

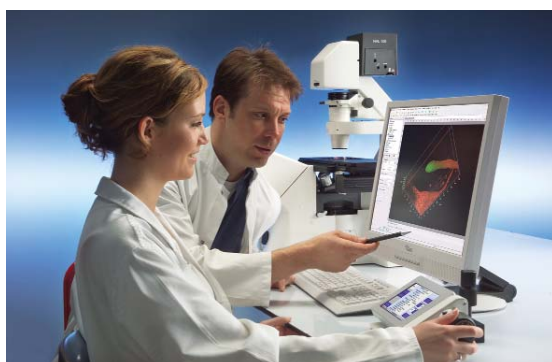
Flexibility and performance for live cell imaging microscopy

Carl Zeiss UK has launched a new inverted research microscope system in the UK developed to enhance the investigation of processes in living cells. The Axio Observer incorporates a host of features found for the first time on this class of instrument. These advances make it possible not only to observe processes in living cells in unparalleled detail but also to manipulate those processes and analyse the resulting changes.

New, thermally-insulated, high-performance objectives may be specified from the Carl Zeiss LCI Plan-Neofluar and Plan-Apochromat ranges.

Combined with a temperature sensor that is integrated into the culture vessel, the new objectives ensure that the required temperature is controlled accurately and reliably. Users may also specify the innovative LD Plan-Neofluar 20x and 40x phase contrast objectives, which combine positive and negative phase contrast in a single objective to deliver optimum contrasting of all object structures with a single objective.

A range of stackable incubation components has also been designed especially for the Axio Observer. These flex-free devices keep temper-



The Axio Observer microscope provides optimum flexibility for live cell imaging and research.

atures under maximum control while maintaining a clear, unobstructed workspace. Filter sets enable up to 70% higher excitation intensity and up to 50% shorter exposure times while the fast-change 6-position reflector turret enables rapid switching of the filter sets and wavelength during an experiment. All these components are automatically recognised by the Axio Observer's ACR (Automatic Component Recognition) function and integrated into the system configuration.

For more information
E. a.lambert@zeiss.co.uk

The first Molecular Imaging Centre in the UAE

Mubadala Development and Siemens Medical Solutions have agreed on a 16.7 million EUR contract to build and operate a Molecular Imaging Centre (MIC) in Abu Dhabi. This will mean that newest cutting-edge diagnostic technology is then available to patients in this region, mainly providing diagnostic services for oncology, cardiology and neurology. Expected to open in summer 2008, the facility will be the first of its kind in the region.

The centre will be fully equipped with state-of-the-art medical diagnostic equipment for anatomic and functional diagnosis. These include a Siemens PET/CT (a hybrid combining Positron Emission Tomography, PET and Computed Tomography, CT) diagnostic system and a Cyclotron radioisotope delivery system. Images from the PET/CT scanner can be acquired twice as fast as with a traditional separate PET and CT scan – with no loss in the image quality. A comprehensive IT infrastructure powered by the syngo software, developed by Siemens, will allow for seamless data and image integration and exchange across all parts of the MIC and with other clinics worldwide.

For more information contact Siemens on
Tel. +44 (0)1344 396000,
E. medmarketing.med.gb@siemens.com

Stratech Scientific distribute research products from rPeptide



Stratech Scientific now distribute research products (recombinant peptides and proteins, antibodies, reagents) from rPeptide; the market leader in providing products for Alzheimer's and Parkinson's disease research.

rPeptide's proprietary expression platform produces recombinant beta-amyloid (the only company to produce all six isoforms without tags), recombinant synuclein proteins and recombinant tau proteins.

rPeptide also provides a range of custom services from molecular biology, protein expression/purification, to C13 and N15 uniform labelling of peptides and proteins.

For more information about rPeptide and its products, please visit www.stratech.co.uk/rpeptide or Tel. +44 (0)1638 782600.

Betaferon® (interferon beta-1b) goes compact

People using Betaferon® (interferon beta-1b) lie at the heart of the change in the application system being introduced by Schering.

Betaferon will be supplied in compact single-use packs which contain everything needed to make up the solution. In addition, the new application system will come with the needle pre-attached to the vial adapter which means fewer steps in the constitution of Betaferon.

The subcutaneous injection will be administered using the thinnest needle (30G) available in treatment of multiple sclerosis (MS).

The previous autoinjector used with Betaferon has also had a face lift to catch up with the latest advances in technology. BETAJECT Lite, the new autoinjector, has been developed recognising users' changing needs during the course of the condition and will help make injecting easier. The new technology facilitates individual administration of the



drug to hard-to-reach locations and is especially useful for those people who have a fear of injecting themselves, as it injects the needle out of sight into the chosen injection site.

"The new administration system is a very welcome innovation," comments Alex Bracegirdle, MS specialist nurse liaison at Schering. "Having tried the new system myself, it is very convenient and thanks to clear labelling and colour coding it is also user friendly, especially for those who may experience visual disturbances. I am confident that it will be welcomed by Betaferon users and will help them get the best out of their treatment."

People using Betaferon will be trained by their MS specialist nurse and will also be able to benefit from the support offered by the BETAPLUS® nurses, who run a 24/7 support programme for Betaferon users. To register Tel. +44 (0)845 600 1212 or log on to www.betaplus.co.uk

For an opportunity to advertise on these pages please call Rachael Hansford on Tel. +44 (0)1747 860168 or Email. rachael@acnr.co.uk

The ABN Coat of Arms

The Association of British Neurologists celebrates its 75th anniversary in 2007. As part of the celebrations, the President and Council decided to petition the College of Arms in London for a grant of heraldic arms. Dr Colin Mumford was nominated by Council to be the representative of the Association in dealings with the heraldic authorities.

The Arms were granted on the 18th January 2007, with the full heraldic achievement including arms, crest and supporters, as well as a badge for the Association. The heraldic description or 'blazon' of arms is traditionally given in a rather archaic unpunctuated mixture of English and Norman French, such that red is designated 'gules', blue as 'azure', green as 'vert', with silver and gold becoming 'argent' and 'or' respectively.

The ABN's new arms are described thus:
 "Per pale gules and azure three chevrons argent over all a pile throughout or on a chief per pale azure and gules three chess rooks or"
 The crest is described: "Out of a crown rayonny or a demi unicorn argent armed maned tufted and unglued or" and the badge: "Within an annulet irradiated a chess rook or."



Colin Mumford with the new ABN Banner.



The Association was honoured by the additional approval and granting of supporters for the arms: "On the dexter a hippocampus azure and on the sinister a hippocampus gules each holding with the tail a Rod of Aesculapius or the serpent vert".

There are numerous allusions to the practice of neurology in the symbolism used. The background colours of red, white and blue refer directly to the British Isles. The main 'heraldic charges' take the form of a golden 'pile' or V-shaped device, overlying three chevrons. This gives a diagrammatic representation of the lower end of the spinal cord and cauda equina. In the top of the shield on a 'chief' the colours are reversed, reflecting pyramidal decussation, and the chief is in turn

charged with three heraldic chess rooks, indicating the intellectual complexity sometimes found in neurological practice.

An heraldic beast, the unicorn, forms the crest. In mythical legend the unicorn carried healing powers in its horn. The unicorn in turn emerges from a 'crown rayonny' which is a crown formed of alternating straight and wavy components, making reference to the EEG, alluding to the familiar 'spike and wave' appearance of certain types of epilepsy.

The same geometric pattern is seen in the 'annulet irradiated' surrounding a single chess rook, which forms the badge of the Association.

Supporting the shield are two sea-horses. The heraldic term for the sea-horse is 'hippocampus', giving an immediate reference to the brain, and held by the two sea-horses are snakes climbing a pole, the well-known Rod of Aesculapius, indicating the practice of medicine in general.

The motto is in Latin: 'Primum Omnium Cerebrum', which might be translated in many different ways. 'Above all, the brain' is perhaps the simplest.

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Carl Zeiss hosts Alzheimer's rediscovered slides on worldwide web

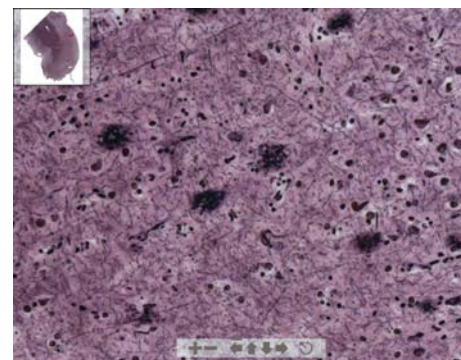
Pathologists from around the world are being offered the opportunity to view in microscopic detail the original research material upon which the discovery of Alzheimer's disease was based, thanks to a website hosted by Carl Zeiss.

In 1906, Alois Alzheimer prepared over 250 slides of human brain tissue from a female patient he had observed closely and published his findings in 1907. That same year he began to treat a male patient and prepared more than 150 slides upon his death in 1910. Both lots of material were re-discovered in basements of the University of Munich after a search organised by Professor Manuel Graeber of Imperial College London. Well preserved and of very high technical quality, all the more than 400 specimens have now been scanned and saved as Virtual Slides using a Zeiss

MIRAX system and are being released to view over the Internet (www.zeiss.de/alzheimer).

Apart from their unique scientific value, the importance of the re-discovery of the slides is that they put an end to lingering doubts about whether Alzheimer's first patient, a 51-year old woman, suffered from a rare metabolic disorder called metachromatic leukodystrophy rather than the disease named after him. However, Graeber says the rediscovered slides show no evidence of this but the cortex does exhibit the two classic pathological signs of Alzheimer's – amyloid plaques and neurofibrillary tangles. Now, thanks to the Zeiss MIRAX digital slide system and the World Wide Web, pathologists will be able to judge for themselves.

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



Part of Alzheimer's first slide showing the two classic pathological signs of Alzheimer's – amyloid plaques and neurofibrillary tangles.

Digitimer DS5 Stimulator - isolated bipolar computer controlled stimulation



Digitimer announces the launch of the DS5 Bipolar Constant Current Stimulator. The DS5 has been developed in collaboration with Prof Hugh Bostock (Institute of Neurology, London) to facilitate threshold tracking measurements. Although the DS5 has been primarily designed for studies of peripheral nerves, Digitimer hope it will be popular with any researchers who want to safely apply computer controlled constant current stimuli to a subject or patient.

Unlike a traditional 'pulse stimulator', the DS5 produces an isolated constant current stimulus pro-

portional to an input voltage, with the shape of the input waveform describing the stimulus shape. When driven by a suitable computer interface, the DS5 can generate stimuli consisting of sine waves, ramps, square waves or arbitrary waveforms.

The DS5 stimulator has four input voltage ranges, making it widely compatible with other hardware and three stimulus output ranges ($\pm 10\text{mA}$, $\pm 25\text{mA}$ and $\pm 50\text{mA}$).

For more information visit www.digitimer.com or Tel. +44 (0)1707 328347 or E. sales@digitimer.com

Study to investigate 24-hour action and sleep benefits in Parkinson's patients

Parkinson's disease is often regarded as just a motor disease although increasingly it is being recognised that patients also suffer from a number of non-motor symptoms. Among these symptoms are sleep related disturbances such as difficulty getting to sleep and reduced quantity of sleep which can have a significant impact on a patient's quality of life. The frequency and severity of non-motor symptoms has so far been greatly underestimated. Dr Ray Chaudhuri, a Parkinson's expert from the King's College and University Hospital Lewisham in London, estimates that between 50-60 % of Parkinson's patients are affected by sleep problems. Patients may also experience motor problems early in the morning which can have an impact on their ability to start their daily activities. Treating these symptoms with conventional, oral therapies may be difficult since oral therapies require dosing multiple times a day. Neupro® offers a therapeutic option that delivers the active substance over a 24-hour period – thus covering the whole of the day and night with a once-daily application. Neupro® with its active substance rotigotine is a non-ergoline dopamine agonist formulated as a transdermal patch.

The drug is approved both as monotherapy for patients with early-stage Parkinson's disease and in combination with levodopa for the treatment of patients with advanced-stage Parkinson's disease. Studies performed to date indicate that Neupro may be effective at night and in the early morning. "We have conducted rotigotine trials, and the results are very impressive," said Dr Chaudhuri.

These results are now to be corroborated in RECOVER (Randomised Evaluation of the 24-hour-COVERage: Efficacy of Rotigotine), a placebo controlled, double-blind, multi-centre, multinational study. This is the first time that "Sleep and early morning symptoms in Parkinson's patients" have been investigated in a large-scale study. It is also the first time that other, non-motor Parkinson's symptoms are being examined by using a new state-of-the-art diagnostic instrument assessing the full range of non-motor symptoms. The study will enrol more than 330 patients at a ratio of two to one to the rotigotine and the placebo arm, respectively. The principal investigator, Professor Claudia Trenkwalder from the University of Göttingen and Paracelsus-Elena Hospital, Kassel, says that the RECOVER study will include centres in the USA, Europe and Australia.

For more information contact Schwarz Pharma, T. +44 (0)1494 797500.

ABN updates MS guidelines

New guidelines on the use of beta interferon and glatiramer acetate in multiple sclerosis (MS) have recently been published by the ABN, updating guidance last issued in 2001.

It follows the publication of a number of clinical trials^{1,2,3} investigating the use these disease modifying agents in early MS, and the development of new diagnostic criteria⁴ which permit diagnosis of the condition after one clinical episode (clinically isolated syndrome – CIS).

The guidance now includes the option to treat eligible patients with CIS who are diagnosed with MS by the McDonald criteria within one year of presentation.

In addition, patients with active relapsing-remitting disease can now be considered for treatment if there has been a single disabling relapse within the past 12 months – previously, two significant relapses within two years were required.

The full document is available at <http://www.theabn.org/downloads/ABN-MS-Guidelines-2007.pdf>

References

- 1 Kappos et al. *Treatment with interferon beta-1b delays conversion to clinically definite and McDonald MS in patients with clinically isolated syndromes.* Neurology 2006;67:1242-9.
- 2 Jacobs L D et al (2000). *Intramuscular interferon beta-1a therapy initiated during a first demyelinating event in multiple sclerosis.* The New England Journal of Medicine 2000;343(13):898-904.
- 3 Comi G et al (2000). *Effect of early interferon treatment on conversion to definite multiple sclerosis: a randomised study.* Lancet 2000;357:1576-82.
- 4 McDonald WI et al. *Recommended diagnostic criteria for Multiple Sclerosis: Guidelines from the international panel on the diagnosis of Multiple Sclerosis.* Ann Neurol 2001;50:121-7.

PRESCRIBING INFORMATION - UK AND IRELAND

Please refer to the Summary of Product Characteristics for further information
REBIF® 8.8 MICROGRAMS AND 22 MICROGRAMS - SOLUTION FOR INJECTION
Interferon beta-1a

Initiation Pack

Presentation Each pre-filled glass syringe contains 8.8 or 22 micrograms of interferon beta-1a in respectively 0.2 or 0.5 ml. **Indication** For the treatment of relapsing multiple sclerosis. Efficacy has not been demonstrated in patients with secondary progressive multiple sclerosis without ongoing relapse activity. **Dosage and administration** Treatment should be initiated under supervision of a physician experienced in the treatment of multiple sclerosis. For patients initiating treatment with Rebif®, the dosage recommended for the first month of treatment is 8.8 micrograms three times a week by subcutaneous injection for the first two weeks and 22 micrograms three times a week by subcutaneous injection for the following two weeks. From the fifth week Rebif 44 micrograms should be administered. Limited published data suggest that the safety profile in adolescents from 12 to 16 years of age receiving Rebif 22 micrograms by subcutaneous injection three times per week is similar to that seen in adults. Not to be used in patients under 12 years of age. Evaluate patients at least every second year of treatment period. **Contraindications** History of hypersensitivity to natural or recombinant interferon beta, human albumin, or to any of the excipients; initiation of treatment in pregnancy; current severe depression and/or suicidal ideation. **Precautions** Inform patients of the most common adverse reactions. Symptoms tend to be most prominent at the initiation of therapy and decrease in frequency and severity with continued treatment. Use with caution in patients with previous or current depressive disorders and those with antecedents of suicidal ideation. Patients should be advised to report immediately any symptoms of depression and/or suicidal ideation. Patients exhibiting depression should be monitored closely during therapy and treated appropriately. Cessation of therapy should be considered. Administer with caution to patients with a history of seizures and to those receiving treatment with anti-epileptics, particularly if their epilepsy is not adequately controlled. Patients should use an aseptic injection technique and rotate injection sites to minimise risk of injection site necrosis. Patients with cardiac disease should be closely monitored for worsening of their clinical condition during initiation of therapy. Use with caution in patients with history of significant liver disease, active liver disease, alcohol abuse or increased serum ALT. Serum ALT levels should be monitored prior to the start of therapy, at months 1, 3 and 6 on therapy and periodically thereafter. Stop treatment if icterus or other clinical symptoms of liver dysfunction appear. Treatment has a potential to cause severe liver injury including acute hepatic failure. Laboratory abnormalities are associated with the use of interferons. Liver enzyme and full haematological monitoring are recommended at regular intervals (months 1, 3 and 6 on therapy) and periodically thereafter. New or worsening thyroid abnormalities may occur. Thyroid function testing is recommended at baseline and if abnormal every 6 - 12 months. Administer with caution to and monitor closely patients with severe renal and hepatic failure or patients with severe myelosuppression. Serum neutralising antibodies against interferon beta-1a may develop. The clinical significance of these antibodies has not been fully elucidated but is associated with reduced efficacy. If a patient responds poorly and has neutralising antibodies, reassess treatment. Women of childbearing potential should use effective contraception during treatment. **Side effects** The majority of adverse reactions observed with Interferon beta-1a are usually mild and reversible, and respond well to dose reductions. In case of severe or persistent undesirable effects, the dose of Rebif® may be temporarily lowered or interrupted, at the discretion of the physician. Very common adverse drug reactions (ADRs) are injection site inflammation/reaction, influenza like symptoms, headache, asymptomatic transaminase increase, neutropenia, lymphopenia, leucopenia, thrombocytopenia, anaemia. Common ADRs are injection site pain, myalgia, arthralgia, fatigue, rigors, fever, pruritus, rash, erythematous or maculo-papular rash, diarrhoea, vomiting, nausea, depression and insomnia. Serious AEs are injection site necrosis, hepatitis with or without icterus, severe liver damage, anaphylactic reactions, angioedema, erythema multiforme, erythema multiforme-like skin reactions, seizures, thromboembolic events, suicide attempt. Consult the Summary of Product Characteristics for more information relating to side effects. Additional information is available on request. **Pharmaceutical precautions** Store in a refrigerator at 2°C to 8°C in the original package. Do not freeze. **Legal category** POM **Basic NHS price** Rebif® Initiation Pack containing: Rebif® 8.8 micrograms - solution for injections: 6 pre-filled syringes (0.2 ml) Rebif® 22 micrograms - solution for injections: 6 pre-filled syringes (0.5 ml) £522.24 Prices in Ireland may differ, consult distributors Allphar Services Ltd **Marketing Authorisation Numbers:** EU/1/98/063/007 **Name and Address of Marketing Authorisation Holder** Sero Europe Ltd, 56 Marsh Wall, LONDON E14 9TP **Name and Address of Distributor in UK** Sero Ltd, Bedford Cross, Stanwell Road, Feltham, Middlesex TW14 8NX **Name and Address of Distributor in Ireland** Allphar Services Ltd, Pharmaceutical Agents and Distributors Belgard Road, Tallaght, Dublin 24, Ireland

Date of Preparation: April 2007

Job Bag: REB07-0057

Information about adverse event reporting in the UK can be found at www.yellowcard.gov.uk. In the Republic of Ireland information can be found at www.imb.ie. Adverse events should also be reported to Sero Limited - Tel: +44 (0)20 8818 7373 or email: medinfo.uk@serono.com

Date of Preparation: March 2007

Job Bag: REB07-0015

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