

# Marie Skłodowska-Curie Actions PF 2022

Call for Expressions of Interest  
Institute of Marine Research (IIM-CSIC)

**NOW OPEN**



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE CIENCIA  
E INNOVACIÓN

**CSIC**

INSTITUTO DE INVESTIGACIONES MARITIMAS

The Institute of Marine Research (IIM-CSIC) is the ideal environment to boost your career under the Marie Skłodowska-Curie Actions – PF 2022 programme.

In addition to the [2 Specific Research Topics](#) that we offer to apply with us for these prestigious post-doctoral contracts, we invite you to explore our [website](#) to find other research subjects that best suit your experience and [contact the potential supervisors](#) to share your ideas. If you want some help finding the ideal supervisor for your research project, don't hesitate to contact us at [iacic@iim.csic.es](mailto:iacic@iim.csic.es) and we will try to help you.

## Why the IIM?

The Institute belongs to the Spanish National Research Council (CSIC), the main research organization in Spain, the 3<sup>rd</sup> in Europe and the 7<sup>th</sup> in the world. The IIM-CSIC is one of the top marine research institutes in Spain, with a truly diverse research activity and its own transversal support services of Internationalization and Public Engagement. We offer a lively research environment to foster researchers' careers, widening their collaborative networks & increasing their impact on society. Find out more about how your postdoctoral experience at IIM-CSIC will look like [registering](#) for our info-day on the **26<sup>th</sup> May 2022**.

### CSIC | A framework for excellent research



121 Research Centers  
(14 in Marine Sciences)



5 Oceanographic vessels  
1 Antarctic Base



> 10.000 Researcher  
and support staff



21 MSCAs granted  
(2021)

### The Institute of Marine Research (IIM - CSIC) | Figures for 2022



77 active projects  
>5M€ new funds



21 R&I Industrial Contracts  
and Agreements  
(~1M€ of new funds)



146 published papers  
>100 outreach activities



224 Researcher  
and support staff

# The research you want with a global perspective

## AT IIM, WE GENERATE KNOWLEDGE...



### Ocean and coastal systems

CO<sub>2</sub> and acidification  
Ocean currents  
Nutrient cycles  
Phytoplankton and pigments  
Metals and rare soils

### Marine life and ecosystems

Sustainable fishing  
Sustainable aquaculture  
New species in aquaculture  
Vulnerable species  
Diseases in fish and bivalves

### Biological systems and processes

Food safety  
Quality and traceability  
Bioactive compounds  
Bioprocess engineering

## ...TO ACHIEVE OUR GOALS

The IIM-CSIC is a multidisciplinary research centre which aims to contribute to the UN Sustainable Development Goals through 3 Main Research Objectives which structure our work, responding to global challenges and to local concerns:

1. Oceans and Climate to predict climate change and develop actions to combat or mitigate its impacts.
2. Marine biodiversity and conservation to sustainably use the ocean and marine resources.
3. Food, bioproducts and health to achieve food security, improved nutrition, healthy lives, and well-being.



In addition to these 3 Main Research Goals, the IIM's work contributes to other transversal goals related to talent development, knowledge, and technology transfer, as well as the engagement with society for sustainable development and ethical values.



## Application process & project topics

Try contacting the supervisor for the topic of interest by **August 2022**

[Click Here for + info](#)

### STEP 1. CHECK THAT YOU COMPLY WITH THE REQUIREMENTS OF THE CALL

- Less than 8 years of postdoctoral experience.
- Less than 12 months of residence in Spain during the 3 years prior to the deadline for submission.

### STEP 2. FIND AN INTERESTING RESEARCH PROJECT FOR YOU

- A) Apply to one of the projects already offered on the webpage by sending your CV.
- B) Look for a supervisor at IIM-CSIC, and agree on a topic (check our [research groups](#)).
- C) Contact us by email ([iacic@iim.csic.es](mailto:iacic@iim.csic.es)) to request support in finding an appropriate supervisor.

### STEP 3. WRITE THE PROPOSAL

Beware that, once the candidate has contacted their potential supervisor, and if selected, you will prepare the proposal together with the supervisor and submit the final application to the European Commission. Thus, we advise you to contact your potential supervisor as soon as possible.

[REGISTER HERE FOR AN SPECIAL INFO DAY](#)

Get more info about IIM-CSIC and our offer on the **26th May**. Register to stay updated.

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## Controlling the emergence, selection and spread of resistant bacteria in the food industry by means of modelling and optimization of bacterial dynamics under the effect of antimicrobials.

Bacterial resistance to antimicrobials (antibiotics, disinfectants and preservatives) is recognised as a major problem that requires interventions at different levels beyond the healthcare sector, including industrial sectors working on the production, processing and distribution of food.




Emerging experimental and computational methodologies are of great potential to understanding the problem of bacteria resistance. Nevertheless, there is still a need to find functional and practical methods binding theory and experiments.

In this project, we propose to work in the interface between experimental and theoretical studies of antimicrobial resistance to identify models of bacterial inactivation dynamics (1) motivated by experiments relevant to the food industry, (2) can be validated using experimental data and (3) are sufficiently simple (operational models) to develop software applications to help the sector design the best interventions.

### Application requirements:

-  Basic programming skills
-  Fluent in oral and writing English
-  Interest in interdisciplinary research

### Desirable skills:

-  Dynamic modelling & Optimization
-  Process engineering
-  Predictive microbiology

### SUPERVISOR

Dr. Míriam Rodríguez García  
([miriamr@iim.csic.es](mailto:miriamr@iim.csic.es))

Research group  
Biosystems &  
Bioprocesses Engineering

For more details of the offers and information, visit our website or search:

 [iim.csic.es](http://iim.csic.es) + **MSCA-PF 2022**

[iacic@iim.csic.es](mailto:iacic@iim.csic.es)

► Contact the supervisor with your CV to start the application process by **August 2022**




## 2

**Spatial ecology and behaviour of coastal elasmobranchs.**

Acoustic telemetry has become a popular way of tracking fish in the wild and increase our knowledge of the spatial ecology of coastal species. A post-doc project is offered to investigate the factors that drive the spatial ecology of coastal populations and their impact on conservation. We offer the telemetry data recorded by a fixed acoustic array within a Marine Protected Area off the coast of Galicia (NW Spain, <http://www.vliz.be/en/imis?module=dataset&dasisid=6523>).

The project will focus on coastal elasmobranchs like *Raja undulata* and *Scyliorhinus canicula*. The candidate will be independent to lead her/his own research plan on topics like: social connectivity and their role in conservation; role of trophic position on spatial ecology; or individual variation of behavioural traits. The candidate is expected to manage large datasets of acoustic telemetry data, analyze and model data (coding skills in R are required), supervise master students and publish articles in high-rank journals.

Application requirements:

-  High coding skills in R
-  Mixed modelling
-  Bayesian methods

**SUPERVISOR**

Dr. Alexandre Alonso Fernández  
([alex@iim.csic.es](mailto:alex@iim.csic.es))

Research group  
Marine Ecology &  
Resources

For more details of the offers and information, visit our website or search:

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► Contact the supervisor with your CV to start the application process by **August 2022**