



Ontology Developer Position at PANGAEA, MARUM, University Bremen (Germany)

The PANGAEA data publisher for earth and environmental sciences (www.pangaea.de) is a joint facility of MARUM (www.marum.de) at University Bremen and of the AWI (www.awi.de), Bremerhaven. It is responsible for data integration in several national, European and international research projects. The position is initially tied to research projects OCEANOMICS, Tara-Oceans and MicroB3.

The main IT components of PANGAEA are a relational database (Sybase ASE), a file based storage system backed by a tape archive, an editorial system (4D), a search engine (PanFMP), a data warehouse (Sybase IQ), and an issue tracking system (JIRA). The successful candidate will be responsible for:

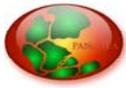
- Designing and deploying an online collaborative platform that allows scientists to discover/develop ontologies in the field of marine biology;
- Providing support to users and establishing validation procedures to ensure that the integrity of ontologies is not compromised by the additions of new terms and concepts;
- Eliciting knowledge from biological experts; organising and participating in development meetings for specific topics;
- Coordinating with other ontology developers, notably in Belgium (VLIZ), Germany (MPI-MM) and the U.K. (EMBL-EBI), to align with and use other ontologies.

We seek candidates with:

- Experience in object oriented languages (JAVA, Python...)
- Knowledge of Web Service technologies (XML, REST, SOAP...)
- Double competence in biology and programming (e.g. PhD in bioinformatics) is desirable
- Clear interest in organising scientific knowledge, rather than pursuing a research career.
- Fluent English (CEF B2-C1, written and spoken).

The position is a fixed-term, two-year, renewable contract at University Bremen, starting as soon as possible. Salary and benefits are linked to the German employee scale EG 13 TV-L. As the University of Bremen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal personal aptitudes and qualification, priority will be given to disabled persons.

Inquiries and applications (CV & two letters of recommendation) should be sent electronically to Stéphane PESANT (spesant@marum.de) **before 1st August, 2013. IMPORTANT:** Please write "Ontology Developer Position" in the subject of your e-mail.



Bremen, home to the world famous Bremen Town Musicians, is widely known as the vibrant, historical and cultural heart of North West Germany. Bremen, together with Bremerhaven, forms the smallest federal state in Germany and offers an exceptional quality of life, blending metropolitan and outdoor experiences. An extensive network of cycle paths, busses, trams, and railway, and the well connected Bremen airport facilitate transport in and out of the city.

Tara-Oceans (<http://oceans.taraexpeditions.org/>) was an exceptional three year expedition (2009-12) around the world ocean, onboard the 36 m sail ship Tara, refitted with extensive oceanographic and laboratory equipment. The expedition involved major international marine laboratories, led by the French National Centre for Scientific Research (CNRS) and the European Molecular Biology Laboratory (EMBL). All environmental and biological (except nucleotides) data from Tara-Oceans will be archived at PANGAEA.

OCEANOMICS is developing a data integration pipeline for the analysis of results obtained during the Tara Oceans expedition; The goal is to explore the biogeography and biodiversity of plankton, including viruses, giant viruses, prokaryotic and eukaryotic unicellular organisms and a wide variety of metazoans. An ambitious array of analyses was performed in situ and back in the laboratories, including state of the art imaging and molecular techniques, e.g. flow cytometry, high-throughput confocal microscopy, FlowCam, ZooScan, phylogeny from DNA and RNA extracts, metagenomics and transcriptomics. Combined with in situ characterisation of the physical and chemical environment, Tara-Oceans provide unprecedented capability to understand the biogeography and biodiversity of plankton.

MicroB3 (Biodiversity, Bioinformatics, Biotechnology; <http://www.microb3.eu/>) is developing innovative bioinformatic approaches and a legal framework to make large-scale data on marine viral, bacterial, archaeal and protists genomes and metagenomes accessible for marine ecosystems biology and to define new targets for biotechnological applications. MicroB3 builds upon a highly interdisciplinary consortium of 32 academic and industrial partners. The MicroB3 Information System will provide innovative open source software for data-processing, -integration, -visualisation, and -accessibility. Interoperability will be the key for seamless data transfer of sequence and contextual data to public repositories. Results obtained during the Tara-Oceans expedition will also be integrated using the MicroB3 Information System.