Press Release
22 January 2007

GREEN BIOLOGICS LTD

Green Biologics awarded £560,000 to boost 'Green' Fuel Development

An Oxfordshire biotechnology company is set to develop a new low-cost 'next generation' biofuel, with £250,000 funding from the Department of Trade and Industry's Technology Programme and £310,000 from shareholder investors and business angels.

Green Biologics Ltd plans to develop a way of manufacturing biobutanol, identified as a superior 'next generation' biofuel for transport, which will slash the cost of production by up to a third. Biobutanol is currently used as a chemical feedstock for polymers and plastics but high production costs have prevented it being widely used as a fuel.

Green Biologics has also announced the appointment of Dr Andrew Rickman OBE as non-executive Chairman. Dr Rickman founded Bookham Technology Inc, the world's second largest fibre optics telecom component producer, and is actively involved with a number of growing technology companies.

Minister for Science and Innovation, Malcolm Wicks, said: "The development of biofuels is expected to play a major part in reducing transport emissions post 2020. We need companies like Green Biologics to work on developing the technology now needed to make new types of biofuel to help meet our future goals.

"Tackling climate change is a huge global challenge. We believe the UK must put its best efforts towards developing the new technologies we need to help cut carbon emissions. There's also a great economic opportunity for UK businesses in investing in this area."

Green Biologics Founder & CEO, Dr Edward Green, said: "Biofuels, such as biobutanol, are sustainable and environmentally friendly 'next generation' fuels that will extend, and ultimately replace, fossil fuels such as petrol and diesel. Although butanol is not currently used as a biofuel, it has a number of properties that make it extremely attractive. It is a renewable liquid fuel, produced from the fermentation of sugars, which can easily be integrated into the existing fuel infrastructure by blending with conventional fuels like petrol and diesel. Unlike bioethanol, it offers similar energy per litre to petrol, has low vapour pressure and is easy to store, handle and transport via pipelines."

Biobutanol is produced by the clostridial fermentation of starch and sugars, a process first commercialised in 1916 to produce acetone for munitions for the war effort but which was displaced in the 1950s by a cheaper petrochemical method.

BP has recently announced a collaboration with Dupont and British Sugar to manufacture biobutanol using conventional technology in the UK. BP provides a route for butanol into the transport fuel market and aims to blend butanol with petrol at its 1200 filling stations. In addition, in an attempt to curb $C0_2$ emissions, the EU has suggested that biofuels should account for 5.75% of total fuel sales by 2010. More recently the Commission has proposed that biofuels should make up 10% of total fuel sales by 2020 which represents a huge increase in the market for biofuels.

Within the UK, the Renewable Transport Fuel Obligation will, from April 2008, require fuel suppliers to ensure that an increasing percentage of their total fuel sales are made up of biofuels by 2020. The Government intends that biobutanol should count as a renewable transport fuel under the RTFO. The Government is due to consult on the details of the RTFO very shortly.

Green Biologics is partnering with EKB Technology, a specialist in innovative process technology, to develop an advanced fermentation process for butanol with improved yields and productivity and to demonstrate lower production costs for its Butafuel™ product.

Dr Green explained: “The major barrier to butanol production has been the high cost of the conventional starch fermentation process. Our expertise in microbial strain development, together with EKB’s innovative process technology and the use of non-edible food stocks, should lead to a step change in the economic viability of the manufacturing process - we are aiming for a two to three fold reduction in cost. We are effectively using our knowledge of enzymology, microbial physiology and fermentation to optimise and ‘re-commercialise’ the butanol fermentation process.”

Green Biologics is also expanding its staff numbers as it moves from a research to a development phase. Dr Green added: “New investment, together with significant grant funding, our collaboration with EKB Technologies, and the strengthening of our board with the appointment of Andrew Rickman as Chairman are exciting developments. Dr Rickman brings substantial management expertise and a hands-on approach that will be particularly valuable as we move to the next stage of demonstrating that we can produce our own Butafuel™ product.”

Dr Rickman said: “I am delighted to be joining Green Biologics at such an interesting time and I look forward to working with Edward and the rest of the management team to build on their achievements over the last three years. The Company is well-placed to demonstrate that it can produce a renewable and environmentally friendly transportation biofuel for the 21st century using cheaper, faster and cleaner production methods than conventional petrochemical processes.”

- ENDS -

Press contact

Margaret Henry, PR Consultant. Tel: +44 (0)1865 811199 Email: m.henry@oxin.co.uk

Photo available on request

L-R: Dr Andrew Rickman OBE, the new Chairman of Green Biologics, congratulates Dr Edward Green, Founder & Chief Executive Officer. Green Biologics has raised £560,000 to develop Butafuel™, its own 'next generation' biofuel.

About Green Biologics

Green Biologics Ltd was founded in 2003 by Dr Edward Green, Chief Executive Officer, and is located at Milton Park, Oxfordshire. Green Biologics is an industrial biotechnology company aiming to become the world's leading supplier of advanced fermentation techniques for conversion of cellulosic plant material to renewable biofuels..

Technical development is supported by a microbial platform technology based on a unique and proprietary collection of heat loving micro-organisms (thermophiles) and thermostable enzymes that operate at higher temperatures than other industrial micro-organisms and which can deliver fast and highly-productive processes. The Company's platform technology has been specifically developed to address a range of environmental, industrial and pharmaceutical applications.

For further information: www.greenbiologics.com

About Biofuels

Biofuels for transportation are attractive replacements for gasoline and are rapidly penetrating fuel markets as low concentration blends. Biofuels, derived from natural plant sources, are completely renewable. In addition, they are environmentally friendly (reduced CO_2 emissions), reduce our dependence on finite fossil fuels and help revitalise rural economies. Green Biologics is committed to driving down the cost of biofuels by implementing advanced proprietary fermentation technologies that reduce processing costs through increased productivity, and also reduce feedstock costs through the implementation of agricultural waste and dedicated energy crops.

About Dr Andrew Rickman OBE

Dr Andrew Rickman OBE was the founder and former CEO/Chairman of Bookham Inc, which he grew from a start-up in 1988 to the world's second largest fibre optics telecom component producer. Dr Rickman holds advisory board positions with a number of science and technology organisations and is a director of CLIK, the commercialisation arm of CCLRC Rutherford Appleton Laboratory. He has a wide range of experience in finance and works closely with VC and institutional investors. He is on the Alchemy Partners Board, which focuses on restructuring established businesses. Dr Rickman is chairman of two early stage, venture-backed businesses, including Green Biologics, and is also a director of several growing technology companies. Dr Rickman was awarded an OBE in the Queen's Millennium Honours list for services to the telecommunications industry and is a winner of the prestigious Royal Academy of Engineering Silver medal for his outstanding contribution to British Engineering.