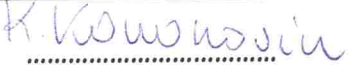


Annex no 1 to the Rules for submitting research topics for admission to the Doctoral School of
Medical and Health Sciences programmes for the academic year 2023/2024

Research topic submission form for the doctoral programme	
Doctoral programme <i>Please indicate</i>	<input type="checkbox"/> in the discipline of medical sciences, 8-semester <input type="checkbox"/> in the discipline of pharmacology and pharmacy, 8-semester <input type="checkbox"/> in the discipline of health sciences, 8-semester <input checked="" type="checkbox"/> interdisciplinary, 6-semester, taught in English
Discipline <i>Please indicate</i>	<input type="checkbox"/> medical sciences <input checked="" type="checkbox"/> pharmacology and pharmacy <input type="checkbox"/> health sciences
Submitter - a person willing to act as a supervisor	
Title/degree Full Name	Professor Katarzyna Kieć-Kononowicz
Category <i>please select the relevant category according to the DSMHS Regulations</i>	<input checked="" type="checkbox"/> JU Medical College employees with a professor or post-doctoral habilitation degree who have declared that their academic achievements correspond at least in 75% with the doctoral programme discipline in which the topic is submitted <input type="checkbox"/> persons with a professor or post-doctoral habilitation degree who do not fulfil the conditions specified in the previous point but who are employed in a university or academic institution in Poland, and who have declared to assign at least 25% of their academic achievements to the discipline relevant for the doctoral programme, and who will present the consent of the person fulfilling the criteria specified in section 1a to act as an auxiliary supervisor, with a positive opinion from the Doctoral School Board according to DSMHS Regulations <input type="checkbox"/> persons who do not meet the conditions specified in section 1 and who are employees of a foreign university or research institution, given the respective research discipline board recognises their significant achievements in the academic field to which the PhD dissertation refers
Date of obtaining a) doctoral degree	1978
b) post-doctoral habilitation degree	1992
c) professor degree	2000
Place of employment	Department of Technology and Biotechnology of Drugs
Email address	katarzyna.kiec-kononowicz@uj.edu.pl mfkonono@cyf-kr.edu.pl
Contact phone	48(12)620 55 80
Academic achievements List of max. five publications from the last three calendar years	1) Schoeder CT, Mahardhika AB, Drabczyńska A, Kieć-Kononowicz K , Müller CE. , <i>Discovery of Tricyclic Xanthines as Agonists of the Cannabinoid-Activated Orphan G-Protein-Coupled Receptor GPR18 (2020)</i> , ACS Medicinal Chemistry Letters, Volume 11, pp.2024-2031; IF=4.632 2) Neumann A, Engel V, Mahardhika AB, Schoeder CT, Namasivayam V, Kieć-Kononowicz K , Muller CE., <i>Computational</i>

	<p><i>Investigations on the Binding Mode of Ligands for the Cannabinoid-Activated G Protein-Coupled Receptor GPR18</i> (2020), Biomolecules, Volume 10, Issue5, e686 IF=4.082</p> <p>3) Fabisaik A, Fabisaik N, Mokrowiecka A, Malecka-Panas E, Jacenik D, Kordek R, Zielińska M, Kieć-Kononowicz K, Fichna J., <i>Novel selective agonist of GPR18, PSB-KK-1415 exerts potent anti-inflammatory and anti-nociceptive activities in animal models of intestinal inflammation and inflammatory pain.</i> (2021), IF=3.598 Neurogastroenterology and motility, Volume33 Issue3, e14003</p> <p>4) Szczepańska, Katarzyna ;Podlewska, Sabina ;Dichiara, Maria ;Gentile, Davide ;Patamia, Vincenzo ;Rosier, Niklas ;Monnich, Denise ;Ruiz Cantero, Ma Carmen ;Karcz, Tadeusz ;Łazewska, Dorota ;Siwek, Agata ;Pockes, Steffen ;Cobos, Enrique J. ;Marrazzo, Agostino ;Stark, Holger ;Rescifina, Antonio ;Bojarski, Andrzej J. ;Amata, Emanuele ;Kieć-Kononowicz, Katarzyna <i>Structural and molecular insight into piperazine and piperidine derivatives as histamine H3 and sigma-1 receptor antagonists with promising antinociceptive properties.</i> ACS Chemical Neuroscience 2022, Vol. 13, nr 1, s. 1-15 IF=5.78</p> <p>5) Katarzyna Szczepańska, Steffen Pockes , Sabina Podlewska, Carina Höring, Kamil Mika, Gniewomir Latacz, Marek Bednarski, Agata Siwek, Tadeusz Karcz, Martin Nagl, Merlin Bresinsky, Denise Mönnich, Ulla Seibel, Kamil J. Kuder, Magdalena Kotańska, Holger Stark, Sigurd Elz, Katarzyna Kieć-Kononowicz: <i>Structural modifications in the distal, regulatory region of histamine H₃ receptor antagonists leading to the identification of a potent anti-obesity agent.</i> European Journal of Medicinal Chemistry (2021) 213, 113041, str. 1-15 IF=7.088</p>
Impact Factor summary	
Web of Science Core Collection index	2,972 without self citations
Hirsch index	31
Number of promoted doctoral degree holders	17
Number of promoted MA degree holders	25
Proposed research topic	Influence of GPR18 ligands on the expression of microglial M1/M2 markers in a functional in vitro model of neuroinflammation.
Please provide reasons for the topic-discipline compliance (max. 100 words)	In the competition of National Science Center Opus 22 project entitled Studies on anti-inflammatory properties of GPR18 ligands and their involvement in modulation of microglia phenotypes – a new target in therapy of neuroinflammation was chosen for financial support (UMO-2021/43/B/NZ7/01938). In the frame of this project was designed involvement of PhD student
Brief description of research methods (max. 250 words)	In getting older societies it is observed that chronic neuroinflammation is a common feature of neurodegenerative disorders (ND) including Alzheimer's disease (AD), Parkinson's disease (PD) and amyotrophic lateral sclerosis (ALS). Since neuroinflammatory processes might play a crucial role in ND it seems highly justified that strategies to modulate

	<p>neuroinflammatory processes are increasingly considered as therapeutic options. In this case, microglial cells rather than neurons represent the cellular targets. Microglia represent the immune system in the central nervous system (CNS), they may play a complex role in the pathophysiology of ND. They have a dual nature and their functional phenotype/state depends on an external signal. The first state, M1 is a classical activation of microglia that depict proinflammatory phenotype and is characterized by the release of pro-inflammatory cytokines. The second, M2 is an alternative activation of microglia that depict anti-inflammatory phenotype and is associated with neurogenesis and anti-inflammatory effects. Modulation of microglial phenotypes appears as an attractive potential therapeutic approach for the treatment of neuroinflammation. Moreover, what is very important, recently appears the growing interest to consider microglia involvement in progression of SARS-CoV-2 induction of neuroinflammation and as mediators of neurological damage.</p> <p>This project aims to extend knowledge on the mechanism of anti-inflammatory activity of GPR18 receptor ligands. The especially important aim of this project will be to evaluate ability of selected compounds to modulate the microglia into M2 phenotype. As pharmacological tools will be used GPR18 agonists and antagonists which were obtained and are going to be synthesized</p>	
Expected place for the project implementation	Department of Technology and Biotechnology of Drugs, Faculty of Pharmacy Medical College Jagiellonian University	
Tasks description for the PhD student	Conducting of molecular biology, biochemical analyses, evaluation of biological activity of compounds in vitro; analysis of research results; preparation of publications; presentation of results at congresses	
Expectations towards the PhD student: specific skills and experience <i>(the description of expectations cannot indicate a particular candidate)</i>	Student (of Biotechnology, Biology or Pharmacy) or Master of Science (in Biotechnology, Biology or Pharmacy) or participant of the PhD school; good knowledge in biotechnological methods, molecular biology- concerning cell culture techniques, biochemical assays qPCR, ELISA ; strong motivation, critical thinking ability and enthusiasm for scientific work; fluency in spoken and written English	
Temporary availability of the PhD student (number of hours/weeks) necessary for the project implementation	About 20 h per week	
Does the research project require PhD student's independent performance of medical procedures? <i>Underline the applicable</i>	<u>NO</u>	YES <i>explain briefly below why and what sort of professional licence is required</i>
Date	 Submitter's signature	

** Following the admission conditions (Annex n^o 1 and 2 to Resolution no 6/II/2023 of the JU Senate of 22 February 2023), if the research topic requires the independent performance of medical procedures by a PhD student, the candidate must hold a professional licence, which should be proved and indicated (license to practise as a medical doctor/nurse/physiotherapist, etc.). In the DSMHS admission procedure, the license to practice as a medical doctor or dentist for the duration of the postgraduate internship will be treated as equivalent to the license to practice as a medical doctor or dentist in the Republic of Poland.

The submitted research topic must not duplicate thematically or conceptually with any current project prepared by a PhD student under the submitter's supervision.

The completed form must be printed, signed in appropriate places, scanned, and sent by electronic mail **by 30 April 2023 to:**

in the discipline of medical sciences: rekreciacja.nmedyczne@cm-uj.krakow.pl

in the discipline of pharmacology and pharmacy: rekreciacja.nfarmaceutyczne@cm-uj.krakow.pl

in the discipline of health sciences: rekreciacja.nozdrowiu@cm-uj.krakow.pl

The email should include **the title of the proposed research topic.**