

Implantable glucose sensor

Summary

Profile type	Company's country	POD reference
Technology offer	Germany	TODE20231218010
Profile status	Type of partnership	Targeted countries
PUBLISHED	Research and development cooperation agreement Investment agreement	• World
Contact Person	Term of validity	Last update
Sabrina WODRICH	18 Dec 2023 17 Dec 2024	18 Dec 2023

General Information

Short summary

Scientists at a German university have developed a sensor for measuring blood glucose levels. This allows the patient to continuously receive their sugar levels without having to take the measurement personally. The sensor does not need to be recalibrated, even if it is encapsulated after a foreign body reaction.

The university offers a licence agreement or a technological cooperation in order to jointly refine the invention.

Full description

Blood sugar monitoring is crucial for those with diabetes or other metabolic disorders. Blood sugar that is too high or too low can cause serious health problems, including cardiovascular disease, nerve damage, and even coma. A safe continuous blood sugar monitoring method that is also easy for patients involves an implanted sensor.

Scientists at a German university have developed a sensor that works reliably in the body despite encapsulation following foreign body reaction. It uses an enzyme-catalyzed detection reaction combined with a measurement at concentration equilibrium.

Among the sensor's components are a microelectrode coated with a bioactive catalytic film and an oxygen-resistant enzyme as an active site. The enzymatic reaction is initiated with a short voltage pulse.

The university offers interested companies from the medical technology or biotechnology sectors a license agreement. A technological cooperation to further develop the invention jointly is also conceivable.

Advantages and innovations

The invention is a continuous glucose measurement systems. It relieves patients of the responsibility of constant blood sugar level monitoring, because this process is automated with the invention. Since the sensor is implanted, patients can avoid the unpleasant sensation of their skin being pierced. The prospective biosensor for automated blood sugar measurement has the advantage of delivering very reliable results. It requires no recalibration, even when encapsulated after a foreign body reaction.

Technical specification or expertise sought

Stage of development

Under development

Sustainable Development goals

• **Goal 3: Good Health and Well-being**

IPR Status

IPR applied but not yet granted

Partner Sought

Expected role of the partner

The university offers interested companies from the medical technology or biotechnology sectors a license agreement. A technological cooperation to further develop the invention jointly is also conceivable.

Type of partnership

Research and development cooperation agreement
Investment agreement

Type and size of the partner

- **SME 50 - 249**
- **SME 11-49**
- **SME <=10**
- **Other**
- **Big company**

Dissemination

Technology keywords

- **06001013 - Medical Technology / Biomedical Engineering**
- **06001005 - Diagnostics, Diagnosis**

Targeted countries

- **World**

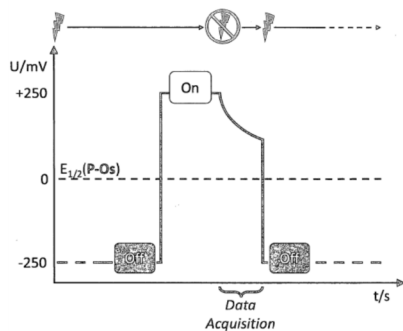
Market keywords

- **05001007 - Other diagnostic**
- **005001008 - Diagnostic test products and equipment**

Sector groups involved

Media

Images



[The sensor's measurement cycle that can be repeated as often as necessary](#)