

Fani Souvalidou

Nationality: Greek

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Gender: Female

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ABOUT ME

PhD Student at Life Sciences PhD School

EDUCATION AND TRAINING

Bachelor's degree in Molecular Biology and Genetics

Democritus University of Thrace [10/2011 - 03/2016]

Address: Alexandroupolis (Greece)

Have accomplished the following techniques during lab exercises related to my university courses:

- -may-grunwald-giemsa staining, ELISA, immunofluorescence methods, in Immunobiology I
- -PCR detecting SNPs, SSLPs, mapping dna using restriction enzymes and agarose electrophoresis, in Genetics II
- -observation of the process of mitosis in dividing cells, Centrifugation, SDS-PAGE, coomassie blue staining, in Cell Biology
- -in situ hybridization, in Embryology
- Bacteria transformation, selecting colonies expressing LacZ, plasmid isolation, estimating the activity of Taq polymerase with PCR, in Gene expression and signaling
- -preparation of competent E.Coli cells and transformation with plasmid dna, in Introduction to Molecular Biology Technology
- -cardiovascular system of frog and factors that Influence heart rate, in Physiology of Organisms
- -Bacterial liquid culture (E.Coli), gram staining, in Microbiology

2 years Bachelor's thesis with title: "Prevalence of il28b genotypes in Thrace population infected with hepatitis C virus (HCV): association with response to interferon/ribavirin therapy"

2 months Internship in the lab of Dr. Dario Riccardo Valenzano

Max Planck institute of Ageing [03/07/2014 – 30/08/2014]

Address: Cologne (Germany)

I worked in close contact with a PostDoc, whose project's aim was to generate transgenic fish lines in the naturally short-lived turquoise killifish using the TALEN technology. In particular, the project's goal was to generate a knock-in construct with GFP attached to the 3' end of the timeless gene.

Masters degree in Genetics and Molecular Biology, final vote: 110/110 e lode

Sapienza University of Rome [01/10/2016 – 24/10/2018]

Address: Rome (Italy)

I worked for 6 months at the Pasteur Institute - Fondazione Cenci Bolognetti, in Rome, studying the molecular mechanisms of SAHA(Vorinostat) -dependent enhancement of Vesicular stomatitis virus (VSV) - mediated cell death of prostate cancer cells(PC3). The objective of this study was to investigate the mechanisms of cell death, activated upon VSV infection in SAHA-treated prostate cancer cells.

On February 2018 I started to work on my Masters thesis, on a bright new, challenging project regarding the disrupting of Aurora-A/N-Myc complex in neuroblastoma cells. By harnessing the available crystal structure data on the binding mode between Aurora-A and N-Myc, were designed fusion peptides(DFPs) and protein-protein interaction PPI inhibitors with the potential to selectively disrupt the complex in MYCN amplified neuroblastomas. The DFPs are initially assayed in vitro to assess their affinity to Aurora-A and their ability to disrupt the Aurora-A N-Myc complex. The structures of the most promising DFPs in complex with Aurora-A will be solved using X-ray crystallography. The latter will be exploited to identify selective inhibitors of the Aurora-A N-Myc complex by virtual screening(VS) means. The identified compounds will be tested both in vitro and in cultured neuroblastoma cell lines. Finally, the most promising lead compounds will be tested in neuroblastoma xenografts overexpressing MYCN.

PhD student at the Life Sciences PhD School, Sapienza University

Life Sciences [11/11/2018 – Current]

Address: Sapienza University, Piazzale Aldo Moro 5, 00185 Rome (Italy)

Thesis: Identification of molecules able to interfere with the interaction between Aurora-A and N-Myc

Currently working on my thesis project that regards the interaction between Aurora-A and N-Myc.

In high-risk neuroblastomas, a severe childhood cancer, the main oncogene showing high levels of protein expression is MYCN, coding for

the N-Myc trasncriptional factor. In these cells, the elevated levels of the later, depend on the stabilization provided by the interaction with the mitotic kinase Aurora-A, influencing in that way the proper turnover of NMyc. In this project we focused on the investigation of the ability of known inhibitors targeting the active site of Aurora-A, to interfere with that complex by causing important conformational changes at the kinase and hopefully disrupt it. That seems to be a promising approach to resolve the deleterious outcome caused by the interaction between Aurora-A and NMyc in neuroblastoma cancers.

LANGUAGE SKILLS

Mother tongue(s):

Greek

English Italian

LISTENING: C2 READING: C2 UNDERSTANDING: C2 LISTENING: C1 READING: C1 UNDERSTANDING: C1

SPOKEN PRODUCTION: C2 SPOKEN PRODUCTION: C1
SPOKEN INTERACTION: C2 SPOKEN INTERACTION: C1

Spanish

LISTENING: B1 READING: B1 UNDERSTANDING: B1
SPOKEN PRODUCTION: B1 SPOKEN INTERACTION: B1

DRIVING LICENCE

Driving Licence: **AM**Driving Licence: **B**

CONFERENCES AND SEMINARS

Conferences

Participated in the 15th EMBL PhD Symposium on:

"Competition in Biology - The race for survival from molecules to systems"

At EMBL Heidelberg, from 21st - 23rd November 2013

Attended the International Conference on:

"Sexually Transmitted Viral Infections:

Current Diagnostic and Therapeutic Approaches"

15 - 17 November 2013

Alexander Beach Hotel & Convention Center

Alexandroupolis, Greece

ORGANISATIONAL SKILLS

Organisational skills

Team oriented and able to set priorities within my role in the team. Effective planner with good time management and leading qualities in organizing projects and exercises. . I am a pragmatic person, industrious and always stay focused on the important experimental details. Some of my main characteristics are independence and positive attitude.

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

Very good communication skills, frequently applied in projects and presentations. Able to understand concepts and effectively communicate ideas and solutions to both peers and professors. Get along very well with all the lab members

JOB-RELATED SKILLS

Job-related skills

Following safety protocols and accuracy in exercise execution are my top priorities in the work environment. Very careful in the lab, patient, cooperative, organized, decisive, social.