**Position:** Postdoctoral Researchin the OPUS NCN grant

**Affiliation:** Adam Mickiewicz University in Poznan

**PI**: prof. UAM dr hab. Katarzyna Dorota Raczyńska

**Conditions of employment:** Salary 140 000,00 PLN per year, maximum employment 45 months.

**Requirements and qualifications:**

* Ph.D. in biology, biotechnology, bioinformatics, or another field of study in the group of natural sciences
* Experience in performing experiments in the field of molecular biology, especially: RNA, proteins, and RNA:protein interactions
* An additional advantage will be the knowledge of bioinformatics techniques required for the analysis of high-throughput data
* fluency in spoken and written English.

**Title of the project:** Translation-related pathway and activated retrotransposons underlying the neurodegenerative disease ALS related to mutations in the FUS gene

**The aim:** to elucidate the molecular pathomechanism of the neurodegenerative disease amyotrophic lateral sclerosis (ALS) related to a mutation in the *FUS* gene.

**Analyses** based on previous observations in cell models with FUS mutants are related to altered levels of snoRNAs that corresponded to altered percentage of methylation and pseudouridylation of rRNAs at the appropriate positions. Such changes can influence ribosome heterogeneity and may represent a new translation-related mechanism of ALS progression that will be further analyzed (Gawade et al., 2023, Sci Rep).

**Model**: iPSCs reprogrammed from fibroblasts derived from ALS patients with FUS mutations and their isogenic controls, further differentiated into neural progenitor cells (NPSs), motor neurons (MNs), astrocytes, and glial cells. In addition, separated MN somas (cell bodies) and MN axons will be used.

**Research**: iPCS differentiation to different cell types; total and small RNA-seq (Illumina, Nanopore), RiboMeth-seq, HydraPsiSeq; global translation efficiency analysis, polysome profiling, Ribo-seq, cell proteome and ribosome composition analysis.

**Required documents:**

* CV containing previous scientific achievements
* A cover letter containing a summary of experience and future interests
* Contact details of supervisor(s)
* Candidates must meet the requirements according to the employment regulations for the position of assistant for the OPUS 25 call:

https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2023/uchwala32\_2023-zal1.pdf

* The candidates will be selected through an open competition.

Please submit the documents electronically to the email address: **doracz@amu.edu.pl** by **31.08.2024**.

Consent to the processing of personal data with the following content: " I consent to the processing of personal data other than: name(s) and surname; parents' names; Date of birth; place of residence (mailing address); education; course of previous employment, included in my job offer for the purposes of current recruitment."