



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG



The Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) is a member of the Helmholtz Association (HGF) and funded by federal and state government. AWI focuses on polar and marine research in a variety of disciplines such as biology, oceanography, geology, geochemistry and geophysics thus allowing multidisciplinary approaches to scientific goals.

Doctoral Position in Aquatic Ecophysiology/Ecotoxicology (m/f/d)

Background

Bio-degradable plastics emerge as promising substitutes for commercial petro-plastics. However, the fate of bioplastics in the environment and their degradability are not conclusively explored. Aquatic animals may ingest fragments of bio-plastics in the same way as conventional microplastics. In the intestines of animals, e.g. crustaceans or molluscs, biopolymers are exposed to specific physico-chemical conditions and highly active enzymes, capable of hydrolysing these bio-degradable plastics. The resulting oligo- and monomers may affect digestive processes and, thus, energy metabolism of animals. Biochemical effects of such intermediates are widely unexplored and, therefore, will be addressed in this project.

We offer a position at the Alfred Wegener Institute, Helmholtz-Centre for Polar and Marine Research in Bremerhaven (Germany) to study the effects of bio-microplastics and their degradation products on marine invertebrates. Pending final approval, this activity will be funded by the Horizon 2020 initiative of the European Commission within the project BIO-PLASTIC EUROPE.

Tasks

- Development and validation of analytical protocols for in-vitro degradation assays of biopolymers
- Optimization of enzyme assays in pH-stat and plate-clearing approaches
- Screening of enzyme/bioplastic interactions
- Quantification of degradation products from bio-polymers
- Coordinating and execution of laboratory work
- Maintenance of, and experimental approaches with marine invertebrates
- Writing technical reports and scientific publications
- Participation in regular project meetings and workshops
- Contribution to education and public outreach

Requirements

- We seek a highly motivated person with an educational profile (MSc or adequate) in marine/aquatic biology, physiology, biochemistry, or ecotoxicology and enthusiasm for experimental approaches.
- Histological and histopathological experience is welcome.
- A broad scientific interest in organismic biology is required that allows transferring in-vitro results into in-vivo perspectives and environmental scenarios.
- Excellent language skills in English and German are mandatory.
- Capacity for teamwork will facilitate communication with lab members and colleagues as well as with the EU partners from more than 12 countries.
- A track record of academic exchange and communication, e.g. conference attendances, workshop participations, and, in case, publications will be supportive.

Further Information

For further information please contact **Dr. Reinhard Saborowski** (Reinhard.Saborowski@awi.de Tel: +49(471)4831-2220) or **Dr. Lars Gutow** (Lars.Gutow@awi.de Tel: +49(471)4831-1708).

The position is limited to 3 years. The salary will be paid in accordance with the German Tarifvertrag des öffentlichen Dienstes (TVöD Bund), up to salary level **13 (66%)**. The place of employment will be **Bremerhaven**.

This characterizes us

- our scientific success - excellent research.
- collaboration and cooperation - intra-institute, national and international, interdisciplinary.
- opportunities to develop – on the job, aiming at other positions and beyond AWI.
- a culture of reconciling work and family – audited, and even more than that.
- our outstanding research infrastructure – ships, stations, aircraft, laboratories and more.
- an international environment – everyday contacts with people from all over the world.
- having an influence – fundamental research with social and political relevance
- flat hierarchies – freedom and responsibility.
- exciting topics – also in technology, administration and infrastructure.

Equal opportunities for women and men are an integral part of our personnel policy. Therefore, we encourage women to apply.

Disabled applicants will be given preference when equal qualifications are present. The AWI fosters the compatibility of work and family through various means. Because of our engagement in the area of work-life compatibility we have been awarded the certificate “Career and Family”.

We look forward to your application!

Please forward your application by **September 22th, 2019** exclusively [online](#).

Reference number: 101/D/Bio-b