

Marie Skłodowska-Curie Post-doc Positions in UNISI/AOUS 2016¹: “Expression of Interest” for hosting Marie Skłodowska-Curie Fellows

This template should be used by Professor/Doctor interested in hosting post-doctoral fellows within the Marie Skłodowska-Curie fellowship programme.

1. Short Description of the Project idea

Programming is a process by which predisposition to chronic diseases in adult life is determined to a large extent by conditions experienced within mother’s womb.

The placenta by virtue of its fundamental functions is the key organ to play a direct role in fetal programming. Maternal habits may influence placenta biology causing long term effects in the progeny. Among dietary/environmental contaminants, endocrine disruptors (ED) are a class of compounds able to alter endocrine and metabolic pathways. We are focusing our research on Bisphenol A (BPA) and para-Nonylphenol, both compounds largely used in manufacturing of plastics and textiles. The focus of our research is to study how maternal habits influence the BPA risk exposure for the mother and for the fetus. To identify BPA-associated transcriptional and epigenetic changes in human placenta.

1. DEPARTMENT/LABORATORY (*Describe briefly the department/ laboratory, where the researcher will be employed, including the research team expertise*)

The Department of Life Sciences has a research area on Reproductive Biology and Physiology which consist of several research laboratories including our on Human and Animal Reproductive Physiology with a national and international recognized strength in the field of reproduction. The research team has a great expertise in the establishment of in vitro model representative of the human maternal fetal interface.

The laboratory is divided into different sections: cell cultures, molecular biology and, biochemical assays. Equipment for cell culture includes Air/CO2 incubators, stereomicroscopes, inverted microscope. At the molecular biology room quantitative and qualitative RT-PCR can be performed. Protein analysis can be done by the common biochemical assays including western blot and ELISA. At the neighbouring lab of Biology and Biochemistry of Human Reproduction, proteomic

analysis can be performed by 2D-electrophoresis analysis.

1. **Position, scientific requirements (es. n of publications), topic, discipline*:**

Post-doc Position,

*Please tick: (according to scientific subject areas, defined by MSCA)

Life Sciences

1. **DESCRIPTION OF THE SUPERVISOR (max. 200 words)/Contact person: (name and e-mail address)/**

Francesca Ietta

Francesca.ietta@unisi.it

Francesca Ietta is Associate Professor at the Department of Life Sciences, University of Siena, Siena, Italy. She has spent several years as research fellow at the Department of Physiology, University of Siena. She gained PhD in “Cellular Physiology and Neuroimmunophysiology” in 2004. She has conducted her research activity in foreign universities including Samuel Lunenfeld Research Institute, Mont Sinai Hospital, Toronto, Canada (2002-2004), Institute of Biomedical Sciences, Federal University of Uberlandia, Brazil, (2013-2015). She is author or co-author of 49 full-papers in indexed Scientific International Journals, 4 papers in international books, and over 50 abstracts. Francesca Ietta has many years of involvement in undergraduate and graduate students training. The research team has supervised several PhD and postdoc students over the years.

1. **Previous Related Projects / Research Experience**

The laboratory has gained EU research project as partner in the Sixth European Union Framework Program, Integrated Project ReProTect (LSHB-CT-2004-503257) (2006-2009). At national level the team received several grants from the Italian national research agency (MIUR : 2001; 2002; 2003; 2008), regional (Regione

Toscana, 2006) and local foundation (MPS Foundation, 2006).

1. SPECIFIC REQUIREMENTS/PREFERENCES

(Describe the specific requirements/preferences for the MSC fellow if necessary for the development/implementation of the project eg. required language, degree field, research experience, etc.)

Helps design and conduct research within a specified field while receiving advanced training from the Supervisor to enhance professional skills and research independence needed for pursuit of a career. Designs and evaluates experiments. Develops new ideas that promote current research. Prepares and publishes scientific manuscripts under the direction of Supervisor. May be responsible for operation of specific equipment. May teach techniques to others, train, and supervise research staff.

Excellent scientific writing ability and strong oral communication skills. The ability to work effectively and collegially with colleagues. Preferred Qualifications

Expertise in molecular biology and immunological techniques is required. Preference will be given to individuals with experience in chromatin related assays, flow cytometry, genome based procedures, and bioinformatics tools.

*Please consider that the preparation of a Marie Skłodowska-Curie proposal requires some time.

**Please consider that the preparation of a Marie Skłodowska-Curie proposal requires some time. Fellow and supervisor have to agree on a project and training opportunities for the fellow. If you want to extend your expression of interest to the third deadline in 2016, just leave this column open.