

# Post doc at Lund University Diabetes Centre

Subject: Type 2 Diabetes and Islet Biology

## Work environment:

The lab (headed by Nils Wierup) [www.wierup-lab.org](http://www.wierup-lab.org) is part of the Lund University Diabetes Centre [www.ludc.med.lu.se](http://www.ludc.med.lu.se) one of the strongest centers for diabetes research in the world.

## Project title:

*A novel transcription factor crucial for beta cell function*

## Background:

In a recent publication in *Diabetologia* we showed that CART stimulates insulin secretion and inhibits glucagon secretion in humans. Due to the lack of receptors for CART, it is not known how CART exerts its effects. We have identified a novel transcription factor (TFX) that is regulated by CART. The project aims to understand the role of TFX in islet function and Type 2 diabetes. Our data show that TFX is expressed in human islets, silencing of TFX blocks insulin secretion and genetic variants in TFX associates with diabetes risk.

## Aims of the project:

1) Perform shRNA silencing of TFX in vivo in mice and study metabolic effects. 2) Dissect downstream targets of TFX in vitro in INS-1 cells. 3) Perform bioinformatic analyses of the relation between TFX and key beta cell genes in our in-house data sets (e.g. the world's largest data set of human islets) and genetic cohorts. 4) EMSA and Chip-PCR experiments to study binding of TFX to insulin.

## Team:

You will work closely with 2 post docs and 2 PhD-students with expertise in molecular biology, islet biology, in vivo metabolism, in vitro studies.

The position is funded for 2 years and the candidate is encouraged to apply for independent funding before or during this period.

## Qualifications:

We are seeking a highly motivated person with a Ph.D. molecular biology and at least one first authorship publication.

## The application should include:

CV, publication list, statement of future interests.