

**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. 2/2020/ICHB/PSD**

INSTITUTION: Institute of Bioorganic Chemistry, PAS  
CITY: Poznań  
POSITION: PhD student  
POSITIONS AVAILABLE: 1  
SCIENTIFIC DISCIPLINE: biological sciences  
PUBLICATION DATE: February 5<sup>th</sup> 2020  
APPLICATION DEADLINE: March 4<sup>th</sup>, 2020  
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 student shall receive a doctoral stipend in the gross amount of ca. 2900 PLN per month, until his or her mid-term evaluation is conducted. As soon as the mid-term evaluation is accomplished, the gross stipend shall amount to ca. 3 700 PLN per month.

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 20<sup>th</sup>, 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. 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 20<sup>th</sup>, 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, scientific accomplishments, a list of publications, information on involvement in scientific activity (membership of student scientific groups, participation in scientific conferences, completed internships and training courses, prizes and distinctions received) and reasons for wishing to study 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.

## IV. Applications should be submitted via the eRecruiter portal at:

<https://system.erecruiter.pl/FormTemplates/RecruitmentForm.aspx?WebID=1c5a3b82a0ac410cb1031ae5d7b64b09>

V. Submission deadline is **March 4<sup>th</sup>, 2020** (The date of document receipt shall be decisive).

#### VI. 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.

VII. The recruitment procedure shall be concluded until **March 23<sup>rd</sup>, 2020**.

VIII. 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 strong and weak sides of their applications.

For additional information please contact the Principal Investigator:

**Maciej Figiel, PhD, DSc**

e-mail: [mfigiel@ibch.poznan.pl](mailto:mfigiel@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](mailto: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.*