Prospective supervisor's form

Name of the supervis Krystyna Dzierzbicka

Academic title: professor

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Faculty of Chemistry

Gdańsk University of Technology **Department of** Organic Chemistry

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Discipline[i] chemical sciences [NCh] none

Optional

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

synthesis

peptides

heterocyclic compounds

sugar derivatives

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 70/66
2. Citations excluding self-citations WoS 513 Scopus 484
3. Hirsch index WoS 16 Scopus 15

1. The number of PhD students who have graduated under your supervision: 9
2. The number of PhD students currently supervised:
   a. within the current doctoral school 0
   b. within doctoral studies (previous system) 2
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]

Design and synthesis of biologically active compounds: peptide synthesis in solution and solid phase, synthesis of sugar derivatives, synthesis of anthraquinone analogs, acridine / acridone, batracyline, muramyl dipeptide, tuftsin/retro-tuftsin derivatives, adenosine, angiogenesis inhibitors, e.g. combretastatin with potential antitumor activity; synthesis of oligopeptides with potential use in cosmetics; synthesis of compounds with potential activity used in Alzheimer's disease. Wide cooperation in the field of biological activity research with various scientific centers.

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

1. Is funding available for experimental work: *Yes/No/not needed* — Yes
2. Is the equipment needed to complete a PhD project available in your lab/department: *Yes/No/not needed* — Yes

Most important publicati 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. Cichorek, A. Ronowska, M. Gensicka-Kowalewska, M. Deptula, I. Pelikant-Malecka, K. Dzierzbicka / Novel therapeutic compound acridine-retrotuftsin action on biological of melanoma and neuroblastoma / J. Cancer Res. Clin. Oncol., 2019, 145, 165-179.	100	2019
2.	Przybylowska M., Kowalski Sz., Dzierzbicka K., Inkielewicz-Stepniak I. Therapeutic potential of multifunctional tacrine analogues / Curr. Neuropharmacol., 2019, 17, 472-490.	140	2019

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3.	Przybylowska M., Inkielewicz-Stepniak I., Kowalski Sz., Dzierzbicka K., Demkowicz S., Dasko M. Synthesis and cholinesterase inhibitory activity of N-phosphorylated / N-tiophosphorylated tacrine / Med. Chem., DOI:10.2174/1573406415666190716115524 Published: 2019-Jul-16 (Epub 2019 Jul 16)	70	2019
4.	Budka J., Kowalski Sz., Chylinska M., Dzierzbicka K., Inkielewicz-Stepniak I. Opioid growth factor and its derivatives as potential non-toxic multifunctional anticancer and analgesic compounds / Curr. Med. Chem., DOI:10.2174/0929867327666200304122406	100	2020
5.	Chmielewska K., Dzierzbicka K., Inkielewicz-Stepniak I., Przybylowska M. Therapeutic potential of carnosine and its derivatives in the treatment of human diseases / Chem. Res. Toxicol., DOI:10.1021/acs.chemrestox.0c00010 Published: 2020-Apr-17 (Epub 2020 Apr 17)	100	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.	Design, synthesis and biological evaluation of novel functionalized batracylin conjugates as potential anticancer drugs, prof. K. Dzierzbicka, NCN, Gdansk University of Technology	2013-2016	PI
2.	New potential immunosuppressing drug based on the structures of adenosine and mycophenolic acid - synthesis and biological evaluation, prof. K. Dzierzbicka, NCN, Gdansk University of Technology	2014-2017	PI
3.	Synthesis and biological examination new functionalized of acridine/acridone derivatived as potential anticancer compounds with a special attention of melanoma and neuroblastoma, prof. K. Dzierzbicka, NCN, Gdansk University of Technology	2015-2018	PI

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Additional relevant information (no more than 1600 characters)[v]

The proposed topics include the synthesis of biologically active compounds and the study of their biological activity.
1. Synthetic analogues of opioid growth factor linked to derivatives of glucosamine as potential anticancer activity against pancreatic cancer.
2. Synthesis and biological tests of newly functionalised met-enkephaline derivatives as potential anticancer agents.

[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)