

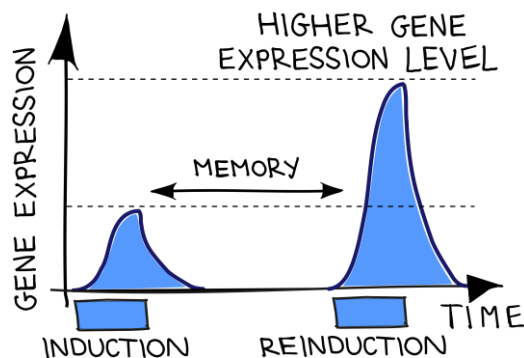


Międzynarodowe Centrum Badań nad
Szczepionkami Przeciwnowotworowymi
(International Centre for Cancer Vaccine Science)
Uniwersytet Gdański
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JOB OFFER – PhD student position

Position:	PhD student, <u>first year at Harvard Medical School, USA</u>
Scientific discipline:	Innate immunity, trained immunity, interferon signaling, gene regulation, epigenetics, transcriptional memory, chromatin, immunotherapy
Job type:	PhD student position
Number of offers:	1
Stipend/month (net pay):	In USA ~2800 USD (~2100 PLN stipend plus ~2270 USD travel & substance allowance). Flight to and from USA plus VISA costs covered separately. In Poland: before the mid-term evaluation (year 1 & 2) ~2100 PLN, after mid-term evaluation (year 3 & 4) ~3200 PLN. Opportunities for additional funding will be available.
Position start:	as soon as possible
Max. period of stipend agreement:	4 years
Institutions:	International Centre for Cancer Vaccine Science, University of Gdańsk, Poland / Department of Molecular Biology, Massachusetts General Hospital, Harvard Medical School, USA
Project leader:	Dr. Wojciech Siwek (PhD thesis co-supervisor with prof. Natalia Marek-Trzonkowska)
Project title:	Mechanisms of transcriptional memory for development of anti-cancer immunotherapy.

TRANSCRIPTIONAL MEMORY



Project description:

Transcriptional memory is a phenomenon during which cells exposed to a certain cue (induction) will remember the experience and respond to the second stimulation with the same signal (reinduction) more strongly. We use interferon gamma ($\text{IFN}\gamma$) signaling to study this process in human cells. The aim of the project is to discover novel molecular mechanisms controlling maintenance of $\text{IFN}\gamma$ transcriptional memory and next to translate this knowledge to advance anti-cancer immunotherapy.

Read more:

1. <https://pubmed.ncbi.nlm.nih.gov/33277374/>
2. <https://pubmed.ncbi.nlm.nih.gov/33108759/>
3. <https://scienceinpoland.pap.pl/en/news/news%2C84826%2CChow-do-cells-memorize-information-new-lead.html>

Key responsibilities include:

- Developing an independent PhD thesis in a collaborative environment:
 - Analysis of gene expression states both on the RNA and protein levels (RT-qPCR, RNA-seq, western blot, proteomics).
 - Genome-wide analysis of chromatin states (ATAC-seq, CUT&TAG).
 - CRISPR-Cas9 based genome engineering.
 - Building novel synthetic biology tools for local gene expression manipulation (based on Cas9 variants).
- Inter-disciplinary training and advanced PhD transferable skills coursework to fulfill the requirements of a PhD degree.

Requirements
for the
candidate:

- Master's degree in biology, biochemistry, genetics or related.
- Interpersonal skills and a collaborative attitude.
- Critical and analytical thinking skills.
- Willingness to learn and take new challenges.
- Ability to work independently.
- Theoretical knowledge of genetics and epigenetics.
- Practical experience with human cell culture, gene expression, chromatin, or deep sequencing data analysis.
- Written and spoken proficiency in English.
- Willingness to spend a year in the USA.
- Willingness to apply for grants.
- Abroad academic experience and research achievements (e.g., publications or manuscripts in preparation) will be of advantage.

Required
documents:

- CV
- Motivation letter
- Copy of a Master of Science diploma in biology, biochemistry, genetics or related.
- Reference contact (e-mail) to a previous academic advisor.
- Signed GDPR Consenting clause to be downloaded from: [\(link\)](#)
- PhD student candidates after a successful interview at ICCVS are required to proceed enrollment at the Intercollegiate Doctoral School of Biotechnology of UG-MUG, confirmation of enrollment is a prerequisite for receiving a stipend for this position.
 - More information:
https://sd.ug.edu.pl/biotechnologia/o_szkole

We offer:	<ul style="list-style-type: none">• Full-time PhD scholarship for 4 years.• First year at the Department of Molecular Biology, Massachusetts General Hospital, Harvard Medical School, USA. A world class scientific institution in the heart of Boston, USA with generous funding and access to state-of-the-art scientific equipment.• Next three years at the International Centre for Cancer Vaccine Science (ICCVS) – a recently established joined institute between Universities of Gdańsk, PL and Edinburgh, UK.<ul style="list-style-type: none">○ Located at the historic city center of Gdansk.○ Focused on immune-cancer interactions with the aim to develop novel immunotherapies.○ Housed in state-of-the-art facilities with mass spectrometry, virology, protein biochemistry, vaccine technology and bioinformatics.○ Access to strategic platforms for stem cell science, phenotypic drug screening, synthetic biology, computational science, structural biology, veterinary medicine, and optical imaging available at the University of Edinburgh, UK.○ Full technical, administrative, and organizational support from professional English-speaking personnel.○ Possibility to apply for accommodation in the University of Gdańsk dormitory.○ Access to courses, scientific training and academic mentoring offered at the University of Gdańsk.
Please submit documents to:	iccvs@ug.edu.pl Please quote the reference: “WS PhD student” in the email’s title. Please do not hesitate to contact Dr. Siwek before applying with any questions regarding this offer: siwek@molbio.mgh.harvard.edu
Application deadline:	28.02.2022
For more details about the position please visit:	iccvs.ug.edu.pl molbio.massgeneral.org gene-ctrl.com