

Government invests £800,000 to develop new hand-held technology to detect diseases in the field.

A new portable and low cost, rapid response disease diagnosis device, which could help doctors make instant and accurate diagnoses for diseases such as Malaria and Meningitis and which is being pioneered by Cambridge-based firm Cambridge Medical Innovations Ltd (CMI), has successfully taken up an £826,000 Government grant award to help develop the technology.

The £1.65m development programme, which will continue to run until May 2009, is part-funded by a Collaborative R&D grant under the Department of Trade and Industry's Technology Programme.

Substantially different from other diagnostic devices currently on the market (which require the addition of expensive chemicals to a sample to enable disease detection), the device, which utilises the quartz crystal element from a simple wristwatch and can be powered by standard batteries, could enable doctors to make instant, accurate, at-the-bedside or in-the-field medical diagnoses from blood or other samples.

Science & Innovation Minister Lord Sainsbury who originally announced the grant in 2006 said:

'I am delighted that the Technology Strategy Board is providing funds to support this project which will turn frontier research in nanotechnology and biotechnology into a marketable product which can create wealth and improve the quality of our lives.'

The device's sensor detects specific molecules within a sample, using miniaturised echo sounder acoustic technology to determine the presence of marker proteins for a particular disease or disease causing pathogens such as bacteria or viruses including Avian Influenza, Meningitis, E.coli, Malaria, heart attack, stroke and some cancers.

CMI's Managing Director Dr Matthew Cooper said:

"This funding will significantly accelerate our development programme for the portable device and its companion products. Our work is a proprietary application combining the very latest in nanotechnology with the mass-produced quartz crystal resonator that is used in everyday appliances. Disease detection and patient monitoring has the potential to be significantly improved and there may also be cost benefits for hospitals and surgeries that could perform tests themselves rather than send away for them, potentially resulting in quicker diagnosis and improved treatment regimes."

CMI's development partners are the University of Cambridge and the Bedford-based company UNIPATH, part of the Inverness Medical Group, a leading provider of women's health, nutritional and clinical diagnostic products.

University of Cambridge Professor of Biological Chemistry Chris Abell said:

"I am delighted to be part of this collaboration, helping to forge links between academia and innovative industrial partners. The development of novel solutions for the detection of life threatening diseases is a very important area of research and one in which this kind of industry-academia partnership potentially offers great synergies."

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Notes To Editors

1 The project aims to develop biosensor chips and hardware for real-time healthcare monitoring (i.e. rapid clinical in vitro diagnosis and efficient blood screening) and for environmental monitoring. It will bring together three technologies: , Cambridge University's novel polymeric biocompatible surface coatings, Unipath's diagnostic assay development and reagent production expertise and CMI's breakthrough acoustic detection methodology. This will ultimately lead to a portable, hand-held device that will enable more efficient, reliable and rapid diagnosis of disease, and the same-day screening of patient samples.

2 An £826,000 Government grant in support of the project, has been made under the terms of the Micro and Nanotechnology (MNT) Applied Research Programme, a subsection of the Technology Programme.

3 The Technology Programme, launched in 2004, is investing directly in new and emerging technologies, and has been designed to help businesses work collaboratively with each other or with academic partners to develop technologies that will underpin products and services of the future. The Technology Programme provides funding using two of the DTI's business support products: Collaborative Research & Development and Knowledge Transfer Networks.

4 The UK Government's ten-year Science and Innovation Investment Framework, published in July 2004, reaffirmed the commitment to support businesses investing in new and emerging technologies identified by a business-led Technology Strategy Board. Over the period 2005-2008, £370 million is available to businesses in the form of grants to support research and development in the technology area through the Technology Programme managed by the **Department of Trade and Industry**. For further information please go to <http://www.dti.gov.uk/innovation/tech-priorities-uk/index.html>

5 Contacts :

CMI Ltd
181 Cambridge Science Park
Cambridge
CB4 0GJ

www.cmi.com
info@cam-medical.com

Dr. Matt Cooper, Managing Director
+44 (0)1223 225324

Chris Hammond, Project Leader
+44 (0)1223 225331

Professor Chris Abell at:
Department of Chemistry
University of Cambridge
University Chemical Laboratory
Lensfield Road
Cambridge CB2 1EW