Dyslipidaemia in type 1 diabetes - involvement of the intestine (master thesis project)

Type 1 diabetes is a massive problem worldwide, and at the Bartholin Institute we are investigating how dyslipidaemia is involved in the disease.

Recently, we observed that the levels of a number of lipid species is reduced in the intestine of NOD mice, our disease model for type 1 diabetes. In this master thesis project, we aim to characterise the anti-inflammatory effects of these lipids in beta cells, macrophages, and intestine using cell lines and possibly isolated islets of Langerhans. The work includes analysis of inflammation and type 1 diabetes relevant genes/proteins with qPCR, automated western blotting, ELISA, fluorescent staining and imaging, Seahorse metabolic measurements, and CRISPR-Cas9 etc.

The Bartholin Institute holds two type 1 diabetes group and a brain cancer group, and we are currently around 20 people on different levels and with different educational backgrounds. The Institute is located at the Copenhagen Biocenter and is part of the Department of Pathology, Rigshospitalet. We are ambitious, but informal and have a pleasant and friendly environment. Our laboratory is well-equipped with state-of-the-art equipment.

We look for a highly motivated and energetic person. Your master programme is ideally molecular biomedicine, biochemistry, civil engineer, or biology. Moreover, we prioritize master students that have ambitions to peruse a PhD.

For more info, please contact: Group Leader, Senior Researcher Martin Haupt-Jørgensen martin.haupt-joergensen@regionh.dk

Check us out at our website https://www.rigshospitalet.dk/english/departments/centre-of-diagnostic-investigation/bartholin-institute/Pages/default.aspx

Start date: from January 2023 or later