**Meeting June 3?**

detect hypoglycaemia

short first 30 min

long 6-8 hours after exercise, particularly overnight

WP 1 - evaluate data quality of TNN, see ways in which we can optimize data collection in the future

WP 2 - database for all data together

WP 3 - whether it's useful to use all these data points to develop a system with ML and test accuracy (testing = lab study? )

Ideas:

- We probably need food and carbs for both predictions, but happy to prove wrong

- We have data for two weeks that includes food and carbs but very difficult to collect

- We don't have movement data from outside cycling, but with smart-watches this might increase

- To detect what they eat, use a camera

- To detect insulin, use thing on top of insulin pen

- Idea: we want a system that predicts future glucose and tells when we are doing exercise, whether we should eat more carbs or more insulin

- In addition to that, we want a warning system that tells what the risk of hypoglycaemia is after the exercise

TODO:

- Literature search

- Define goal

Question Eva

- Isn't this exactly the same as a closed loop/insulin pump system?

For me it is difficult to estimate the added value, vision is missing as I don't have enough experience with diabetes for this.

**Meeting June 7 - Sam**

Why are we having a grant?

What is the end goal?

* System
* Insights?
* If you want a system, you need to think of the devices that the target group is most likely to use and make a prediction from that
* If you want insights into glycaemic processes, then it doesn’t matter? (still good if you cover most of it)

What is the target group?

What are we predicting?

Do the number of devices match with what the target group is likely to use?

Is the target group going to trust our model?

T1D or T2D (or both)

For people without insulin pump and with CGM?

Difficult for me to estimate the added value from a user perspective

2-week data??

Have a phone number for the dexcom support

**Literature**

* Prediction of future glucose, - broad, anything with ML AI that facilitates glycaemic management
* TNN, T1D (and T2D)

**Roadmap**

Individual effects?

TODO:

* Drive
* Background ML papers

**Meeting June 7 - Simon**

Do you know anything about timezone changes of the dexcom? Does it happen automatically?

Explain problem - Does it make sense?

Transmitter time keeps counting but there is a switch in local time -> identify travelling

How does it obtain the timezone?

You were briefly talking about a dexcom research platform, what is it?

Possible to obtain UTC in another way?

Any other tips?

Transmitter changes timestamp only when they have an iPhone.

Manually change the timestamp in the transmitter.

They have to write down when they change the time on the transmitter

If they have the recording device they don’t have the lte connection

Recording device = PL