



**One fellowship available at the Immunology Unit of the
Dipartimento di Scienze Cliniche Internistiche, Anestesiologiche e Cardiovascolari
Sapienza Università di Roma**

One fellowship is available at the Immunology Unit to work on a project dealing with the deep multidimensional analysis of autoimmune responses in multiple sclerosis (MS), under the supervision of Dr Maria Manuela Rosado. The project is part of a funded FISM* Research Project, entitled “*Interplay between autoreactive T cells and regulatory T cells in multiple sclerosis patients*”, which integrate different clinical units and independent research groups, including those located within the Sapienza campus, and Istituto Italiano di Tecnologia (IIT) of Rome, leveraging complementary expertise in immunology, neuroimmunology, immunotherapy, omics, and imaging.

The proposed project aims at the extensive characterization of antigen-specificity of regulatory T cells (Tregs) in MS. The dynamics of autoreactive and virus-specific T cells, in relation with regulatory T cells specific to self-antigens associated with SM, signals mediated by the TNF/TNFR family, and response to MS therapies will be analyzed. The project will integrate state-of-the-art mass spectrometry-based proteomics with multiparametric flow cytometry, NGS, single cell RNA-seq, deep TCR sequencing and computational analysis of the data, to shed light on the mechanisms of regulation of T cell activation in response to self or non-self-antigens with respect to the inflammatory status of MS patients.

We seek highly motivated and dynamic individuals with a strong interest for translational research and teamwork attitude. The applicant must have prior working experience in flow cytometry, in molecular and cellular immunology, and ability to work independently. The expertise or the ability of learning quickly in animal model studies, and to write scientific papers would be appreciated. The fellow will be fully involved in an exciting and ambitious program project embracing clinical and fundamental research, and will have access to cutting-edge flow cytometry, and the omics facilities previously described.

The position is initially offered for one year, and can be renewed for up to three years. Salary will be commensurate to experience. If interested, please send: 1. CV; 2. A brief statement of interest comprehensive of scientific accomplishments; 3. Contact information for two references to Maria Manuela Rosado (mariammanuelamrosado@gmail.com and segreteria-barnaba@uniroma1.it). Applications will be reviewed on a rolling basis until the positions will be filled.

Sincerely

Dr Maria Manuela Rosado, PhD

Immunology Unit – (Lab. Prof. Vincenzo Barnaba)

Dipartimento di Scienze Cliniche Internistiche, Anestesiologiche, e Cardiovascolari

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* Fondazione dell'Associazione Italiana Sclerosi Multipla