University of Strathclyde Technology & Innovation Centre

Health Technologies

Business Opportunities—Technologies

‘Smart’ Tattoos: A Novel Approach to Glucose Monitoring

Background

For decades, a simple and convenient way of enabling people with diabetes to monitor their own blood sugar levels has eluded medical science. But now advances in nanometrology – measuring at the nanoscale – are bringing the prospect within reach with ‘smart’ tattoos.

Technology

With support from the EPSRC’s UK Nanoscience Programme, researchers at the University of Strathclyde and King’s College London are developing ‘smart’ tattoos that can be injected just under the outer layer of skin.

Once in place they function like a tiny laboratory, constantly monitoring molecular-level changes in glucose concentrations within the body.

A hand-held device placed close to the skin can collect this information and use it to provide an instant glucose reading. It can be consulted as often as required.

Key Benefits

- ‘Smart’ tattoos constantly monitor molecular-level changes in glucose levels
- Eliminates the need for blood samples
- Delivers information non-stop
- Extremely accurate, highly sensitive nanoscale device

Markets and Applications

- Is applicable to the diabetes monitoring market in the first instance
- The technology has the potential to play a major role in many fields of future healthcare provision

Licensing and Development

We welcome contact from companies interested in accelerating the development of this opportunity. Please contact rkes@strath.ac.uk for further information.