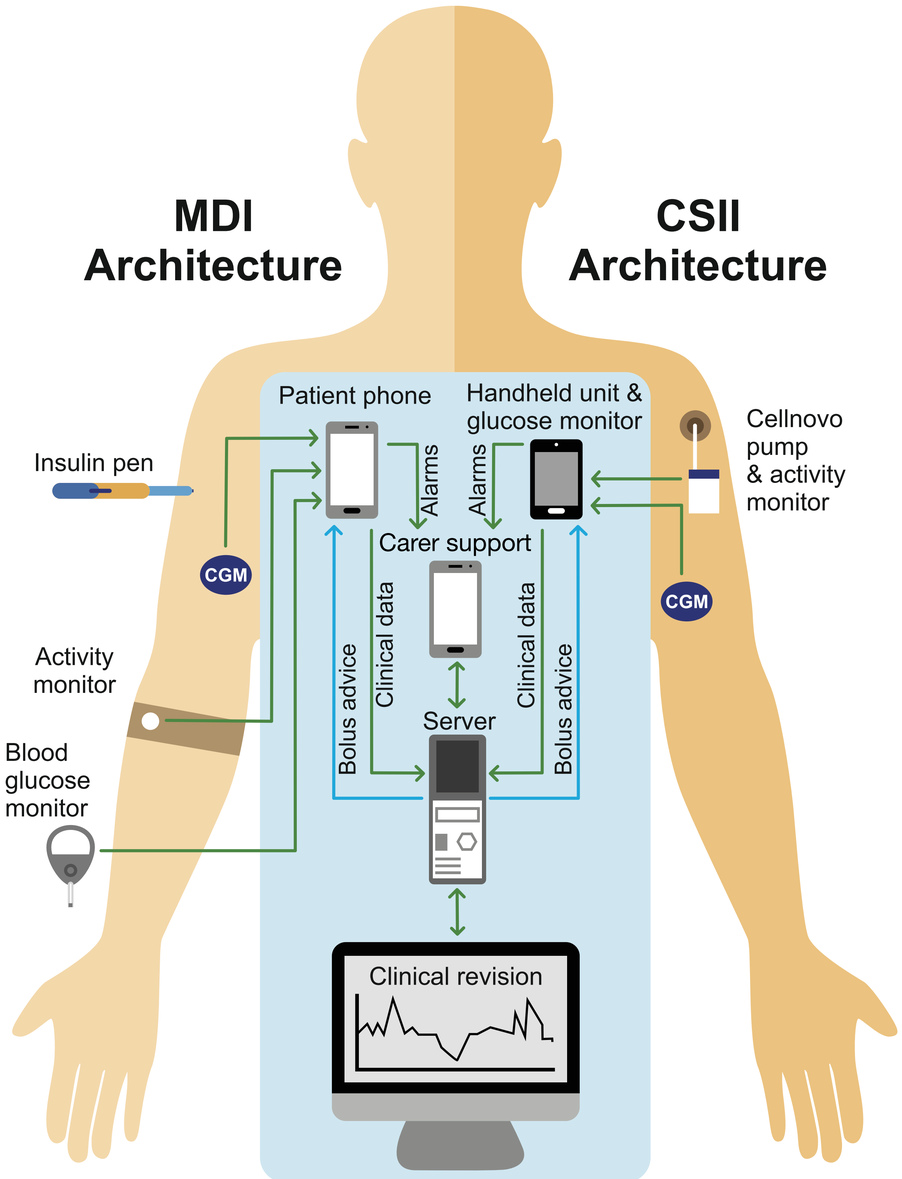
Artificial Intelligence for Diabetes

A novel, adaptive decision support system for diabetes self-management using artificial intelligence and mathematical modelling.



PEPPER system architecture

People with type 1 diabetes cannot regulate their blood glucose levels because they do not produce insulin. Most have to perform complex, multivariate insulin dose calculations several times a day to self-manage.

PEPPER is an intelligent decision support system that takes input from multiple sensors to provide insulin dose advice.

The management of chronic conditions like diabetes has been transformed in recent years by the ubiquity of affordable mini sensors. In addition, the emergence of AI in healthcare has revolutionised medical diagnosis and treatment. The UK medical device market is valued at £7.6 billion. Our aim is to provide a safe and secure system that improves patient self-efficacy and adherence to treatment. Ultimately, we hope to reduce the enormous cost of diabetes to society: the International Diabetes Federation reported that the condition accounted for at least US$727 billion in health expenditure in 2017.

Cellnovo insulin pump

PEPPER project partners

About the project

- **Personalised case-based reasoning for insulin dosing.**
- **Maximising safety through prediction of adverse events and fault detection.**
- **Combines data from multiple sources (interoperability).**
- **Dual platform: Cellnovo insulin pump or smartphone with insulin injection.**
- **Improve interactions between individuals and health professionals.**

For more information: http://www.pepper.eu.com