IMPROVED GLUCOSE MONITORING DURING EXERCISE USING WEARABLE DEVICES

A research group from CIBER, Clinic Hospital, IDIBAPS, Universitat Politècnica de València and University of Girona has developed a method to restore the standard accuracy of the continuous glucose monitor, allowing better mitigation of hypoglycemia during exercise in people with type 1 diabetes.

The Need

It has been shown that Continuous Glucose monitoring (CGM) decreases its accuracy during periods of exercise and may put the patient’s health at risk in a period of great relevance, since periods of exercise are prone to hypoglycemia, which can cause severe complications.

The Solution

Through the use of biometric signals provided by physical activity monitoring devices (wearables) a system that is capable of reversing the CGM estimation error during exercise has been designed. This system is also able to restore the accuracy of glucose measurements to a similar magnitude to that taking place outside periods of activity.

Innovative Aspects

- Greater accuracy in glucose estimates than other market devices during exercise.
- Possibility of integration into different monitoring systems: artificial pancreas, automatic pump suspension systems and CGM-based decision support systems for glycemic control.
- Improving the quality of life of people with diabetes by reducing the risks of hypoglycemia during physical exercise.

Stage of Development:

Laboratory Prototype

Intellectual Property:

- Priority US patent application filed (August 5, 2020)

Contact details

Aims

Looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this asset.

Contact

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