





## **JOB OFFER**

Position in the project:	Junior Postdoctoral Researcher in Cancer Genetics	
Research group:	Loss of chromosome Y and human disease (PI: Prof. Jan Dumanski)	
Scientific discipline:	Molecular biology, cancer genetics, biotechnology, biomedicine, clinical sciences, computational biology	
Job type (employment contract/stipend):	Full-time employment contract	
Number of job offers:	1	
Remuneration amount/month:	"gross-gross" 11000 - 15000 PLN per month (commensurate to experience), including health and social insurance and retirement contributions, net 5500 PLN – 7500 PLN per month (1 EUR = 4.3 PLN, 1 USD = 3.9 PLN).	
	The expected net salary has been calculated based on social insurance and tax collection rates in Poland and assumes no other sources of income. N.B.: average net salary rate in Poland is ~3800 PLN.	
Position starts on:	March 1 <sup>st</sup> , 2020 (or as soon as possible)	
Maximum period of contract agreement:	August 31 <sup>st</sup> , 2023 (3 month trial period required)	
Institution:	Medical University of Gdańsk, Gdańsk, Poland	
Project leaders:	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 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. 3P-Medicine Lab is a new scientific unit specializing in research on acquired genetic anomalies as risk factors for cancer and other illnesses.         More about the center:         https://ira3p.mug.edu.pl/         https://www.fnp.org.pl/en/3p-medicine-preventive-personalized-precision/         More about participating universities:	
Project description:	https://www.uu.se/en         https://mug.edu.pl/         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,	









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	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. A part of the centre is working on <u>Loss Of</u> chromosome <u>Y</u> (LOY) in men, mainly in connection with cancer and Alzheimer's disease (AD).		
Research Group Description:	The group is devoted to the research on association between LOY in peripheral blood and higher risk of cancer and AD in aging men. Our ultimate goal is to develop LOY-based screening approach for the assessment of non-hereditary cancer and neurodegeneration risk, years before first clinical symptoms become apparent. We are aiming to unravel the functional mechanisms of LOY in the process of disease development. We will analyze selected populations of peripheral blood leukocytes, tumor infiltrating and brain immune cells as well as cell culture models. We will use state-of-the-art methodology including cell sorting, high dimensional flow cytometry, laser microdissection, genotyping microarrays, massively parallel sequencing of DNA, bulk RNA- and single cell RNA- seq, spatial transcriptomics. The resulting wet-lab data will be subjected to advanced bioinformatic and biostatistical analysis.		
Key responsibilities include:	<ol> <li>Conducting scientific research and developing works commissioned by superiors.</li> <li>Sorting of selected populations of leukocytes.</li> <li>Performing downstream experiments on sorted cells (involving genotyping microarrays, ddPCR, laser microdissection, massively parallel sequencing techniques in genetic and transcriptomic context and single cell analysis).</li> </ol>		
	<ol> <li>Analysis of data obtained as a result of NGS and gene expression (10x Genomics Chromium).</li> <li>Participation in high throughput data analysis.</li> </ol>		
	<ol><li>Interactions with clinical partners, biobanking and bioinformatics teams.</li></ol>		
	7. Supervision of Ph.D. students and technicians in the program.		
	8. Preparation of materials for scientific publications and patent applications.		
	9. Participation in collaboration with foreign partner (Uppsala University, Sweden).		
Profile of candidates/requirements:	<ol> <li>PhD degree: biology, molecular biology, biotechnology or equivalent; preferably in the field of human genetics, cancer biology, cell biology or immunology.</li> </ol>		
	<ol><li>Track record of productivity by means of publications is mandatory.</li></ol>		
	3. Prior participation in foreign scholarships/training is welcome.		
	<ol> <li>Documented experience and practical knowledge of molecular and cellular biology techniques.</li> </ol>		
	<ol> <li>Background in cancer research, massively parallel sequencing techniques, bioinformatics or biostatistics is desired, though not required.</li> </ol>		

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	<ol> <li>Interest in writing research manuscripts and applications for funding is highly encouraged.</li> </ol>	
	7. Experience in planning and executing experiments.	
	8. Good knowledge of written and spoken English.	
	9. Excellent interpersonal and communication skills.	
	<ol> <li>Strong motivation for research work, flexibility and self-driven interest to learn new techniques.</li> </ol>	
	11. Ability to work in a team.	
Required documents:	<ol> <li>CV</li> <li>Motivation letter</li> <li>References to at least three former or current employers /mentors</li> </ol>	
	Please submit all above documents in a single pdf file.	
We offer:	<ol> <li>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.</li> </ol>	
	<ol> <li>Mentoring and support from senior colleagues in the fields of genetics, cell and molecular biology, bioinformatics and biostatistics.</li> </ol>	
	<ol> <li>Opportunity to work in an international multidisciplinary training environment.</li> </ol>	
	<ol> <li>We will encourage and support aspirations of prospective researchers to academic independency.</li> </ol>	
	<ol> <li>International collaboration opportunities including short term visits to foreign partner (Uppsala University).</li> </ol>	
	<ol><li>Access to state-of-the-art equipment and computing resources.</li></ol>	
For more information about the position please contact:	Jan Dumanski (jan.dumanski@gumed.edu.pl)	
Please submit the following documents to:	mab@gumed.edu.pl	
Application deadline:	January 12 <sup>th</sup> , 2020	
Euraxess job/stipend offer (in case of PhD and postdoc positions):	https://euraxess.ec.europa.eu/jobs/457420	

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)".









## **JOB OFFER**

Position in the project:	Ph.D. Student in Cancer Genetics	
Research group:	Loss of chromosome Y and human disease (PI: Prof. Jan Dumanski)	
Scientific discipline:	Molecular biology, cancer genetics, biotechnology, biomedicine, clinical sciences, computational biology	
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:	March 1 <sup>st</sup> , 2020 (or as soon as possible)	
Maximum period of contract/stipend agreement:	August 31 <sup>st</sup> , 2023	
Institution:	Medical University of Gdansk, Gdansk, Poland	
Project leaders:	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 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: <u>https://ira3p.mug.edu.pl/</u> <u>https://www.fnp.org.pl/en/3p-medicine-preventive-personalized- precision/</u> More about participating universities: <u>https://www.uu.se/en</u> <u>https://mug.edu.pl/</u>	
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. 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. A part of the centre is working on Loss Of chromosome Y (LOY) in men, mainly in connection with cancer and Alzheimer's disease (AD).	
Research Group Description:	The group is devoted to the research on association between LOY in peripheral blood and higher risk of cancer and AD in aging men. Our	











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	ultimate goal is to develop LOY-based screening approach for the assessment of non-hereditary cancer and neurodegeneration risk, years before first clinical symptoms become apparent. We are aiming to unravel the functional mechanisms of LOY in the process of disease development. We will analyze selected populations of peripheral blood leukocytes, tumor infiltrating and brain immune cells as well as cell culture models. We will use state-of-the-art methodology including cell sorting, high dimensional flow cytometry, laser microdissection, genotyping microarrays, massively parallel sequencing of DNA, bulk RNA- and single cell RNA- seq, spatial transcriptomics. The resulting wet-lab data will be subjected to advanced bioinformatic and biostatistical analysis.		
	1. Sorting of selected populations of leukocytes.		
Key responsibilities include:	<ol> <li>Performing downstream experiments on sorted cells (involving genotyping microarrays, ddPCR, laser microdissection, massively parallel sequencing techniques in genetic and transcriptomic context and single cell analysis).</li> </ol>		
	3. Participation in high throughput data analysis.		
	<ol> <li>Interactions with clinical partners, biobanking and bioinformatics teams.</li> </ol>		
	<ol> <li>B.Sc. or M.Sc. in biology, biotechnology, bioinformatics or equivalent.</li> </ol>		
	<ol> <li>Background in cancer research, cell culture, massively parallel sequencing techniques, bioinformatics or biostatistics is desired, although not absolutely required.</li> </ol>		
	<ol><li>Prior participation in foreign scholarships or trainings and scientific achievements is welcome.</li></ol>		
Profile of candidates/requirements:	4. Interest in writing research manuscripts is highly encouraged.		
	5. Good knowledge of written and spoken English.		
	<ol><li>Strong motivation for research work, flexibility and self-driven interest to learn new techniques.</li></ol>		
	7. Good communication and work organization skills.		
	8. Ability to work in a team.		
	1. CV		
Required documents:	2. Motivation letter		
nequirea aocuments.	<ol> <li>References to at least two mentors with phone and email address</li> </ol>		
	Please submit all above documents in a single pdf file.		
We offer:	<ol> <li>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.</li> </ol>		
	<ol> <li>Mentoring and support from senior colleagues in the fields of genetics, cell and molecular biology, bioinformatics and biostatistics.</li> </ol>		
	<ol><li>Opportunity for motivated PhD students to work in an international multidisciplinary training environment.</li></ol>		















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	<ol> <li>International collaboration opportunities including short term visits to foreign partner (Uppsala University).</li> <li>Access to state-of-the-art equipment and computing resources.</li> </ol>
For more information about the position please contact:	Jan Dumanski (jan.dumanski@gumed.edu.pl)
Please submit the documents to:	mab@gumed.edu.pl
Application deadline:	January 12 <sup>th</sup> , 2020
Euraxess job/stipend offer (in case of PhD and postdoc positions):	https://euraxess.ec.europa.eu/jobs/453447

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