The Autonomous University of Barcelona (UAB) in Spain is a prestigious public university known for its academic excellence and dedication to advancing cutting-edge research and innovation. With 68 Ph.D. programs, various research institutes and centers on campus, technical support services, and state-of-the-art laboratories, it offers a vibrant environment for academic and scientific endeavors. The Max Planck Institute for Biogeochemistry (MPI-BGC) in Germany is dedicated to interdisciplinary fundamental research in the field of Earth system sciences with a focus on climate and ecosystems. MPI-BGC is one of the pivotal European research institutions in its field, and as such has coordinated numerous European projects and currently hosts European Research Council projects and Marie Skłodowska-Curie Actions projects. Via the collaboration between the Department of Physics at UAB and the Department of Biogeochemical Integration at MPI-BGC, we are looking for a

**PhD student on Carbon Sequestration in Blue Ecosystems**
(full-time, 4 years)

**Background and position description:**
Your research will be constructively driven by the ambitious goals of the Horizon Europe project C-BLUES, which advance scientific knowledge on areal extent and carbon stocks, sequestration rates, and greenhouse gas fluxes in blue carbon ecosystems (BCEs) to reduce scientific uncertainty and improve quantification and reporting of blue carbon under the UN Framework Convention on Climate Change (UNFCCC). Hence, C-BLUES will build partnerships to promote the role of blue carbon in delivering on global climate policy goals.

We seek a doctoral student with experience in biogeochemistry, trace gas flux measurement, or ecosystem-atmosphere interactions. The objectives are to enhance the state-of-the-art quantification regarding greenhouse gas fluxes of a salt marsh in the Western Mediterranean Sea by assembling existing information and performing a combination of field and laboratory experiments. Additionally, the project aims to use a hierarchy of models to upscale quantitative assessments of the sequestration capacity and greenhouse gas budgets of BCEs from local to national to regional scales.

The successful candidate will be hired by UAB during the first two years and then by MPI-BGC for the final two years, with the contract with MPI-BGC to be set up at the end of the second year. As members of C-BLUES, which brings together a large consortium of >20 institutions across Europe and China, you and your network of fellow doctoral students will receive outstanding training and networking. As part of this training, you will have numerous opportunities to attend relevant workshops and conduct research stays at partner institutions. These experiences are designed to expand your knowledge and provide valuable insights into the practical implications of your research. Collectively, these measures will substantially enhance your career prospects.
Your tasks:

• Help establish an eddy covariance tower in a salt marsh near Barcelona, Spain.
• Acquire and process eddy covariance data, perform data analysis, and interpretation.
• Assist technicians in regular field trips to maintain and calibrate instruments and collect field measurements of soil/plant status and water quality.
• Collaborate with project partners on upscale modelling.
• Engage in project meetings and help organize capacity-building activities.
• Work with a team of technicians, graduate students, and postdocs.
• Attend relevant conferences and publish papers in peer-reviewed journals.

Your profile:

• Hold a Master’s degree in geography, environmental or Earth science, ecosystem ecology, biometeorology, or related field.
• Experienced in ecosystem biogeochemistry, in-situ flux measurement, or flux modelling.
• Fluent in a computer language such as R, Matlab, or Python.
• We seek a flexible and proactive person with a strong interest in team-based interdisciplinary science, with the willingness and ability to work independently when required.
• Have excellent written and oral English language skills.

Our offer:

The anticipated start date for this appointment is as soon as possible in February 2024, with current funding guaranteed for a duration of 48 months. The position at UAB during the first two years will be graded and evaluated in accordance with the predoctoral employment framework described in Spanish Law 17/2022 on science, technology, and innovation. The position at MPI-BGC during the last two years will be evaluated and graded following the collective agreement according to TVöD Bund; in addition, we will provide a pension plan based on the public service (VBL).

The Max Planck Society (MPS) and UAB strive for gender equality and diversity. We aim to increase the proportion of women in areas where they are underrepresented. Women are, therefore, explicitly encouraged to apply. We welcome applications from all fields. MPS and UAB are committed to increasing employment opportunities for individuals with severe disabilities. Thus these applications are also encouraged.

Your application:

For more information about this position, please contact Dr. Sung-Ching Lee (sclee@bgc-jena.mpg.de) and Dr. Ariane Arias Ortiz (ariane.arias@uab.cat). Are you interested? Please send us your application with a cover letter (1 page), curriculum vitae (2 pages) as well as names and contact information of two references summarised in a PDF file (max. 10 MB) by e-mailing to us by November 30, 2023. Please quote “PhD_BCEs” in the email subject. Only the shortlisted candidates will be contacted for interview.

We look forward to receiving your application!