

To whom it may concern,

I am a second year PhD student at the University of Crete, Department of Biology and I am writing to apply for the “4<sup>th</sup> Summer School in Medical & Biosciences Research & Management”. I find that this course offers a special opportunity to broaden my knowledge on the most up-to-date findings of basic and clinical medical approaches and to exchange ideas with eminent scientists and excellent students from all over the world, thus I would really appreciate it if you allowed my participation in it.

In the laboratory of Molecular Immunology, IMBB-FORTH, I am involved in the study of subnuclear localization/topology of miRNA gene loci and their transcription regulation. MicroRNAs are endogenous small non coding RNAs that have been found to play an important role in modulating gene expression at the post-transcriptional level. Although there is vast information on the function of the processed small ncRNAs, little is known about the transcription regulation of primary miRNA transcripts. In our lab we are attempting to investigate the effect of subnuclear localization of nine murine miRNA gene loci (miR-17-92, miR-181c, miR-181a<sub>1</sub>b<sub>1</sub>, miR-181a<sub>2</sub>b<sub>2</sub>, miR-142, miR-146a, miR-150, miR-155 and miR-let-7e) and their transcriptional activation in T cells (thymocytes, CD4, T helper cells Th1 & Th2). Our hypothesis is that the subnuclear localization pattern of the microRNA loci is correlated with the transcription state of the microRNA genes.

Therefore, I would really appreciate the opportunity to gain knowledge on genomic techniques, molecular immunology, DNA-RNA bioinformatics methods and their correlation with molecular diseases of the immune system.

I strongly believe that my previous academic background in Bachelor and Master degrees, along with a decent research experience, renders me competent to attend this summer school (workshops and lectures).

Before and during my postgraduate studies, I have been passionately committed to research projects covering fields from molecular medicine to molecular biology. I dedicated my experience and knowledge to each project being always eager to learn more on experimental set up and biological principles. Honestly, I have been always enthusiastic and passionate on working in any difficulties that arise during the course of each project assignment.

A significant acknowledgement of my previous research work so far in the current year was the poster presentation in EMBO Workshop Non Coding RNAs in genome expression, maintenance and stability (7-10 October, Corsica, France).

Undoubtedly, I would be more than delighted if I would be selected among the eligible students to attend the present course. In any case I will continue to broaden my knowledge and sharpen my critical thinking on Genome Research Approaches, Molecular diseases and experimental designing. At the same time, I will stay focused on scientific deontology and professionalism, important as they are in the scientific field and community.

Thank you in advance.

Yours sincerely,

Eralda Salataj