Jesteśmy częścią sieci
European University of
Post-Industrial Cities (UNIC)

List of potential promoters for the BioMedChem Doctoral School

Name of academic staff member	Area of scientific and research interests / <u>Proposed topics for the doctoral thesis</u>
Prof. dr hab. Jarosław Dziadek ✉ jdziadek@cbm.pan.pl **IBM PAS** ☎ **+ 48 42 272 36 10** **ORCID: 0000 0003 1427 884X** ***Leading discipline – medical science***	The main research area of the group is the search for new anti-mycobacterial compounds, the identification and characterization of their molecular targets in tuberculosis cells and the identification of molecular mechanisms of acquiring resistance to selected anti-mycobacterial compounds. Molecular studies of the basic metabolic processes of mycobacteria in the aspect of virulence are also conducted. <u>The proposed topic of the doctoral thesis</u> The tasks carried out as part of the doctoral thesis will be aimed at identifying new anti-mycobacterial compounds. The identified compounds will be analyzed in terms of their mechanism of action, frequency and mechanism of resistance acquisition, as well as their effect on microbial metabolism. The starting point for the project will be pre-selected compounds with strong anti-mycobacterial activity during the screening of the commercial library.
Prof. dr hab. Magdalena Klink ✉ mklink@cbm.pan.pl **IBM PAS** ☎ **+ 48 42 272 36 02** **ORCID: 0000-0002-9870-7391** ***Leading discipline – medical science***	The main research area is to learn about the molecular mechanisms underlying the acquisition of chemoresistance and inducing invasiveness of solid tumor cells. <u>Proposed topics of the doctoral thesis</u> The research carried out within the framework of the dissertation will continue observations on the involvement of a small protein secreted by colorectal cancer cells, neuromedin U (NMU), in the progression of the disease through the lymphatic pathway. Using human tissue analysis and cell lines-based assays, we will verify whether NMU secreted by cancer cells modifies the phenotype of lymphatic endothelial cells and thus has a stimulatory effect on the increased invasiveness of colorectal cancer cells.
Dr hab. Agnieszka B. Olejniczak, prof. IBM PAN ✉ aolejniczak@cbm.pan.pl **IBM PAS** ☎ **+ 48 42 272 36 37**	Organic Chemistry, bioorganic chemistry, medical chemistry, compounds with antibacterial and antiviral activity, boron clusters in medical chemistry. <u>Proposed topics for the doctoral thesis</u> Application of boron clusters for the modification of biomolecules. Study of physicochemical and biological properties. The use of boron clusters as redox markers of biomolecules.

ORCID 0000-0003-4628-9017

Leading discipline – ***medical science, chemical science***

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IMB PAS - Institute of Medical Biology of Polish Academy of Sciences in Lodz