

Personal Glucose Predictive Diabetes Advisor

Project rationale

- It is hard for diabetic patients to judge how blood sugar level will develop a few hours ahead
- Fear of hypos make people add a buffer zone in terms of hyperglycaemia
- Diabetes is a complex disease and taking the right decision on carbohydrate intake and insulin doses is sometimes difficult

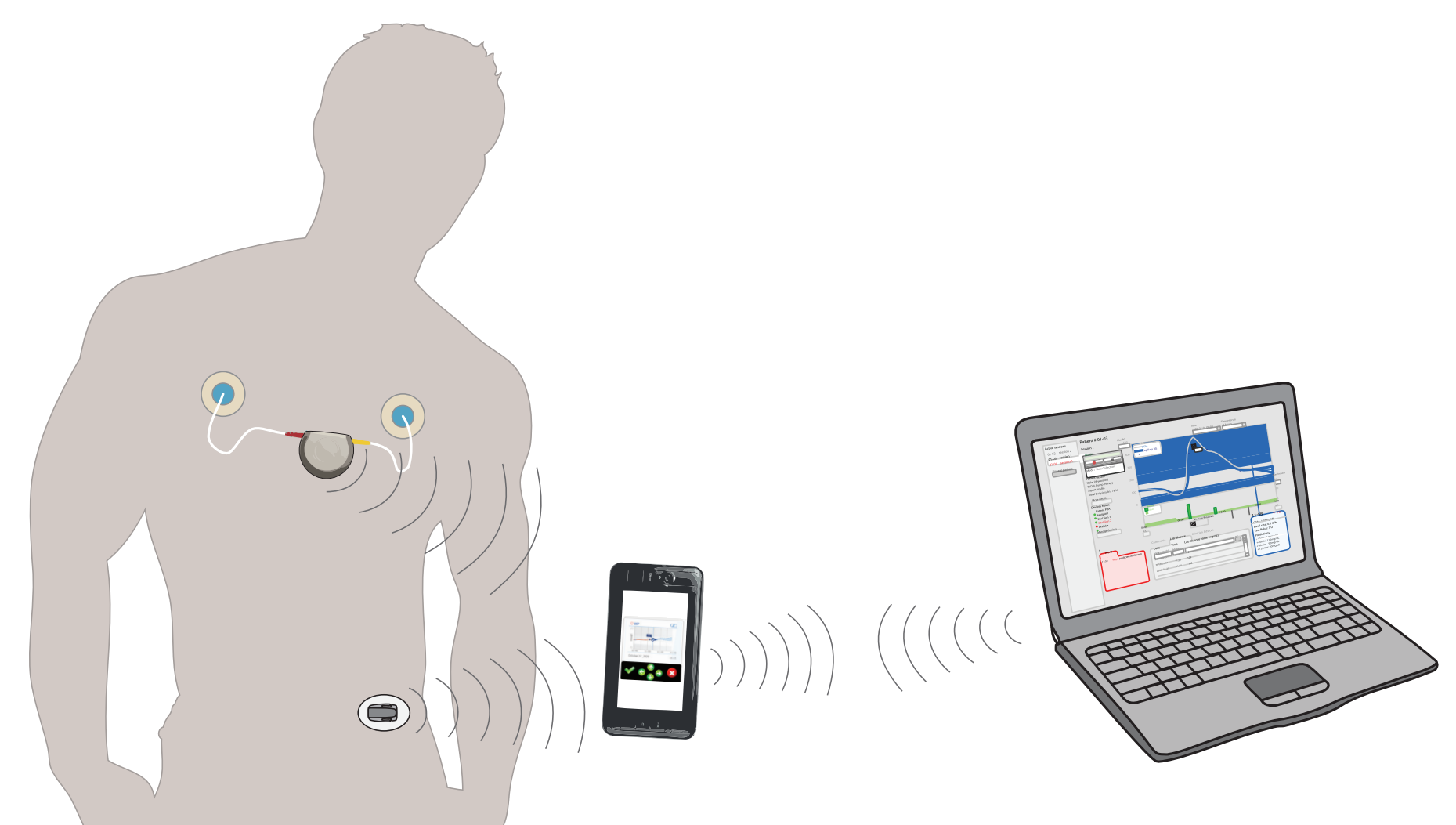
Project concept

A personal mobile short term blood glucose predictor and treatment advisor based on:

- Physiological and mathematical models
- Medical device technology
- Non invasive sensor technology
- Medical science
- User understanding

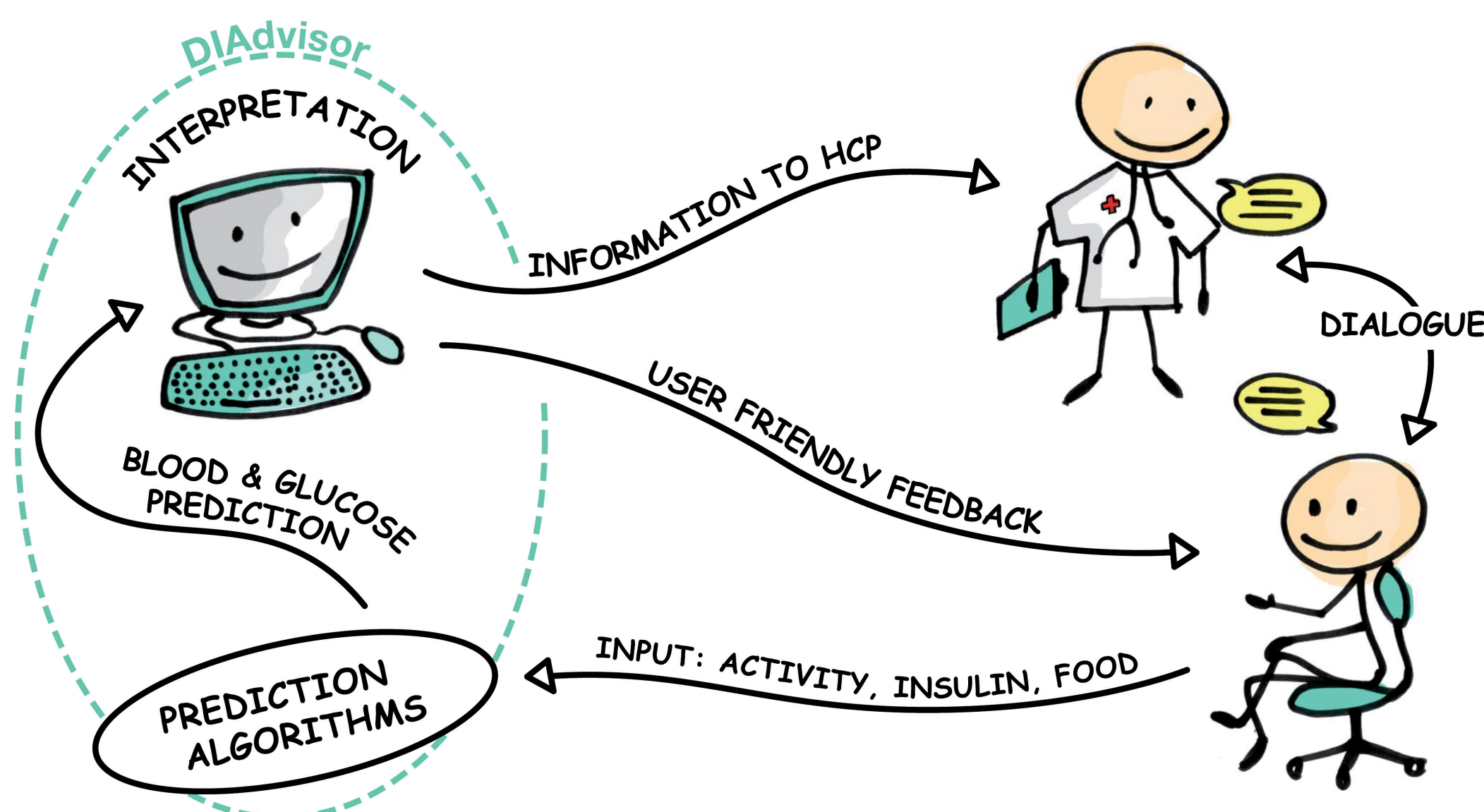
Project objectives

- To build a mobile and personal diabetes advisory system that predicts blood glucose and gives advice that enables people to stay closer to target glucose levels leading to:
 - Improved diabetes treatment and quality of life
 - Reduction of the burden for the patient
 - Fewer short and long-term diabetic complications and lower overall health care costs



Project description

- The DIAdvisor™ is a large-scale integrating project (IP) aiming at the development of a prediction based tool which uses past and easily available information to optimise the therapy of type I and developed type II diabetes.
- The DIAdvisor is not dependent on specific sensor technologies and can be adapted to technologies like standard strip sensing, minimally-invasive continuous glucose sensors and emerging non-invasive methods.
- For safety reasons, the DIAdvisor system will be able to self-assess the confidence of its proposed decisions. For safety reasons as well as for the sake of therapy improvements, the system connects and provides information and trends to the Health Care Provider.
- Glucose prediction is difficult and requires advanced science within the fields of physiological modelling, identification theory, control theory, medical device technology, risk management theory, sensor science and user understanding. It can be achieved only by a well balanced group of eminent experts, including academics, clinicians, user representatives and leading companies.
- The expected impact of DIAdvisor will be improved diabetes control and quality of life in large populations of insulin treated patients, leading to fewer diabetic complications and lower Health Care costs. Moreover, the project will constitute a valuable opportunity for European companies to build up a special know-how leading to products that profoundly and positively have an impact on the lives of millions of people with other indications than diabetes.



13 Partners from 9 countries:

- Novo Nordisk A/S, Denmark
- Universität Linz, Austria
- Lunds Universitet, Sweden
- Università Degli Studi di Padova, Italy
- Centre Hospitalier Universitaire de Montpellier, France
- Toumaz Technology Ltd., United Kingdom
- Intelesens Ltd, UK
- Ondalys, France
- Romsoft Srl., Romania
- Institute for Clinical and Experimental Medicine, Czech Republic
- Österreichische Akademie der Wissenschaften, Ricam, Austria
- Ramboll, Denmark
- IDF-Europe, Belgium

Project duration March 2008 to February 2012

