



PhD student position in molecular sensory neuroscience (hearing).

The PhD student will work on their thesis in the new research team led by Dr. Piotr Kaźmierczak at the **Center of New Technologies of the University of Warsaw** (<http://www.cent.uw.edu.pl>). The position is funded from an OPUS grant for a period of 30 months. **Please apply before 30th of June 2017.** The preferred **starting date** is the **1st of October 2017.** **The candidate must be accepted in a PhD program before this date** and will have the opportunity to enroll in a PhD program at the Department of Biology, University of Warsaw. CeNT UW offers a modern and dynamic research environment with ample opportunities to interact and share ideas with experienced researchers in related fields of mouse genetics and molecular neuroscience as well as other areas of biology, chemistry, computational science and physics. English is the working language of the lab and the institute. It is not necessary to speak Polish.

The lab:

Our team is interested in understanding the molecular mechanisms that underlie the function of hair cells, the sensory cells that detect sound in the inner ear. These epithelial cells are terminally differentiated, electrically excitable in response to acoustic vibrations and able to transmit signals to the innervating neurons through a specialized ribbon synapse. Elaborate morphology and polarization of structures and functions requires tight developmental control mechanisms and an efficient system of protein sorting and targeting. Mutations in over a hundred genes are known to cause hearing impairment. Many of these genes function in hair cells.

Job description:

The candidate will work with the PI, a postdoctoral fellow and undergraduate students as well as collaborators in Poland and abroad. A part of the project is to characterize the expression pattern, the molecular interactions and cellular role of a protein involved in the function of hair cells. The successful candidate will use modern molecular biology and histology techniques, immunofluorescence microscopy, scanning and transmission electron microscopy, cell culture and *in vivo* electrophysiology in a newly generated knockout mouse model.

During the course of the project the PhD student will gain valuable experience including participation in the design of research strategies, characterization of novel genetically modified mouse strains, probing the physiology of the inner ear by performing hearing tests, such as measurements of the evoked auditory brain stem response (ABR) and Distortion Product Otoacoustic Emissions (DPOAE) to characterize the degree and dynamics of hearing loss in mice. Opportunity to present results at an international conference will be provided.

Requirements:

- MSc in molecular or cellular biology, neuroscience, biophysics, biotechnology or a related field
- strong motivation for experimental work and full-time commitment to the project
- ability to work independently and in cooperation with other members of the team
- enthusiasm for science and willingness to take on and complete ambitious projects
- experience with mouse as a model system (PolLASA certificate for persons working with laboratory animals will be highly advantageous)
- good command of spoken and written English

Salary: we provide a monthly scholarship of **3000 PLN for 30 months** that is exempt from income tax.

In order to apply, contact the project leader at piotr.kazmierczak@cent.uw.edu.pl. Please include:

- a brief cover letter detailing relevant experience and research interests
- curriculum vitae
- a copy of your MSc diploma (or a prospective graduation date) and transcript of records
- a list of publications and conference abstracts
- contact information of one reference (academic supervisor)

Selected applicants will be invited for an interview, in person or online.

Early informal inquiries by email are encouraged.

Key words: auditory, hearing, deafness, hair cell, cochlea, inner ear, neuroscience, degeneration