

**IMIBIC CALL FOR EXPRESSIONS OF INTEREST:**  
**POST-DOCTORAL RESEARCHERS: Bioinformatics for Clinical and Molecular Biology**

**Reference: PostdocMSCA2017GC24**

**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 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**

**Clinical and Molecular Biology (GC24)**

Our research activities focus on two scientific areas:

1. Study of resistance to antimicrobials and in vitro activity of new antibiotics. The group is particularly interested in biological and clinical aspects of multiresistance.
2. Development, implementation and evaluation of new methods (genomics and proteomics) for microbiological diagnostics.

Our group has vast experience in the biochemical and genetic characterization of the mechanism of resistance to antimicrobials of the main multiresistant pathogens (*Enterobacteriaceae*, *Pseudomonas* spp., *Acinetobacter* spp., *Staphylococcus aureus*, *Enterococcus* spp., etc.). Many of our studies focus, on low level of resistance mechanisms (porins, efflux pumps, Qnr proteins). We have developed various studies related with extended-spectrum  $\beta$ -lactamases, carbapenemases, plasmid and chromosomal genes coding for quinolone resistance and aminoglycoside-modifying enzymes. In addition, the group has participated and collaborated in studies about molecular typing and recognition of multiresistant bacterial clones. Other projects of the group include studies of the relation between resistance and virulence, and in vitro studies of new antimicrobials.

### **Project description:**

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 Bioinformatics or Computer Science, or PhD in Microbiology with a proven affinity for bioinformatics and programming knowledge.

#### **Specific Requirements:**

- Experience in and affinity with microbial genomics
- Technical knowledge of Big Data tools and algorithms

#### **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 “**PostdocMSCA2017GC24**”. 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/>