JOB OFFER

Position in the project:	**Junior Postdoctoral Researcher in Cancer Genetics**
Research group:	**Mosaicism for autosomal post-zygotic mutations (PI: Arkadiusz Piotrowski, Ph.D., assoc. prof.)**
Scientific discipline:	Human genetics, cancer genetics, molecular 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 1st, 2020 (or as soon as possible)
Maximum period of contract agreement:	August 31st, 2023 (3 month trial period required)
Institution:	Medical University of Gdańsk, Gdańsk, Poland
Project leaders:	Prof. Jan Dumański, prof. Arkadiusz Piotrowski
About the Center:	**Mutations acquired during lifetime that lead to increased risk for human disease, with focus on cancer** The center 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: https://www.uu.se/en https://mug.edu.pl/
Project description:	The project focuses on somatic mutations that occur early in life in seemingly normal cells that eventually contribute to malignant transformation. Our ultimate goal is to develop genetic screening approach for non-hereditary cancer risk assessment, years before first clinical symptoms become apparent. Our primary interest is in common malignancies that are etiologically related to environmental stimuli: breast cancer,

	colorectal cancer, urinary bladder cancer and prostate cancer. Over the past 15 years we have established a vast collection of clinical samples and long term follow-up data in collaboration with the major oncological centers in Poland. Currently, we continue collecting prospective cases with aim of >85K samples by the end of 2023. This unique cohort includes peripheral blood, primary and metastatic tumors, viable skin and stromal fibroblasts, multiple biopsies of normal tissue including frozen sections as well as cryopreserved primary cell cultures. In order to achieve the main goal of the program we genotype samples for somatic point mutations, copy number alterations, as well as copy number neutral genomic structural rearrangements. The genomics is further combined with bulk and single cell expression analysis as well as biochemical and functional tests on patient-derived primary cell cultures. For this we utilize genotyping microarrays, targeted/whole-exome/whole-genome massively parallel resequencing of DNA, nanopore based long read sequencing or linked-reads DNA sequencing, laser microdissection combined with padlock probes for analysis of spatial mutation distribution in tissues, bulk RNA- and miRNA-seq, single cell RNA-seq as well as spatial transcriptomics. The resulting wet-lab data along with clinical characteristics and follow-up is subjected to downstream analysis by the bioinformatics team.
Profile of candidates/requirements:	Prospective candidate should hold Ph.D. in human genetics, molecular biology or equivalent. Track record of productivity by means of publications is mandatory. A background in cancer research, cell culture, massively parallel sequencing techniques, bioinformatics or biostatistics is desired, though not required. Prior participation in foreign scholarships or trainings is welcome. Interest in writing research manuscripts and applications for funding is highly encouraged. Candidate should be able to work independently as well as demonstrate creative approach and scientific curiosity. At the same, ability to work as a team member, good communication skills and proficiency in spoken and written English are required.
Key responsibilities:	The post-doctoral researcher will have the 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. Our program is highly collaborative and so will require extensive interactions with clinical partners, biobanking and bioinformatics teams. Also, short term visits to foreign partner (Uppsala University) are inherent part of the program. The postdoctoral researcher will be responsible for establishing and maintaining primary cell cultures and tissue specimens from clinical samples, performing downstream experiments *in vitro* on cell cultures and *in situ* on tissue samples.

	The experiments will involve heavy utilization of massively parallel sequencing techniques in genetic and transcriptomic context, including methods for single cell analysis. Participation in high throughput data analysis will be also required. We expect the post-doctoral researcher to supervise Ph.D. students and technicians in the program.
We offer:	Opportunity to work in an innovative scientific environment. Research and infrastructural support as well as mentoring from senior colleagues in the fields of genetics, cell and molecular biology, bioinformatics and biostatistics. We will encourage and support aspirations of prospective researchers to academic independency. Good welfare benefits package.
Required documents:	CV Motivation letter References to at least three former or current employers /mentors Please submit all above documents in a single pdf file.
For more information about the position please contact:	Arkadiusz Piotrowski (arkadiusz.piotrowski@gumed.edu.pl)
Please submit the following documents to:	mab@gumed.edu.pl
Application deadline:	January 12th, 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:	**Mosaicism for autosomal post-zygotic mutations (PI: Arkadiusz Piotrowski, Ph.D., assoc. prof.)**
Scientific discipline:	Human genetics, cancer genetics, molecular 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 to average net salary rate in Poland, health and social insurance
Number of job offers:	1
Position starts on:	March 1st, 2020 (or as soon as possible)
Maximum period of contract/stipend agreement:	August 31st, 2023
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 center 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: https://www.uu.se/en https://mug.edu.pl/
Project description:	The project focuses on somatic mutations that occur early in life in seemingly normal cells that eventually contribute to malignant transformation. Our ultimate goal is to develop genetic screening approach for non-hereditary cancer risk assessment, years before first clinical symptoms become apparent. Our primary interest is in common malignancies that are etiologically related to environmental stimuli: breast cancer, colorectal cancer, urinary bladder cancer and prostate cancer. Over the past 15 years we have established a vast collection of clinical samples and long term follow-up data in collaboration with the major oncological centers in Poland. Currently, we continue collecting prospective cases with aim of >85K samples by the end of 2023. This unique cohort includes peripheral blood, primary and metastatic tumors, viable skin and stromal fibroblasts, multiple

	biopsies of normal tissue including frozen sections as well as cryopreserved primary cell cultures. In order to achieve the main goal of the program we genotype samples for somatic point mutations, copy number alterations, as well as copy number neutral genomic structural rearrangements. The genomics is further combined with bulk and single cell expression analysis as well as biochemical and functional tests on patient-derived primary cell cultures. For this we utilize genotyping microarrays, targeted/whole-exome/whole-genome massively parallel resequencing of DNA, nanopore based long read sequencing or linked-reads DNA sequencing, laser microdissection combined with padlock probes for analysis of spatial mutation distribution in tissues, bulk RNA- and miRNA-seq, single cell RNA-seq as well as spatial transcriptomics. The resulting wet-lab data along with clinical characteristics and follow-up is subjected to downstream analysis by the bioinformatics team.
Profile of candidates/requirements:	Prospective candidate should hold B.Sc. or M.Sc. in human genetics, molecular biology or equivalent. Background in cancer research, cell culture, massively parallel sequencing techniques, bioinformatics or biostatistics is desired, though not required. Prior participation in foreign scholarships or trainings is welcome. Interest in writing research manuscripts is highly encouraged. Candidate should demonstrate creative approach and scientific curiosity. Ability to work as a team member, good communication skills and proficiency in spoken and written English are required.
Key responsibilities:	The Ph.D. candidate will have the 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. Our program is highly collaborative and so will require extensive interactions with clinical partners, biobanking and bioinformatics teams. Also, short term visits to foreign partner (Uppsala University) are inherent part of the program. The Ph.D. student will be responsible for establishing and maintaining primary cell cultures and tissue specimens from clinical samples, performing downstream experiments in vitro on cell cultures and in situ on tissue samples. The experiments will involve heavy utilization of massively parallel sequencing techniques in genetic and transcriptomic context, including methods for single cell analysis. Participation in high throughput data analysis will be also required.
We offer:	Opportunity to work in an innovative scientific environment. Research and infrastructural support as well as mentoring from senior colleagues in the fields of genetics, cell and molecular biology, bioinformatics and biostatistics.
Required documents:	CV

	Motivation letter References to at least two mentors with phone and email address. Please submit all above documents in a single pdf file.
For more information about the position please contact:	Arkadiusz Piotrowski (arkadiusz.piotrowski@gumed.edu.pl)
Please submit the documents to:	mab@gumed.edu.pl
Application deadline:	January 12th, 2020
Euraxess job/stipend offer (in case of PhD and postdoc positions):	https://euraxess.ec.europa.eu/jobs/453447

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