

**Recruitment for the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences
at the Institute of Bioorganic Chemistry, PAS in Poznan
Procedure no. 25/2022/ICHB/PSD**

INSTITUTION: Institute of Bioorganic Chemistry, PAS
CITY: Poznan
POSITION: PhD student
POSITIONS AVAILABLE:
SCIENTIFIC DISCIPLINE: biological sciences
PUBLICATION DATE: 01/07/2022
APPLICATION DEADLINE: 31/07/2022
IBCH PAS WEBSITE: <https://portal.ibch.poznan.pl/homepage/>
PDS IPAS WEBSITE: http://www.psd-ipan.ibch.poznan.pl/?page_id=355&lang=en

KEY WORDS: long noncoding RNAs, subcellular localization, synteny, lncRNA orthologues

Principal Investigator: Dr. Barbara Uszczyńska-Ratajczak

Research topic: Identification of positionally conserved lncRNAs across human and mouse genomes at subcellular resolution

I. Project description

Vertebrate genomes produce tens of thousands of long noncoding RNAs (lncRNAs) that do not encode for functional proteins. Although lncRNAs have been proven to be functionally important, their sequences evolve much more rapidly than most mRNAs and only <100 lncRNAs have a detectable sequence conservation between human and zebrafish. At the same time, thousands of lncRNAs appear to have conserved positions in vertebrate genomes without almost any sequence conservation. This fact imposes an important question about the functional meaning of positional conservation, in particular of sequence-divergent syntenic orthologues. Moreover, it has been recently shown that lncRNA orthologues undergo distinct cellular processing and exhibit diverse subcellular localizations and biological functions.

The main goal of this project is to study positionally conserved lncRNAs between human and mouse at subcellular resolution. To increase the power of this analysis we will employ our newly developed software – ConnectOR to detect novel, uncatalogued, positionally conserved lncRNAs in human and mouse genomes. To annotate and study them at subcellular resolution, we will develop a new approach – CLS-SF (Capture Long-read Sequencing in Subcellular Fractions). Proposed cutting-edge experimental methodology will allow to study lncRNA orthologues at subcellular resolution with so far unprecedented accuracy and throughput.

Additional information:

1. Research and doctoral theses shall be carried out within the SONATA BIS 11 Grant 2021/42/E/NZ2/00434, entitled “*Functional or not functional? Studying positionally conserved vertebrate lncRNA orthologues at subcellular resolution*”, funded by the Polish National Science Centre.
2. PhD students shall receive a stipend in the gross amount of ca 4 300 PLN (3 800 PLN net), for the period of 45 months with possible extension.
3. PhD students shall be subject to social insurance, pursuant to article. 6 section 1 passage 7b of the act of October 13th, 1998 on the social insurance system (Journal of Laws of 2019, item 300, 303 and 730).

II.

Requirements for the candidates:



1. MSc degree in biology or Life sciences related field.
2. Expertise in NGS or/and TGS (long-read sequencing), PCR and other molecular biology techniques.
3. Knowledge of biochemical fractionation techniques to obtain different subcellular compartments.
4. Show evidence of scientific productivity and writing skills, documented by authorship in publications.
5. Excellent interpersonal skills, initiative and ability to work independently and in a high-performance team.
6. Professional working proficiency in English.

III. Duties in project:

1. Handling cell cultures.
2. Fractionating cell lines to obtain selected subcellular compartments
3. Preparation of sequencing libraries for long-read RNA sequencing.
4. Performing RNA capture experiments.

IV. Required documents:

1. Application for admission to PDS IPAS along with the consent for processing personal data upon the recruitment procedure and a statement on having acknowledged the regulations of recruitment for PDS IPAS, using http://www.psd-ipan.ibch.poznan.pl/wp-content/uploads/2021/10/ICHBApplication_for_admission_202110.docx
2. Certified copy of the diploma confirming graduation or a certificate confirming graduation (in the case of diplomas issued by foreign higher education schools, diploma stipulated in article 326, section 2, passage 2 or article 327, passage 2 of the act of July 20th, 2018 – Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended), entitling to apply for conferment of a doctoral degree in the state in where such a certificate was issued by the relevant higher education school. In the event when the candidate is not in possession of the aforementioned documents, he/she is obliged to submit them prior to admission to PDS IPAS. Additional information on foreign school diplomas are available at: <https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>
3. Scientific CV encompassing track record of previous education and employment, information on involvement in scientific activities (participation in student research groups, attendance at scientific conferences, accomplished internships and training, awarded prizes and distinction) and list of publications.
4. Cover letter featuring a short description of research interests, achievements and justification for the intention to commence education at the doctoral school.
5. Certificates or other documents confirming the degree of proficiency in English, if the candidate is in possession of such materials.
6. Contact details of at least one, previous scientific supervisor or another researcher who is entitled to issue an opinion on the candidate.

V. Applications should be submitted via the eRecruiter portal at

<https://system.erecruiter.pl/FormTemplates/RecruitmentForm.aspx?WebID=24f4dc6d6461421faefd2d841dd2b48e>

VI. Submission deadline is 31/07/2022

VII. Criteria for evaluation of candidates:

1. Candidate's research achievements, pursuant to the grades obtained in the course of studies, scientific publications, awarded scholarships and distinctions resulting from conducting scientific research or student activities or other achievements.
2. Candidate's scientific and professional experience, pursuant to participation in conferences, workshops, training sessions and internships, implementation of research and commercial projects, involvement in

scientific trusts and societies, international and professional mobility, experience in other sectors, including industry.

3. Candidate's knowledge on the following discipline: biological sciences.
4. Knowledge of the subject matter described in the recruitment advertisement.

VIII. The recruitment procedure shall be concluded no later than 30/08/2022.

IX. The description of the recruitment process is stipulated in the Regulations of Recruitment for PDS IPAS. Following the recruitment procedure, the unadmitted candidates shall be informed on the number of points obtained at both stages.

Incomplete applications will not be considered.

For additional information please contact the Principal Investigator:

Dr. Barbara Uszczynska-Ratajczak

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Information clause:

Pursuant to the stipulations of the 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), further referred to as GDPR, we hereby inform that:

- *The Institute of Bioorganic Chemistry, Polish Academy of Sciences, seated in Noskowskiego St. 12/14, 61-704 Poznan; REGON 000849327, NIP 777-00-02-062 is the administrator of the collected personal data (further referred to as the Institute).*
- *The Administrator appointed a Data Protection Officer, who can be contacted in writing, via traditional mail, by sending a letter to the following address: Z. Noskowskiego St. 12/14, 61-704 Poznan, or by sending an e-mail to: dpo@ibch.poznan.pl.*
- *The personal data of the candidates is processed for the purposes of fulfilling the tasks of the administrator, associated with conducting the recruitment procedure for a vacant position.*
- *The legal basis for processing personal data is the Act of 26 June 1974 – The Labor Code, Act of 30 April 2010 on the Polish Academy of Sciences or the consent of the person whose data shall be subjected to processing.*
- *Your personal data shall be subjected to processing for period of 3 months upon the date of decision of the recruitment committee. Following this period, the data will be irretrievably and effectively destroyed.*
- *The personal data of the candidates shall not be transferred to any third country.*
- *The person whose data shall be subjected to processing has the right to:*
 - *request access to his/her personal data, and to amend it or delete it, pursuant to articles 15-17 of GDPR;*
 - *limit data processing, in the events stipulated in article 18 of GDPR;*
 - *data transferring, pursuant to article 20 of GDPR;*
 - *withdraw consent at any moment, without influencing compliance with the law of the processing that was executed prior to consent withdrawal;*
 - *file a complaint to the Inspector General for Personal Data Protection.*

Providing personal data in the scope stipulated in article 22 (1) of the Act of 26 June 1974 – The Labor Code is mandatory, whereas providing data in a broader scope is voluntary and requires consent for its processing.