

CeNT-12-2024

Director of Centre of New Technologies of the University of Warsaw, with the Project leader, announce opening of the competition for the PhD Student at the Laboratory of Paleogenetics and Conservation Genetics, Center of New Technologies of the University of Warsaw

JOB OFFER

Position in the project:	PhD student
Scientific discipline:	Life sciences
Laboratory:	Laboratory of Paleogenetics and Conservation Genetics
Keywords	Ancient DNA, metagenomics, Late Pleistocene, paleovegetation, voles, demography, climate, paleogenomics
Type of contract:	Stipend
Number of positions:	1
Maximum stipend amount/month:	5000 PLN/month gross gross/ ~3750 PLN/month net <i>The successful Candidate will have to acquire scholarship from the Doctoral School of Exact and Natural Sciences of the University of Warsaw. Joint stipend will be approx. 7000 PLN/month.</i>
Position starts on:	1.10.2024
Maximum period of contract:	34 months (possible extension for additional 12 months)
UW unit:	Centre of New Technologies
Project leader:	Dr hab. Mateusz Baca
Project title:	Paleogenomic analysis of small mammals in the reconstruction of species responses to climate change
Project type	NCN Sonata Bis 10
Project description:	The project involves the investigation of ancient DNA of small mammals with the aim of reconstructing their evolutionary histories and identifying their responses to climate change during the Late Pleistocene and Holocene. Genomic analyses of small mammals are supplemented with metagenomic analyses of cave sediments aiming at paleoenvironmental reconstruction. Link to project description: https://cent.uw.edu.pl/en/projects/studying-small-mammals-paleogenomics-to-reveal-population-history-selection-and-local-adaptations/
Key responsibilities include:	One of the following main themes: 1. Metagenomic analyses of cave sediments with the aim of reconstruction of paleovegetation in the Late Pleistocene Central Europe. Specific tasks will include the collection of sediment samples, DNA extraction and sequencing library preparation, enrichment of DNA libraries in plant and mammalian DNA,

	<p>bioinformatic processing of sequencing data, including taxonomic assignment of sequences, reconstruction of paleovegetation, correlation with paleogenomic data from selected species of small mammals, and preparation of scientific publications.</p> <p>2. Reconstruction of the evolutionary history of selected rodents on British Isles. These include field voles (<i>M. agrestis</i>), common voles (<i>M. arvalis</i>), and bank voles (<i>C. glareolus</i>). The aim is to reconstruct the colonization and demography of these species using the genomes of ancient and modern specimens. Specific tasks will include extraction of DNA, sequencing library preparation, bioinformatic processing of sequencing data, and population scale analyses, including modeling of demography, gene flow, adaptation, and correlation with paleoenvironmental data.</p>
<p>Profile of candidate/ requirements:</p>	<ul style="list-style-type: none"> - Master's degree in biology, biotechnology, or molecular biology or similar. The degree should be obtained before the date of starting work on the project. - Enrolment into the PhD program with the stipend from Doctoral school by the scholarship start date at the latest (https://szkolydoktorskie.uw.edu.pl/en/sdnsip-2/) - At least basic knowledge of molecular genetics, experience in laboratory work. Experience in DNA extraction and preparation of DNA libraries for sequencing. - Motivation to work - Knowledge of English at a level allowing to communicate freely and to read specialized literature with understanding <p><u>Additionally appreciated:</u></p> <ul style="list-style-type: none"> - At least the basic knowledge of Linux operating system. - Familiarity with software related to sequencing data processing (samtools, bedtools, bwa), genomic data analysis (ANGSD, Plink). - Experience with ancient DNA oriented laboratory procedures.
<p>Required documents:</p>	<ul style="list-style-type: none"> - cover letter - curriculum vitae - a copy of the master's degree or an attestation confirming the planned date of defense - document confirming the status of PhD student (to be provided by the scholarship start date at the latest) - signed information clause on personal data processing
<p>We offer:</p>	<ul style="list-style-type: none"> - a friendly and motivating working environment in young and dynamic team - participation in an exciting research project using the state-of-the-art research techniques - participation in scientific courses and conferences funded by the project - access to fully equipped ancient and modern DNA laboratories
<p>Please send your application to:</p>	<p>m.baca@cent.uw.edu.pl</p>
<p>Application deadline:</p>	<p>19.05.2024</p>

	Selected candidates will be invited for an interview in person at the Centre for New Technologies, University of Warsaw, online, or by telephone. Interviews will be held on 13–17.05. 2024. The selection of the candidate will be carried out in accordance with the regulations of the National Science Centre and will be announced no later than 31th Mai 2024.
Date of announcing the results:	31.05.2024
Results will be announced by:	e-mail, CeNT website