

Prospective supervisor's form

Name of the supervisor:

Academic title:

Orcid ID number: [https://orcid.org/0000-](https://orcid.org/0000-0001-5421-6905)

Faculty of

Gdańsk University of Technology Department of

Phone: +48

E-mail:

Personal web page: [https://pg.edu.pl/](https://pg.edu.pl/94d231f11c_lucyna.holec-gasior)

Discipline:

Optional

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

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Bibliometric indicators

1. Number of journal publications in WoS/ Scopus

2. Citations excluding self-citations WoS Scopus

3. Hirsch index WoS Scopus

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

2. The number of PhD students currently supervised:

a. within the current doctoral school

b. within doctoral studies (previous system)

3. Are you currently accepting new PhD students:

a. Polish Yes/No

b. Foreign Yes/No

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

Research interests concern diagnostic tests and immunoprotective studies related to the most widespread zoonosis in the world, i.e. disease caused by the *Toxoplasma gondii* parasite. Most of the research is application-related, as it concerns the development and biotechnological production of new kits and diagnostic tools for recognition of *T. gondii* infection in the definitive and intermediate hosts of the parasite (i.e. humans and various species of farm animals) as well as the design of potential new generation vaccine preparations.

The main purpose of PhD research will be to receive of the new recombinant chimeric and fusion proteins composed of immunodominant fragments of various *T. gondii* antigens relevant for parasite invasion into host cells. The obtained plasmids encoding recombinant proteins as well as the proteins themselves will be tested for the determination of their antigenic, immunogenic and immunoprotective properties. The research will use a widely accepted model of experimental toxoplasmosis in laboratory inbred mice that have well-characterized innate susceptibility to *T. gondii* invasion.

Funding or special equipment needed to carry out a PhD projectⁱⁱⁱ:

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 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.	Ferra BT, Holec-Gąsior L, Gatkowska J, Dziadek B, Dzitko K, Grąźlewska W, Lautenbach D. The first study on the usefulness of recombinant tetravalent chimeric proteins containing fragments of SAG2, GRA1, ROP1 and AMA1 antigens in the detection of specific anti- <i>Toxoplasma gondii</i> antibodies in mouse and human sera. PLoS <i>One</i> 14(10): e0217300	100	2019
2.	Tarasiuk K, Holec-Gąsior L, Ferra B, Rapak A. The development of an indirect ELISA for the detection of goose parvovirus antibodies using specific VP3 subunits as the coating antigen. BMC Vet Res. 1;15 (1):274.	140	2019

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3.	Holec-Gąsior L, Ferra B, Graźlewska W. Toxoplasma gondii Tetravalent Chimeric Proteins as Novel Antigens for Detection of Specific Immunoglobulin G in Sera of Small Ruminants. <i>Animals (Basel)</i> . 13;9(12). pii: E1146.	100	2019
4.	Gatkowska J, Dzitko K, Ferra BT, Holec-Gąsior L, Kawka M, Dziadek B. The Impact of the Antigenic Composition of Chimeric Proteins on Their Immunoprotective Activity against Chronic Toxoplasmosis in Mice. <i>Vaccines (Basel)</i> . 18;7(4). pii: E154.	140	2019
5.	Ferra B, Holec-Gąsior L, Gatkowska J, Dziadek B, Dzitko K. Toxoplasma gondii Recombinant antigen AMA1: Diagnostic Utility of Protein Fragments for the Detection of IgG and IgM Antibodies. <i>Pathogens</i> . 5;9(1). pii: E43.	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.	„Nowe chimeryczne antygeny rekombinantowe Toxoplasma gondii – badanie aktywności immunogennej i ochronnej” UMO-2015/17/B/NZ6/03480, Lucyna Holec-Gąsior, (OPUS9) National Science Centre	2016-2020	PI
2.	Nowe odczynniki do badań immunochemicznych na bazie indykatorów i „Nowe odczynniki do badań immunochemicznych na bazie indykatorów i znaczników akrydynowych połączonych z białkami” 2012/05/B/ST5/01680, Karol Krzymiński (OPUS3) National Science Centre	2013-2016	Co-I
3.	„Nowe testy diagnostyczne oparte na antygenach rekombinantowych pasożyta Toxoplasma gondii do wykrywania toksoplazmozy u zwierząt hodowlanych” IP2011 017571 (Iuventus Plus) Ministry of Science and Higher Education	2012-2014	PI

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



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)