



CeNT-30-2021

Director of Centre of New Technologies of the University of Warsaw, with the Project Leader, announce opening of the competition for the position of PhD Student in the Laboratory of Molecular Basis of Synaptic Plasticity – Centre of New Technologies of the University of Warsaw.

JOB OFFER

Position in the project:	PhD student
Laboratory:	Laboratory of Molecular Basis of Synaptic Plasticity
Scientific discipline:	Life sciences
Keywords:	synapse, mitochondria, fragile X syndrome, TRAP1, autism
Job type (employment contract/stipend):	Stipend/scholarship
Part-time/full-time:	Full-time
Number of job offers:	1
Maximum stipend amount/month:	5000 PLN (gross/gross)
Position starts on:	01.10.2021
Maximum period of contract/stipend agreement:	36 months, with a possibility of extension up to 48 months
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	Dr hab. Magdalena Dziembowska
PhD supervisor:	Dr hab. Magdalena Dziembowska
Project title:	The role of mitochondria in the pathomechanism of autism-associated neurodevelopmental disorders.
Competition type:	OPUS 18
Financing institution:	National Science Centre
Project description:	Synapses are the regions of the neuron that enable the transmission and propagation of action potentials on the cost of high energy consumption and elevated demand for mitochondrial ATP production. The rapid changes in local energetic requirements at dendritic spines imply the role of mitochondria in the maintenance of their homeostasis. Autism-associated neurodevelopmental disorders are often called synaptopathies because their pathomechanism is associated with abnormal physiology of the synapse. The direct link between autism and mitochondria metabolism has been suggested but mechanistically never well documented. Our recent data (Kuzniewska et al., EMBO Reports) show that mitochondrial biogenesis takes place locally at synapses and is altered in the mouse model of syndromic autism, fragile X syndrome (Fmr1 KO mice). In the new project, we are seeking to elucidate how



	<p>mitochondrial physiology is altered in Fmr1 KO and a new mouse model of autism spectrum disorder. We hope to gain an insight into how malfunctioning of mitochondria contributes to autism-associated neurodevelopmental disorders. It may also allow us to propose new therapeutic targets for their treatment.</p>
Key responsibilities include:	<p>Participating in performing experiments planned in all research tasks to give him/her the opportunity to learn different laboratory techniques, data analysis and interpretation. Disseminating results among scientific and non-scientific communities, preparing manuscripts and PhD thesis.</p>
Profile of candidates/requirements:	<p>The competition is open to persons who meet the conditions specified in the regulations on the allocation of resources for the implementation of tasks financed by the National Science Centre for OPUS 18 grant.</p> <p>We seek motivated candidates with:</p> <ul style="list-style-type: none">- MSc degree in biology or related field. The MSc degree must be obtained before the date of employment in the project – until 30.09.2021 at the latest;- Communicative English;- Strong interest in neurobiology; <p>Experience in mammalian cell culture techniques, Western blotting, Confocal microscopy, Flow cytometry, Mass spectrometry, qPCR or Molecular cloning is not necessary but it would be an asset.</p> <p>The successful candidate will be chosen on the basis of research achievements, laboratory skills, the ability to teamwork, and the ability to communicate in English.</p> <p><u>Important:</u> After successful recruitment, the candidate will have to obtain the status of PhD student at the University of Warsaw (Doctoral School of Exact and Natural Sciences), according to standing procedures (The registration deadline is 28.06.2021)</p>
Required documents:	<ol style="list-style-type: none">1. Cover letter2. Current curriculum vitae including a description of prior research experience;3. Copy of MSc degree (or, if the degree has not been obtained yet, a certificate/document about the date of MSc degree defense);4. Document confirming the status of PhD Student (to be provided before employment in the project);5. A list of publications and conference presentations;6. At least two reference contacts (with phone numbers and e-mails);7. Signed information clause on the processing of personal data, available from: https://cent.uw.edu.pl/en/wp-content/uploads/sites/5/2020/11/Information-clause_personal_data-processing.pdf
We offer:	<p>Stimulating and friendly work environment. The possibility to participate in scientific conferences. The opportunity to learn many laboratory techniques.</p>
Please submit the following documents to:	<p>m.dziembowska@cent.uw.edu.pl with “PhD application” in the subject</p>
Application deadline:	<p>26.06.2021</p>
Date of announcing the results:	<p>28.06.2021</p>
Method of notification about the results:	<p>e-mail</p>