

2 PhD Student Positions – 3 years

Applications are invited for an EU-funded PhD programme at the Leibniz Institute of Marine Sciences (IFM-GEOMAR). Two positions are available starting approx. October 2010. This project forms part of the EU funded Marie Curie Initial Training Network “**CASE – The changing Arctic and Sub-Arctic environment**: A research and training programme on marine biotic indicators of recent climate changes in the high latitudes of the North Atlantic” (<http://caseitn.epoc.u-bordeaux1.fr>). The two PhD student positions are for 36 months duration each.

Research Preoject

This project is part of the European Marie Curie Network for Initial Training program CASE. The research focuses on marine biotic proxies and modeling of past climate changes in high northern latitudes. It will be implemented through a joint research project aiming to describe and identify the mechanisms and impacts of recent environmental changes in the Nordic Seas.

PhD project WP3A focuses on how water mass properties in the Nordic Seas (temperature, salinity, ice coverage, water chemistry) are reflected in the geochemical composition of shells of marine calcareous organisms. The candidate will investigate the stable oxygen and carbon isotopic composition of alive planktic and benthic foraminifers and of water samples from the sites where the foraminifer samples were obtained. Microscopical investigations of the foraminifer associations and analyses of foraminifer and water stable isotope geochemistry ($\delta^{13}\text{C}$, $\delta^{18}\text{O}$) using mass spectrometers at IFM-GEOMAR and Kiel University will be the main techniques to be applied during the project, but other geochemical methods may also be used. A basic education background in oceanography, geochemistry and/or micro-paleontological techniques will be an advantage. Willingness to participate in seagoing expeditions is desired.

PhD project WP3B focuses on Holocene oceanic variability in the Nordic Seas as reconstructed from planktic and benthic foraminiferal isotopes. The candidate will investigate foraminifers from Nordic Seas' sediment cores to determine the history of water mass properties, surface and bottom currents, and ice coverage. Where applicable, other geochemical analysis techniques may also be used. Besides basic sedimentological preparations, microscopical selection of foraminifers and analyses of their stable isotope geochemistry ($\delta^{13}\text{C}$, $\delta^{18}\text{O}$) using mass spectrometers at IFM-GEOMAR and Kiel University will be the main techniques to be applied during the project, but other geochemical methods may also be used. A basic education background in oceanography, geochemistry and/or micropaleontological techniques will be an advantage. Willingness to participate in seagoing expeditions is desired.

The projects will be carried out in close collaboration with Universities of Bordeaux, Plymouth, Amsterdam, and Tromsø, the Norwegian Geological Survey, and the industrial partners (Iso Analytical Ltd., AvaaTech X-ray Technology BV).

Requirements and Training

To be eligible for these positions you must hold a Master of Science/Diploma or equivalent in geology, geochemistry and/or marine biology and an appropriate education in physical sciences. An appropriate qualification in the English language and experience in the use of personal computers as well as standard word and data processing programs is expected. Full training in the scientific background to the project will be given, and there will also be the opportunity to participate in a variety of complementary skills training programmes offered as part of the CASE network. There will also be the opportunity to travel to and take part in events at other sites within the network.

Since the contractor is the Leibniz Institute of Marine Sciences, **candidates from any country except Germany are eligible to apply**. Please note that candidates must not have been resident in Germany for more than 12 months in the past 3 years. Further restrictions are found at <http://caseitn.epoc.u-bordeaux1.fr/index.php/jobs.html>. We prefer candidates with team spirit, who would like to work in an internationally oriented environment.

The CASE network is committed to equal opportunities and diversity in employment. IFM-GEOMAR encourages applications from female scientists. The candidates are expected to finish the project with a PhD thesis and disseminate the results through publications in peer-reviewed journals and presentations at international conferences.

Location

The Leibniz Institute of Marine Sciences (IFM-GEOMAR) is based in Kiel (northern Germany) at the Baltic Sea. Its mission is to investigate the physical, chemical, biological, and geological processes in the ocean and their interaction with the seafloor and the atmosphere. For further information on the institute and the city of Kiel see the websites at <http://www.ifm-geomar.de> and <http://www.kiel.de>.

Salary

The gross salary (including mobility allowance) will be approx. €41,000 per person and year for each candidate. Candidates with family (with children and/or married or equivalent) will receive approx. €44,600. A travel allowance based on the direct distance (in a straight line) between the place of origin and Kiel is payable each 12 months, as well as a career exploratory allowance of €2,000 payable once according to the Marie Curie Actions Programme conditions. Compulsary deductions from the salary (taxes, social security contributions) will be made according to the German legislation.

Further information

For further information on Work Package 3, please contact project and team leader Robert Spielhagen (rspielhagen@ifm-geomar.de).

How to apply

Letters of application with CV including a letter of your professional experience, a statement of motivation (one A4 page), and name, telephone, email address and mailing address of at least three professionals who can be contacted for references, should be sent to Robert Spielhagen at rspielhagen@ifm-geomar.de or by surface mail: Robert Spielhagen, IFM-GEOMAR, Wischhofstr. 1-3, D-24148 Kiel, Germany. Please make reference to WP3A and/or WP3B. **Applications should be sent not later than September 10th, 2010**. The positions may be filled earlier, depending on applications from suitable candidates.