

[5/AM/2019]- ANNOUNCEMENT OF THE COMPETITION FOR A POSITION OF A PhD STUDENT – A SCHOLARSHIP HOLDER IN THE DEPARTMENT OF CANCER GENETICS

Director of the Institute of Human Genetics, Polish Academy of Sciences (IHG PAS) and the leader of research project announce an open competition for the position of a PhD student- scholarship holder in the Department of Cancer Genetics.

I. General information

1. Institution announcing the competition: Institute of Human Genetics PAS
2. City: Poznań
3. Position: PhD student – scholarship holder
4. Discipline: medical biology
5. Number of vacancies: 1
6. Planned remuneration: scholarship: 4 500 PLN per month
7. Deadline for documents submission: 12.08.2019
8. Address to which documents should be submitted: in person or via registered e-mail to Institute of Human Genetics PAS, ul. Strzeszyńska 32, 60-479 Poznań or by e-mail to: marzena.gajeczka@igcz.poznan.pl, with annotation: "PhD student – scholarship holder, OPUS 16"
9. Link: <http://igcz.poznan.pl/en/>
10. Keywords: Keratoconus (KTCN), Laser microdissection (LM)
11. Department in which the candidate would work: Department of Cancer Genetics
12. A concise description of the scientific research:
The project is carried out within the NCN OPUS 16 grant, project leader is Prof. Marzena Gajeczka

Project title: „ Multi-level molecular assessment based on laser microdissection of corneas to reveal biomarkers and therapeutic targets of keratoconus”

Keratoconus (KTCN) is a disorder of the eye causing a change in the shape of the cornea from spherical to conical, and the formation of a pathological "cone". KTCN etiology is multifaceted, environmental and genetic factors are involved. The causes of the disease and the chain of events / subsequent pathological changes taking place in its course are still unclear. The human cornea, despite its small size, consists of several layers. In the scope of the development of new laboratory techniques, it is necessary to examine these layers separately. The aim of this project is to create a keratoconus and non-keratoconus cornea molecular atlas cornea, to identify genes involved in the pathological process of KTCN cone formation and disease development. DNA and RNA from keratoconus and non-keratoconus corneas will be analyzed, with use a laser microdissection, RNA sequencing and whole exome sequencing. The obtained data will answer the questions whether and how the DNA and RNA's profiles differ between healthy individuals and KCTN patients.

Key project tasks:

1. Material collection and banking.
2. Material cryosectioning.
3. Laser microdissection.

4. RNA-Seq, WES, and proteomic and metabolomic analyzes.
5. RNA-Seq, WES, proteomic and metabolomic data verification
6. Supervising master students.
7. Writing scientific papers, presenting results on seminars and conferences.

II. Requirements for candidates

1. Master degree in molecular biology, biotechnology, genetics, medicine or related field.
2. Knowledge in the field of molecular biology.
3. Experience in molecular biology techniques (earlier work with RNA, DNA and proteins).
4. Knowledge in the field of human cornea's histology.
5. Experience in working with optical microscope.
6. An additional advantage will be experience in working with a cryotome and laser microdissection technique.
7. Very good written and oral communication skills in English.
8. Motivation and enthusiasm to work in science.
9. Good collaborative and team work skills.

III. Required documents

1. CV including research achievements.
2. Cover letter.
3. Copy of MSc diploma.
4. Minimum two recommendation letters: from former supervisors/collaborators and their contact details.
5. Consent for the processing of Candidate's personal data for the purposes of the recruitment process (<http://bip.igcz.poznan.pl/wp-content/uploads/2018/10/Zgoda-rekrutacja-Consent for the processing.pdf>)

IV. Criteria for the evaluation of candidates

1. Research achievements (scientific papers, participation in scientific conferences, activity in student research groups, awards).
2. Experience in laboratory work.
3. Background in molecular biology, especially topics relevant for the project.
4. Opinion about the candidate stated in recommendation letters.
5. Motivation for work in science.
6. Communication skills in English.

V. Announcement of results

Up to 30 days after the deadline of documents submission. Selected candidates will be invited for an interview.

VI. Additional conditions

1. Period of involvement in research project: 01.01.2020-31.12.2022.
2. The condition of involvement in the project is participation in the International Doctoral School at IGC PAN (after passing the recruitment procedure). Details of the studies are available on the website: <http://igcz.poznan.pl/en/scientific-activity/phd-studies/> and meeting the requirements set up in the Regulations on awarding scholarships in NCN-funded research projects (https://www.ncn.gov.pl/sites/default/files/pliki/regulaminy/ncn_scholarships_in_projects_en.pdf).

VII. Additional information: marzena.gajecka@igcz.poznan.pl and Human Resources Unit,
tel. 61 657 9222

Project Leader

marzena gajecka

DIRECTOR
Institute of Human Genetics
Polish Academy of Sciences
Prof. Michał Witt, MD PhD