INSTITUTE OF BIOORGANIC CHEMISTRY
Polish Academy of Sciences

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Recruitment for the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences at the Institute of Bioorganic Chemistry, PAS in Poznań
Procedure no. 11 /2025/ICHB/PSD

INSTITUTION:	Institute of Bioorganic Chemistry, PAS
CITY:	Poznań
POSITION:	PhD student
POSITIONS AVAILABLE:	1
SCIENTIFIC DISCIPLINE:	biological or chemical sciences
PUBLICATION DATE:	May 28, 2025
APPLICATION DEADLINE:	August 15, 2025
IBCH PAS WEBSITE:	https://portal.ichb.pl/homepage/
PDS IPAS WEBSITE:	https://psd-ipan.ichb.pl/index.php/en/home/

KEY WORDS: RNA structure, RNA-driven human diseases, p53 mRNA, carcinogenesis, RNA structure-function relationship, cryogenic electron microscopy, RNA mutations, therapies against RNA-driven disorders

Research topic: Structural and functional studies of human p53 mRNA
Principal Investigator: dr Leszek Błaszczyk

I. Project description:

The aim of this project is comprehensive analysis of the known and uncharacterized RNA structures present in mRNA molecule encoding one of the most important proteins, tumor suppressor p53. These structures are directly related to human health, disease pathogenesis, and development of new therapeutic approaches. This idea emerged from the observation that although the significance of the p53 tumor suppressor protein in maintaining cellular homeostasis and carcinogenesis is widely recognized, there is a huge gap in understanding how these mechanisms are regulated by the RNA structures located in the p53 mRNA. This limited knowledge hinders our ability to comprehend the crucial p53-dependent physiological processes at the RNA structure level and the development of new therapeutic strategies (e.g., personalized mRNA vaccines).

As a PhD student in our team, you will be involved in pioneering studies aimed at the identification and characterization (in vitro and in vivo) of unknown RNA structures present in the 3' untranslated region of p53 mRNA, important in the regulation of p53 protein expression under normal and stress conditions and in development of human diseases.

Additional information:

1. Research and doctoral theses shall be carried out within the project OPUS 27 nr 2024/53/B/NZ5/01942 entitled "Comprehensive structural and functional analysis of p53 mRNA to identify secondary and tertiary RNA structures important in physiology, carcinogenesis, and development of therapies against human diseases", funded by the National Science Centre.
2. PhD students shall receive a stipend in the gross amount of ca 4300 PLN (3800 PLN net) for the period of 24 months with the possibility of extending up to 48 months, and with the possibility of increasing the amount of the stipend after the mid-term evaluation (in accordance with the current regulation of the Minister - 5340.90 PLN gross).

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 a related field, or fulfilling the conditions stipulated in article 186, section 2 of the act of July 20th, 2018 Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended).
2. Experience in laboratory work in the field of RNA and/or protein biology and biochemistry.
3. Ability to solve research problems independently, good communication skills, enthusiasm for work and adaptation to teamwork.
4. Proficiency in English to communicate efficiently, read professional literature, prepare publications and present results at national and international conferences.
5. Experience in the field of RNA structure mapping, protein overexpression and purification, and/or experience in protein-RNA, RNA-RNA interaction analysis will be considered as an asset but is not a prerequisite.

III. Duties in project:

1. Design, synthesis and purification of RNAs and proteins.
2. Analysis of p53 mRNA structure and interactions between p53 mRNA and proteins and non-coding RNAs in vitro and in cell systems.
3. RNA tertiary structure analysis using cryogenic electron microscopy (CryoEM).
4. Analyzing data, interpreting results and participating in the preparation of manuscripts.

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 form downloaded from: IBCH Application_for admission
   Applications without the aforementioned constent will not be considered.
2. Certified copy of the diploma confirming graduation or a certificate confirming graduation (in the case of diplomas issued by foreign higher education schools - the diploma entitling to apply for conferment of a doctoral degree in the state of origin). 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. If a document that raises doubts is submitted, the application will not be considered because the time required for its verification would make it impossible to complete the competition within the set deadline. **We recommend a submission of the Individual Recognition Statement,** obtained from the SYRENA system or another government institution, such as the Regional Authentication Center, **which can significantly speed up the recruitment process.**
3. The candidate will be obliged to present the originals of the aforementioned documents before or on the day of commencement of the education at the doctoral school PDS IPAS.
4. 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.
5. Cover letter featuring a short description of research interests, achievements and justification for the intention to commence education at the doctoral school.

6. Certificates or other documents confirming the degree of proficiency in English, if the candidate is in possession of such materials.
7. 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=4d1f66d7bdb548f0918196cd9ae9444f

VI. Submission deadline is **August 15, 2025.**

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 or chemical sciences.
4. Knowledge of the subject matter described in the recruitment advertisement.

VIII. The recruitment procedure shall be concluded no later than **September 29, 2025**.
The results of recruitment will be announced at the PDS IPAS website: https://psd-ipan.ichb.pl/index.php/en/home/

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

For additional information please contact the Principal Investigator:
dr Leszek Błaszczyk
e-mail: blaszcz@ibch.poznan.pl

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:

1. *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).*
2. *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.*

3. *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.*
4. *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.*
5. *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.*
6. *The personal data of the candidates shall not be transferred to any third country.*
7. *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.

Protection for whistleblowers

In the case of reporting violations using a dedicated system for whistleblowers, the reporting person's data will be processed in accordance with applicable provisions on the protection of personal data, including the above-mentioned Regulation (EU 2016/679 of 27 April 2016). We ensure confidentiality and protection of the identity of reporting persons, and that their data will not be disclosed without their consent, unless the law provides otherwise.

Detailed rules regarding the protection of personal data and procedures for reporting violations of the law can be found in our Regulations on internal reporting at the Institute of Bioorganic Chemistry, Polish Academy of Sciences, available at the link:

https://portal.ichb.pl/wp-content/uploads/2024/10/INTERNALREPORTINGREGULATIONS.pdf