

Powertrib expansion

For further information contact:
Powertrib
 t: +44 (0) 1865 784610
 e: powertrib@powertrib.com
 w: www.powertrib.com

Powertrib has announced the expansion of its laboratory services on the Science Park.

The newly established test laboratory is mainly concerned with emerging and innovative types of testing and test development in the field of tribology, a study of interacting surfaces in relative motion. Tribology includes the phenomena of friction, lubrication and wear, and is of increasing interest as it is directly involved in studies for improved fuel economy, emission control and durability of lubricants and fuels.

expensive remedial repairs. Problems with lubrication are thought to be a contributory factor and Powertrib's new screening method is designed to test (and optimise) the operation of lubricants with a wide range of wind turbine components. Powertrib's new tribology tests are designed to help both wind turbine efficiencies and reduce maintenance and repair costs.

In addition to the wind turbine industry Powertrib customers include car manufacturers, Formula One teams, mechanical components manufacturers, the oil industry, coating and chemical companies and all major global lubricant and lubricant additive companies.



There is a great need in the automotive and other industries for Powertrib's new innovative test methods, which enable fast, comprehensive and sustainable development of new components, materials and fluids. A key advantage of Powertrib is its expertise in fundamental tribology phenomena, combined with a wide understanding and experience in industrial applications. In addition, new investigative research methods and technologies now enable the examination and analysis of materials and surfaces in ways previously not possible.

Commenting on the expansion CEO, Dr Ksenija Topolovec Miklozic advised:

"One of the key advantages that we offer is the combination of micro and nano-tribology. Micro scale friction, film forming and wear data are routinely combined with data from 3D microscopy and atomic force microscopy at the nano-scale. Powertrib offers innovative testing and consultancy services and we are very pleased that our customer base continues to grow. The flexibility offered in the Magdalen Centre has enabled us to easily expand into extra laboratory space allowing additional equipment and facilities. Powertrib is now in an exciting growth phase of its business, in particular we want to continue expanding at The Science Park as well as open new facilities abroad."

Powertrib's current R&D focus is on the development and optimisation of new test methods that have the potential to become new industry standards. One example is a new tribology test and screening method for the wind turbine industry. A current problem for wind turbine operators is the unpredictable failure of gearbox and bearing mechanisms necessitating



3D Applications in wound healing

3D Applications in wound healing – saves money, saves time and improves outcomes

New company in the Magdalen Centre Eykona Technologies continues to drive development of its unique 3D visualisation technology and its applications in healthcare markets.

The company, which was spun out from Oxford University, is designing a camera and software to allow clinicians to take 3D images of serious wounds. These wounds generally take a long time to heal, and so the only effective way to determine progress is to track wound volume over time.

The Eykona® Wound Measurement System will allow simple, accurate and repeatable measurements to be made using the hand-held imaging device. Proprietary software reconstructs the data acquired by the camera into high-resolution 3D computer models. These models will give wound care specialists a clearer view on the growth of healthy tissue inside a wound and help them decide whether the current treatment is making a difference.

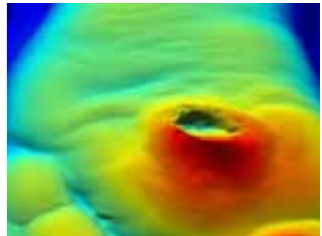
An additional benefit of the system is its suitability for remote use allowing the potential for remote patient monitoring of specific wounds, or the ability to share images with remote experts for advice or as part of a multi-disciplinary team.

Paul Murphy, CEO, explains:

"Nurses, podiatrists and doctors, as well as patients, will be able to know within days whether a treatment is working; currently it can take weeks or months. It will be possible to compare similar wounds, and look at what treatments work best. A telehealth system would enable experts to look remotely at a 3D model of a wound from a patient anywhere in the world. Patients in rural areas often rely on nonspecialist nurses and doctors for most of their treatment. But with this quick and simple to use system, a specialist doctor can get a huge amount of the information he would ever need without having to see the patient".

Eykona has recently closed two rounds of funding and is preparing to launch its Wound Measurement System into the UK market within the next 6 months.

For further information contact:
Eykona Technologies
 t: +44 (0) 1865 784789
 e: info@eykona.com
 w: www.eykona.com



Increasing the number of organs available for transplantation

There are more than 12,000 liver transplants each year in Europe and the US

However the demand for liver transplants is increasing and it is estimated that tragically more than 30,000 patients on the waiting lists will die in these countries without receiving a transplant.

Apart from the availability of organs, another fundamental problem is that liver transplants pose a far greater risk than kidney or heart operations. If a heart or kidney transplant fails then artificial means can be used to keep the patient alive, however if a liver transplant fails then there are no artificial interventions that can be used. As a result surgeons will tend to take far fewer risks with potential organs and reject far more of them, often based on a simple visual inspection.

Science Park company OrganOx has developed a device that can not only preserve a donor liver but also minimise damage and provide valuable data concerning the condition of the liver.

The device operates by maintaining the organ in a fully functioning state during transport and storage, by providing blood flow, oxygen, nutrients and temperature within physiological parameters. This not only enables the liver to be stored safely for a longer period (up to 24 hours) but also provides the surgeon with real-time and cumulative data with which to assess viability and make a decision whether to transplant. This is a major advance over the current method of assessment which is largely subjective.

OrganOx was formed as a spin-out from the University



of Oxford in April 2008 by Professor Peter Friend, (Professor of Transplantation, University of Oxford and Director of the Oxford Transplant Centre) and Dr. Constantin Coussios, (Reader in Biomedical Engineering at the Institute of BioMedical Engineering, University of Oxford). Following the appointment of Dr. Les Russell, an experienced medical devices CEO, the company secured Series A funding of £1.5m in December 2008 and a further £2.75m in 2011 including an investment by The Royal Society.

For further information contact:
OrganOx
 t: +44 (0) 1865 784000
 e: les.russell@organox.com
 w: www.organox.com