**Join the cutting-edge of Molecular Profiling:**

**PhD and MSc Positions Available**

Are you passionate about advancing medical diagnostics through innovative technologies? The Broadband Infrared Diagnostics (BIRD) group, located at the Chair of Experimental Physics at Ludwig-Maximilians-Universität München (LMU) and the Max-Planck-Institute of Quantum Optics (MPQ), is at the forefront of combining laser physics with molecular medicine.

**About Us**: The BIRD group merges femtosecond laser-based technologies, molecular spectroscopy, and complex organic matter analysis to pioneer new strategies for probing human health and detecting cancer. Our dynamic, interdisciplinary team consists of physicists, physical chemists, data scientists, molecular biologists, and clinical specialists dedicated to applying infrared spectroscopy to molecular medicine and diagnostics.

**Position Overview**: **PhD and MSc Positions Available**

We are currently seeking skilled and motivated tudents to join our team. In this role, you will be developing and implementing various sample processing, analytical chromatographic, spectroscopic workflows, and chemical modification of human samples to advance molecular profiling in medical testing. The goal is to integrate liquid chromatography and other sample processing steps with spectroscopic profiling for high-throughput infrared molecular fingerprinting.

**Qualifications:**

• BSc/MSc background in biotechnology, analytical and organic chemistry, biophysics, or related fields in molecular and life sciences;

• Enthusiasm for applying the latest developments in laser physics to advance medical probing for the benefit of human health.

**Responsibilities:**

* Collaborate with a dynamic inter-disciplinary team to design and implement cutting-edge analytical and pre-analytical workflows combined with infrared spectroscopy;
* Contribute to the development of high-throughput molecular profiling techniques;
* Utilize your expertise to enhance our joint capabilities to probe human health and detect disease.

**How to Apply:** If you are excited about contributing to new ways of probing human health using infrared light, we encourage you to reach out. Please contact Dr. Mihaela Zigman (mihaela.zigman@mpq.mpg.de) and Dr. Frank Fleischmann (frank.fleischmann@physik.uni-muenchen.de) to discuss the possibilities.

**Position Details:**

• Location: Research Center Garching, Faculty of Physics at LMU, Am Coulombwall 1, 85748 Garching;

• Easily accessible by public transport.

Explore the intersection of cutting-edge laser physics and molecular probing at the department that just received recognition by the Nobel Prize in 2023 to our director – join our team and make a lasting impact on the future of medical diagnostics!

**Learn more about our work**:

[www.attoworld.de/bird](https://www.attoworld.de/bird.html)

[www.lasers4life.de](https://www.lasers4life.de/)