



The Friedrich Schiller University Jena is a scientifically recognized university with over 17,500 students. Jena is a young and vibrant university town with dynamic business activities, successful scientific innovation centers and a vibrant cultural scene around a traditional university. The Institute for Physical Chemistry of the Friedrich Schiller University Jena has from 1st of July 2019 one position as

Doctoral Researcher Position (m/f)

Project: We offer an Early-Stage Researcher (PhD) position, as part of the EU-funded Marie Skłodowska-Curie Innovative Training Network (ITN) "Logic Lab". The Logic Lab projects aims to develop a new concept for molecular logic sensors for application in intracellular diagnostics. Expertise in the field of classical molecular logic gates will be combined with state-of-the-art research approaches in synthetic, supramolecular and theoretical chemistry, spectroscopy as well as microfluidics and cell biology to establish new tools for biomedical research. <https://www.logiclab-itn.eu>

The aim of the doctoral project is to synthesise metal complexes, which show light-triggered release of therapeutic doses of NO (photo-NORMs) and evaluate them in solution, lipid membranes and in cells (in-vitro). The candidate will develop different strategies to synthesise photo-NORMs and optimise the molecules for perspective application as therapeutic agents for endothelial dysfunction. Therefore, he/she will study the NO-release of photo-NORMs in solution, characterise the photo-induced processes and incorporate photo-NORMs together with NO sensor molecules in liposome carrier systems to form a novel supramolecular theranostic system, which will be tested in cell (co)-cultures, artery-on-a-chip or ex-vivo arteries.

Scientific training in partner institutions include quantum chemical modelling of photophysical properties in lipid membranes during a 2 month secondment at the company SciClus, research on triplet-triplet annihilation upconversion systems for red-light activation of NORMs during two 1 month secondments at University of Leiden and in-vitro and ex-vivo studies of NORMs during a 2 month secondment at Jagiellonian University in Krakow.

Qualification requirements:

- Master degree in chemistry, with majors in synthetic inorganic/organic chemistry
- Preferably experienced in the spectroscopic characterisation of molecular compounds
- Interest in the field of photochemistry / photophysics and track record of scientific publications are of benefit
- Fluent communication skills in English, both spoken and written are required
- Candidates are required to meet the Marie Skłodowska-Curie Early-Stage Researcher eligibility criteria: (<http://ec.europa.eu/research/mariecurieactions/>). In particular, at the time of appointment candidates must have had less than four years full-time equivalent research experience and must not have already obtained a PhD. Additionally, they must not have resided in Germany for more than 12 months in the three years immediately before the appointment.

Main tasks:

- Independent research in highly inter-disciplinary teams
- Attending the scientific and complementary training programme, conferences and workshops
- In addition, the candidate is expected to participate in a scientific qualification project, e.g. a doctorate works.

We offer:

- Participation in an excellent international, multi-disciplinary research team
- Comprehensive scientific and complementary training within the "Logic Lab" network
- Attractive salaries according to regulations of Marie Skłodowska-Curie Actions
- University health promotion and a family-friendly working environment with flexible working hours

Funding of the position is limited to 3 years. Severely handicapped people are given preference for equal qualifications, aptitude and professional qualifications. Friedrich Schiller University Jena is committed to increase the percentage of female scientists and therefore especially encourages them to apply.

Applications with a letter of motivation, a curriculum vitae of at most 3 pages, transcripts of records from University/University College, a copy of your degree, copy of master's thesis or any other publications (if available), two written recommendation letters (e.g. one by your Master thesis supervisor) and the referees



contact details (all documents in PDF format) must be sent by 30th April 2019 to:

Prof. Dr. Benjamin Dietzek
Friedrich Schiller University Jena
Research Group Molecular Photonics
Institute of Physical Chemistry and Abbe Center of Photonics (IPC),
Helmholtzweg 4, D-07743 Jena, Germany
Benjamin.dietzek@uni-jena.de
phone: +49-(0)3641-9-48360
fax: +49-(0)3641-9-48302

If the return of the application documents is desired, a sufficiently stamped return envelope must be enclosed.
Please consider our application information: http://www.uni-jena.de/stellenmarkt_hinweis.html.
Please also note the information on the collection of personal data on: www.uni-jena.de/Universität/Stellenmarkt/Datenschutzhinweis