European Funds
Smart Growth

Republic
of Poland

FNP Foundation for
Polish Science

European Union
European Regional
Development Fund

JOB OFFER

Position in the project:	**Ph.D. Student in Computational Biology (f/m/d)**
Research group:	**Chromatin structures reflecting cellular states (PI: Jakub Mieczkowski)**
Scientific discipline:	Computational biology, molecular biology, cancer genetics, biomedicine.
Job type (employment contract/stipend):	Stipend (non-taxable income), net 3500 PLN per month (1 EUR = 4.3 PLN, 1 USD = 3.9 PLN) corresponding with average net salary rate in Poland, health and social insurance
Number of job offers:	1
Position starts on:	April 1st, 2020 (or as soon as possible)
Maximum period of contract/stipend agreement:	August 31st, 2023
Institution:	Medical University of Gdansk, Gdansk, Poland
Project leader:	Prof. Jan Dumański, prof. Arkadiusz Piotrowski
Project title/Context:	**Mutations acquired during lifetime that lead to increased risk for human disease, with focus on cancer** The Project/Centre is funded within the International Research Agendas Programme of the Foundation for Polish Science. The 3P-Medicine Lab (Preventive, Personalized, Precision) International Research Agenda is joint unit of Medical University of Gdansk in Poland and Uppsala University in Sweden. More about the center: https://ira3p.mug.edu.pl/ https://www.fnp.org.pl/en/3p-medicine-preventive-personalized-precision/ More about participating universities: https://www.uu.se/en https://mug.edu.pl/
Project description:	The 3P-Medicine Laboratory (personalized, preventive, precision) is a new science center specializing in research on acquired genetic mutations as risk factors for cancer and other diseases. Our center is focused on somatic mutations that occur early in life in seemingly normal cells that eventually contribute to malignant transformation. Primary interest is in common malignancies that are etiologically related to environmental stimuli: breast cancer, colorectal cancer, urinary bladder cancer and prostate cancer. The ultimate goal is to develop genetic screening approach for non-hereditary cancer risk assessment, years before first clinical symptoms become apparent. Our unique collection of clinical samples includes not only primary and metastatic tumors, but also multiple biopsies of macroscopically normal tissue including frozen sections, peripheral blood, viable skin and stromal fibroblasts as well as cryopreserved primary cell cultures.

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INTERNATIONAL RESEARCH AGENDA · 3P MEDICINE LABORATORY
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Research Group Description:	The Mieczkowski lab studies cells transitions, cell-cell communications and chromatin transformations. A key focus is the use of computational and experimental approaches to dissect, model, and interrogate the changes in chromatin structure triggered by genetic modifications and/or extracellular stimulations. The group pursues multi-disciplinary projects aiming to uncover patterns in chromatin and gene expression profiles relating to cell state. Members of the group will use state-of-the-art methodology to analyze molecular profiles obtained with genotyping microarrays, massively parallel sequencing of DNA (DNA methylation, ChIP, ATAC-seq etc.), bulk RNA- and single cell RNA-seq, as well as spatial transcriptomics.
Key responsibilities include:	1. Analysis of bulk 'omic' and genetic data obtained with NGS. 2. Analysis of single-cell data. 3. Preparation of documented code. 4. Interactions with clinical partners, biobanking and bioinformatics teams. 5. Preparation of materials for scientific publications and patent applications. 6. Participation in collaboration with foreign partner (Uppsala University, Sweden).
Profile of candidates/requirements:	1. B.Sc. or M.Sc. in bioinformatics, mathematics, biology or equivalent. 2. Understanding of basic molecular biology is desired, although not absolutely required. 3. Experience in R and Python with machine learning applications are desired. 4. Strong interest in interdisciplinary research. 5. Prior participation in foreign scholarships or trainings and scientific achievements are welcome. 6. Good knowledge of written and spoken English. 7. Strong motivation for research work, flexibility and self-driven interest to learn new techniques. 8. Good communication and work organization skills. 9. Ability to work in a team.
Required documents:	1. CV 2. Motivation letter 3. References to at least two mentors with phone and email address Please submit **all above documents in a single pdf file**.
We offer:	1. Opportunity to gain and broaden expertise in the aspects of human genetics related to somatic origin of cancer with emphasis on single cell genomics and transcriptomics.

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2. Mentoring and support from senior colleagues in the fields of genetics, cell and molecular biology, bioinformatics and biostatistics.

3. Opportunity for motivated PhD students to work in an international multidisciplinary training environment.

4. International collaboration opportunities including short term visits to foreign partner (Uppsala University).

5. Access to state-of-the-art equipment and computing resources.

For more information about the position please contact:	Jakub Mieczkowski (jakubm@gumed.edu.pl)
Please submit the documents to:	mab@gumed.edu.pl
Application deadline:	February 16th, 2020
Euraxess job/stipend offer (in case of PhD and postdoc positions):	https://euraxess.ec.europa.eu/jobs/472015

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, we also require that your job advertisements include a clause requesting the candidate's consent to the processing of his or her personal data by the institution which carries out the recruitment process: "I agree to the processing of personal data provided in this document for realizing the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with 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). I agree to transfer of personal data to the Foundation for Polish Science and institutions verifying expenses n the project, and to the storage of data for the duration of the project and during its durability."