

Master Thesis Opportunity in Environmental Metabolomics in a collaborative research project

We are seeking a motivated student to undertake a master thesis project in environmental metabolomics, specifically focusing on lipidomics using liquid chromatography (LC) hyphenated with high resolution mass spectrometry. As part of a larger research project, The Master Thesis project involves analyzing biosamples from captive muskoxen (*Ovibos moschatus*) to understand their response to different feeding regimes. The samples are collected as part of an experiment mimicking the expected change in herbivore forage quality in response to the rapidly changing Arctic conditions due to global warming.

Key Responsibilities:

- Conduct laboratory work using highly sensitive LC-HRMS lipidomics equipment
- Improve experimental protocols for enhanced accuracy and efficiency
- Process and analyze extensive datasets using advanced software
- Interpret results within an ecological and environmental context

Opportunities:

- Explore additional biosamples from related muskoxen projects using similar or untargeted omics assays
- Flexibility in adjusting the study design to align with research interests and goals

Desired Skills and Qualifications:

- Interdisciplinary interest in environmental toxicology, biochemistry, and wildlife ecology
- Proficiency in statistical analysis and handling large datasets
- Experience with state-of-the-art software for data processing and analysis
- Fluency in written and spoken English

Benefits:

- Engage in a prolific and cutting-edge research field
- Work with a dynamic and growing team of scientists
- Collaborate with experts from the Technical University of Denmark (DTU) and Aarhus University (AU-ECOS)

Supervision:

- **Primary Supervisor:** Martin Hansen (Technical University of Denmark)
- **Co-Supervisor:** Chris Fohringer and Niels Martin Schmidt (Aarhus University)

This thesis project offers a unique opportunity to contribute to significant ecological research and gain valuable interdisciplinary skills. If you are passionate about environmental metabolomics and eager to work in a stimulating research environment, we encourage you to apply.

For more information and to apply, please contact Martin Hansen at martin.hansen@envs.au.dk and Chris Fohringer at cf@ecos.au.dk.