 1b. Strategies for the optimization of immunotherapy in glioblastoma with particular emphasis on the efficacy and quality of CAR-T therapy.	1a. Biotechnology 1b. Biotechnology
47	Department of Molecular Mechanisms of Cell	dr hab. n. med. Katarzyna Sobierajska	2	1. dr hab. n. med. Wojciech Ciszewski 2. dr hab. n. med. Katarzyna Sobierajska	1. Evaluation of the Potential of Selected Ferulic Acid Derivatives to Modulate the Invasive Capacity of Solid Tumours. 2. The Role of Selected Gut Microbiota Metabolites in Tumour Niche Modulation through Extracellular Matrix Remodelling, Fibroblast Activation, and Colorectal Cancer Cell Plasticity.	1. Medicine Medical and Dental Biotechnology Dietetics Biology Biomedical Engineering 2. Medicine Medical and Dental Biotechnology Dietetics Biology Biomedical Engineering

48	Clinic of of Surgical and Endoscopic Gynaecology	prof. dr hab. n.med. Andrzej Malinowski	1	dr hab. n. med Tomasz Szaflik	Expression analysis of a panel of lncRNA genes associated with the angiogenic pathway in deep endometriosis.	Medicine
49	Clinic of Pediatrics, Oncology and Hematology	prof. dr hab. n.med. Wojciech Młynarski	2	1. prof. dr hab. n.med. Wojciech Młynarski 2. dr hab. n.med. Joanna Trelińska	1. Molecular studies in pediatric oncology and hematology, cellular models of hematological disorders, gene editing and gene therapy in inherited bone marrow failures. 2. Neurological complications in pediatric patients treated for cancer.	1. Medicine Biotechnology Medical Analytics 2. Medicine
50	Department of Pharmacology and Toxicology	prof. dr hab. n.med. Edward Kowalczyk	2	1. dr hab. n. med. Michał Karbownik	1a. Therapeutic drug monitoring – the role in effective and safe pharmacotherapy. 1b. Gut–brain axis – basic and clinical studies.	1a. Medicine Pharmacy 1b. Medicine Pharmacy
51	Clinic of Endocrinology and Metabolic Diseases	prof. dr hab. n.med. Małgorzata Karbownik-Lewińska	2	1. prof. dr hab. n.med. Małgorzata Karbownik-Lewińska 2. dr hab. n.med. Piotr Kaczmarek	1. Endocrine Disruptors and Thyroid Function – Clinical and Experimental Insights into Thyroid Dysfunction. 2. The impact of selected endocrine disorders on the occurrence of fetal cardiovascular anomalies.	1. Medicine Medicine (MON) 2. Medicine Medicine (MON)
52	Department of Thoracic Surgery and Respiratory Rehabilitation	dr hab. n.med. Sławomir Jabłoński	1	dr hab. n.med. Sławomir Jabłoński	Comparison of perioperative pain intensity, quality of life, and physical performance in patients undergoing thoracotomy versus minimally invasive thoracic surgery accesses.	Medicine
53	Department of Aging Endocrinology	prof. dr hab. n.med. Adam Gesing	2	1. prof. dr hab. n.med. Adam Gesing	1a. The effects of selected senolytics and/or senomorphics on certain SASP (Senescence-Associated Secretory Phenotype) parameters in long-lived Ames dwarf (df/df) and/or growth hormone receptor knockout (GHRKO) mice, studies with the use of exogenous GH.	1a. Biotechnology ANGL - Medicine Medicine Medicine (MON) Medical Analytics Pharmacy 1b. Biotechnology ANGL - Medicine

					1b. The effects of selected senolytics and/or senomorphics on apoptosis and/or mitochondrial biogenesis in long-lived Ames dwarf (df/df) and/or growth hormone receptor knockout (GHRKO) mice, studies with the use of exogenous GH.	Medicine Medicine (MON) Medical Analytics Pharmacy
54	Clinic of Developmental Age and Adult Endocrinology	dr hab. n.med. Renata Stawerska	2	1. dr hab. n.med. Arkadiusz Zygmunt 2. dr hab. n.med. Renata Stawerska	1. Assessment of bone mineral density, concentrations of selected bone formation and resorption factors, calcium-phosphate metabolism parameters, IGF-1 concentration and selected hormones of adipose and muscle tissue in children with precocious puberty depending on age, gender, body weight, pubertal stage and etiology, with the aim of optimizing therapeutic management. 2. Search for new factors and relationships influencing the occurrence of precocious puberty in girls and the effects of puberty-suppressing therapy, the relationship between the pituitary (LH, FSH)-gonadal (estradiol, inhibin B, AMH), pituitary (GH/ghrelin)-IGF1/IGFBP3-sirtuin 1 and 3 axis and the production of hunger and satiety hormones (leptin, insulin, NPY) in blood serum and the pineal hormone (6-sulfatoxymelatonin concentration) in urine.	1. Medicine 2. Medicine
55	Clinic of Internal Diseases, Asthma and Allergy	prof. dr hab. n.med. Piotr Kuna	2	dr hab. n.med. Michał Panek	Molecular mechanisms of type 2 inflammation and CD4 ⁺ T-cell exhaustion in chronic respiratory	Medicine

					diseases, and the impact of modern biological therapies on airway inflammation and remodeling.	
56	Clinic of Gynaecology and Obstetrics	prof. dr hab. n. med. Mariusz Grzesiak	1	prof. dr hab. n. med. Mariusz Grzesiak	Significance of selected biochemical parameters - Soluble fms-Like Tyrosine Kinase-1 and Placental Growth Factor in specific pregnancy complications.	Medicine
57	Department of Biomedicine and Experimental Surgery	dr hab. n.med. Zbigniew Pasięka	1	dr hab. inż. Radosław Wach	Investigation of structure–activity relationships (SAR): the influence of biopolymer physicochemical properties on bacterial biofilm eradication and infected wound healing in in-vitro and in-vivo models.	Materials Engineering Biomedical Engineering Biotechnology
58	Department of Biostatistics and Translational Medicine	prof. dr hab. n.med. Wojciech Fendler	2	1. dr hab. n.med. Agnieszka Butwicka 2. prof. dr hab. n.med. Wojciech Fendler	1. Molecular and clinical landscape of attention deficit hyperactivity disorder in childhood diabetes. 2. The role of cholesterol-GPR146 signalling in lipid homeostasis regulation.	1. Biotechnology Medicine Public Health Analityka danych Biostatystyka 2. Medicine Biotechnology Medicine (MON) Chemistry Biology
HEALTH SCIENCES						
No.	Unit	Head of Unit	Number of places	Proposed supervisor	Topic of dissertation	Candidate's profile (completed field of study)
1	Department of Preventive Medicine	prof. dr hab. n.med. Magdalena Kwaśniewska	1	dr hab. n. o zdrowiu Anna Lipert	The relationship between cognitive and motor functions and metabolic profiles in patients with chronic diseases – the impact of an intervention using digital VR rehabilitation and the planetary diet model. The role of bruxism as a	Public Health Dietetics Medical and Dental Medicine Physiotherapy

					mediator between stress and inflammation in individuals with chronic diseases – the impact of an intervention based on digital VR rehabilitation and the planetary diet model.	
2	Department of Haemostasis and Haemostatic Disorders	prof. dr hab. n.med. Jacek Golański	1	dr hab. n.med. Bogusława Luzak	Evaluation of cytotoxicity and prothrombotic potential of non-oxidative ethanol metabolites in the vascular system: from molecular identification to cellular interactions.	Medical Analytics Biotechnology Biology
3	Department of Psychosocial Rehabilitation	dr hab. n. o zdrowiu Magdalena Wrzesińska	1	dr hab. n. o zdrowiu Magdalena Wrzesińska	Determinants of health literacy and physical fitness in populations with varying levels of physical activity.	Medicine Nursing Public Health Physiotherapy
4	Department of Internal Diseases, Rehabilitation and Physical Medicine	dr hab. n.med. Robert Irzmański	3	1. dr hab. n.med. Robert Irzmański	1a. Comparative analysis of the effectiveness of cardiac rehabilitation in inpatients and outpatients settings - a study of selected cardiovascular parameters, physical fitness and lifestyle. 1b. Optimization of cardiac rehabilitation algorithms using Artificial Intelligence. 1c. Application of artificial neural networks and machine learning models in predicting improvement of exercise capacity and lung function parameters in patients undergoing pulmonary rehabilitation.	1a. Physiotherapy 1b. Physiotherapy 1c. Physiotherapy

5	Clinic of Geriatrics	prof. dr hab. n.med. Tomasz Kostka	4	1. dr hab. n. o zdrowiu Agnieszka Guligowska 2. dr hab. n. o zdrowiu Anna Gawron-Skarbek	1a. Development and evaluation of the effectiveness of methods for preventing malnutrition and dehydration in older adults based on a multidimensional analysis of risk factors. 1b. Hormonal aspects of nutritional status in older age. 2a. The role of the gut microbiome in the health of older adults - assessment of biomarkers, modulating factors and the influence of selected components of functional foods. 2b. The relationship between factors modulating the gut microbiome and cognitive function in older adults.	1a. Dietetics 1b. Dietetics 2a. Dietetics 2a. Public Health 2b. Dietetics 2b. Public Health
6	Clinic of Eye Diseases	dr hab. n. med. Arleta Waszczykowska	1	dr hab. n. med. Arleta Waszczykowska	Morphological and quantitative assessment of corneal nerve alternations using in vivo confocal microscopy in patients with neurotrophic keratopathy and their diagnostic and prognostic significance.	Medicine
7	Department of Medical Biochemistry	prof. dr hab. n.med. Janusz Szemraj	1	prof. dr hab. n.med. Janusz Szemraj	Modulation of the inflammatory responses via epigenetic mechanisms and human visceral adipocyte-derived exosomes at the early stage of glucose metabolism disorders.	Medical Analytics Pharmacy Biotechnology Dietetics Biology
8	Department of Nutrition and Epidemiology	dr hab. n.med. Ewelina Gaszyńska	1	dr hab. n.med. Ewelina Gaszyńska	Analysis of the impact of nutrition quality and nutritional status on intellectual and psychomotor functions and behavior of adolescents.	Dietetics

9	Department of Hormone Biochemistry	dr hab. n. med. Anna Stasiak	1	dr hab. n. med. Anna Stasiak	Diagnosing the needs to optimize the quality of life for individuals with neurodegenerative diseases, considering physiotherapy and the role of support societies (research based on the Polish population).	Physiotherapy
10	Clinic of Extrapyrarnidal System Diseases	dr hab. n.med. Agata Gajos	1	dr hab. n.med. Agata Gajos	Cognitive functioning and adaptive strategies in Parkinson's disease – a study of neurocognitive profiles and predictors.	Psychology
PHARMACEUTICAL SCINCES						
1	Department of Pharmaceutical Biochemistry and Molecular Diagnostics	prof. dr hab. n.farm. Ewa Balcerczak	1	prof. dr hab. n.farm. Ewa Balcerczak	Searching for Molecular Targets for Novel Therapeutic Strategies in Brain Tumors.	Pharmacy
2	Department of Biology and Pharmaceutical Botany	dr hab. n.farm. Izabela Grzegorzczak-Karolak	1	dr hab. n.farm. Ewa Skala	Plant in vitro culture of Sideritis spp. - optimization of culture conditions and bioactive secondary metabolite production.	Pharmacy
3	Department of Medical Biology	dr hab. n. farm. Przemysław Sitarek	1	dr hab. n.farm. Przemysław Sitarek	Biologically active plant compounds, metabolic pathways, recombinant proteins, studies of biological properties.	Medical Analytics Pharmacy Biotechnology
4	Department of Medical Biology	dr hab. n. farm. Przemysław Sitarek	1	dr hab. n. biol. Tomasz Kowalczyk	Biologically active compounds, including recombinant proteins from various expression systems.	Biotechnology Medical Analytics Pharmacy
5	Department of Apothecary Pharmacy	dr hab. n. farm. Magdalena Markowicz-Piasecka	1	dr hab. n.farm. Magdalena Markowicz-Piasecka	Design and synthesis of new chemical compounds with potential biological activity, combined with preliminary screening tests. Pharmacological and pharmaceutical properties in in vitro models.	Pharmacy

6	Department of Bioorganic Chemistry	prof. dr hab. n. farm. Dorota Piotrowska	2	1. dr hab. n.farm. Iwona Głowacka 2. prof. dr hab. n.farm. Dorota Piotrowska	1. 1,2,3-Triazole and aziridine conjugates with biological activity. 2. Synthesis and biological activity of functionalized isoxazoles.	1. Pharmacy 2. Pharmacy
7	Department of Cosmetic Raw Material Chemistry	dr hab. n. farm. Urszula Kalinowska-Lis	1	dr hab. n.farm. Urszula Kalinowska-Lis	New active substances, combinations of ingredients or methods supporting the treatment of acne-prone skin.	Cosmetology Pharmacy Biotechnology

List of places at the International Doctoral School awarded to research and teaching units of the Medical University of Lodz for the academic year 2026/2027 in connection with financing from external sources

MEDICAL SCIENCES

No.	Unit	Head of Unit	Project	Number of places	Proposed supervisor	Topic of dissertation	Candidate's profile (completed field of study)
1	Department of Cell Culture and Genomic Analysis	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	IMPLEMENTATION DOCTORATE	1	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	Mechanism of action, and preclinical efficacy of a bispecific AXL/PD-L1 conjugate with a cleavable linker and MMAE payload.	Biotechnology Medicine Pharmacy Biology
2	Department of Cell Culture and Genomic Analysis	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	IMPLEMENTATION DOCTORATE	1	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	Design and preclinical characterisation of targeted protein conjugates with a cleavable linker: from functional assays to selection of the optimal molecular architecture.	Biotechnology Medicine Biology Pharmacy
3	Department of Cell Culture and Genomic Analysis	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	Sonata Bis 13	1	dr hab. n. med. Aleksandra Piechota-Polańczyk	Search of an interplay between total and local inhibition or NRF2 transcriptional factor and the level and activity of estrogen signaling, as well as their impact on development and function of intestines.	Medicine Pharmacy Cosmetology Nursing Midwifery Medical Analytics Biotechnology Public Health Biology Weterynaria
4	Department of Cell Culture and Genomic Analysis	prof. dr hab. n. med. Agnieszka Piastowska-Ciesielska	Sonata	1	dr hab. n. med. Karolina Kowalska	Does organic sulfur reduce the high fat diet-induced inflammation in benign prostate hyperplasia?	Medicine Pharmacy Cosmetology Nursing Midwifery Medical Analytics Public Health

							Biotechnology Biology
5	Department of Preventive Cardiology and Lipidology	prof. dr hab. n.med. Maciej Banach	Opus	1	prof. dr hab. n.med. Maciej Banach	The Role of Lipoprotein(a) in Cardiovascular Risk Development: From Molecular Mechanisms to Clinical Phenotype.	Biotechnology Genetics Molecular biology
HEALTH SCIENCES							
No.	Unit	Head of Unit	Project	Number of places	Proposed supervisor	Topic of dissertation	Candidate's profile (completed field of study)
1	Department of Management and Logistics in Health Care	dr hab. n. ekon. Remigiusz Kozłowski	Implementation doctorate	1	dr hab. n. ekon. Remigiusz Kozłowski	Developing methods for quantitatively assessing bone age in children using radiomics analysis of X-ray images of the hand and wrist skeleton, integrating clinical, hormonal, and auxological data. The research will include analyzing the correlation between bone age, growth, and sexual maturation, as well as developing predictive models to support clinical decisions in pediatric endocrinology.	Software engineering