

Postdoctoral Fellow / PhD Student

Rational design of programmable anti-infectives

The Institute for Molecular Infection Biology at the University of Würzburg is seeking doctoral and post-doctoral researchers to drive a 5-year collaborative research program on RNA-based anti-infectives. The program aims to build a platform technology for the computational prediction, mechanistic analysis and validation of next-generation programmable antibiotics.

Successful candidates will work in the groups of Franziska Faber, Lars Barquist, and Jörg Vogel, which bring together expertise in pathogenic model organisms, state of the art RNA-centered molecular biology and computational biology.

As a member of the interdisciplinary team, the candidates will apply molecular approaches in anti-infectives research, high-throughput RNA-sequencing (RNA-seq) and other functional genomics techniques, as well as innovative statistical and machine learning methods to develop RNA-based anti-infectives targeting single microorganisms in mixed microbial populations.

Qualifications of molecular scientist:

The successful candidate will work with model organism, such as *Clostridium difficile*, *Salmonella enterica* or *Fusobacterium nucleatum*, and apply microbiological techniques and sequencing-based technologies.

- PhD (for postdoctoral fellows) or Master's in a life science field.
- Experience in microbiology, RNA biology, infection biology, or biochemistry.
- Good written and spoken English-language communication skills, desire to work as part of an international team of researchers.

Qualifications of computational scientist:

The successful candidate will be involved in the design and analysis of experiments at all stages of project development, and will have access to a wide range of data including RNA-seq, transposon insertion sequencing, sequencing-based experimental evolution assays, and metagenomics.

- PhD (for postdoctoral fellows) or Master's in either a life science field with a strong computational component (e.g. genomics, bioinformatics) or a data intensive field.
- Solid programming skills in at least one scripting language (e.g. Python, Perl) and R. Experience with large data sets or sequencing data preferred.
- Basic knowledge of statistics.
- Good written and spoken English-language communication skills, and interest in working as part of an international team of researchers.
- An interest in RNA biology, infection biology, and microbiology, or desire to learn.

The positions are available for two years with the possibility of extension to five. Salary will be based on the pay scale for the public sector in Germany (TV-L) and comply with qualification. Part time employment is also possible.

We welcome applications from suitably qualified people from all sections of the community regardless of race, gender or disability. The University aims to increase the proportion of female employees, therefore applications from qualified women are particularly welcome. Preference will be given to people with disabilities in the case of otherwise equal aptitude.

Applying:

Please send your application as a single PDF file (including cover letter, curriculum vitae, list of publications, statement of current and future research, and contact information for two academic references) **by April 30th, 2020** to monika.meece@uni-wuerzburg.de

Requests for further information should be directed to joerg.vogel@uni-wuerzburg.de