



GLOBAL  
MICROBIOME  
CONSERVANCY



The Groussin lab at the Institute of Clinical Molecular Biology (IKMB) at Kiel University (CAU) is offering a postdoc position in **human microbiome and microbiology research**

(TV-L E13)

We aim to discover novel microbial modulators of host-microbiome functions and interactions. In this context, we are looking for a postdoctoral fellow to lead innovative experimental and multi-omics investigations of the gut microbiome and of the diversity of extracellular vesicles that gut bacteria produce. The project that the recruited postdoctoral fellow will be leading is part of a recently funded ERC Consolidator grant 'VESICULOME', which aims at understanding the origin, evolution and function of bacterial extracellular vesicles in the human host-gut microbiome system.

Bacterial extracellular vesicles (BEVs) are nanosized membrane-enclosed particles released by bacterial cells. They carry a range of cargo molecules with potent functions, including surface proteins, enzymes, virulence factors, or metabolites. BEVs shape bacteria-bacteria interactions, but are also impacting host phenotypes, e.g. through interactions with epithelial cells or transmigration into the bloodstream.

The project will involve the study of the molecular profiles and functions of BEVs produced by single bacteria or complex microbiomes, and test for their role in bacteria-bacteria and host-bacteria interactions in health and disease, using multi-omics data analysis and anaerobic microbiology, culturomics, and animal experiments. The project will leverage unique biobanks of human microbiome samples collected among worldwide and clinical cohorts that are available to the Groussin lab. One of these biobanks is the Global Microbiome Conservancy resource (GmbC, <http://microbiomeconservancy.org/>), which aims at understanding the diversity of human gut microbes among various human populations worldwide, from non-industrialized & rural communities to industrialized & urban groups. As part of this project, we built and characterized a large collection of worldwide human gut microbiomes, bacterial strains and genomes, and investigated the impact of shifts in lifestyle on bacterial genomes (Nature Medicine 2019, Cell 2021). The other resources are biobanks of Inflammatory Bowel Diseases patients that are part of the EU-funded miGut-Health consortium, in which the lab co-leads a Work Package.

Our lab is part of the Institute of Clinical Molecular Biology (IKMB), within the medical faculty of Kiel University, and part of the University Medical Center Schleswig-Holstein (UKSH/CAU). With more than 70 clinics and institutes, UKSH/CAU is one of the largest university hospitals in Europe. It offers outstanding medical treatment and excellence in research and education with nearly 10,000 employees. We provide top research conditions at the interface of medicine, science and technology and maintain research co-operations with universities all over the world. Our lab is also part of several local consortia, including the CRC 1182 'Origin and Function of Metaorganisms', EU-funded 'miGut-Health' and the Excellence Cluster 'Precision Medicine in Chronic Inflammation'.

**Your role:**

We expect you to lead the following activities:

- Build an innovative and ambitious scientific agenda
- Conduct computational and wet lab experiments
- Generate data
- Analyze data and interpret results
- Disseminate results through academic publications and conferences
- Engage in close interdisciplinary interaction with clinicians, bioinformaticians, immunologists and metabolomics specialists on campus
- Mentor and train PhD candidates and Master students

**Your profile:**

We are interested in recruiting self-motivated individuals with a high desire to succeed and a strong dedication to excellence and high-quality research.

Desired skills:

- background in computational analysis of omics data
- background in microbiology and/or mice experiments
- experience in project administration and organization
- a high desire in becoming an independent researcher
- interest in co-supervision of graduate/PhD students within our group

**We offer:**

The contract is initially limited to **three** years, with a possibility of extension. The salary will be based on the German **E13** TV-L scale (100%) if terms and conditions under collective bargaining law are fulfilled. **E14**-level salary may be proposed to senior scientist candidates with exceptional track record.

We offer an excellent and exciting multidisciplinary team-oriented research environment and opportunities to being part of the national and international scientific community. Our scientists are encouraged to attend international conferences and visit cooperation partners. We offer flexible working hours and various opportunities to reconcile work and family life.

The UKSH/CAU has been certified as a family-friendly institution and is committed to further improve the compatibility of work and family life. The University supports the employment of disabled persons. Persons with disabilities will, with appropriate qualifications and aptitudes, be employed preferentially. The UKSH/CAU has set the goal to reach professional equality between men and women. The University aims to increase the number of women among the faculty staff and therefore explicitly encourages the application of female scientists.

**Timeline:**

The preferred starting date is as soon as possible.

The search will stop **8 weeks** after the date of online publication. We encourage candidates to apply as early as possible, as we will continuously run pre-interviews until the right candidate is found.

**How To apply:**

Please send a CV and a cover letter by email to Mathieu Groussin, [m.groussin@ikmb.uni-kiel.de](mailto:m.groussin@ikmb.uni-kiel.de)  
When applying, please mention the reference 'Postdoc – VESICULOME' in the subject of your application email.

**Contact for Information:**

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Learn more about the IKMB here: <https://www.ikmb.uni-kiel.de/>

Learn more about our lab here: <https://mmmicrobiomelab.org/>