

Companies Showcase 'Battery Free' Artificial Pancreas



Bruce Renfrew, Mike Phillips of Renfrew Group International ([RGI](#) [1]) and Professor Joan Taylor from De Montfort University ([DMU](#) [2]) showcased their innovative new device at the prestigious Global Life Science Summit in London last week, to bring their collaborative 'circuitless' Artificial Pancreas closer to reality for millions of people living with [Type 1 diabetes](#) [3].

The Summit was hosted by Lord Darzi of Denham, UK Business Ambassador for the Life Sciences and Chair of the Institute of Global Health Innovation at Imperial College London and joined by luminaries of the health sector such as Sir David Nicholson, Head of the NHS, Health Secretary Andrew Lansley and Universities and Science Minister David Willetts.

The idea of partnering leading practitioners of design and academia in collaborative projects has resulted in the revolutionary [Artificial Pancreas](#) [4], an implantable device that does not rely on electronic controls to regulate glucose levels in the body, but instead uses a novel polymeric gel to automatically control the delivery of insulin into the peritoneum.

Diabetes affects over 366 million people worldwide and [WHO](#) [5] projects that diabetes deaths will double between 2005 and 2030. The rate of type 1 diabetes incidence among children under the age of 14 is estimated to increase by 3% annually worldwide. 1

Diabetes cannot be cured, but treatment aims to keep blood glucose levels as normal as possible to control the symptoms.

The [Artificial Pancreas](#) [4] could herald the end of multiple insulin injections for sufferers of [Type 1 diabetes](#) [3] - a large proportion of which are at risk of over or under medicating with current treatment methods.

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"We have reached a critical point in the development of a fully implantable device which is one of the essential requirements for the success of an artificial pancreas and could ultimately improve lives immeasurable for diabetics worldwide," said Professor Taylor.

Funding is required to continue the successful completion of this device's study and to undertake pre-clinical trials tests, which would mean a significant step forward in the development of an advanced first-generation artificial pancreas.

Bruce said: "We [RGI [1]] are really proud to be working on such a high profile project that could meaningfully aid and improve the lives of Type 1 diabetes sufferers".

If successful, the device would be a simple and low-cost solution to the problem facing all diabetics.

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Links:

[1] <http://www.renfrewgroup.com/>

[2] <http://www.dmu.ac.uk>

[3] <http://www.nhs.uk/Conditions/Diabetes-type1/Pages/Introduction.aspx>

[4] <http://www.renfrewgroup.com/pancreas.html>

[5] <http://www.who.int/mediacentre/factsheets/fs312/en/>