

OPEN CALL

Ayudas para contratos predoctorales para la formación de doctores 2020 (antiguas FPI)

Until
October 27th

Looking for a...
Buscando un...

PhD?

Join the IIM | We are offering two positions to conduct your PhD in Marine Sciences



The Institute of Marine Research ([IIM-CSIC](#)) offers 2 pre-Doc contracts framed within the [Spanish Research Agency's financial aid programme for pre-doctoral contracts](#) (former FPIs) to promote ocean research by students interested in taking a pre-Doc researcher position in one of our PhD's programmes.

These contracts are awarded by the Spanish Research Agency to graduates wishing to pursue a PhD degree associated to specific R+D projects founded by the "Plan Nacional de I+D+i". The aid covers the contract of a graduate for up to 48 months, plus 6860 € to expend on courses fees or short R+D stays at associated centres.

Why the IIM?

The Institute belongs to the [Spanish National Research Council \(CSIC\)](#), the main research organization in Spain, the third in Europe and the seventh 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.

CSIC | A framework for excellent research



120 Institutes
(6 in Marine Science)



4 Research Vessels
1 Antarctic Base



> 10.000 Researchers +
Support Staff

The Institute of Marine Research (IIM-CSIC) | Numbers for 2019



87 Research Projects
>12M€ Funds
(57% International)



> 30 R&D Contracts
with Industry



148 Research Articles
> 200 Scientific Communications
>100 Outreach Activities



> 200 Researchers
+ Support Staff

The research you want, with a global perspective

AT THE IIM, WE GENERATE KNOWLEDGE...

OCEAN AND
COASTAL SYSTEMS

MARINE LIFE AND ECOSYSTEMS

BIOLOGICAL PROCESSES
AND SYSTEMS

CO₂ and acidification
Ocean currents
Nutrient cycles
Phytoplankton and pigments
Metals and rare earth elements

Sustainable fishing
Sustainable aquaculture
New aquaculture species
Vulnerable species
Fish and shellfish diseases

Food safety
Quality and traceability
Bioactive compounds
Bioprocess engineering
Systems biology

...TO ACHIEVE OUR GOALS

The IIM-CSIC is a multidisciplinary research centre which aims to contribute to the UN Sustainable Development Goals through 3 Core Research Lines 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.

These 3 Core Research Lines contribute to other transversal goals of the IIM related to talent development, knowledge, and technology transfer, as well as engagement with society for sustainable development and ethical values.



Application process & project themes

Application forms must be sent by Tuesday, 27th October at 2pm (UTC+1)

Contact the supervisors of each PhD topic with your CV and academic records for more details. Electronic applications must be registered [here](#), by Tuesday, 27th October (2pm) following the instructions detailed in Articles 12 & 13 of the [Call](#).

Check more details on the project contract themes below 

1

Microbiological and biogeochemical variability at sub-mesoscale along the life history of cyclonic and anticyclonic eddies in the “Canary Eddy Corridor” (CEC)

The PhD research will be developed in the framework of the e-IMPACT project: “*Biogeochemical impact of mesoscale and sub-mesoscale processes along the life history of cyclonic and anticyclonic eddies*” (PID2019-109084RB-C2)”. E-IMPACT is a coordinated project between University of Las Palmas de Gran Canaria (IOCAG-ULPGC) and the Institute of Marine Research (IIM-CSIC), which involves a wide variety of national and international collaborators (Germany, Austria, Chile, France and the United States).

The aim of e-IMPACT is to study the sub-mesoscale processes that occur along the life history of cyclonic and anticyclonic eddies of the CEC and their effects on the structure and metabolism of the planktonic community, as well as its role in the flux of carbon to the deep ocean. To achieve its aim, an intensive field observation program has been designed. The high number of physical, chemical, and biological variables that will be determined simultaneously at the sub-mesoscale is unprecedented and will represent a significant step in the study of mesoscale eddies worldwide.

The successful candidate will work on the integration of the effects of the sub-mesoscale processes that occur in the CEC on 1) the metabolism, biomass and diversity of plankton; and 2) the composition and fluxes of dissolved and suspended organic carbon.

Elegibility criteria

Candidates must have an MSc in Biological, Chemical, Environmental or Marine Sciences, or related subjects. The academic record, postgraduate training and computer knowledge at the user and programming level will be considered.

In addition, candidates must have an advanced level of English and availability to carry out oceanographic campaigns and stays in foreign research centres.

Research Group and Supervisors

The selected candidate will receive a solid training in the [Organic Geochemistry Lab](#) of IIM-CSIC and the [Biological Oceanography Lab](#) of IOCAG-ULPGC, covering novel aspects of microbiology and marine biogeochemistry. The candidate will be based on the IIM-CSIC (Vigo, Spain) but will have to register in the [Doctoral Program in Oceanography and Global Change at the ULPGC](#) (Las Palmas de Gran Canaria, Spain), attending the required activities in the university.

IIM-CSIC | Xosé Antón Álvarez Salgado | xsalgado@iim.csic.es | [ResearchGate Profile](#).

ULPGC | Javier Arístegui Ruíz, | javier.aristegui@ulpgc.es | [ResearchGate Profile](#)

2

Biennial observation of carbon, acidification, transport and sedimentation in the North Atlantic (BOCATS2)

The PhD research will be developed in the framework of the BOCATS2 project “Biennial observation of carbon, acidification, transport and sedimentation in the North Atlantic” (PID2019-104279GB-C21). This project pretends to advance in the accurate detection of the anthropogenic CO₂ impact on ocean circulation & acidification to improve the projections of the climate models used for the IPCC reports, by focusing at North Atlantic subpolar gyre (SPNA).

The Atlantic Meridional Overturning Circulation (AMOC) amplifies the capture of anthropogenic CO₂ resulting in an average uptake rate for the North Atlantic that exceeds by 50% the average world ocean rate. In the subpolar gyre of the North Atlantic (NA), ocean acidification reaches abyssal depths (>3500 m), endangering ecosystems supported by cold water coral structures. A recent weakening of the AMOC has been reported at mid-latitudes and it is expected that the slow-down of the AMOC becomes more pronounced in the coming decades (IPCC, 2019).

In this project we focus on the NA subpolar gyre (SPNA), where we propose the acquisition of new observations that will inform on the evolution of the present day and past circulations. The high-quality observations foreseen in the SPNA will contribute to the early detection of the alteration of the carbon cycle allowing the precise estimation of the heat, CO₂ and N₂O storage rates and, ultimately, to find the connection between these changes and the variability of the AMOC at different time scales. The natural and anthropogenic fluxes of heat, CO₂ and N₂O will be evaluated, as well as the present and sub-millenary scale transport of sediments and biogenic elements, and the impact of acidification on these timescales, paying special attention to the rates of elevation of aragonite saturation horizons in deep layers, where the impact on the ecosystems sustained by calcareous organisms is potentially imminent.

Elegibility criteria

Candidates must have an MSc in Biological, Chemical, Environmental or Marine Sciences, or related subjects. The academic record, postgraduate training and computer knowledge at the user and programming level will be considered.

In addition, candidates must have an advanced level of English and availability to carry out oceanographic campaigns and stays in foreign research centres.

Research Group and Supervisors

The selected candidate will receive a solid training at the Oceanic Processes and Global Change Research Group of the IIM-CSIC, covering novel aspects of CO₂ and acidification modelling on the context of global change.

IIM-CSIC | Antonio Velo | avelo@iim.csic.es | [ResearchGate Profile](#)

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