Announcement of scholarship in Medicinal Chemistry at the Department of Chemistry and Molecular Biology University of Gothenburg, Sweden

Development of *P. vivax* NMT inhibitors

This project aims to develop selective *P. vivax* NMT inhibitors as tools for probing biological features of the *P. vivax* parasite, and potential lead compounds for development of drug that targets multiple life cycle stages of the parasite.

We will use structure-based approaches to design hybrids of the previously reported inhibitors, taking physicochemical properties and potential differences of binding mode between human NMT1 and NMT2, and *P. vivax* NMT into account.

The activity of the compounds will be assessed against NMT1 and NMT2, and *P. vivax* NMT. Compounds with 30-fold selectivity will serve as a starting point for subsequent medicinal chemistry efforts, by structure-activity-relationship (SAR) to optimise selectivity and affinity.

The best compounds will be further characterised in various assays.

The project aims to develop *P. vivax* NMT inhibitors with all the characteristics of high quality chemical probes. In future studies, these chemical probes may be applied to examine the role and druggability of *P. vivax* NMT and N-myristoylation in all stages of the parasite, including in the sexual blood stages and liver stages, which are important targets for blocking transmission. Furthermore, these inhibitors can be regarded as a candidate series for the treatment of malaria.

Learning outcome for the scholarship holder:

1) Heterocyclic chemistry as well as modern metalorganic chemistry.
2) Design of molecules using computational approaches.
3) Structure-Activity Relationship (SAR) studies.
4) Teamwork and project management.
5) Writing papers and give scientific presentations.

The scholarship covers a period of 12 months. CAPES provide the funding.
Preliminary start date: as soon as possible
Supervisor/contact person: Morten Grøtli, +46 766229017, grotli@chem.gu.se

Qualifications:

- To be eligible for a post-doc scholarship the recipient must hold a PhD degree within a relevant field.
- The successful postdoctoral applicant should have documented experience in medicinal chemistry or chemical biology and preferably, experience from computer aided inhibitor design. In addition, the candidate must be self-motivated and able to work independently but also to work efficiently in a team setting.

Written application is to be sent via e-mail to the supervisor and must include the following:

- CV
- Personal letter stating the reasons why the study suits the applicant (maximum one page)
- List of publications
- The names and contact info of two referees

Application deadline: 15th of Oct 2021.