



Open PhD student position for 3 years (ITN Marie Curie)

PicoQuant Innovations GmbH, Berlin (Germany) has an open position in cooperation with the School for Neurosciences and Molecular Biosciences of the University of Göttingen (Germany) **for an Early Stage Researcher (ESR) to pursue a PhD degree** funded for a period of **36 months in Berlin**.

The project entitled

Advanced Biomedical OPTICAL Imaging and Data Analysis (BE OPTICAL)

provides a unique opportunity for an ESR to carry out a PhD research project on advanced super-resolution microscopy, including exploring novel technical aspects of super-resolution optical imaging, new strategies for stimulated emission depletion (STED) or light sheet microscopy, based on pulsed excitation and nanosecond time-resolved detection.

The joint European research project **BE OPTICAL** comprises 7 academic groups and 2 non-academic partners, bringing together an interdisciplinary team of physicists, engineers, and medical doctors with complementary expertise in optical imaging, nanotechnology, computer science, complex systems, and data analysis. PicoQuant, is a leading company in the field of pulsed diode lasers, time-resolved data acquisition, single photon counting, and fluorescence instrumentation. PicoQuant's R&D department hosts an interdisciplinary team of physicists, chemists, biologists, designers, as well as software, electronic and mechanical engineers working on state-of-the-art technology that has been co-developed and tested by renowned researchers. The other non-academic partner is an internationally recognized ophthalmology clinic, with the most advanced technology and expertise in ocular diseases.

Place of Work

The Early Stage Researcher will be registered as a PhD student at the **Georg-August-Universität Göttingen** (<http://www.uni-goettingen.de/>) and employed at **PicoQuant Innovations GmbH** (www.picoquant.com). The ESR will be enrolled in and follow the PhD program of the Graduate School for Neurosciences and Molecular Biosciences (University of Göttingen) while the research work will be carried out in PicoQuant's R&D department in Berlin. The ESR will be supervised by Prof. Dr. Jörg Enderlein (University of Göttingen) and Dr. Marcelle Koenig (PicoQuant).

Requirements

Your research project will include exploring the following subjects:

- Technical aspects of advanced super-resolution optical imaging
- Advancing the state-of-the-art in stimulated emission depletion (STED) microscopy
- Comparison with other super-resolution microscopy techniques (e.g., SOFI)
- Screening and characterization of suitable fluorescent labels for analysis of cellular processes
- Optical microscopy and fluorescence spectroscopy methods for the exploration of novel multiplexing strategies based on pulsed excitation and nanosecond time-resolved detection

The applicant is required to satisfy the eligibility criteria for ITN-ETN Early Stage Researchers:

- Must be within the first four years (full-time equivalent) of their research career and not have a doctoral degree
- Must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the three years prior to recruitment

The candidate is also expected to provide the following skills and qualifications:

- A Master of Science (or equivalent) in Physics, Biophysics, or Chemistry; preferentially with experience in fluorescence microscopy and/or spectroscopy
- Interest in working on scientific as well as technical subjects and participating in interdisciplinary collaborations
- Excellent English language skills (both written and oral)

Should you be interested, send us your full application (CV, copy of Master's degree certificate (or equivalent), a statement of your research interests, experience and skills, and contact information for at least two references) with the reference number #686 to: jobs@picoquant.com