

## **4 PhD studentships at ICTA-UAB María de Maeztu Unit of Excellence to address anthropogenic climate change**

**Contract Duration: up to 4 years**

**Contract type: Training PhD contracts (FPI), Reference project:  
MDM-2015-0552**

The Institute of Environmental Science and Technology at the Universitat Autònoma de Barcelona (ICTA-UAB) offers 4 scholarships to candidates who would like to pursue their PhD degree at ICTA within the Strategic Research Programme ICTA-UAB María de Maeztu, Programme for Units of Excellence in R&D (MDM-2015-0552). The positions are related to the call “Ayudas para contratos predoctorales para la formación de doctores 2016” of the Spanish Ministry of Economy and Competitiveness (MINECO). Deadline for pre-applications is **8 pm (CET) on 22nd May 2016**, and please write to [pr.mdm.icta@uab.cat](mailto:pr.mdm.icta@uab.cat) for further information or to apply for the positions (see details below).

### **About ICTA-UAB María de Maeztu Unit of Excellence:**

ICTA-UAB is implementing a Strategic Research Programme intended to consolidate its scientific capabilities, contribute to the leadership of Spanish research and act as an international pole of attraction for talent. The plan addresses major global environmental and sustainability challenges related to anthropogenic climate change, focusing on establishing the current state of knowledge on climate change and its socio-economic impacts, and on putting forward transformative solutions at the local and regional levels.

### **This call:**

Within the current call, successful applicants will be hosted at ICTA in its sustainable building (Leed-Gold) at UAB Bellaterra campus (Barcelona, Spain) and will develop their PhD training in one of the four projects detailed below:

#### **Project 1:**

***Project title: Integrated Scenarios for Island economies in the context of climate change.***

*Line of Research:* Understanding bottom-up and top-down approaches in fostering a transition to a low-carbon economy

*Supervisors:* Mario Giampietro, Giorgos Kallis and Joan Rieradevall

*Abstract:* Hydro-climatic extremes such as droughts render small islands of the Mediterranean particularly vulnerable to climate change. Whereas traditionally island economies were self-sufficient and had low carbon footprints, the transition from agriculture to urbanized tourism has

led to a radical re-organization of their societal metabolism and an increase of their carbon emissions. This project aims to assess and analyze the carbon metabolism of two small islands in the Mediterranean, one in Spain and one in Greece, explain the causes of their transformation and develop scenarios of mitigation and adaptation in the context of future climate change.

### **Project 2:**

***Project title: Beyond environmental effectiveness: investigating the impact of payments for ecosystem services on livelihoods and climate change adaptation***

*Line of Research:* Integrating socio-economic and policy studies with natural science studies to enhance consistency of climate policy science

*Supervisors:* Esteve Corbera and Mario Giampietro

*Abstract:* Payments for Ecosystem Services (PES) have become a mainstream conservation and climate mitigation/adaptation policy tool in the global South. Evidence regarding PES contribution to forest conservation is mounting but evidence on their role for adaptation is lacking. This project will apply the approach of Multi-Scale Integrated Assessment of Socio-Ecological Metabolism (MuSIASEM) to investigate the effects of payments on livelihoods and, particularly, to investigate households ability to invest such payments in adaptation actions.

### **Project 3:**

***Project title: Mediterranean coastal marine biodiversity under climate change: Local knowledge, perceptions and value***

*Line of Research:* Tapping into local climate change knowledge to provide more relevant insights into regional and local climate dynamics

*Supervisors:* Sergio Rossi, Patrizia Ziveri and Victoria Reyes-Garcia

*Abstract:* The loss of biodiversity is a major ongoing threat linked to human pressure and climate change. This project is quantifying the loss of biodiversity in the Mediterranean Sea in key ecosystems, understanding which is the human perception and estimated value of such changes in coastal human populations.

### **Project 4:**

***Project title: Agro-urban sustainability through rooftop greenhouses, improving cities' sustainability. Economic and environmental benefits***

*Line of Research:* Combining engineering and economic-policy analysis to provide more complete information for policy makers about costs and rebound of technological design for climate solutions.

*Supervisors:* M. Rosa Rovira-Val and Joan Rieradevall

*Abstract:* Using business (mainly accounting and marketing) and environmental assessment tools and methods, this proposal wants to investigate if food produced in rooftop greenhouses connected to the building below in terms of energy, water and CO<sub>2</sub> flows within a common metabolism can generate significant economic and environmental benefits depending on different business models.

## **Qualifications**

The fellowships are open to truly outstanding candidates with distinguished curricula and proven ability to communicate fluently in English and Spanish. We expect candidates with studies in environmental and earth sciences, chemistry, biology, geography or the social sciences (sociology, anthropology, political science, economics and business). Interdisciplinary experience is highly appreciated, as projects encompass multidisciplinary teams with expertise in the natural sciences, technology studies and social sciences. Successful candidates must hold a master's degree or equivalent at the time of recruitment and have competent skills in statistics and research methods.

## **Eligibility criteria:**

Applicants should meet the requirements for “contratos predoctorales” call 2016 (MINECO). As the call has not been published yet (expected month: June 2016), it is recommended to check the rules for 2015, available here: <http://www.boe.es/boe/dias/2015/06/12/pdfs/BOE-A-2015-6508.pdf>

At the time of submission the candidate:

- 1- Should not have a PhD
- 2- Should have not been granted any other PhD scholarship with a duration of 12 months or more.
- 3- Should have not received funding from the Spanish Programme for Research with the aim to pursue his/her PhD studies.
- 4- Should be holder of a degree which would formally entitle him/her to embark on a doctorate for the academic course 2016-2017 (Msc Degree).
- 5- Should be in the position to be legally accepted in the UAB PhD Programme “PhD in Environmental Science and Technology”:  
[http://ictaweb.uab.cat/formacio\\_detalls.php?id=6&setLanguage=en](http://ictaweb.uab.cat/formacio_detalls.php?id=6&setLanguage=en)

**Responsibilities:** The selected student would register in the PhD program of Environmental Sciences and Technology at UAB and be ready to start the fellowship next Autumn 2016. S/he will be responsible for collecting data for the project and preparing it for analysis, and the thesis will be directed by the supervisors detailed in the four projects presented herein.

## Contract terms:

Contract terms are detailed in the Call for “contratos predoctorales” 2016 (MINECO). As it has not been published yet, the details outlined below are drawn from the 2015 call (note that quantities may slightly change):

- This is a 4 year fellowship with an annual evaluation. The gross salary will be around 16.422€. In the case the PhD is completed and defended before the last year, the fellowship will be renovated to a postdoc orientation contract and the gross salary increases to 19.000€.
- The programme also includes a stipend of up to 4.750€ per fellow to undertake a research visit to another research center during the duration of the fellowship, and a grant of up to 1.500€ to support the PhD enrolment fees.

## Application procedure:

Interested students should send the application to the ICTA María de Maeztu Management Unit ([pr.mdm.icta@uab.cat](mailto:pr.mdm.icta@uab.cat)) by **8pm (CET) on 22<sup>nd</sup> May 2016** to receive full consideration. The application should include:

- 1) A 1000 words letter of interest:
  - a. Indicating which one of the four projects the student wants to apply for (applicants can only apply to one project); and
  - b. Explaining the student’s expertise and the reasons for wanting to do research in the selected field.
- 2) An updated Curriculum Vitae of the applicant: indicating the grade point average of the applicant bachelor’s and master’s degree and courses taken as relevant for the position.
- 3) A statement declaring that the applicant has not benefited from a grant previous to June 2016 to pursue his/her PhD studies of a duration of more than 12 months.
- 4) The names, email addresses and telephone numbers of two or three referees whom we might contact within May-June 2016 (please do not send letters of recommendation at this initial stage).

The subject of the email message should have the following structure <”MINECO Application”> <Name Surname of applicant> <Number of the selected project> (e.g. MINECO Application, John Smith, Project 3)

The preselection, including interviews, will take place during the last week of May. Decisions will be communicated to applicants by the beginning of June.

This is an internal pre-selection of the best candidates. Then, the pre-selected students should be ready to apply in June 2016 through the MINECO on-line platform as soon as the call opens. The final evaluation will be done by MINECO.