

**IMIBIC CALL FOR EXPRESSIONS OF INTEREST: POST-DOCTORAL  
RESEARCHERS: Systemic and chronic inflammatory autoimmune diseases of the  
locomotor system and connective tissue**

**Reference: PostdocMSCA2017GC5**

**Description of IMIBIC**

The biomedical research institute, IMIBIC, located in Cordoba, southern Spain, is a partnership between the University of Cordoba and the Reina Sofia University Hospital. IMIBIC offers a multidisciplinary environment focused on results-oriented research and based on precision medicine and excellence in science. IMIBIC is accredited with the Excellence distinction from the Carlos III Spanish National Institute of Health.

The Institute is structured in research groups that cooperate in the implementation of its various scientific programmes. Our major goal is to promote biomedical innovation as a powerful engine for economic and social development. To this end, the Institute offers an active environment in which to conduct high-level scientific research. Regular seminars and research events offer the opportunity to meet with national and international speakers covering a diverse range of topics in biomedicine.

The IMIBIC building is located within the University Health Sciences Campus, nearby the Reina Sofia University Hospital. It hosts a wide variety of core facilities for researchers, including the Biomedical Research Support Units that host brand new equipment and laboratories to support the technical needs of the IMIBIC community, as well as a Clinical Research Unit to support clinical trial research.

In 2015, IMIBIC managed to continue increasing its scientific output, with 359 papers and the total impact factor was 1303.75 points. Furthermore, 21 property registries were fostered at the heart of the Institute, and a total of 5 EU and international projects (private and public: FP7, H2020, IMI) were active in 2015.

**Aim of the call**

The Maimonides Biomedical Research Institute of Cordoba (IMIBIC) is seeking to present proposals with **experienced researchers** for the **Horizon 2020 Marie Skłodowska-Curie Actions**. <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-if-2017.html>

**IMPORTANT:** Applicants should check their CV against the eligibility and mobility conditions of Marie Skłodowska-Curie Actions.

**Brief description of the Research Group**

**Systemic and chronic inflammatory autoimmune diseases of the locomotor system and connective tissue (GC-05)**

Our research team works in two main investigation areas, which involve systemic autoimmune diseases (mainly Systemic Lupus Erythematosus, Primary Antiphospholipid Syndrome and Rheumatoid Arthritis) and chronic arthropathies (with special emphasis on Spondyloarthritis including Psoriatic Arthritis). We use synergistically clinical-therapeutic, molecular and cellular approaches.

**1. Systemic autoimmune diseases**

### *1.1 Atherothrombosis in Systemic autoimmune diseases. Principal Investigator: Rosario López Pedrera.*

Cellular and molecular mechanisms of atherothrombosis development in three systemic autoimmune diseases: Systemic Lupus Erythematosus (SLE), Antiphospholipid syndrome (APS) and Rheumatoid Arthritis (RA). We further analyze the regulatory mechanisms promoted by new therapeutic approaches such as Statins, biological therapies (i.e. anti-TNF, anti-IL6, anti-Blyss), biosimilars, and new drugs with antioxidant and anti-inflammatory effects (i.e. Coenzyme Q10).

#### **Main Objectives:**

Study of cellular and molecular mechanisms of atherothrombosis in Systemic Autoimmune Diseases (EAS): Implementation of genomic, epigenetic and proteomics approaches to identify new biomarkers to delineate unique pathogenic mechanisms in each autoimmune condition. Analysis of the mitochondrial dysfunction and oxidative stress in EAS as key mechanisms in the evolution of cardiovascular disease and in the response to new therapeutic approaches. Study of the cellular and molecular mechanisms that regulate the effects of statins, CoQ10 and other biologic therapies in the prevention of atherothrombosis in EAS. Molecular and cellular mechanisms involved in the metabolic complications associated with autoimmune diseases: Systemic lupus erythematosus, Rheumatoid arthritis and antiphospholipid syndrome. Effects of mainstream and biological therapies in the prevention of these disorders.

### *1.2. Biomarkers for Systemic Autoimmune Diseases. Principal investigators: Eduardo Collantes Estévez and Rosario López Pedrera.*

Our research group also investigates new molecular biomarkers involved in the development of systemic autoimmune diseases. Specifically, the group conducts various research projects among which we can detach the so-called PRECISESADS (Molecular Reclassification to Find clinically Useful Biomarkers for Systemic Autoimmune Diseases), a European project funded by the Innovative Medicines Initiative (IMI). The aim of PRECISESADS is the use of -omics and bioinformatics tools for the reclassification of EAS that share common pathophysiological mechanisms. The project aims to push for personalized medicine based on clinical and molecular profiles of the individual by promoting a substantial improvement in the processes of prediction, diagnosis, and clinical developments as well as in monitoring therapeutic response

#### **Project description:**

Candidates are encouraged to send their ideas and suggestions for a project topic along with their application. The project proposal will be written jointly by the applicant and the host research group.

#### **Profile**

##### **Skills/Qualifications:**

-PhD

##### **Required Languages:**

-Excellent level of spoken and written English.

##### **Eligibility criteria:**

The candidate must fulfil the eligibility and mobility conditions of Marie Skłodowska-Curie Actions.

##### **Selection Process:**

The process consists of an analysis, evaluation and ranking of all CVs received. Following the evaluation, the highest ranked applicants will be called for a personal interview in order to evaluate more precisely the skills of the candidate.

##### **Additional comments:**

**How to Apply:** Applicants should send their CV to the following address: [personal@imibic.org](mailto:personal@imibic.org) stating clearly in the subject of the email the reference “**PostdocMSCA2017GC5**”. Deadline for sending your CV: 10<sup>th</sup> May, 2017.

**Warning:** Application emails that do not include reference will not be considered.

For more information about the Marie Skłodowska-Curie actions, see:  
<http://ec.europa.eu/research/mariecurieactions/>