

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

**YES.**

We'll show you how at Fraunhofer.

**MICROBIOLOGY GUIDED NATURAL PRODUCTS RESEARCH IS YOUR TOPIC? THE FRAUNHOFER IME, PROJECT GROUP BIORESSOURCEN LOCATED IN GIESSEN (GERMANY) SEEKS FOR A HIGHLY MOTIVATED STUDENT TO FILL IN A**

---

## **PHD STUDENT POSITION IN MICROBIOLOGY – ISOLATION OF UNCULTURED ANTIBIOTICS PRODUCING BACTERIA FROM UNTAPPED BIORESOURCES**

---

Fraunhofer as the largest research organization for applied science in Europe has joined forces with the multinational pharmaceutical company Sanofi to fund the Sanofi-Fraunhofer Natural Product Center of Excellence in Frankfurt, Germany. Scientists of the project group Bio-resources of the Fraunhofer Institute for Molecular Biology and Applied Ecology (IME) work together at the same benches with scientists of the pharmaceutical company Sanofi-Aventis Germany with the goal to identify and develop innovative drugs for the treatment of bacterial infections.

This multi-disciplinary team is currently building up new tasks, in which the announced position needs to be filled by a highly motivated and responsible PhD student. The main focus for this position is providing the access of yet uncultured, highly

promising antibiotics producing bacteria from invertebrate microbiomes. This includes i) the culture independent evaluation of bioresources by the use of metagenome data and microbiome species profiles, ii) the application of single cell separation techniques for isolation and screening of yet uncultured bacteria using innovative Microfluidics and FACS based approaches and iii) the subsequent identification of novel lead structures for antibiotics development with a focus on Gram negative bacteria. The support of our center in all activities related to microbiology and molecular biology is expected, which includes the development of synthetic media for standard process with the cultured bacteria as well as genomic analysis of highly promising candidates together with our bioinformatics division. Being embedded in a group that spans the entire discovery pipeline from the access of novel producer bacteria using untapped bio-resources up to structure elucidation and lead structure evaluation is the main advantage of the announced position. The application of innovative microbiological approaches to access the uncultured bacterial diversity from untapped microbiomes is seen as one of the ultimate goals in natural products discovery. Sanofi and Fraunhofer has set up a multidisciplinary team of scientists in an industrial environment to accomplish this task.

#### **Your tasks:**

- Implementation and application of innovative high throughput cultivation and screening approaches and their integration into established drug discovery pipelines
- Participation in drug discovery programs
- Interaction with all groups of our discovery pipeline, especially innovative cultivation, screening and chemical analytics

#### **What we expect from you**

- A qualifying university degree in the fields of Microbiology and Molecular Biotechnology
- Experience in the cultivation and physiology of a wide range of microorganisms
- Experience in genome sequencing and genome data analysis
- An interest in natural products and their analysis
- Team spirit and excellent communication skills as well as efficient organization of your work and experience in the guidance of technical staff
- An interest to work in a multi-cultural, interdisciplinary team
- Excellent English

#### **What you can expect from us**

- Highly interesting research projects in Applied and Molecular Microbiology
- Experience in lead structure identification and evaluation
- An environment that allows team-oriented work with a focus on drug discovery and development
- Excellent infrastructure
- A network with academic and industrial cooperation-partners
- Further education and training in your field of expertise

Appointment, remuneration and social security benefits based on the public-sector collective wage agreement (TVöD).

Additionally Fraunhofer may grant performance-based variable remuneration components.

The working time consists of 39 hours per week.

The position is initially limited until 31.12.2019.

In case of identical qualifications, preference will be given to severely disabled candidates.

The Fraunhofer-Gesellschaft is committed to providing equal career opportunities for men and women.

This vacancy is also available on a part-time basis.

Fraunhofer is Europe's largest application-oriented research organization. Our research efforts are geared entirely to people's needs: health, security, communication, energy and the environment. As a result, the work undertaken by our researchers and developers has a significant impact on people's lives. We are creative. We shape technology. We design products. We improve methods and techniques. We open up new vistas.

**For questions about this position please contact Ms. Ricarda Döring.**

Please apply directly online by clicking on the blue "Apply" button. Please abstain from submitting paper copies for environmental reasons.

<http://www.ime.fraunhofer.de>

Job Reference: **IME-BR-2017-11**

Closing Date: **10.09.2017**

[Back](#)

[Apply](#)