

**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. 12/2020/ICHB/PSD**

INSTITUTION: Institute of Bioorganic Chemistry, PAS
CITY: Poznań
POSITION: PhD student
POSITIONS AVAILABLE: 1
SCIENTIFIC DISCIPLINE: biological sciences
PUBLICATION DATE: 2020-07-06
APPLICATION DEADLINE: 2020-08-05
IBCH PAS WEBSITE: <http://www.ibch.poznan.pl>
PDS IPAS WEBSITE: <http://www.psd-ipan.ibch.poznan.pl/>

KEY WORDS: Huntington disease, juvenile HD, neurodevelopment, huntingtin deficiency, brain formation, brain cell populations, organoids, single cell RNA sequencing, iPSC, stem cells

Research topic: Discovering disorders of brain development in Huntington disease as a consequence of putative total huntingtin deficiency in HD, using juvenile HD iPSC and fused brain organoids

Principal Investigator: Maciej Figiel, PhD, DSc

I. Project description

Huntington's disease (HD) is an incurable genetic neurodegenerative disease caused by a mutation – expansion of CAG repeats in the huntingtin gene (HTT) DNA. In addition to the adult form of HD, juvenile HD also exists as a neurodevelopmental disease at a very young age, as a result of very long (> 80) CAG repeats tracts. Interestingly, huntingtin protein regulates cell division in the brain and its total absence is lethal. Very likely, in juvenile HD, there is a partial loss of HTT function, which disturbs the development of the human brain. The goal of the project is to investigate if the low levels of HTT can be a key factor in the development of the juvenile form of Huntington's disease and contribute to the adult form of HD. We will determine whether the reduction of the level of total huntingtin during embryonic development in the HD brain contributes to the differentiation, migration and other disadvantages of a given cell population and whether it affects the overall architecture of the brain in the developing embryo. We will take advantage of the newest single-cell RNAseq sequencing methods, to analyze each cell individually in the HD 3D organoids (mini-brains) to identify disturbances of cell populations during early and advanced brain formation in juvenile HD.

Additional information:

1. Research and doctoral theses shall be carried out within the OPUS 16 project no. 2018/31/B/NZ3/03621, entitled “Discovering disorders of brain development in Huntington disease as a consequence of putative total huntingtin deficiency in HD, using juvenile HD iPSC and fused brain organoids”, funded by the National Science Centre.
2. PhD students shall receive a stipend in the gross amount of ca. 3350 PLN (3000 PLN net), for the period of 25 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 related sciences, 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. Excellent grades from studies
3. Excellent manual skills in performing experiments
4. Very high motivation for further development and ability to work in a team
5. Above-average self-organization and the ability to manage time pressure in a 3-year project
6. Knowledge of molecular biology techniques and cell culture techniques
7. Fluency in English (both in speech and in writing)
8. Consent of the applicant to work with lab animals
9. Skills which will be an advantage of the applicant:

- Scientific achievements: co-authorship of publications, internships and trainings
- Experience in working with stem cells, iPSC, brain organoids and single cell RNAseq techniques, deep sequencing etc
- Work on a confocal microscope and immunocytochemistry
- Ability to work with transgenic animals (mice)
- Knowledge of basic brain anatomy

III. Duties in project:

1. Creative implementation of the research project
2. Performing experiments using organoid cell culture methods
3. Performing experimental works with laboratory animals
4. Writing publications, abstracts, grants and other in english
5. Participation in conferences
6. Participation in a doctoral study

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://www.ibch.poznan.pl/uploads/studium%20doktoranckie/2019/ICHB%20-%20Application%20for%20admission%20\(2019-09\).docx](https://www.ibch.poznan.pl/uploads/studium%20doktoranckie/2019/ICHB%20-%20Application%20for%20admission%20(2019-09).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=5485aac2674d4446ab49be348e4b516f>

VI. Submission deadline is **August 5th 2020**.

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 **August 31st 2020**.

IX. The description of the recruitment process is stipulated in the Regulations of Recruitment for PDS IPAS. Following the recruitment procedure, the not. admitted candidates shall be informed on the strong and weak sides of their applications.

For additional information please contact the Principal Investigator:

Maciej Figiel, PhD, DSc

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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.