



NON-INVASIVE DEVICE FOR EARLY DETECTION OF DIABETES

A technology that consists of systems, methods and kits to analyze a biomarker in a non-invasive way for early detection of diabetes



BACKGROUND

Worldwide, more than 300 million people have been diagnosed with diabetes (of which + 90% of cases are Type II Diabetes [T2D]), and another 180 million live with undiagnosed diabetes.

In T2D, early detection can help reduce complications of the disease. For glycemic monitoring, metabolites such as 1,5-AHG can be measured in blood or in saliva, for which conventional methods based on chromatography can be used. However, these methods require a good sample volume and preparation of the same, complex laboratory equipment and trained personnel. An alternative to conventional methods is to use enzymatic systems, but many fluid samples contain contaminants that also react with the enzymes and interfere with the biomolecule of interest in the measurement. As such, there is currently a need for improved techniques to detect analytes in body fluid samples for early detection of diseases

TECHNOLOGY

A technology which consists of systems, methods and kits for analyzing a body fluid sample, particularly testing for diabetes. It is related to a luminescence-based assay and point-of-care (POC) photon detection for determining low level analytes in body fluids, as a non-invasive screening method.

KEY BENEFITS

- System translates into a portable kit
- Kit can be coupled to mobile devices for reading
- Requires non-invasive samples
- Easy sample preparation
- It can detect multiple metabolites

DEVELOPMENT STATUS

- Physical prototype developed
- Pilot testing with patients' samples started in 2017
- Technology co-developed with the University of Houston.
- In 2017, a MOU with FUNDACION FEMSA, A.C. was established for the development and commercialization of the technology in LATAM

Technology Readiness Level: 5/9

INTELLECTUAL PROPERTY

US Patent Application
PCT Patent Application

This technology is available for licensing. More opportunities on our website: <http://redottec.com>



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