





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, 13.01.2025
Selection procedure information number given by the Centre for Human Resources	1227.1101.1.2025 (1)
Dean of the faculty of /Director of a non-faculty, inter-faculty or common unit	Dean of the Faculty of Mathematics and Computer Science dr. hab. Maciej Ulas, prof. UJ
Address	Prof. S. Łojasiewicza 6 30-348 Kraków, Poland

RECTOR

of the Jagiellonian University

Group of employees	Research staff
JU organisational unit (place of work performance)	Faculty of Mathematics and Computer Science Institute of Computer Science and Mathematics
Field of science	Natural sciences
Discipline	Computer Science
Scope	Machine learning, cheminformatics
Number of posts	2
Type of employment	Employment contract
Working time	Part-time employment (1/2)
Planned duration of employment	43 months (with possibility of extension)
Expected date of employment commencement	1 st quarter of 2025





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Remuneration

according to the Rules for Remunerating Jagiellonian University Employees

~96.000 gross PLN/year

Requirements

The selection procedure is open for all individuals, who meet the requirements set out in Articles 113 and 116.2.3) of the Act of 20 July 2018 – Law on Higher Education and Science, and who meet the following eligibility criteria according to § 165 of the Statute of the Jagiellonian University and Regulations for Project Selection:

- holding at least a doctoral degree;
- having relevant scientific achievements;
- taking active part in scientific life.

Additional requirements and expectations

- PhD in computer science, computational chemistry, or a related field:
- in the year of announcement of the competition for this position, held a doctoral degree for no longer than 7 years (counting consecutive years from the year following the year in which the degree was obtained):
 https://www.fnp.org.pl/assets/Regulamin-wyboru-projektow-aktualizacja-14.06.2024.pdf
- Proven track record of publications in cheminformatics, Al for small molecules, or deep learning for microscopy imaging;
- Proficient programming skills in Python, with experience in scientific libraries such as PyTorch;
- Strong understanding of artificial intelligence methods, especially transformers;
- Familiarity with graph-based data analysis, e.g. small molecules;
- Proficiency in English;
- Practical experience working in a research team.

Project Title

Interpretable and Interactive Multimodal Retrieval in the Drug Discovery Process

First Team, 2. Enhancing research and innovation, The European Funds for Smart Economy 2021-2027 (FENG)

Project description

The drug discovery process is complex, requiring substantial financial investment and many years of work to bring a new drug to market. One way to shorten the time and reduce the costs of this process is through artificial intelligence. This approach can reduce the number of failures in clinical trials and facilitate the exploration of the chemical compound space.

In this project, we propose utilizing tools based on knowledge retrieval and interactive, interpretable machine learning to increase the efficiency of the drug discovery process. The developed tool will be able to analyze images of cellular events, such as those obtained in the CellPainting (CP) protocol, and identify potential small-molecule drugs that can induce specific cellular events. It will make drug discovery, such as hit identification, virtual screening, and drug repurposing, faster and more cost-effective.

We will collaborate with Matthias Zeppelzaur, an expert in knowledge retrieval, and Ardigen SA, a global leader in AI-based services for pharmaceutical companies. Ardigen also develops phenAID software, which enables advanced analysis of images obtained using the CP protocol.





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Scope of duties

according to the <u>Work Regulations of the Jagiellonian University</u>
Annex 1 to the Work Regulations of the Jagiellonian University –
Model scopes of responsibilities and duties of academic teachers.

- 1. Conducting research in the field of cheminformatics using the Cell Painting protocol and molecular data.
- 2. Supervising students in their research work.
- 3. Designing and proposing scientific solutions to research challenges within the project.
- 4. Implementing models and evaluation protocols.
- Developing marketing materials, patent applications, and publications.
- 6. Presenting the project results to a broader audience.

We offer

- 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.

Required application documents

- 1. resume,
- 2. personal guestionnaire filled in by the candidate,
- 3. copy of the 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/additional 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.

Declaration forms (no. 5-7) and personal questionnaire template (no. 2) can be obtained at:

https://cso.uj.edu.pl/en GB/konkursy

Additional application documents

- 1. cover letter,
- at least one letter of recommendation.

The course of selection procedure

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 https://documents.com/newscale-communication-channels.

of Open, Transparent and Merit-Based Recruitment Process at the Jagiellonian University

Form of submission

by e-mail to the address: dorota.ramotowska@uj.edu.pl title: Assistant Professor First Team FENG (cheminformatics)





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Deadline for submission of applications	02.02.2025
Expected date of the selection procedure settlement	16.02.2025
Method of communicating of the results of the selection procedure	by e-mail
Questions	For further information please contact Dorota Ramotowska, e-mail address: dorota.ramotowska@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

Dean of the Faculty of Mathematics and Computer Science dr. hab. Maciej Ulas, prof.UJ







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, respresented 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
 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 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: matinf@uj.edu.pl or by post to the following address: Faculty of Mathematics and Computer Science of the JU, Prof. S. Łojasiewicza 6, 30-348 Kraków, Poland or you can withdraw your consent in person at Faculty of Mathematics and Computer Science of the JU, Prof. S. Łojasiewicza 6, 30-348 Kraków, Poland.
- 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.







