

Biosensor enables breakthrough in the study of respiration control

A breakthrough study in the fields of neurophysiology and respiration, made possible by the sarissaprobe™-ATP from Sarissa Biomedical, was recently published in *Nature*. The experiment unveiled the exact location in the brain in which ATP mediates the breathing response. This major study also confirms the power of the sarissaprobe™-ATP biosensor to precisely measure purine production in real-time biochemical reactions in both *in vitro* and *in vivo* experiments.

With the sarissaprobe™-ATP, it is possible for researchers to obtain precise quantitative measurements on the amount of purines generated during biochemical reactions. More importantly, these micro-scale probes are



enabling researchers to pinpoint exactly where and when these substances are being produced in both *in vitro* experiments and in minimally invasive *in vivo* procedures. This is the first time scientists have been able to simultaneously obtain robust spatial, temporal, and quantitative measurements of purine produc-

tion – a crucial link in the process to gain full understanding of biochemical functions.

Dr Brian Stammers, CEO of Sarissa Biomedical, explains, “Being able to detect exactly where, when, and how much of a specific purine is produced during a biochemical reaction is of tremendous importance to the neuroscience community. The sarissaprobe™ line of biosensors will accelerate man’s ability to understand how chemical signalling in the brain mediates the central nervous system’s control over breathing, pain perception, blood glucose regulation, and many other internal state conditions.”

For more information
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Increased production of world’s fastest confocal microscope

In response to customer demand, Carl Zeiss has ramped up production of the LSM 5 LIVE confocal laser scanning microscope. This confocal system allows the visualisation of very fast processes in living cells at speeds up to 200 times faster than possible before and launched at a time of increasing focus on live cell imaging worldwide.

LSM 5 LIVE was premiered at the end of 2004 at the American Society of Cell Biology meeting in San Diego. Launched in Europe and the Far East just weeks later, the high speed imaging and fluorescence capabilities of the new instrument



have generated a plethora of interest. New production logistics and increased production capacities at Carl Zeiss are now being activated to cope.

“For the first time ever, scientists can capture dynamic processes in living specimens with a time resolution down to one millisecond. It is a major benefit and provides researchers with fundamentally new possibilities for experiments in biology and medicine,” says

Aubrey Lambert, Marketing Manager at Carl Zeiss UK.

For further information
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Need more lab space?

The NeuroLog System provides researchers with a versatile and modular electrophysiology system ideally suited to a range of applications, such as intracellular and extracellular recording, isolated EEG or EMG amplification as well as pulse generation and signal conditioning tasks. However, the standard NeuroLog System Case & Power Unit (NL900D) has space for up to 13 modules and some of you may find your particular application only requires 3 or 4 modules.



As a result, Digitimer have recently designed a Compact Case & Power Unit (NL905) which will be ideal for applications requiring no more than 4 modules. The NL905 is fully compatible with existing NeuroLog System modules, incorporates many of the features included in the NL900D, but is a fraction of the size.

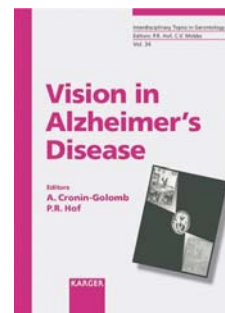
For more information on the NeuroLog System NL905 or any Digitimer products, Tel. 01707 328347 or
Email. sales@digitimer.com

New Volume of the Interdisciplinary Topics in Gerontology Series

Visual dysfunction is prevalent in Alzheimer’s disease and in related disorders such as posterior cortical atrophy and Down syndrome. The neuropathology of these disorders affects brain areas that process low-level vision as well as higher-order cognition and attention.

This volume spans the range of topics on vision, from structure (retinal and cortical) to function (cortical activation) to behaviour (perception, cognition, hallucinations, and everyday activities). The chapters together indicate that lower-level visual deficits can contribute to, or masquerade as, higher-order cognitive impairments. An emerging theme is that the study of variations in visual-system pathology, behaviour, and genetic risk will likely provide insights into typical Alzheimer’s disease as well as related conditions. The visual disorders of Alzheimer’s original case and its 21st century cousins have much to teach us about the changing visual system in ageing and age-related neurodegenerative disease.

For more information see www.karger.com/itoge



Expanding range from Quadragech

Quadragech distribute List Biological Laboratories exotoxins for cell stimulation and neurological research. This expanding range now includes new recombinant Type A and Type B light chains from Botulinum neurotoxin, and recombinant tetanus Toxin light chain. Recently List have also launched two unique products; SNAPtide™ quenched fluorogenic peptide substrate to detect SNARE protein cleavage by botulinum toxins and MAPKtide™ a synthetic peptide containing a cleavage site for anthrax lethal factor.

A full listing of products can be found through the website www.quadragech.co.uk, or
Tel. 0208 786 7811.



Elekta and Medical Intelligence form international distribution partnership

Elekta, a leading supplier of clinical solutions, comprehensive information systems and services for improved cancer care and management of brain disorders, has announced a global distribution agreement with Medical Intelligence (MI), a single-source supplier of high-precision patient fixation systems. Integrating key elements of MI's radiotherapy and patient positioning systems into its own product portfolio, the agreement reinforces Elekta's position as the world's most comprehensive provider of complete solutions for stereotactic radiation treatment throughout the body.

Among the products from MI is HexaPOD™



Elekta Synergy® S, courtesy of Elekta



Medical Intelligence HexaPOD

RTC, an image guided robotic patient positioning system that allows for sub millimetre patient positioning with six degrees of freedom (6D). 6D means that the system can correct rotational errors in patient positioning as well

as translational errors, making it ideal for the very high accuracy required for stereotactic radiosurgery (SRS) and stereotactic radiation therapy (SRT).

Integrating HexaPOD with Elekta Synergy® S for image-guided SRS and SRT will enable clinical staff to accurately position patients with a previously unattainable level of certainty. Elekta Synergy® S includes X-ray volume imaging,

the first system to allow three-dimensional imaging of the tumour and its surrounding soft tissues at the time of treatment.

For further information Tel. 01293 654413 or Email. amanda.deighton@elekta.com

2 out of 3 Universities prefer Carl Zeiss

In a recent tender and framework agreement, Carl Zeiss confocal microscopes were chosen by 9 out of the 13 British universities.

"The fact that more than 2 out of 3 Universities freely chose Carl Zeiss laser scanning microscopes underscores the technological leadership and customer service benefits associated



with our high performance systems," says Aubrey Lambert, Marketing Manager, Carl Zeiss UK.

Martin Lightbown, Head of Purchasing and Insurance at the University of Warwick, which managed the procurement process on behalf of the Higher Education Funding Council for England, commented,

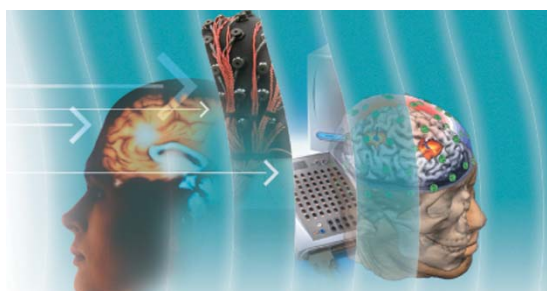
"The aim of the procurement exercise was to

offer participating institutions best value whilst meeting their high expectations. The relationship between Warwick and Zeiss played a major part in not only meeting those aims but in exceeding them."

Carl Zeiss' success in satisfying customer requirements comes hard on the heels of other much-coveted national and international awards, such as The R&D 100 Award, The Scientist's Choice, The Readers Choice Award and the Microsoft .NET Solutions Award.

For further information Tel. 01707 871233, or Email. a.lambert@zeiss.co.uk

EEG and MRI integration



Advanced Medical Equipment will be presenting the fMRI Boot Camp SCAN school in London from 19-23 September, 2005. This is a five day course for individuals with moderate to advanced levels of expertise with Neuroscan products, but with specific interest in simultaneous acquisition of EEG and fMRI. The course will be held at the Royal Holloway in Egham, Surrey. The last two days of this school will be focused on Curry5, the latest version of the most advanced software for Multimodal imaging and Source localisation.

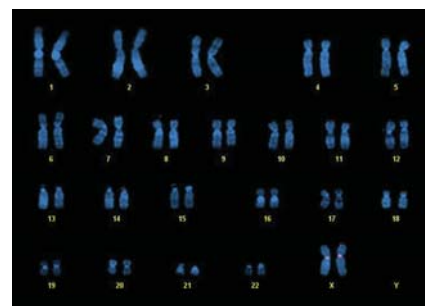
You can also meet with Advanced Medical Equipment at the British Association for Cognitive Neuroscience and fMRI experience, at Aston University, Birmingham, on 13th September. AME will be presenting a Workshop entitled 'Recording and Processing Data in Hostile Territory.' See www.fMRIexp.com/7/

For more information on either of these events Tel. 01403 260156, or Email. admin@advancedmedicalequipment.com

Probing DNA with cytogenetic analysis software

Nikon Instruments Europe and HESP Technology have formed a collaborative partnership to provide powerful software for cytogenetic analysis. The Genikon system facilitates the acquisition and interpretation of results from manual and automated karyotyping and spot counting, fluorescence in situ hybridisation (FISH), multicolour fluorescence in situ hybridisation (mFISH), and comparative genomic hybridisation (CGH). In addition, its flexible archiving and database structure allows this system to be used in a true networking environment from a variety of locations, making it ideal for researchers, cytogeneticists, pathologists and haematologists working with chromosomes using DNA, Cancer and Leukaemia probes.

With the capacity for manual and automatic karyotyping (R, Q, and G bands), Genikon makes sense of the tangle of chromosomes from a metaphase spread. The karyotyping software module separates single or



An example screen shot of Genikon software's automatic karyotyping (R, Q and G bands) making sense of the tangle of chromosomes from a metaphase spread.

multiple overlapping chromosomes, aligns centromeres, and rotates chromosomes for easy quantification and ideogram comparison. Chromosome edges can be sharpened using an eraser tool and chromosomes may be zoomed up to 2X magnification. Contrast can be modified during and after acquisition using special filters, and annotations (text or arrows) can be added at any stage.

For more information Email. discover@nikon.co.uk