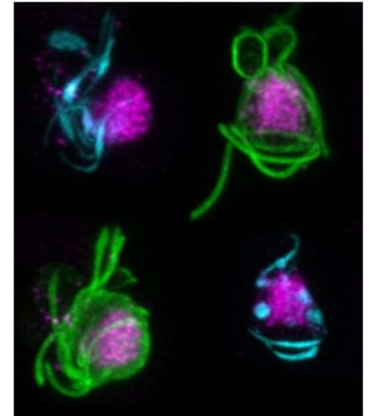


PhD position in malaria research

Deciphering the assembly, activation and structure of a non-canonical Arp2/3 complex in *Plasmodium*.

**Are you interested in finding out how malaria-causing *Plasmodium* parasites infect mosquitoes?
Join us at Heidelberg University for a PhD position!**

Malaria is a devastating infectious disease that kills more than half a million people per year. It is caused by the eukaryotic, single-celled parasite *Plasmodium*, which infects mosquitoes to spread from host to host. At the Hentzschel lab, we investigate the biology of early mosquito infection, particularly the formation of male gametes. This is a fascinating and extremely fast process that generates eight flagellated gametes from a precursor cell within only fifteen minutes (see examples of forming gametes on the right). Yet, the molecular mechanisms are not well understood, and how the parasite organises the segregation of eight genomes from a single nucleus into individual gametes remains elusive. We have previously identified an unusual protein complex that mediates DNA segregation during male gamete formation. We now want to understand the molecular and cellular processes underlying this phenotype, which might help to develop transmission-blocking drugs in the future.



What we offer

During your fully funded PhD project (3 years, 65 % TV-L E13) starting in April 2025, you will use state-of-the-art molecular biology, genetic engineering, structural biology and quantitative live-cell microscopy to investigate the activation, assembly and structure of the non-canonical Arp2/3 protein complex in the malaria parasite. The project is funded by an ERC Starting Grant and based on previous work of the lab (<https://doi.org/10.21203/rs.3.rs-4479771/v1>). You will join a young, dynamic group with plenty of opportunities to bring in your own ideas. You can expect a supportive environment and close mentoring with the aim to comprehensively expand your scientific and professional skills, enabling you to develop into an independent researcher. There will be opportunities to participate in international meetings to extend your scientific network and visibility in the field. Our lab is part of the Center for Infectious Diseases, located in the new CIID building on the Neuenheimer Feld Campus in Heidelberg, where you will have access to all necessary facilities and equipment. All PhD students at Heidelberg University are enrolled in graduate school offering many career development opportunities.

What we are looking for

- Curiosity, passion and enthusiasm for unusual cell biology
- Master's degree (or equivalent) in molecular biology or related disciplines
- Self-driven motivation, initiative and willingness to drive the project forward
- Ability to work both independently as well as collaboratively in a team
- Good communication skills in English (speaking, reading, writing)
- Willingness to work with experimental mouse models
- Prior experience with molecular biology essential, experience with *Plasmodium* desirable

How to apply

If you are motivated to explore the unusual biology of *Plasmodium* and join a young lab, please send a single PDF file comprised of a one-page motivation letter, a CV, your masters certificate or transcript of records, and contact information for two references to franziska.hentzschel@med.uni-heidelberg.de.

If you have any further questions, please do not hesitate to contact Dr. Franziska Hentzschel by email or check out the website (<http://tinyurl.com/hentzschel-lab>). The position will be filled on a rolling basis.

We look forward to receiving your application!