

| LIST OF RESEARCH TOPICS ADMITTED TO THE DOCTORAL SCHOOL FOR THE ACADEMIC YEAR 2025/2026 |                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                                                                                      |            |                                                     |            |                  |                                                                                                                                                                      |                         |
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| Research topics eligible for admission                                                  |                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                                                                                      |            |                                                     |            |                  |                                                                                                                                                                      |                         |
| No.                                                                                     | PROPOSED RESEARCH TOPIC IN POLISH                                                                                                                                                                                   | PROPOSED RESEARCH TOPIC IN ENGLISH                                                                                                                                                                  | UNIT                                                                                                 | DEPARTMENT | PROPOSED SUPERVISOR                                 |            |                  | CANDIDATE'S PROFESSIONAL TITLE                                                                                                                                       | SCIENTIFIC DISCIPLINE   |
|                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                                                                                      |            | TITLE/DEGREE                                        | FIRST NAME | LAST NAME        |                                                                                                                                                                      |                         |
| 1.                                                                                      | „Egzosomy ukierunkowane molekularnie jako system dostarczania supresorowych miRNA: nowatorska strategia terapeutyczna w leczeniu gruczolaka płuc”.                                                                  | ‘Molecularly targeted exosomes as a delivery system for tumor-suppressor miRNA: a novel therapeutic strategy for lung adenocarcinoma treatment’.                                                    | Department and Institute of Molecular and Cell Biology                                               | WF         | dr hab. Professor at the Wrocław Medical University | Anna       | Choromańska      | master's degree in pharmacy                                                                                                                                          | pharmaceutical sciences |
| 2.                                                                                      | „Projektowanie nowych wielocelowych inhibitorów o potencjalnych właściwościach przeciwnowotworowych.”                                                                                                               | ‘Design of new multi-targeted inhibitors with potential anticancer properties’.                                                                                                                     | Department and Institute of Basic Chemistry                                                          | WF         | dr hab.                                             | Żaneta     | Czyżnikowska     | master's degree in pharmacy                                                                                                                                          | pharmaceutical sciences |
| 3                                                                                       | „Badania biogodności oraz właściwości fizykochemicznych i antybakteryjnych innowacyjnych cementów szkło-jonomerowych modyfikowanych nanocząsteczkami tlenu tytanu (IV) przeznaczonych dla stomatologii dziecięcej.” | ‘The study of biocompatibility, physicochemical and antibacterial properties of innovative glass ionomer cements modified with titanium oxide (IV) nanoparticles intended for pediatric dentistry’. | Department and Institute of Paediatric Dentistry and Preclinical Dentistry                           | WL-S       | dr hab. Professor at the Wrocław Medical University | Maciej     | Dobrzyński       | dentist                                                                                                                                                              | medical sciences        |
| 4.                                                                                      | „Opracowanie modeli 3D chłoniaków nie-Hodgkina z komórek pierwotnych w celu rozwoju celowanych strategii terapeutycznych.”                                                                                          | ‘Development of 3D models of non-Hodgkin lymphomas from primary cells for the development of targeted therapy’.                                                                                     | Department of Clinical and Experimental Pathology<br>Institute of General and Experimental Pathology | WL         | dr hab.                                             | Kamila     | Duś-Szachniewicz | master's degree in biology, master's degree in biotechnology, master's degree in microbiology, master's degree in biomedical engineering, master's degree in medical | medical sciences        |
| 5.                                                                                      | „Znaczenie receptora melatoninowego MT1 dla indukowanej hipoksją aktywacji ścieżki sygnałowej AMPK-PGC-1α-SIRT3 w niedrobnokomórkowym raku płuc (NSCLC).”                                                           | ‘The significance of the melatonin receptor MT1 for hypoxia-induced activation of the AMPK-PGC-1α-SIRT3 signaling pathway in non-small cell lung cancer (NSCLC)’.                                   | Institute of Histology and Embryology - Department of Human Morphology and Embryology                | WL         | prof.dr hab.                                        | Piotr      | Dzięgiel         | master's degree in biology, master's degree in biotechnology, doctor, dentist                                                                                        | medical sciences        |
| 6.                                                                                      | „Niedostateczna podaż selenu w diecie oraz zaburzenia gospodarki selenowej jako potencjalne ogniwo patogenetyczne miażdżycy.”                                                                                       | ‘Inadequate dietary selenium intake and impaired blood selenium status as a potential pathogenic link in atherosclerosis’.                                                                          | Department of Environmental Health, Occupational Medicine and Epidemiology                           | WL         | prof.dr hab.                                        | Paweł      | Gać              | master's degree in biology, master's degree in biotechnology, master's degree in chemistry                                                                           | medical sciences        |
| 7.                                                                                      | „Otyłość sarkopeniczna a zespół kruchości u osób starszych z chorobami sercowo-naczyniowymi.”                                                                                                                       | ‘Sarcopenic obesity and frailty in elderly individuals with cardiovascular disease’.                                                                                                                | Department of Translational Cardiology and Clinical Registries                                       | WNOZ       | prof.dr hab.                                        | Ewa        | Jankowska        | master's degree in nursing, master's degree in dietetics, master's degree in physiotherapy, master's degree in health sciences                                       | health sciences         |
| 8.                                                                                      | „Wpływ nanoplastiku na barierę nabłonka dróg oddechowych - mechanizmy wchłaniania i potencjalne konsekwencje zdrowotne.”                                                                                            | ‘The impact of nanoplastics on the airway epithelium barrier - mechanisms of absorption and potential health consequences’.                                                                         | Department and Institute of Clinical Immunology                                                      | WL         | prof.dr hab.                                        | Marek      | Jutel            | master's degree in biology, master's degree in biotechnology, master's degree in medical analytics and related areas                                                 | medical sciences        |
| 9.                                                                                      | „Szczepienie przeciwko grypie przed wypisem ze szpitala u pacjentów hospitalizowanych z powodu ostrych stanów kardiologicznych.”                                                                                    | ‘Vaccination against influenza pre-discharge in patients hospitalized due to acute cardiac conditions’.                                                                                             | Institute of Heart Diseases                                                                          | WL         | dr hab. Professor at the Wrocław Medical University | Piotr      | Kübler           | doctor                                                                                                                                                               | medical sciences        |

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| 10. | „łagodnie zaburzenia poznawcze (MCI) u pacjentów z cukrzycą typu 1 (T1DM) – potencjalne czynniki ryzyka.”                                                                           | ‘Mild cognitive impairment (MCI) in patients with type 1 diabetes (T1DM) – potential risk factors’.                                                                            | Department of Diabetology, Hypertension and Internal Medicine                                | WL   | dr hab. Professor at the Wrocław Medical University | Katarzyna  | Madziarska       | doctor                                                                                                                      | medical sciences        |
| 11. | „Wpływ „low-grade inflammation” na triadę matka-mleko matki-dziecko.”                                                                                                               | ‘The impact of low-grade inflammation on mother-maternal milk-child triad’.                                                                                                    | Department of Biochemistry and Immunochemistry<br>Institute of Chemistry and Immunochemistry | WL   | dr hab. Professor at the Wrocław Medical University | Magdalena  | Orczyk-Pawłowicz | master's degree/Master of Science in biotechnology, medical analytics, biology, chemistry, pharmacy, dietetics, doctor      | medical sciences        |
| 12. | „Kompleksowa ocena odruchowej regulacji autonomicznej w układzie sercowo-naczyniowym u pacjentów pediatrycznych z wybranymi chorobami infekcyjnymi.”                                | ‘Comprehensive assessment of reflex autonomic regulation in the cardiovascular system in pediatric patients with selected infectious diseases’.                                | Institute of Physiology, Department of Physiology and Pathophysiology                        | WL   | dr hab.                                             | Bartłomiej | Paleczny         | doctor                                                                                                                      | medical sciences        |
| 13. | „Nowo zsyntezowane surfaktanty aminokwasowe typu betain oraz hydroksysultain o dedykowanej aplikacyjności biomedycznej”.                                                            | ‘Newly synthesized betaine and hydroxysultain amino acid surfactants with dedicated biomedical applications’.                                                                  | Department and Institute of Microbiology                                                     | WL   | dr hab.                                             | Emil       | Paluch           | master's degree in microbiology, master's degree in chemistry, master's degree in biology, master's degree in biotechnology | medical sciences        |
| 14. | „Aktywność szlaku kynureninowego u chorych na stwardnienie rozsiane i jej związek z zespołem zmęczenia, jakością snu oraz współistnieniem zaburzeń afektywnych i lękowych”.         | ‘Kynurenine pathway activity in the patients with multiple sclerosis and its relationships with fatigue, sleep quality and coexisting affective and anxiety disorders’.        | University Centre for Neurology and Neurosurgery                                             | WL   | dr hab. Professor at the Wrocław Medical University | Anna       | Pokryszko-Dragan | doctor                                                                                                                      | medical sciences        |
| 15. | „Genetyczne i metabolomiczne uwarunkowania u dzieci z zespołem Pradera-Williego (PWS) i zespołem Schaafa-Yang (SYS) – poszukiwanie markera prognostycznego i celu terapeutycznego.” | ‘Genetic and metabolomic determinants in children with Prader-Willi syndrome (PWS) and Schaaf-Yang syndrome (SYS) – searching for a prognostic marker and therapeutic target’. | Department of Paediatrics, Endocrinology, Diabetology and Metabolic Diseases                 | WL   | prof.dr hab.                                        | Robert     | Śmigiel          | doctor                                                                                                                      | medical sciences        |
| 16. | „Zastosowanie inhibitorów kinaz janusowych oraz leków biologicznych w prewencji zaburzeń poznawczych u pacjentów z reumatoidalnym zapaleniem stawów i spondyloartropatiami.”        | ‘Effects of janus kinase inhibitors and biological drugs in the prevention of cognitive impairment in patients with rheumatoid arthritis’.                                     | Department and Clinic of Rheumatology and Internal Medicine                                  | WL   | prof.dr hab.                                        | Jerzy      | Świerkot         | doctor                                                                                                                      | medical sciences        |
| 17. | „Szacowanie ryzyka chorób zakaźnych, którym można zapobiegać poprzez szczepienia u pacjentów poddawanych zabiegom kardiochirurgicznym.”                                             | ‘Estimation of the risk of vaccine-preventable infectious diseases in patients undergoing cardiac surgery’.                                                                    | Department and Clinic of Paediatrics and Infectious Diseases                                 | WL   | prof.dr hab.                                        | Leszek     | Szenborn         | doctor                                                                                                                      | medical sciences        |
| 18. | „Ocena zdalnej rozmowy motywacyjnej w celu zarządzania chorobą u pacjentów z niewydolnością serca i ich opiekunów.”                                                                 | ‘Evaluation of REMote Motivational Interviewing for Disease management in Heart Failure patients and their caregivers’.                                                        | Department of Nursing                                                                        | WNOZ | prof.dr hab.                                        | Izabella   | Uchmanowicz      | master's degree in nursing, master's degree in psychology                                                                   | health sciences         |
| 19. | „Ocena zależności między reumatoidalnym zapaleniem stawów i toczniem układowym a zaburzeniami skroniowo-zuchwowymi.”                                                                | ‘Assessment of the relationship between rheumatoid arthritis, systemic lupus erythematosus and temporomandibular disorders’.                                                   | Department and Institute of Experimental Dentistry                                           | WL-S | prof.dr hab.                                        | Mieszko    | Więckiewicz      | dentist                                                                                                                     | medical sciences        |
| 20. | „Śledzenie szlaków biosyntezy i optymalizacja produkcji alkaloidów izochinolinowych w roślinach makowatych (Papaveraceae) w systemach <i>in vivo</i> i <i>in vitro</i> .”           | ‘Investigation of biosynthetic pathways and optimization of isoquinoline alkaloid production in Papaveraceae plants using <i>in vivo</i> and <i>in vitro</i> systems’.         | Department of Pharmaceutical Biology and Biotechnology                                       | WF   | dr hab. Professor at the Wrocław Medical University | Sylvia     | Zielińska        | master's degree in pharmacy                                                                                                 | pharmaceutical sciences |

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| 21. | „Ocena biomarkerów wolumetrycznych w zaawansowanych technikach obrazowania rezonansu magnetycznego u pacjentów ze stwardnieniem rozsianym z wykorzystaniem metod klasycznych i wspomaganych przez algorytmy sztucznej inteligencji.” | ‘Evaluation of volumetric biomarkers in advanced magnetic resonance imaging techniques in patients with multiple sclerosis using classical methods and algorithms aided by artificial intelligence’. | Department of Radiology | WL | prof.dr hab. | Anna | Zimny | doctor | medical sciences |
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