

## **Aim of the thesis**

The overall aim of the thesis is to provide guideline information about measurement of glucagon-like peptide-1, glucagon and oxyntomodulin and also stability of glucagon-like peptide-1 and glucagon. The PhD thesis focused on performing studies which:

- a) test and evaluate commercial assays for glucagon-like peptide-1, glucagon and oxyntomodulin measurements (**Study 1 and Study 2**);
- b) test the need for use of aprotinin (Trasylol<sup>TM</sup>) to avoid glucagon degradation in human, mouse and rat plasma (**Study 3**);
- c) investigate impact of different physical treatments on stability of the glucagon-like peptide-1 and glucagon degradation (**Study 4**);
- d) describe development of multiplex LC-MS/MS for measurement of glucagon, glucagon-like peptide-1 and oxyntomodulin (**Study 5**).

By investigating those issues I hope to facilitate precise measurements of hormones in blood so that conditions of hormone deficiency or excess can be diagnosed more reliably with a focus on Good Scientific Practice. Moreover, by providing clear quality measures, the quality of previous and future gut hormone studies in this area may be better assessed.