Expression of Interest for Marie Skłodowska-Curie fellowship applicants

The protein chemistry laboratory of the National Centre for Scientific Research "Demokritos" in collaboration with the protein chemistry laboratory of the Biomedical Sciences Research Center "Alexander Fleming" are inviting highly qualified postdoctoral researchers to submit applications to the Marie Skłodowska-Curie fellowship programme (application deadline 14 September 2016). The proposed research programme will be hosted and implemented in the aforementioned laboratories, both located in the general metropolitan area of Athens, Greece and will be related to an on-going collaborative effort between the two laboratories described bellow:

Accumulating evidence suggests that the successful outcome of cancer immunotherapy depends on the presentation of cancer-specific neoantigens by cancer cells. ER aminopeptidases have been shown to be critical for the generation of antigenic peptides and recently developed inhibitors for these enzymes are a promising tool for the regulation of the cellular immunopeptidome for applications in cancer immunotherapy. We are analysing the immunopeptidome of cancer cells lines by liquid chromatography-tandem mass spectrometry approaches to understand how chemical inhibition on ER aminopeptidases can regulate the presentation of antigenic peptides in the context of fine-tuning the presentation of tumor-associated neo-antigens to the immune system. This project aspires to both generate novel knowledge on how the immune system recognizes cancer as well as how cancer can learn to evade the immune response but also constitutes a component of the pre-clinical development of ER aminopeptidase inhibitors as innovative tools for cancer immunotherapy approaches.

Related references:

Modulating antigen processing for cancer immunotherapy. Stratikos E*. ***OncoImmunology***, 2014 Volume 3, Issue 1, e27568.

A rationally designed inhibitor targeting antigen-trimming aminopeptidases enhances antigen presentation and cytotoxic T-cell responses. Zervoudi E, Saridakis E, Birtley JR, Seregin S., Reeves E, Kokkala P, Aldhamen YA, Amalfitano A, Mavridis IM, James E, Georgiadis D* and Stratikos E*.
Proc Natl Acad Sci USA, ***2013*** Dec 3;110(49):19890-5.

Interested candidates should have recently completed their PhD in biosciences and need to fulfil the mobility requirement of all MSCA fellowships (i.e. the researcher must not have lived, worked, or studied in the host country for more than 12 months during the 3 years prior to deadline). Candidates are expected to be proficient in state-of-the-art molecular and cellular biology techniques. Previous experience in mass spectroscopy or proteomic approaches is desirable.

Interested candidates should contact Dr. Efstratios Stratikos at stratikos@gmail.com or stratos@rrp.demokritos.gr or Dr. George Panayotou at panayotou@fleming.gr and include a recent CV.