HEIDELBERG UNIVERSITY HOSPITAL

Postdoctoral Position in the Parasitology Unit with the theme 'Insecticide synthesis and parasite interaction'

The project available here involves the synthesis of fluorescent insecticides for the purpose of monitoring uptake of these compounds both within the Anopheline vector of malaria and the parasite itself. Approximately half of this project will involve infecting mosquitoes with the *Plasmodium* parasite, extracting infectious sporozoites and performing motility imaging assays with a range of public health chemistries. The latter half of the project will involve synthesising insecticides of interest with fluorescent epitopes or heavy atoms for the purpose of later imaging. This project is ideally suited for those with an overlapping interest of chemistry and biology and will provide hands on experience with mosquito handling, mosquito infections, confocal imaging, and chemical synthesis.

Your responsibilities:
You will conduct research as part of a collaborative project with Dr Victoria Ingham, Heidelberg and Dr David Wong at the University of Liverpool, UK on the interface of insecticide synthesis and parasite response. A visit to the UK will be needed.

The following qualifications and experience are necessary for this position:

You will hold a PhD in the field of Biochemistry or Chemistry and have research contributions consistent with your career stage

<u>You will require the following:</u>
Knowledge of modern organic chemistry;

Relevant experience of working in a synthetic organic chemistry laboratory, including carrying out organic synthesis, using purification techniques such as silica gel chromatography and preparative HPLC and fully characterising products using NMR, Mass spec and analytical HPLC;

Experience of searching literature and database, i.e. SciFinder or Reaxy for designing tractable synthetic routes for the preparation of target molecules and propose suitable reaction conditions for each synthetic step;

Knowledge of insecticide synthesis and modification chemically (desirable);

Experience in handling complex (e.g. light sensitive) and potentially biological active chemical molecules (desirable);

You will have good English communication skills

You will have the ability to work independently and as part of an international team

We offer:
A salary according to the German TV-L E13 pay scale

Opportunities to develop a diverse range of research skills and experience two different research groups

The starting date for this position is fixed on 1st September 2021. The position is limited until July 2022.

We look forward to your application for which we request you to send your application documents (including a CV, a list of publications, a transcript of your PhD certificate, a cover letter stating your interests and skills and the names and contact data of two referees willing to write a letter of recommendation) no later than 23rd July as a singly pdf file to **Victoria.ingham@uni-heidelberg.de with the subject 'PostDoc application'**.

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