

# Job offer

Job-No. 205/2022

Deadline 03.07.2022



FRIEDRICH-SCHILLER-  
UNIVERSITÄT  
JENA

The Friedrich Schiller University Jena is a clearly structured classical university with about 18000 students. It is among the oldest and most traditional universities in Germany. The Collaborative Research Centre (CRC) ChemBioSys of the Friedrich Schiller University Jena is seeking - *subject to the final DFG approval* - a

## Scientific staff member (100% Postdoctoral position)

to the next possible date.



Albeit microalgae are key contributors to global carbon fixation, their molecular interactions with other microbes in various ecosystems are still little known. In the framework of the CRC ChemBioSys ([www.chembiosys.de](http://www.chembiosys.de)), we have investigated the interplay of the green alga *Chlamydomonas reinhardtii* with other microorganisms and found that *Pseudomonas protegens* strongly inhibits algal growth. The bacteria secrete natural products including a cyclic lipopeptide that causes  $\text{Ca}^{2+}$  signals and deflagellation as well as a polyene blinding and lysing the algal cells (Aiyar et al., Nat. Commun. 8, 1756, 2017; Rose et al., Environ. Microbiol. 23, 5525-5540, 2021; Hotter et al., Proc. Natl. Acad. Sci. USA 118, e2107695118, 2021; Bando et al., Chem., doi: 10.1002/chem.202104417, 2022). We also established a marine *Chlamydomonas* sp. as genetically tractable model (Carrasco Flores et al., J Phycol, 2021, doi: 10.1111/jpy.13083). We now aim to study involved signaling pathways in *Chlamydomonas reinhardtii*, focus on bacterial virulence and its neutralization and investigate biotic interaction in the marine system using *Chlamydomonas* sp..

### Your tasks:

- Investigate the mode of action of the cyclic lipopeptide and involved  $\text{Ca}^{2+}$  channels
- Bacterial virulence: Study the influence of macronutrients and helper bacteria
- Investigate bacterial interactions with the marine *Chlamydomonas*

### What we expect:

- PhD, Dr. rer.nat. or a comparable doctoral degree in molecular biology, cell biology, botany, phycology, microbiology or a related subject.
- The candidate should be highly motivated. Experience with methods of molecular biology, microbiology and biochemistry are desired.
- A very good knowledge of English is expected.

### We offer:

- A top-level research environment
- Close interactions with the involved institutions of the SFB ([www.chembiosys.de](http://www.chembiosys.de))
- Attractive fringe benefits such as capital accumulation benefits, job tickets for reductions in public transport, employer-funded pension (VBL)
- University health promotion and a family-friendly working environment with flexible working hours
- The position will be financially supported according to TV-L (salary agreement for public service employees) till salary scale 13.

The employment is limited to four years. Applications from physically handicapped persons will be considered preferentially in case of equal qualifications and suitability. Have we sparked your interest? If so, please send your application (cover letter, complete CV, all certificates and credentials as well as recommendation letters of your supervisors from previous research, list of publications) to the address below, preferably in electronic form as a single pdf file. Include the job number 205/2022. The deadline is 03.07.2022:

**Prof. Dr. Maria Mittag**  
**Friedrich Schiller University Jena**  
**Matthias Schleiden Institute of Genetics, Bioinformatics and Molecular Botany**  
**Am Planetarium 1**  
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Please send your documents only as copies as they will be destroyed at the end. Please consider applications hints on: [www.uni-jena.de/stellenmarkt\\_hinweis.html](http://www.uni-jena.de/stellenmarkt_hinweis.html)