LIGHTLY
TECHNOLOGIES
detect. connect. protect.

Laboratory & Field Testing Intern

Analytical Chemistry · Sample Testing

About Lightly Technologies

Lightly Technologies, s.r.o. is an innovative deep-tech startup based in Brno, Czech Republic. We develop portable chemical analyzer based on our patented UV-Fingerprint technology that enables rapid, field-ready detection and identification of chemical substances (drugs, pharmaceuticals, food adulterants) in under 10 minutes, without requiring laboratory calibration. Our technology combines advanced photochemistry, bioanalytical methods and machine learning. We work closely with law enforcement agencies including the Czech Police, INTERPOL, and U.S. federal agencies.

About the Role

We are looking for a motivated student to join our laboratory and support the testing and validation of our system — a portable UV-Fingerprint chemical analyzer consisting of the Catcher II device and innovative single-use cartridges. As a Testing Intern, you will be hands-on with chemical samples and cutting-edge analytical equipment, working directly alongside our Chief Scientific Officer and the core R&D team. Your work will directly contribute to advancing the technology from TRL 5/6 towards a field-ready, commercially viable product.

Key Responsibilities

- Prepare and analyse chemical samples (pharmaceuticals, drug analogues, food and beverage matrices) using the SPECTRA device (Catcher + cartridge).
- Carry out comparative measurements using reference analytical methods.
- Test prototype cartridges — evaluate their performance, reproducibility and lateral-flow behaviour under varying conditions (humidity, temperature, sample volume).
- Document measurement results systematically and support the creation of a reference database used for machine-learning model training.
- Simulate field-use scenarios and assess the device's robustness and usability outside laboratory conditions.
- Contribute to written reports and technical documentation of test outcomes.

Requirements

- Practical experience with basic laboratory techniques (pipetting, sample preparation, instrument handling).
- Familiarity with at least one analytical method (HPLC, UV-VIS spectroscopy, or equivalent) is an advantage.
- Careful, detail-oriented approach; ability to work with potentially hazardous chemical substances following safety protocols.
- Good written and spoken English (working language of the InnovPrecMed programme).
- Ability to commit to at least 3 months.

What We Offer

- Hands-on experience with a genuinely innovative deep-tech product for law enforcement agencies and pharmaceutical companies across Europe.
- Direct mentorship from our Chief Scientific Officer, Ing. Lukáš Nejdl, Ph.D. (75+ publications, h-index 21).
- Work in a dynamic startup environment at the laboratory of Mendel University in Brno.
- Financial compensation in line with InnovPrecMed project rules.
- Exposure to cutting-edge analytical chemistry, photonics and ML-driven data analysis.
- Opportunity to co-author internal technical reports and contribute to future publications.

How to Apply

Send your CV to:

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