

Prospective supervisor's form

Name of the supervisor: Maciej Bagiński

Academic title: Prof. dr hab. inż.

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Gdańsk University of Technology Faculty of Faculty of Chemistry

Department of Department of Pharmaceutical Technology and Biochemistry

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Discipline: chemical sciences [NCh] none

Optional

Key words (obligatory four key words describing research interests / expertise):

drug-design

medicinal chemistry

anticancer drugs

computer-aided drug design

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 47 (WoS)/48 (Scopus)

2. Citations excluding self-citations WoS 1026 Scopus 1221

3. Hirsch index WoS 20 Scopus 21

1. The number of PhD students who have graduated under your supervision: 6

2. The number of PhD students currently supervised:

a. within the current doctoral school 0

b. within doctoral studies (previous system) 6

3. Are you currently accepting new PhD students:

a. Polish Yes/No Yes

b. Foreign Yes/No Yes

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Research interests or topics offered for PhD research (no more than 2000 characters)ⁱⁱ

Topics offered for PhD thesis:
 Studies of molecular properties of drug targets, drug-target interactions as well as studies of new potential target inhibitors/modulators by molecular modeling methods and/or experimental methods. In particular, this area may include studies on:

- telomeric proteins and their interaction with telomeric DNA or small ligands (anticancer research)
- membrane interacting systems (proteins), namely responsible for multi-drug resistance (antimicrobial research)
- antiviral compounds inhibiting entry of virus to the host cells

Funding or special equipment needed to carry out a PhD project ⁱⁱⁱ:

1. Is funding available for experimental work: *Yes/No/not needed*

2. Is the equipment needed to complete a PhD project available in your lab/department: *Yes/No/not needed*

Most important publications – no more than 5 published after 1.01.2018

No	Authors/title/journal	Number of points according to the current list of the Ministry of Science and Higher Education	Publication year
1.	M. Padariya, U. Kalathiya, and M. Baginski, Structural and dynamic insights on the EmrE protein with TPP+ and related substrates through molecular dynamics simulations. <i>Chem. Phys. Lipids</i> , 212, 1-11 (2018)	100	2018
2.	J.J. Lica, G.J. Grabe, M. Heldt, M. Misiak, P. Bloch, M. Serocki, M. Switalska, J. Wietrzyk, M. Baginski, A. Hellman, E. Borowski, A. Skladanowski, Cell density-dependent cytological stage profile and its application for a screen of cytostatic agents active towards Leukemic Stem Cells. <i>Stem Cells Develop.</i> 27, 488-513 (2018)	100	2018

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3.	U. Kalathiya, M. Padariya, M. Baginski, The structurally similar TRFH domain of TRF1 and TRF2 dimers shows distinct behaviour towards TIN2. Arch. Biochem. Biophys., 643, 52-62 (2018)	100	2018
4.	U. Kalathiya, M. Padariya, M. Baginski, Structural, functional, and stability change predictions in human telomerase upon specific point mutations. Sci. Rep. 9, ar. no. 8707 (2019)	140	2019
5.	J. Króliczewski, S. Bartoszewska, M. Dudkowska, D. Janiszewska, A. Biernatowska, D. Crossman, K. Krzyński, M. Wysocka, A. Romanowska, M. Bagiński, ... and R. Bartoszewski, Utilizing genome-wide mRNA profiling to identify the cytotoxic chemotherapeutic mechanism of triazoloacridone C-1305 as direct	140	2020

Most recent externally funded projects you were involved in – no more than 3

No	Project title, the name of the Principal Investigator (PI) and the institution the project was carried out	Years	Role in the project ^{iv}
1.	Grant NCBR (Poland): "New anticancer compounds interfering function of telomeres", PI - M. Bagiński, 1.04.2017 for four years, budget: 19,6 mln PLN	2017-2021	PI
2.	Grant NCN (Poland): "New inhibitors of catalytic subunit of telomerase" PI - M. Bagiński, from 28.01.2015 to 27.07.2019, budget: 529 720 PLN	2015-2019	PI
3.	Grant NCN (Poland): "Basis of selective action of antifungal antibiotic amphotericin B by molecular modeling methods" PI - M. Bagiński, from 15.04.2011 to 14.02.2013, budget: 59 800 PLN	2011-2013	PI

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Additional relevant information – (no more than 1600 characters)^v

Potential candidate should have MSc degree in medicinal chemistry, biotechnology or chemistry. Knowledge of English is important. For candidates in experimental area laboratory preparation in biochemistry, molecular biology or pharmacology is expected. For candidates in molecular modeling area some experience in computational chemistry or molecular modeling is needed.

- ⁱ You may select up to two disciplines out of 12 disciplines represented in the Doctoral School
- ⁱⁱ Observe the limit of not more than 2000 characters
- ⁱⁱⁱ Leave only one answer
- ^{iv} Select the role in the project: PI stands for principal investigator (refers to the holder of an independent grant and the lead researcher for the grant project), Co-I for co-investigator (Co-I assists the principal investigator in the management and leadership of the research project), R for researcher
- ^v Add any other relevant information e.g. awards for PhD students whom you supervised (no more than 1600 characters)