

Competition notice

Project title: Tracking the reservoir of non-tuberculous mycobacteria – environmental and molecular studies

Principal investigator: dr Zofia Bakula, Department of Applied Microbiology, University of Warsaw

E-mail: zofiabakula@uw.edu.pl

Financing: National Science Center, Sonata 17

Position: PhD candidate; doctoral school

Admission limit: 1

Discipline: biological sciences

Accepting documents till: 1.09.2022

Announcement of the list of accepted candidates till: 30.09.2022

The education lasts 4 years.

Scholarships: PLN 4500.00 gross gross per month (first 36 months); PLN 3653,70 brutto per month (last 12 months)

Recruitment is conducted by Faculty of Biology, University of Warsaw. Questions regarding competition should be send via email directly to the principal investigator.

Project description:

The group of non-tuberculous mycobacteria (NTM) consists of about 240 species that do not cause tuberculosis (TB) or leprosy. Although NTM are globally widely distributed, they are particularly well-adapted to human-engineered environments, such as drinking water distribution systems and plumbing in buildings. Furthermore, a growing number of studies have indicated that NTM are also found in various healthcare settings. NTM are for the most part opportunistic pathogens to humans and animals. The main clinical presentation of NTM infection is pulmonary disease. Other, less common, manifestations include lymphadenitis, skin and soft-tissue infections, and disseminated disease, particularly in patients with AIDS.

Nowadays, while the prevalence of tuberculosis is steadily decreasing in the developed world, the proportion of NTM infections is growing. The rise and expansion of NTM diseases is associated with the population and environmental changes, such as demographic shift to an older population, rising number of people suffering from various forms of immunosuppression, urban growth and global warming. Overall, the growing number of documented NTM cases along with people at higher risk has led to NTM being recognized as emerging public health threat, and NTM have gained a status of “the new uber-bugs”.

Disturbingly, the ecology of NTM remains a neglected area of research globally, while in Poland, the literature devoted to environmental sources of NTM is almost absent. The definite ecological niches, contagiousness, transmission routes and distribution in different geographic regions for most of the NTM remain unknown or only poorly understood.

This project was conceived with the aim of providing a systematic investigation into the ecology of NTM. This will be accomplished through extensive environmental sampling (of natural, household and hospital environments in Poland) and conventional culture-based methods, followed by novel molecular approaches such as culture-independent metagenomic analyses and high-throughput whole genome sequencing.

Among questions expected to be answered are: what are the natural reservoirs of NTM?; what is a relationship between those reservoirs and human disease?; whether all NTM have similar epidemiological potential?; whether any biotic or abiotic factor affects the abundance and distribution of NTM in the environment? What are the genetic basis of NTM drug resistance and virulence? This knowledge might be of utmost importance for engineering and implementation of new prophylactic strategies and will add considerably to the global strategy aimed at the eradication of NTM diseases.

Requirements:

- master's degree in biology, biotechnology or related fields;
- knowledge of basic microbiological techniques (isolation, cultivation and identification of microorganisms); experience in sterile work;
- knowledge of the basic techniques of molecular biology (nucleic acid isolation, DNA amplification);
- knowledge of basic bioinformatics techniques (designing *in silico* PCRs, comparative analysis of sequences, dendrogram analyzes, etc.);
- experience in laboratory work;
- ability to independently plan experiments and analyze the results;
- scrupulousness, precision, good work organization;
- good communication and teamwork skills;
- good command of spoken and written English;
- experience in working with mycobacteria will be an additional advantage.

The candidate should not have a PhD degree and should not be a PhD candidate at the doctoral school.

Form of the qualification proceedings:

The candidates interested with the position, should send all the required documents via email to: zofiabakula@biol.uw.edu.pl.

The committee will evaluate the candidates' applications (1st part of the competition) and will invite selected candidates for the interview (2nd part of the competition).

The recruitment will be proceeded in accordance with „Regulamin przyznawania stypendiów naukowych Narodowego Centrum Nauki w projektach badawczych finansowanych ze środków Narodowego Centrum Nauki będący załącznikiem do uchwały Rady NCN nr 25/2019 z dnia 14 marca 2019 r.”.

Language of the selection process, including the interview:

The interview will be carried out in Polish or English – in accordance with the candidate's preferences. If the Polish language is selected, the interview may include parts in English.

Required documents

The candidate shall send via email:

- 1) a scan of the graduation diploma of uniform master's degree or postgraduate studies or an equivalent diploma obtained under separate regulations or in the case of candidates pursuing education within the European Higher Education Area – a certificate of obtaining a Master's degree or a declaration that the diploma or certificate of obtaining a Master's degree shall be provided by 23.09.2022 – declaration form. In the case of a diploma equivalent to a uniform master's degree or postgraduate studies graduation diploma, a candidate shall justify such equivalence. In case the diploma was issued in a language other than Polish or English, the candidate shall attach its certified translation;
- 2) a resume or CV outlining the candidate's scientific activity, including scholarly interests and achievements during the five calendar years preceding the application (if a candidate became a parent during this time, as evidenced by a scan of the child's birth certificate attached to the application, this period shall be extended by two years for each child), including, but not limited to:
 - publications,
 - research and organizational work at student research groups,
 - participation in scientific conferences,
 - participation in research projects,
 - awards and honorable mentions,
 - research internships,

- research skills training programs completed,
 - activities promoting science,
 - activity in science movement representative bodies,
 - average of their university grades,
 - professional career,
 - level of proficiency in foreign languages;
- 3) scans of materials evidencing scientific activity mentioned in their CV and/or resume;
 - 4) a document confirming at least B2 proficiency level in English or a declaration of the level of proficiency in English allowing education at the doctoral school;
 - 5) a declaration confirming whether the candidate was or is a doctoral student or a participant of doctoral studies or whether they have initiated a doctoral dissertation process or whether proceedings to award them a doctoral degree have been initiated – and if yes, the title of their doctoral dissertation or the research project prepared by a candidate, including the name and last name of the candidate’s tutor or supervisor;
 - 6) scanned transcripts of records of the graduate and postgraduate studies or the uniform Master’s degree studies, or equivalent documents (e.g. diploma supplement);
 - 7) abstract of the master’s thesis or master’s project in English (up to 3,000 characters with spaces)
 - 8) information whether the candidate agrees to receive administrative decisions by means of electronic communication, consent for processing of personal data for the purposes of the admissions procedure (Attachment 1 to the file).

Education program:

The education lasts 4 years. It includes obligatory classes and the implementation of an individual research program, carried out under the supervision of a supervisor. Beginning of education – October 1, 2022.

Attachment 1

Personal data processing notice

Data Controller

The University of Warsaw, 26/28 Krakowskie Przedmieście, 00-927 Warsaw is the Controller of your processed personal data.

You can contact the Controller:

- via mail: University of Warsaw, 26/28 Krakowskie Przedmieście, 00-927 Warsaw (indicate the organizational unit that is the addressee of the correspondence);
- by phone: 22 55 20 000.

Data Protection Officer (DPO)

The Controller has appointed a Data Protection Officer (DPO) who may be contacted via e-mail at: iod@adm.uw.edu.pl.

You may contact the DPO in all matters regarding your personal data processing by the University of Warsaw and executing your rights related to personal data processing.

However, the DPO's duties shall not include other matters, such as providing information on the admission process for studies, receiving applications and other documents related to the admission process, providing information on the educational offer of the University of Warsaw.

Purposes of and legal basis for processing

Your personal data will be processed for the purposes of conducting the admission process for the doctoral studies.

The processing of your personal data is necessary to comply with a legal obligation imposed on the University of Warsaw in connection with the performance of tasks, including, but not limited to those set forth in the Higher Education and Science Act dated 20 July 2018 (Polish Journal of Laws of 2018, item 1668), its implementing acts and internal regulations applicable at the University of Warsaw (Article 6(1)(c) of the GDPR¹).

All your other personal data that is not required for the abovementioned purposes may be processed on the grounds of your separate consent (Article 6(1)(a) of the GDPR).

Consent may be revoked at any time, for example by introducing changes into the University admissions system or sending an e-mail to: zofiabakula@uw.edu.pl Please be reminded that withdrawal of consent shall not affect the lawfulness of processing based on consent before its withdrawal.

Data retention period

Your data shall be processed for the duration of the study admissions process and then for a period of during SONATA 17 project (36 months).

Data recipients

Access to your personal data shall be granted to authorized employees or associates of the University of Warsaw, including members of admission committees, who must process your data due to the study admissions process.

¹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

Entities that the Controller commissioned to perform certain activities, entailing the necessity to process your personal data may be data recipients.

Data transfers outside of the European Economic Area (EEA)

Your data may also be processed by Google, our G-Suite for education service provider (with whom we have signed a data processing agreement) at their data processing centers².

Rights connected with data processing

We guarantee you the ability to exercise all your rights according to the principles specified by the GDPR, i.e. the right to:

- access the data and receive a copy;
- rectify (correct) your personal data;
- restrict personal data processing;
- erase personal data (subject to Article 17(3) of the GDPR);
- lodge a complaint with the President of the Personal Data Protection Office if you believe that the personal data processing violates the personal data protection laws.

Obligation to provide data and consequences of failure to provide data

Providing data is necessary to participate in the studies admissions process. Providing other data that is not necessary to participate in the studies admissions process is voluntary.

I agree.

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Signature

² <https://www.google.com/about/datacenters/inside/locations/index.html>