

SonoSite's MicroMaxx® system is the right choice for regional nerve blocks

Russells Hall Hospital in Dudley has recently acquired a MicroMaxx® system, and will soon add a new M-Turbo® system, to its portfolio of SonoSite point-of-care ultrasound units, specifically for the administration of regional nerve blocks in theatre.

Dr Wilson Thomas is a consultant anaesthetist at Russells Hall, and explained the benefits of the MicroMaxx system. "I have been working with SonoSite for over four years, since I first trained in using ultrasound needle guidance for nerve blocks. I also regularly use the MicroMaxx system in theatre for orthopaedic patients undergoing limb surgery, to administer cervical plexus blocks for carotid



endarterectomy and in guiding the needle during transverse abdominal plane (TAP) blocks. Using ultrasound guidance is a safer technique, as you can visualise exactly where the needle is with respect to the nerve, and avoid vital tissue structures. We chose the MicroMaxx system because of the excellent resolution, which makes it very good for nerve blocks. We use a 13 MHz probe, and the image quality is very clear. It is a very robust system, and easy to manoeuvre, even mounted on a trolley; it has a quick start up and is easy to use - all important features in theatre."

For more information T. 01892-600930.

Carl Zeiss launches Cell Observer SD to Capture Life's Transient Events

In the last few years live cell imaging applications have increased dramatically, led by an array of new fluorochrome molecules with outstanding quantum efficiency and stability. However, capturing fast cellular processes without damaging the cells under observation and whilst maintaining the optimum conditions for survival over a long period is still a challenge.

Carl Zeiss has responded with the launch of the Cell Observer SD, which fully integrates the CSU-X1 confocal scanning unit manufactured by Yokogawa Electric Corporation (Japan) and, for the first time, optimises the unit's features for the exacting requirements of live cell imaging. With Cell Observer SD, confocal observation and documentation of experiments on living cells over a long period of time and with high frame rates is possible.

"The combination of high resolution, sensitivity and speed is essential to track the communication and interaction of cells, organisms and structures," says Aubrey Lambert, Carl Zeiss UK. "Cell Observer SD makes that possible to deliver outstanding image quality and exceptional sensitivity and open up a new time window for confocal microscopy." Cell Observer SD is ideal for research in molecular cell biology, developmental biology, neurobiology and live cell imaging in general. Together with the entire line of incubation accessories from Carl Zeiss, Cell Observer SD enables users to observe living specimens for hours without damaging them. All major incubation parameters such as temperature and CO₂ content are saved automatically together with the image data and all settings are also made via the AxioVision software.

For more info E. micro@zeiss.co.uk



Zeiss introduces Laser TIRF 3 Imaging System for targeted brain lesion treatments

With the introduction of the Laser TIRF 3 microscope system, Carl Zeiss significantly enhances the capability of scientists to visualise near-cell membrane dynamic processes while maintaining optimum specimen incubation conditions. Single molecule dynamic processes in cell-free systems may also be observed and, in combination with other techniques such as Atomic Force Microscopy (AFM), the new microscope provides a complete solution for users in the life sciences, biochemistry, molecular biology and biophysics arenas.

The Laser TIRF 3 maintains Carl Zeiss' long-standing commitment to system flexibility. A range of incubation options maintain viable conditions for live cell experiments. Together with the Definite Focus module, users can be assured of accurate quantitative data over long time periods. The new laser module may be equipped with up to four solid-state lasers, is AOTF-controlled (Acousto-Optical Tuneable Filter) and may be operated entirely from the AxioVision software interface.

The TIRF slider is available in two versions; either manual or fully-motorised and software controllable. The motorised version permits a



given illumination angle to be set with significantly greater accuracy and speed than other current systems and the reproducible angle setting results in reproducible penetration depths for the light beam. Together with the corrected beam-path and special filter sets, the apochromatically-corrected optics of the TIRF slider guarantee maximum image quality.

AOTF control and angle setting are integrated into the 'Fast Image Acquisition' module of the AxioVision software, enabling significantly more high resolution images to be acquired within any given timeframe.

For more information E. micro@zeiss.co.uk

RANSOM study shows non-adherent patients can pay with their lives!

The recently published RANSOM study looked at the effect of non-adherence in over 33,000 patients and they concluded that it is vital for physicians to promote treatment strategies for epilepsy that offer an increased likelihood of adherence.

After reviewing data on more than 150,000 patient years they found that 26% of patients had at least 20% deficit in the quantity of AED's dispensed versus that prescribed. These non-adherent patients had a 222% increase in mortality compared to the compliant group.

The non-adherent group also showed a 21% increase in fractures, a 50% increase in emergency department visits, an 86% increase in hospitalisations and a 108% increase in motor



vehicle accidents. (Ref: Fought E et al (2008) Neurology 71(20) 1572-8). It is clear that non-compliance is widespread and that this can lead to serious consequences.

Previous studies have shown that compliance can be improved by making the AED easier to take including moving to a simple once a day dose regimen.

Formulations have been developed for some AED's to make this possible.

For more information on how compliance may be improved with sodium valproate contact Beacon Pharmaceuticals on T. 01892-600930.

Benefits of Subtilis® shown in new DVD from The Electrode Company

The Electrode Company Ltd (TEC) specialises in non-invasive monitoring, optical sensors and high performance pulse oximetry. TEC has now developed Subtilis, a truly diagnostic pulse oximetry system, that calibrates itself both to the sensor and to the patient's variables. As a result, a new, brief DVD is now available on this unique non invasive blood spectrometry device.

The DVD is all about receiving something which is measurably different and better than conventional pulse oximetry, namely blood spectrometry. This is the next generation of blood oxygenation monitoring technology. The DVD covers a number of areas, including:

- How pulse oximetry has become well established, resulting in clinicians reliance on it for vital medical decisions.



- How 36 UK hospitals have been surveyed, and reveal that up to one third of pulse oximeters could impact adversely on clinical decisions.
- How in a patient undertaking breathe down exercises to deoxygenise his blood, a 'high' reading pulse oximeter can become even less reliable as SpO₂ falls.
- How blood levels of melanin interfere with the absorption of light, thereby causing pulse oximeters to read 'high'. Subtilis adjusts to varying levels of melanin, thus providing precise and personalised blood oxygen monitoring.

For your copy of the DVD or for more information, visit www.electro.co.uk or T. 01291 650279.

Powerful new technology for M-Turbo™ system

SonoSite, specialist in hand-carried ultrasound for point-of-care medicine, has developed SonoGT™ Global Targeted technology, which capitalises on the power of the M-Turbo platform to provide point-of-care ultrasound with targeted solutions. SonoGT offers a new level of colour flow imaging, wireless connectivity and workflow integration for acute point-of-care ultrasound, such as anaesthesia, emergency medicine and critical care.

The SonoGT platform offers ColorHD™ technology, a proprietary, colour Doppler algorithm, to increase colour performance, sensitivity and frame rates, for increased diagnostic information and better visualisation of colour flow. Wireless solutions include SonoRemote™ control, which untethers the clinician from the ultrasound system during procedures to increase ergonomic comfort, and is

expected to be very useful in sterile field procedures. SonoRoam™ technology allows wireless image transfer from the M-Turbo system to a PACS system or to a personal computer so that clinicians can quickly retrieve the information from any location. For improved workflow integration, new features facilitate seamless clinical integration of ordering, scheduling, image acquisition, storage, viewing and billing of patient procedures. Patient demographics can be entered before, during or after the examination, allowing flexibility in time-critical situations.

For more information contact T. 01462 444 800, E. europe@sonosite.com, www.sonosite.com



MD Anderson Cancer Center acquires Leksell Gamma Knife Perfexion for targeted brain lesion treatments

The University of Texas MD Anderson Cancer Center (Houston, Texas) will add Elekta's Leksell Gamma Knife Perfexion™; an advanced radiosurgery device specifically designed to treat one or more lesions in the head in a single session, to their radiation oncology department.

"Leksell Gamma Knife Perfexion suits our clinical needs," says Eric Chang, MD, Director of MD Anderson's Central Nervous System Stereotactic Radiation Program. "The device will be used initially to treat primary brain and skull base tumours as well as single and multiple brain metastases in a single session."

Designed to extend the system's reach down to the level of the skull base and cervical spine, Perfexion was scheduled to be



delivered to MD Anderson by March 2009 and should be operational by mid-2009, he adds.

"Elekta is committed to supporting radiosurgery and neuro-oncology by providing highly refined tools that support specific clinical

objectives, yet share a common foundation in terms of image and information management," says Joseph K Jachinowski, President and CEO of Elekta North America. "The result is a complete line of stereotactic treatment solutions designed to meet the goals of any type of radiosurgery programme."

For further information, E. michelle.lee@elekta.com

MS patients treated with Tysabri® remain free of disease activity for two years

Biogen Idec and Elan Corporation, plc recently announced that five-times as many multiple sclerosis (MS) patients taking TYSABRI® (natalizumab) were free from disease activity versus placebo in the overall patient population. Results from this retrospective analysis showed that two years after beginning treatment with TYSABRI, 37% of patients remained free of disease activity, compared to 7% of placebo-treated patients. 64% of patients showed no sign of relapse or sustained disability progression and 58% were free of radiological disease activity. Both of these measures were used to define freedom from disease activity in this analysis of the AFFIRM clinical trial. These data were published in the March 2009 issue of *The Lancet Neurology*.

The analysis also suggests that the efficacy of TYSABRI may increase over time. The data show the proportion of MS patients who were free of disease activity in the TYSABRI group were greater in the second year than in the first year, while the number of MS patients in a placebo group free of disease activity stayed about the same in the second year.

For more information visit www.tysabri.com www.biogenidec.com or www.elan.com

If you would your news to feature in ACNR, please contact Rachael Hansford, T. 01747 860168, E. rachael@acnr.co.uk