

**IMIBIC CALL FOR EXPRESSIONS OF INTEREST:**  
**POST-DOCTORAL RESEARCHERS: Epigenetics**

**Reference: PostdocMSCA2017GC22**

**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, FP7, H2020, IMI) were active in 2015.

**Aim of the call**

The Maimonides Biomedical Research Institute of Cordoba (IMIBIC) is seeking to develop proposals with **experienced researchers** for submission under 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**

**[Epigenetics \(GC-22\)](#)**

Our scientific activity is focused on the study of the mechanisms involved in maintaining genome and epigenome stability. Our group has found genetic and biochemical evidence for the existence of a mechanism for active demethylation of DNA in plants. We have identified a family of proteins, whose prototype is ROS1 and DME, which exhibit 5-methylcytosine-DNA glycosylase activity, and initiate the deletion of 5-mec by a mechanism analogous to the Base Excision Repair (BER). Using genetic and molecular approaches, we have characterized in detail the biochemical activity of this new family of enzymes. In addition we have identified other proteins involved in this mechanism of

epigenetic reprogramming. We are currently investigating the relevance of the base repair system in the maintenance and control of genetic and epigenetic information. In addition, we intend to analyze the relationship between this new route for demethylation of DNA and different modifications in the structure of chromatin. Finally, we are exploring the feasibility of using ROS1 and DME to initiate a controlled demethylation of DNA in human cells.

**Project description: (max 1200 characters)**

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

**Profile**

**Skills/Qualifications:**

PhD in Genetics, Molecular Biology, Biochemistry, Cell Biology, or related fields

**Specific Requirements:**

Previous training in Molecular Biology and Cell culture.

**Required Research Experience:**

Epigenetics

**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.

**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 “**PostdocMSCA2017GC22**”. 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/>