# George Flamourakis

*MSc. Molecular Medicine, BSc. Biochemistry- Biotechnology, PhD candidate in Material science and tissue engineering*

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A highly motivated PhD candidate Biochemist- Biotechnologist with MSc in Molecular Medicine, with 3 years' experience in single cell proteomics, gene therapy research and 2 years of Academic level teaching. A point of contact for problem solving and instrument troubleshooting with the ability to handle multiple tasks in timely fashion. Areas of expertise include: qPCR, primer design, DNA, RNA extraction, PEA, PLA, CRISPR/Cas9 system, microfluidics, FACS, virus construction, cell culturing and microscopy.

## WORK EXPERIENCE

June 2018 to Jan 2019 **Stavros Niarchos Foundation Cultural Center (SNFCC), Greece**
(8 *months*) **Visitors Experience Intern**

- Meeting groups and taking them on tours inside the buildings
- Cooperation with the rest units of the SNFCC
- Developing a knowledge of the site and its exhibits
- Complaints management and problem solving
- Answering visitors' questions, face-to-face or on the phone
- Shifts management for 31 interns
- Giving computer lessons to +65 years old visitors

Jul 2017 to March 2018 **Nutrilabs, Athens, Greece**
*(7 months)* **Medical writer**

- Researching, writing, and publishing clinical documents and scientific articles.
- Subjects relevant to the diagnostic tests that are being used: endometriosis, Irritable Bowel Syndrome (IBS), Intestine bacteria.

Nov 2016 to June 2017 **Military Hospital of Samos, Greece**
*(6 months)* **Microbiologist assistant and nurse**
- Collaboration with military doctors and nurses for the effective treatment of patients.

Nov 2014 to Nov 2016 **National University of Athens, Greece**
*(2 years)* **Teaching fellow**

- Responsible for the laboratory training of the medical students during their first semester in Biology as part of my masters' education.
- Subjects taught including: acquaintance with the optical microscope, criminology, PCR and electrophoresis, observation of human cells and bacteria.

Oct 2013 to June 2014 **Uppsala University, Sweden**
*(8 months)* **Researcher assistant**

- Extended use of the KEG pathways to identify target proteins that corresponded to BMP4 treatment.
- Use of qPCR, RNA and protein isolation from cell lysate.
- Strong background in the maintenance and characterisation of human glioblastoma cell lines.
- Performed a variety of technical laboratory functions in the operation and maintenance of laboratory equipment such as calibrating and troubleshooting.
- Excellent utilization of the novel protein quantification method Proximity Extension Assay, developed by the lab.

## EDUCATION

Feb 2019 to now **Foundation for Research & Technology, Crete, Greece**
**PhD Candidate in metamaterials and tissue engineering**
**PhD title:** *Using laser made microlatices as scaffolds for tissue regeneration and cell proliferation*

***Project Description***: The purpose of this project is to investigate the use of 3D auxetic scaffolds in tissue engineering and regenerative medicine. An optimal artificial cell culture scaffold has to mimic the natural

extracellular environment features in a way that cells can function as if they were in vivo. The scaffolds will be made using both permanent and biodegradable photosensitive materials using the multiphoton lithography technique.

*Keywords*: Two- Photon Polymerizations, Metamaterials, Nanostructures, auxetics, Tissue engineering

Nov 2014 to Oct 2016    **Kapodistrian and National University of Athens, Greece**
*(2 years)*                        **MSc Molecular Medicine**
Grade: ***Excellent*** 8.64/10, Specialization: Proteomics, 2 years' degree equivalent to MSc in Molecular medicine with 120 ECTS

- o **Diploma project**: *Utilization of novel technology CRISPR/cas9 for assessment of innovative glycoproteins lentiviral vectors for the gene therapy of Betta thalassemia*
- o **Dissertation Grade**: Excellent 10/10
- o **Topic**: Creation and establishment of a novel cell line K562, which was abundant of the gene HbF by using the novel technology CRISPR/Cas9 for the assessment of novel lentiviral vector for the therapy of the B- thalassemia.
- o **Techniques**: Maxi prep for bacterial culture, primer design, CRISPR/Cas9, nucleofection, K562 culturing, lentiviral vector production and titration, qPCR, flow cytometry (FACS).

Sep 2010 to Apr 2014    **University of Thessaly, Greece**
*(4 years 6 months)*        **BSc Biochemistry and Biotechnology**
4 years' degree equivalent to BSc in Biochemistry and Biotechnology with 240 ECTS

- o **Relevant modules**: Analytical and organic Chemistry, Molecular and cell biology, Animal physiology, Biochemical Pharmacology, Toxicology, Genetics, Bioinformatics
- o **Project**: *Optimization and establishment of a micro Solid Phase Proximity Ligation Assay*
- o Dissertation grade: **Excellent** 10/10
- o **Topic**: the project was held during my Erasmus program. Using various optimization steps, we were able to turn the method SP- PLA into a micro SP- PLA. Through novel microfluidics techniques we made the method quicker, easier and more efficient.

## SCHOLARSHIPS

Mar 2013 to Sep 2013    **Uppsala University, Sweden**
*(6 months)*                    **Erasmus Placement program**
Completion of Bachelor's project with supervisor Prof. Ulf Landegren and Dr. Spyros Darmanis.

## PROJECTS AND PUBLICATIONS

- o *Darmanis S, Gallant CJ, Marinescu VD, Niklasson M, Segerman A, **Flamourakis G**, Fredriksson S, Assarsson E, Lundberg M, Nelander S, Westermark B, Landegren U.* **Simultaneous Multiplexed Measurements of RNA and proteins in single cells**, Cell Reports, January 2016
- o Optimization and establishment of a micro Solid Phase Proximity Ligation Assay (micro SP-PLA)
- o Utilization of novel technology CRISPR/cas9 for assessment of innovative glycoproteins lentiviral vectors for the gene therapy of Betta thalassemia

## QUALIFICATIONS AND SKILLS

Languages    Greek (native), English (fluent, CPE University of Michigan), Swedish (basic)

IT               Competent user of Microsoft Word, Excel and PowerPoint
               Experienced user of both Windows (7,8,10) and MacOs
               Basic user of R programming with R studio
               FACS analysis with FlowJo for MacOs

Driving         Full, clean driving license

Hobbies       Piano degree holder
               Swimming athlete

Military service accomplished
References available upon request