

**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. 10/2023/ICHB/PSD**

INSTITUTION: Institute of Bioorganic Chemistry, PAS  
CITY: Poznan  
POSITION: PhD student  
POSITIONS AVAILABLE: 1  
SCIENTIFIC DISCIPLINE: biological or chemical sciences  
PUBLICATION DATE: 31.03.2023  
APPLICATION DEADLINE: 02.05.2023  
IBCH PAS WEBSITE: <http://www.ibch.poznan.pl>  
PDS IPAS WEBSITE: <http://www.psd-ipan.ibch.poznan.pl/>

**KEY WORDS:** thermodynamics of nucleic acids, G-quadruplexes, triplexes, oncogene transcription regulation, cell lines

**Principal Investigator:** Dr. Anna Pasternak, Assoc. Prof.

### I. Project description

We plan to investigate for the first time various aspects of designing oligonucleotide tools named foldback triplex-forming oligonucleotides (FTFOs) targeted towards model G-quadruplex forming sequence which is pivotal regulatory element in transcription of c-Myc oncogene. The main aim of the project is focused on comprehensive physicochemical and biological characterization of novel oligonucleotide tools and investigation of their potential in selective unfolding of G-quadruplex structure as well as in repression of oncogene regulatory element which is pivotal for tumor survival. In general, the project will be focused on two main points: (i) development of FTFOs that are optimal for selective and specific unfolding of particular G-quadruplex structure, (ii) investigation of therapeutic potential of novel tools in vitro and in cell cultures. The project will answer on how to design novel oligonucleotide tools which can efficiently and selectively unfold G-quadruplex structures and arrest biological role of this kind of triggers. The systematic investigation presented herein, as the basic studies, could facilitate designing of FTFO-based drugs with promising anticancer properties in the future.

### Additional information:

1. Research and doctoral theses shall be carried out within the *OPUS 19 (2020/37/B/NZ7/02008)* project, entitled “*Foldback triplex-forming oligonucleotides as novel tools for G-quadruplex unfolding and selective inhibition of c-Myc oncogene transcription*”, funded by National Science Center
2. PhD students shall receive a stipend in the gross amount of ca 4 300 PLN (3 800 PLN net), for the period of 21 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 chemistry, 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. Basic experience in laboratory work, encompassing molecular biology and/or biochemistry.
3. Ability to independently solve research problems, communicativeness, enthusiasm for experimental work and the ability to work in a team.

4. Fluency in spoken and written English.
5. Experience in research on G-quadruplexes and triplexes and practice in cell line cultivation will be an additional advantage.

### III. Duties in project:

1. Planning and conducting experiments within the project, analysis of the results.
2. Involvement in the preparation of scientific publications.
3. Review and analysis of scientific articles on topics important for the project development.
4. Presentation of the results at seminars and conferences.

### 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:  
[https://portal.ichb.pl/wp-content/uploads/2021/10/ICHBApplication\\_for\\_admission\\_202110.docx](https://portal.ichb.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=5ef3c35a8294442a827b82856333faef>

### VI. Submission deadline is **2nd May 2023**

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

**VIII.** The recruitment procedure shall be concluded no later than **14.06.2023**

**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.

**For additional information please contact the Principal Investigator:**

Dr. Anna Pasternak, Assoc. Prof.

e-mail: apa@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:*

- *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.*