

ScanTrainer launched in the US

Fusion IP (AIM: FIP), the university commercialisation company which turns university research into business, is pleased to announce that MedaPhor, one of its Cardiff based portfolio companies, has today signed its first US distribution agreement for its ultrasound training simulator – ScanTrainer.

The non-exclusive agreement with Florida based Rotherfield Technologies LLC will enable ScanTrainer to access the vast US market for ultrasound training.

ScanTrainer’s unique ultrasound simulator uses SensAble Technologies PHANTOM® haptic device to provide a realistic, touch-enabled training experience, allowing sonography trainees to literally “feel” what they see on the computer screen in order to gain real life scanning experience in a more cost-effective way. The haptically-enabled computer training modules enable the trainees to develop the complex mix of cognitive skills and eye-hand movement coordination without the need for an ultrasound machine, a patient, or direct supervision by an expert. Trainees have the freedom to learn by trial and error at their own pace, and gain unlimited opportunities to practice prior to exposure to patients – ensuring greater competency when interactive training with patients begins and significantly reducing the amount of direct supervision required.

ScanTrainer’s first system is the Transvaginal Simulator, which went on sale in the UK in June 2010. Its gynecological ultrasound training module replicates the experience of examining a normal and retroverted uterus, and teaches the core ultrasound examination skills, without the need for a patient to ‘learn’ on.

A range of ScanTrainer systems, with associated pathologies and learning modules will be launched next year, including a Transabdominal system for teaching obstetric, general, and Accident & Emergency based medical examinations.

Stuart Gall, CEO of MedaPhor said

“We are delighted to have signed our first US distribution agreement with Rotherfield Technologies LLC. ScanTrainer’s unique ability to teach the core ultrasound examination skills, without the need for an ultrasound machine or a patient and with reduced involvement by a trainer, speeds up the learning process and enables the trainer to supervise a larger number of trainees. We believe the system has the potential to become the world’s leading ultrasound training system.”

Contact

MedaPhor	Stuart Gall	CEO	+44 (0) 2920 756534
Rotherfield Technologies	Paul Grimond	CEO	+1 (941) 5187740
SensAble	Laura Wallace	Director of Marketing	+1 (781) 9397437

Background

About Fusion IP

Fusion IP plc was established in 2002 to commercialise university-generated intellectual property. Fusion IP has signed long term agreements with two of the UK's leading research intensive universities, the University of Sheffield and Cardiff University, giving a combined R&D spend attributable to Fusion IP of approximately £185m a year.

Fusion's first agreement was a ten-year exclusive arrangement with the University of Sheffield giving it the right to commercialise (through both the creation of spin-out companies and licensing) research, owned by the University, initially in the area of medical life sciences. This agreement was expanded in July 2008 to include all non-life science research-generated IP such as energy, engineering and electronics. Fusion has significant shareholdings in a portfolio of Sheffield University spin-out companies including Simcyp, Magnomatics, Diurnal and Phase Focus.

In January 2007, Fusion completed a ten year exclusive agreement with Cardiff University, also giving it the right to commercialise (through the creation of spin-out companies) Cardiff University's research-generated IP. Fusion has significant shareholdings in a portfolio of Cardiff University spin-out companies including Asalus, Abcellute and MedaPhor.

On 2 December 2009, Fusion announced that it had raised approximately £3.2 million through a fund raising and that, as a result of its participation in such fund raising, IP Group plc ("IP Group") held approximately 19.8% of Fusion. Fusion has also entered into a Co-Investment Agreement with IP Group under which IP Group has the right to acquire, for cash, 20% of Fusion's equity in any new Fusion portfolio company. As Fusion normally owns 60% of any new portfolio company at start-up, IP Group's shareholding will normally equate to a 12% stake in the new portfolio company.

Fusion IP also has a Memorandum of Understanding with Finance Wales, the provider of commercial funding to Wales-based SMEs, which outlines a strategy of co-investment in opportunities arising from the Cardiff Agreement.

About MedaPhor

MedaPhor, spun out of Cardiff University in 2004, and based in the Medicentre, Heath Park Campus has developed and launched the world's most advanced ultrasound training simulator, ScanTrainer.

Ultrasound scanning is a highly skilled technique. Conventional training is costly in terms of both time and money and is fraught with many challenges such as the unavailability of qualified trainers, training opportunities and the ever increasing conflict between service delivery and training. Several approaches are currently available, including short training courses with no qualification and structured university postgraduate study schemes leading to a postgraduate qualifications. In response to this problem, Nazar Amso, a Senior Clinical Academic at the School of Medicine, with nearly 25 years experience in ultrasound training and education founded MedaPhor. Supported by Cardiff University, Fusion IP, Finance Wales, Cardiff Capital, the Welsh Assembly Government and a number of Cardiff-based entrepreneurs and clinicians, the company has spent six years developing novel ultrasound training solutions that bridge the gap between lengthy conventional ultrasound training and the need to develop ultrasound skills to a high standard in a relatively short time.

ScanTrainer enables a level of competency to be attained before ultrasound skills were put into practice in a clinical environment and provides safe, effective and realistic learning experience, with the ultimate goal of enhancing patient safety. It offers a real-time adaptive virtual environment and dramatically accelerates skills acquisition. The large variety of clinical scenarios incorporated in the simulator ensures that the learner develops the relevant skills without awaiting “chance” clinical encounters. In the future the simulator will also provide a mechanism for assessment of competency, a prerequisite for continual assessment of skills and revalidation.

ScanTrainer’s unique ultrasound training software provides simultaneous ultrasound scan and virtual anatomy images for the ultrasound learning modules. A replica ultrasound probe attached to a SensAble haptic device enables the trainee to navigate around a virtual patient’s anatomy. As the probe is moved, the display shows the progress of the beam in the patient’s anatomy, side by side with corresponding ultrasound images accompanied by a real-time physical feedback of probe manipulation as experienced during contact with a patient. The immersive virtual environment allows trainees to develop their manual dexterity and eye–hand coordination skills in a logical and systematic approach that mimics a real life scan.

The learning management system is novel in ultrasound training. It enables the user to review his/her performance through detailed feedback on each task within an assignment, thus requiring minimal supervision from an expert trainer. Successful completion results in a correct report, while incorrect completion results in an error message instructing the student on how to improve performance. Many of the simulator’s software features are novel and patent applications are pending.

About SensAble Technologies

Founded in 1993, SensAble Technologies is a leading developer of 3D touch-enabled (force feedback) solutions and technology that allow users to not only see and hear an on-screen computer application, but to actually “feel” it. With 41 patents granted and over 8,000 systems installed worldwide, SensAble Technologies’ haptic technology is being used in applications ranging from designing toys and footwear, to surgical simulation and stroke rehabilitation, to dental restorations, as well as a range of research and robotic applications.

SensAble’s PHANTOM haptic device uses technology known as proprioceptive force feedback – where trainees use a haptic device instead of a mouse – holding a stylus that resembles an ultrasound probe that pushes back on the user’s hand when it makes contact with virtual objects. The ScanTrainer application and integrated haptic device are programmed using SenseGraphics’ HD3 application programming interface (API) to deliver the “real feel” of the ultrasound procedure – and to record data on the specific forces exerted by the student in each step.

SensAble markets its own 3D modeling solutions using its haptic devices, as well as its haptic devices and developer toolkits to medical, dental, design, and manufacturing companies; educational and research institutions; and OEMs. SensAble products are available through direct and reseller channels worldwide. www.sensable.com.