

5 PhD positions within a new Marie Skłodowska-Curie Innovative Training Networks, to identify selective receptor ligands towards safer drugs.

The PhD fellowships are part of the EU-funded project, SAFER. This is an ambitious interdisciplinary European Industrial Doctorates (EID) programme under the Horizon 2020 Marie Skłodowska-Curie Actions (MSCA-ITN-EID, Grant agreement: 765657), which offers positions with competitive salaries and family allowances. PhD students will obtain ample scientific, business and transferrable skills at excellent research environments meriting themselves for international academic or industrial careers.

The project starts 1st of February 2018 and lasts for 3 years. The positions require mobility as all students will first train at the University of Copenhagen (Denmark), and subsequently continue their research in a company; ENAMINE (Kiev, Ukraine) or SARomics (Lund, Sweden). Being a part of the network, the PhD fellows will participate in annual network meetings and training events across Europe.

The ultimate scientific goal for the SAFER program is to gain molecular understanding and improve selectivity in treatments of CNS-related disorders. This will be done with a particular focus on the serotonin 5-HT_{2A} receptor – the primary target for many pharmaceuticals and hallucinogens. SAFER will design and prepare ligands for the receptor, generate and cross-interpret pharmacology and crystallographic data, and construct computational mechanistic models and databases that can explain and guide further experiments. This is fundamental to understand the biological and therapeutic effects, and to develop safer drugs.

Who can apply?

- We are looking for highly motivated individuals with a background in chemistry, pharmacology, crystallography, computational drug design or scientific database development.
- Applicants must hold a relevant Master's degree.
- The candidate must have less than 4 years of research experience and must not have resided or carried out his/her main activity in the country of the host institution for more than 12 months during the last 3 years immediately prior to the recruitment

How to apply?

Details about SAFER and the 5 open PhD positions are available at www.safer-itn.eu, and questions can be sent to project manager Professor Fredrik Björkling to fb@sund.ku.dk. The application deadline is October 20th 2017.

The 5 PhD projects open for applications are:

1. **Pharmacology:** *Pharmacological profiling of signalling pathways to identify functionally selective 5-HT_{2A} ligands* (Mo. 1-18 University of Copenhagen & Mo. 19-36 ENAMINE)
2. **Chemistry:** *Synthesis of conformationally restricted analogues to identify novel functionally selective 5-HT_{2A} ligands* (Mo. 1-12 University of Copenhagen & Mo. 13-36 ENAMINE)
3. **Crystallography:** *Crystallisation of receptor-ligand structure complexes to reveal molecular mechanisms of functional selectivity at 5-HT_{2A}* (Mo. 1-18 University of Copenhagen & Mo. 19-36 SARomics)
4. **Computational drug design:** *Molecular modelling to rationalise and design ligands with functional selectivity at 5-HT_{2A}* (Mo. 1-18 University of Copenhagen & Mo. 19-36 SARomics)

5. **Scientific database development:** *Development of a public GPCR ligand resource disseminating and enabling receptor research and drug design* (Mo. 1-18 University of Copenhagen & Mo. 19-36 ENAMINE)

University of Copenhagen and Denmark

Founded in 1479, the University of Copenhagen is the oldest university in Denmark. With 37,000 students and 9,000 employees, it is among the largest universities in Scandinavia and one of the highest ranking in Europe. The University consists of six faculties, which cover Health and Medical Sciences, Humanities, Law, Science, Social Sciences and Theology. Read more at www.sund.ku.dk and www.drug.ku.dk.

Copenhagen is a modern capital with plenty of opportunities in culture, design, architecture, restaurants and a diverse nightlife. At the same time, the city offers beaches, beautiful parks and green nature areas, and the Copenhageners bike everywhere. The Danish society prioritises a good work-life balance, and the work culture is well adjusted for families with children. Read more at <http://ism.ku.dk/>.

SARomics Biostructures and Sweden

SARomics Biostructures is based in Lund, Sweden, conveniently located in the heart of Medicon Valley, one of Europe's strongest biotech clusters. The company was founded in 2006 and is now the No 1 provider of protein 3D structure determination and structure-based drug discovery services in Scandinavia with access to world leading X-ray facilities in the MAX-IV laboratory. Read more at <http://www.saromics.com/>

Lund – The City of Ideas - is one of the oldest cities in Sweden dating back to 990, in addition to the 1 000 years of history Lund is a modern university city with a combination of businesses, students and researchers from around the world which form the unique character of the city. In Lund, you find the charm of a small picturesque, cobble-stoned city, side-by side with big city attractions such as services, shopping, restaurants and cultural events. Lund has been voted the best place to live in Sweden. <https://www.youtube.com/watch?v=Dc7PO9hoSKU>

ENAMINE and Ukraine

ENAMINE Ltd was founded in 1991 based on the rapidly increasing demand for new chemical compounds due to increased high throughput screening at the time. In over 15 years ENAMINE has been a world leading provider of Screening Compounds and Building Blocks. In ENAMINE, great attention is paid to the development of original and unique chemistry as diverse techniques and methodologies are the main contributors to novel compounds in drug discovery and development. <http://www.enamine.net/>

Kiev, the capital of Ukraine with more than 3 million people is the administrative, economic, scientific, cultural and educational center of the country. The city is known for its beauty and invaluable historical and cultural monuments, the art and architecture of Kiev are considered world treasures. Kiev has a very rich cultural life, with theatre, art and musical events all year a round.

Kiev is also the scientific and educational center of Ukraine with several universities and science academies. <http://www.kiev.info/about/general.htm>

