

# Press Release



*Press release from Thermofluidics*

For immediate release on 9 October 2012

## **Thermofluidics receives Wellcome Trust Translation Award to develop innovative irrigation pump**

Thermofluidics has received a Translation Award from the Wellcome Trust to develop an innovative, low cost irrigation pump to improve the health of smallholders in the developing world.

The solar-powered water pump is based on entirely new technology, is easy to maintain and can be manufactured from inexpensive materials using low cost production methods. It has numerous other health-related applications including water pumping for drinking and sanitation, solar hot water provision, refrigeration, and oxygen enrichment of air.

Where irrigation currently exists in the developing world, it usually requires several hours of hard manual labour per day, diverting time away from other tasks and increasing nutritional needs. An unexpected illness can lead to the loss of an entire harvest.

Thermofluidics' pump uses heat generated by a solar panel to drive periodic boiling and condensing to create an oscillating flow of liquid. These fluid oscillations can then be harnessed to generate shock waves that draw water from up to 100 metres below ground and pressurise it at the surface. Unlike traditional treadle pumps, it doesn't have moving parts and so is easier to maintain.

Mark Bryant and Tom Smith will lead the project, which aims to deliver a functioning pump suitable for a smallholder that delivers demonstrably superior performance to a treadle pump. The project will also address key aspects of the smallholder adoption process, including installation skills, pump construction materials and techniques for manufacturing.

Mark Bryant said: "Our intention is that Thermofluidics' pump will ultimately improve crop yields, income and health outcomes for up to 550 million malnourished smallholders across the developing world."

Richard Seabrook, Head of Business Development at the Wellcome Trust, said: "Supporting initiatives that address the global threat of food security and access to nutrition is one of our core strategic research challenges. Beyond the obvious benefits of being able to grow food crops, access to clean water and sanitation has an enormous impact on public health and we are pleased to support the development of this innovative water pump."

Ends

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### **Notes to Editors**

#### **About Thermofluidics**

Thermofluidics aspires to be one of the world's most innovative High Tech businesses offering an exciting new range of pumping technologies that are both cost effective and environmentally sustainable. It has world class expertise with "Thermofluidic-Oscillators" - devices that use heat to generate fluid motion with no, or very few moving parts, making them cheap to operate and easy to maintain. Thermofluidics' technology is applicable from industrial state-of-the-art to some of the poorest farms in the world. The company is based in Oxford, England.

[www.thermofluidics.com](http://www.thermofluidics.com)

#### **About the Wellcome Trust**

The Wellcome Trust is a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health. It supports the brightest minds in biomedical research and the medical humanities. The Trust's breadth of support includes public engagement, education and the application of research to improve health. It is independent of both political and commercial interests.

[www.wellcome.ac.uk](http://www.wellcome.ac.uk)