Postdoc in Computational Systems Chemistry

An up to two-year postdoc position starting 1 August (or as soon thereafter as convenient) is available at the Department of Mathematics and Computer Science, University of Southern Denmark (SDU).

**Application deadline: 28 May 2020.**

The catalytic core of an enzyme includes a network of amino acid residues that jointly transform a substrate. The objective of the project is to capture and represent in a computationally feasible way the possibilities inherent in the chemistry of amino acid residues in relation to given substrate classes and co-factors. The postdoctoral candidate will extract information from databases of enzyme mechanisms; identify the chemical behaviour of amino acid residues in conjunction with co-factors across a variety of contexts using computational tools; encode that behaviour as graph-transformation rules; and use the project’s existing software platform to explore the chemical space engendered by these rules.

A central role of the selected candidate will be to interact with colleagues from computer science to assist with chemical sensibility in the development of causal analysis for reaction networks and in their dynamical simulation.

The ideal candidate has a background in biochemistry or organic chemistry as well as experience with computational approaches to chemistry or biology, such as cheminformatics or bioinformatics. The candidate’s research will be central to a pilot grant led by a team committed to succeed. The nature of this project is highly exploratory. The candidate must therefore be able to improvise, grapple with ill-posed questions, and have an attitude conducive to creative problem solving in the context of an interdisciplinary team.

The position involves collaboration with colleagues at the University of Vienna and Harvard Medical School and includes the opportunity for extensive visits at
these locations. The position comes with generous travel support in addition to a competitive salary.

For further information contact
Professor Daniel Merkle (e-mail: daniel@imada.sdu.dk, phone: +45 6550 2322).

**Application, salary etc.**

The successful applicant will be employed in accordance with the agreement between the Ministry of Finance and AC (the Danish Confederation of Professional Associations). Please check links for more information on salary and taxation.

The application must include the following:

- A curriculum vitae including information on previous employment.
- A full list of publications stating the scientific publications on which the applicant wishes to rely.

Shortlisting may be used in the assessment process.

Incomplete applications and applications received after the deadline will neither be considered nor evaluated.

To qualify you must have passed a PhD or equivalent. Applications will be assessed by an expert assessor/committee. Applicants will be informed of their assessment by the university.

The University wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of personal background.

Applications must be submitted electronically using the link Apply online. Attached files must be in Adobe PDF or Word format. Each box can only contain a single file of max. 10 Mb. We strongly recommend that you read How to apply before you apply.

**Further information** for international applicants about entering and working in Denmark.