

Jagiellonian University in Kraków promotes cooperation and cares for a good atmosphere based on mutual trust. It implements the strategy resulting from The Human Resources Strategy for Researchers, creating stable conditions for employment as well as the development of academic career, which resulted in the award of the HR Excellence in Research by the European Commission

INFORMATION ON SELECTION PROCEDURE

Date of selection procedure announcement Krakow, 27.11.2024

Selection procedure information number given by the Centre for Human Resources	1227.1101.321.2024
Dean of the faculty of /Director of a non-faculty, inter-faculty or common unit	Acting Director of the Malopolska Biotechnology Center Dr Danuta Earnshaw nee Mossakowska, Prof. JU
Address	Gronostajowa 7a 30-387 Kraków

RECTOR

of the Jagiellonian University

announces a selection procedure for the position of an

ASSISTANT

Group of employees	Research staff
JU organisational unit (place of work performance)	Malopolska Biotechnology Center
Field of science	Science and life sciences
Discipline	Biological sciences or Chemical sciences
Scope	Structural biology, biochemistry, medicinal chemistry, molecular biology, biophysics, synthetic chemistry or related
Number of posts	1
Type of employment	Employment contract
Working time	Full time
Planned duration of employment	6 months, possibility of extension for another 24 months
Expected date of employment commencement	first quarter 2024
Remuneration	according to the Rules for Remunerating Jagiellonian University Employees

Requirements	<p>The selection procedure is open for all individuals, who meet the requirements set out in Articles 113 and 116.2.4) of the Act of 20 July 2018 – Law on Higher Education and Science, and who meet the following eligibility criteria according to § 166 of the Statute of the Jagiellonian University:</p> <ul style="list-style-type: none"> • holding at least a Master's degree, Master of Science degree or an equivalent degree; • exhibiting aptitude for research work.
Additional requirements and expectations	<p>Ideal candidates:</p> <ul style="list-style-type: none"> • have relevant scientific background in cell biology, molecular biology, biochemistry and/or related fields, • have at least one original scientific publication, in which they are the lead author, • take an active part in scientific life manifested in particular in presentations at conferences and symposia • meet the NCN requirements for persons employed in research projects <p>https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2022/uchwala60_2022-za1.pdf#page=52</p> <p>In addition, the candidate is expected to have prior knowledge and experience in at least one of the following of the listed methods:</p> <ul style="list-style-type: none"> • Experience in research in the fields of structural biology (X-ray crystallography or cryo-EM), biochemistry, biophysics, protein-protein interaction studies, drug design, screening techniques, peptide design, DNA/RNA aptamer design, molecular biology, biophysics, and related topics. <p>The ideal candidate will possess:</p> <ul style="list-style-type: none"> • Knowledge of recombinant and native protein purification techniques. • Knowledge of molecular biology methods such as cloning, expression construct design, Western blot, RT-PCR. • Knowledge of prokaryotic and eukaryotic protein expression systems. • Experience in studying protein activity using various enzymatic assays. • Experience in macromolecule structure analysis. • Experience in synchrotron measurements or cryo-EM. • Experience with methods such as SPR, HPLC, MST. • Proficiency in English at a communicative level, enabling daily work in an international scientific environment, presenting results, and preparing scientific articles. • Familiarity with basic MS Office programs and optionally with the Linux operating system environment and software such as CCP4, Phenix, Relion, CryoSpark, PyMol, GraphPad/Origin.
Project Title	NCN OPUS 24, "Targeted inhibition of hypusination pathway". PSP: K/NCN/000211
Project description	<p>Hypusination is a modification described only for one protein: the eukaryotic translational factor eIF5A, and spermidine is used as a substrate in this process. In the first step of hypusination, the enzyme deoxyhypusine synthase (DHS) attaches the 4-aminobutyl moiety of spermidine to the lysine residue present in eIF5A, resulting in the formation of a non-standard amino acid residue: deoxyhypusine. The deoxyhypusine is then modified to hypusine by deoxyhypusine hydroxylase (DOHH) (Fig. 1). eIF5A is involved in the protein translation process, and hypusinated lysine is essential for its activity. eIF5A is also involved in the development of certain diseases such as diabetes, certain types of cancer, and malaria. Furthermore, hypusinated eIF5A promotes cell proliferation. Much attention is currently being paid to the molecular mechanism of selective control of protein translation by hypusinated eIF5A. Hypusinated eIF5A is indispensable for tumor growth and is closely related to the</p>

	<p>aggressiveness of cancers. Moreover, the expression of the second eIF5A-2 variant is a hallmark of many cancers. Furthermore, mutations in proteins involved in the hypusination pathway are the cause of neurological disorders. To date, we are simply lacking molecular compounds that enable us to specifically modulate the hypusination pathway, and the structure-activity relationship of the currently used inhibitors is vaguely defined, as there are major concerns about the specificity of these molecules. Hence, the ultimate goal of the project is to obtain lead compounds selectively modulating the hypusination pathway that can be further optimized as pro-drugs or tool compounds to be used in diagnostics and clinical treatment. In detail, we plan to transform the small molecules obtained in our previous research into novel lead compounds that can serve as pro-drug molecules. These molecules will be thoroughly tested in various activity screens, and we will obtain crystal structures of DHS in complexes with developed compounds. Furthermore, using high-throughput crystallographic screening, we will discover new small-molecule DOHH binders, which will pave the way for the synthesis of novel inhibitors and thus, together with DHS-interacting compounds, complement the landscape of hypusination pathway modulators. Last but not least, we plan a multifaceted strategy in which not only small compounds but also nucleic acid-based aptamers will be tested as possible hypusination modulators.</p>
<p>Scope of duties</p>	<p>According to the Work Regulations of the Jagiellonian University Annex 1 to the Work Regulations of the Jagiellonian University – Model scopes of responsibilities and duties of academic teachers.</p> <p>The hired person will be responsible for independently coordinating tasks, making rational and logical decisions to solve problems, and introducing new techniques and tools. The best-selected candidate will be required to learn and optimize new methods in the fields of structural biology, biochemistry, biophysics, and medicinal chemistry. The work will include optimizing selected activity assays, conducting experiments based on activity tests, designing new inhibitors, preparing samples for structural studies, and preparing reports.</p>
<p>We offer</p>	<ul style="list-style-type: none"> • stable employment based on an employment contract at the renowned university, • cooperation with the interdisciplinary academic community represented by well-known scientists, • scientific support as well as the possibility of qualifications improvement and professional development, • access to research infrastructure, • benefits in the form of i.a. Multisport card, sports activities, medical packages, group insurance, • additional social benefits.
<p>Required application documents</p>	<ol style="list-style-type: none"> 1. resume, 2. personal questionnaire filled in by the candidate, 3. copy of the master's diploma or a doctoral diploma, if applicable, 4. information on the candidate's scientific, teaching and organisational achievements, 5. declaration of the candidate, confirming that the Jagiellonian University will be their primary place of work, should they be selected in the selection procedure, 6. statement under Article 113 of the Law on higher education and science, 7. statement on acknowledging and accepting the rules and regulations concerning intellectual property management and commercialisation in force at the Jagiellonian University. <p>Declaration forms (no. 5-7) and personal questionnaire template (no. 2) can be obtained at: https://cso.uj.edu.pl/en_GB/konkursy</p>
<p>Additional application documents</p>	<ol style="list-style-type: none"> 1. list of publications (along with the respective publishing houses and the number of pages), if any, 2. recommendation from the candidate's previous supervisor (head of the department or academic supervisor) regarding the candidate's aptitude and qualifications for academic teaching and research work, including the results of student surveys and

	evaluations, if the candidate was subject to such evaluation.
<i>The course of selection procedure</i>	The first stage of the selection procedure is the formal assessment of the submitted documents. Applications which meet all formal requirements are the subject of substantive assessment, during which an interview with the Candidate may be conducted (directly or via electronic communication channels), upon settling the date of the interview with the Candidate. The Candidate has the right to appeal against the negative assessment by the selection board within 7 days from receiving the information about the results of the assessment. The selection procedure is conducted in accordance with The Policy of Open, Transparent and Merit-Based Recruitment Process at the Jagiellonian University
<i>Form of submission</i>	by e-mail to the address: job.mcb@uj.edu.pl , title: 321.2024 assistant OPUS 24
<i>Deadline for submission of applications</i>	06.01.2025
<i>Expected date of the selection procedure settlement</i>	Till 28.02.2025
<i>Method of communicating of the results of the selection procedure</i>	by e-mail
<i>Questions</i>	For further information please contact by e-mail: job.mcb@uj.edu.pl

In the selection procedure, the Jagiellonian University follows the principles of the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers. Jagiellonian University does not provide housing.

On behalf of
the Rector of the Jagiellonian University

Acting Director of the Malopolska Biotechnology Center
Dr Danuta Earnshaw nee Mossakowska, Prof. JU

Personal data processing information for job applicants

According to Article 13 of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation – hereinafter GDPR), the Jagiellonian University informs that:

1. The Administrator of your personal data is the Jagiellonian University with its registered office in Gołębia 24, 31-007 Kraków, represented by the Rector of UJ.
2. The Jagiellonian University appointed the Data Protection Officer www.iod.uj.edu.pl, Gołębia 24, 30-007 Kraków. The Officer can be contacted by email: iod@uj.edu.pl or at the telephone number 12 663 12 25.
3. Your personal data will be processed in order to:
 - a. conduct recruitment process for the position specified in the advertisement no. 1227.1101.297.2024 – as part of the legal obligation of the Administrator pursuant to Art. 6 (1) lit c of the GDPR in connection with the Polish Labour Code;
 - b. conduct recruitment process for the position specified in the advertisement no. 1227.1101.297.2024 based on your consent pursuant to Art. 6 (1) lit a of the GDPR – your consent is granted by the clear action of submitting your CV with the Administrator. The consent to the processing of personal data concerns data that you voluntarily provide as part of your CV, which do not result from Polish Labour Code.
4. The obligation to provide your personal data results from the law (it applies to personal data processed under Article 6 (1) lit c of the GDPR). Failure to provide your personal data will result in your inability to take part in the recruitment process. Submission of personal data processed on the basis of consent (Article 6 (1) lit a of the GDPR) is voluntary.
5. Your data will be processed during the recruitment period. In the event of not concluding the contract with you, your data will be deleted after the recruitment process.
6. You have the right of access to the content of your personal data, as well as the right to correct, delete, restrict processing, transfer, object to processing – on the terms and conditions set out in the GDPR.
7. If the processing is based on consent, you have the right to withdraw the consent at any time, which shall not affect the lawfulness of processing based on the consent given before the withdrawal. Withdrawal of consent to the processing of personal data can be sent by e-mail to: job.mcb@uj.edu.pl or by post to the following address: Malopolska Centre of Biotechnology, Gronostajowa 7A str. 30-387 Cracow, or you can withdraw your consent in person at Malopolska Centre of Biotechnology, Gronostajowa 7A str. 30-387 Cracow.
8. Your personal data will not be subject to automated decision making or profiling.
9. You have the right to lodge a complaint with the Inspector General for the Protection of Personal Data, if you feel that the processing of your personal data violates the GDPR regulations.