

**Recruitment for a student (scholarship) position in a project
at the Institute of Bioorganic Chemistry, PAS in Poznan
Procedure no. 3/2024/S**

INSTITUTION: Institute of Bioorganic Chemistry, PAS
Department of Molecular and Systems Biology
CITY: Poznan
POSITION: students/trainees (scholarship)
POSITIONS AVAILABLE: 2
SCIENTIFIC DISCIPLINE: biological sciences
PUBLICATION DATE: 29 August 2024
APPLICATION DEADLINE: 6 October 2024
IBCH PAS WEBSITE: <http://www.ibch.poznan.pl>

KEY WORDS: RNA, posttranscriptional regulation of gene expression, uridylation, retrotransposons, mobile genetic elements, enzymatic RNA modification, LINE-1

I. Research topic:

The Institute of Bioorganic Chemistry, Polish Academy of Sciences is one of the leading scientific units in Poland, located in the Poznan city centre. Its scientists conduct multi-faceted research at the interface of three sciences: biology, chemistry, and informatics to solve questions about synthesis, structure and function of nucleic acids, proteins and metabolites, as well as their mutual interactions.

In our studies we use human model cell lines, surgical isolates, and methods of molecular and cellular biology, biochemistry, transcriptomics, and proteomics. The current project aims at investigation of routes of RNA metabolism regulation by enzymes post-transcriptionally modifying RNA sequence and structure and their impact on the biology of human LINE-1 retrotransposons^{1,2,3,4}. Specifically, we are interested in mRNA 5' and 3' ends, cytometric, transcriptomic and proteomic analyses of LINE-1 and other RNAs of interest.

1. Warkocki, Z. An update on post-transcriptional regulation of retrotransposons. *FEBS Letters* 597 (3), 380-406 (2023). doi: 10.1002/1873-3468.14551
2. Warkocki, Z., Krawczyk, P., Adamska, D., Bijata, K., Garcia-Perez, JL., Dziembowski, A. *Uridylation by TUT4/7 Restricts Retrotransposition of Human LINE-1s*. *Cell* 174, 1537-1548.e29 (2018). doi: 10.1016/j.cell.2018.07.022
3. Janecki, D., Sen, R., Szóstak, N., Kajdasz, A., Kordyś, M., Plawgo, K., Pandakov, D., Philips, A., Warkocki, Z. *LINE-1 mRNA 3' end dynamics shape its biology and retrotransposition potential*. *Nucleic Acids Res.* (2024) doi: 10.1093/nar/gkad1251
4. Łabno A, Warkocki Z, Kuliński T, Krawczyk PS, Bijata K, Tomecki R, Dziembowski A. *Perlman syndrome nuclease DIS3L2 controls cytoplasmic non-coding RNAs and provides surveillance pathway for maturing snRNAs*. *Nucleic Acids Res.* (2016) 44(21):10437-10453. doi: 10.1093/nar/gkw649.

We offer the position within Narodowe Centrum Nauki project OPUS nr 2019/33/B/NZ1/02260 entitled:
Deciphering the role of LINE-1 mRNA 5' and 3' ends in the biology of the retrotransposon

II. Requirements for the candidates:

1. This offer is directed at university students in molecular biology, biotechnology, bioinformatics or related (level I, II, III students, i.e. BSc, MCs or PhD programmes, are eligible, it is necessary that the candidate holds an actual status of a student while receiving gratification in this project)
2. Very good command of English
3. Practical command of at least one of the following techniques: mammalian cell, organoid or tissue culture, analytical flow cytometry, confocal microscopy, RT-qPCR, RNA-seq, Nanopore sequencing, ChIP-seq, immunoprecipitation, production of recombinant proteins in bacteria or eukaryotic cells and purification of these proteins, biochemical experiments;
4. Ability to conduct bioinformatics analyses of NGS transcriptomic or genomic data, statistical processing and visualization of data shall be considered as significant assets;
5. At least basic knowledge of the issues concerning posttranscriptional regulation of gene expression and retrotransposons.

III. Duties in the project

1. Designing and performing molecular and cellular biology experiments and/or bioinformatics analyses.
2. Analyzing and visualizing data and results of experiments.
3. Preparing monthly progress reports, preparation of presentations and manuscripts.
4. Abiding by health-and-safety regulations, good laboratory practice and scientific work ethics.

IV. Required documents:

1. An application to the Director of the Institute of Bioorganic Chemistry Polish Academy of Sciences along with the consent for processing personal data for the purpose of the recruitment procedure
2. Certificate confirming student's status of the candidate (for practical reasons only students from local institutions will be eligible)
3. Scientific CV encompassing track record of previous education and employment, list of publications (if applicable), information on involvement in scientific activities (participation in student research groups, attendance at scientific conferences, accomplished internships and training, awarded prizes and distinction).
4. Cover letter might be attached featuring a description of research interests and reasons for joining the project.
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.

V. Applications should be submitted via the eRecruiter portal at:

<https://system.erecruiter.pl/FormTemplates/RecruitmentForm.aspx?WebID=ba3af5274a764d968c575317fdb64664>

VI. Submission deadline is **October 6th, 2024** (The date of document receipt shall be decisive).

VII. Selected candidates will be invited for an interview.

VIII. The recruitment procedure shall be concluded no later than **October 11th, 2024**.

IX. The employment will be according to the Polish labor law.

The positions are available till 1.03.2025. Preferred starting date is beginning October 2024. The stipend is 2,500 PLN per month.

For additional information please contact the Principal Investigator:

Dr. hab. Zbigniew Warkocki, Associate professor; e-mail: zwarkocki@ibch.poznan.pl

Information clause:

According to the content of art. 13 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals 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), hereinafter referred to as GDPR, we inform that:

1. The administrator of the collected personal data is the Institute of Bioorganic Chemistry of the Polish Academy of Sciences, Noskowskiego 12/14, 61-704 Poznan, Poland, VAT No. PL 777-00-02-062 (hereinafter referred to as the Institute).

2. The administrator has appointed a Data Protection Inspector who can be contacted in writing, by traditional mail, writing to the Institute's address: Data Protection Inspector, Institute of Bioorganic Chemistry of the Polish Academy of Sciences, Noskowskiego 12/14, 61-704 Poznan, Poland or by sending an e-mail to: dpo@ibch.poznan.pl.

3. Personal data are processed in order to implement the administrator's tasks related to the recruitment to the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences.

4. The legal basis for data processing is the Act of 26 June 1974 - Labor Code, the Act of 30 April 2010 on the Polish Academy of Sciences, the Act of 20 July 2018 Law on Higher Education and Science and consent of the data subject.

5. Personal data collected in the current recruitment process will be stored for 3 months from the moment the recruitment process is resolved. After this period, personal data will be effectively destroyed.

6. Personal data will not be conveyed to a third country.

7. Personal data of the candidate selected in the competition may be made available to third parties authorized under the law.

8. The person whose data is processed has the right to:

- access to the content of your personal data, demand their correction or deletion, on the terms set out in art. 15-17 GDPR;

- set restrictions on data processing, in cases specified in art. 18 GDPR;

- data transfer, on the principles set out in art. 20 GDPR;

- withdrawal of consent at any time without affecting the lawfulness of the processing that was carried out on the basis of consent before its withdrawal;

- lodging a complaint to the President of the Office for Personal Data Protection.

Providing personal data in the scope resulting from art. 22 (1) of the Act of 26 June 1974 - Labor Code, is mandatory, providing data in a broader scope is voluntary and requires consent to their processing. Refusal to provide personal data prevents the application from being considered.