ISSN 0965-1128 (print)
ISSN 2045-6808 (online)

The Endocrinologist

THE NEWSLETTER OF THE SOCIETY FOR ENDOCRINOLOGY • ISSUE 99 SPRING 2011

Libel liable for reform?

PLUS

Why choose endocrinology?

AUTUMN ENDOCRINE RETREAT – WISH YOU WERE HERE?

The Little Mester of Sheffield

Published by BioScientifica

EDITORIAL

The dark nights and challenging weather of winter may be behind us, but for some spring, traditionally associated with new beginnings and regrowth, may be less welcome than usual this year as the Higher Education Sector greets an 'age of austerity' in response to the comprehensive spending review. The Society's Chairman, Julia Buckingham, has been considering the potential implications for endocrinology (page 20), finding that whilst there is still much uncertainty, it's not all doom and gloom.

The reduction in the Higher Education teaching budget will begin in April, but the consequences for tuition fees, student numbers and the degree courses they choose to enrol on won't be known for some time. Julia reminds us that such circumstances provide the opportunity to think more creatively about how to deliver good quality teaching; following on from Miles Levy's review of endocrinology in the undergraduate medical curriculum (page 10) perhaps the Society's membership should be thinking about ways to ensure that endocrinology is retained in other undergraduate courses and postgraduate programmes. Let us know what you think. The research budget has been relatively well protected: updates from BBSRC and the Wellcome Trust (page 21) remind us that endocrinology and endocrinologists fit well within the funding priorities of both research councils and charities.

Unlike many disciplines, we're lucky to have a Society that not only supports the education and development of the endocrinologists of the future but can provide some funding too! See page 8 for reasons why postgraduate research students and post-docs should consider attending the Autumn Endocrine Retreat, page 9 for the opportunities offered to clinical trainees through the Regional Clinical Cases meeting and the Clinical Update course, and page 11 for an illustration of the real difference early career grants can make to researchers moving towards independence.

One thing that's definitely necessary for both teaching and funding applications is good communication. Increasingly we are encouraged to make our research ideas and findings more accessible – the Society has always been a strong advocate of public engagement, see page 6 for news of its latest endeavours – but one, perhaps unexpected, product of greater openness is an increase in researchers involved in libel actions. In his article 'Libel liable for reform' on page 14, Toby Stead looks at how this is affecting the science community.

Speaking of modern communication, the Society has launched its own Facebook page and Twitter channel (page 6). Since January, I've been keeping up-to-date with all things endocrinological through tweets and Facebook postings – quite an achievement for someone who doesn't even use a mobile phone (no, really) – so I encourage you all to sign up and get involved to make these new ventures a really useful resource.

On page 12, Nikki Kieffer, Chair of the Nurse Committee, gives an update on the Nurse Committee's achievements and their plans for the future. She also calls for contributions to *The Endocrinologist*; I echo her plea – we are always happy to hear your news and views on anything relevant to the Society's membership. Send your copy to info@endocrinology.org

Of course, our ability to communicate through *The Endocrinologist*, and indeed many of the Society's other activities, is facilitated by support from our Corporate Supporters – see pages 15–17 for their profiles. Also in this issue, the Endo Train stops off in Sheffield where we're guided, not by Bradshaw, but by Richard Ross on where to go, who to see and what they do (page 18). After reading the article I'm sure you'll agree that Richard should have mentioned endocrinology in his list of things for which that great city is famous.

Finally, on to one Sheffield luminary in particular, *The Endocrinologist*'s previous editor, John Newell-Price. John, on behalf of all the Society's membership, I thank you for your efforts in making this newsletter one of the most popular benefits of Society subscription; Miles and I will try hard not to undo all your good work!

MELISSA WESTWOOD

The Society welcomes contributions and article suggestions; contact the Editorial office at info@endocrinology.org. Deadline for news items for the Summer 2011 issue: 1 April 2011. Deadline for news items for the Autumn 2011 issue: 5 August 2011.

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Registered Office as above
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Nominations Committee in the spotlight

▶ Following an internal review conducted in 2010, we are pleased to announce the revamp of the Nominations Committee. The new Nominations Committee now incorporates the functions of the Awards Committee and aims to be proactive in:

- the selection process to ensure relevant expertise and experience is represented on Council and all other committees; this process will apply equally to the Society's prizes, medals and awards. The committee feels it is particularly important to encourage and support younger members to join committees, gain experience and thereby develop their career
- putting forward members for the many external prizes and awards that are available

Chaired by Professor John Wass, the committee is comprised of eminent basic science and clinical endocrinologists.

We welcome all members' views regarding nominations: please contact julie.cragg@endocrinology.org if you have any names you wish to put forward.

Who merits a Medal in 2013?

▶ The Society awards several medals annually, in recognition of outstanding contributions to endocrinology. All members are invited to make nominations for the 2013 awards. Nomination forms are included in this mailing and can be found at www.endocrinology.org/about/medals.html. Please return them by 16 May 2011.

The Dale Medal is the highest accolade bestowed by the Society and is awarded to an individual whose studies have changed our understanding of endocrinology in a fundamental way. Previous recipients include KS Korach, ER Simpson, S O'Rahilly, M Thorner, AS McNeilly, S Lamberts, JK Findlay and R Kahn. The Society Medal is awarded to an endocrinologist working in the UK, in recognition of outstanding studies. It has previously been awarded to IS Farooqi, GR Williams, W Arlt, A Hattersley, HOD Critchley, BR Walker, VKK Chatterjee and JMC Connell.

The other medals are intended to promote links between the UK and different areas of the globe. The European Medal, presented to an endocrinologist in mainland Europe, has previously been awarded to JJ Holst, X Bertagna, B Allolio, W Wiersinga, N Skakkebaek, AM Colao, C Strasburger and A Maggi. The Hoffenberg International Medal (formerly known as the Asia and Oceania Medal and the International Medal) is awarded to an endocrinologist from outside the UK, to promote international collaboration. Previous recipients include G Karsenty, PJ Fuller, T Yoshimura, M Kawata, K Ho, K Morohashi, G Risbridger and K Kangawa. The Transatlantic Medal is awarded to an endocrinologist working in North America, and has previously been received by P Sassone-Corsi, JJ Kopchick, S Melmed, L Jameson, R Rosenfeld, B Spiegelman, DJ Mangelsdorf and K Korach.

CONGRATULATIONS

We congratulate Mrs Nikki Kieffer, Chair of the Nurse Committee, who has been awarded the 2010 British Thyroid Foundation Evelyn Ashley Smith Award for nurses with a special interest in thyroid disorders. The award will be used to fund a project entitled 'Thyroxine replacement in pregnancy and pre-conception: an audit of patient and GP knowledge of guidelines and current clinical practice in Leicestershire'.

Congratulations are also due to Professor Jeff Pollard of the Albert Einstein Cancer Center, New York, who has been awarded the American Cancer Society Medal of Honour for Basic Science for his work on the role of macrophages in cancer. The Medal of Honour is the American Cancer Society's highest award.

CALL FOR COMMITTEE NOMINATIONS ...

▶ If you would like to be involved in the running of the Society, please consider standing for election. We welcome nominations from all members for the committees below. The term of office for new committee members is 1 January 2012 for a period of 4 years.

Clinical Committee
Two new members are sought.

Finance Committee
One new member is sought for this committee. Nominees must have experience of operating a large budget and a sound knowledge of investments and management accounts. A good understanding of the Society's activities and ethos is required. If you would like to be considered for election, and would like further details, please contact Pat Barter, Finance Director, in the Bristol office (finance@endocrinology.org).

Nurse Committee
Replacements are sought for two members.

Programme Committee
Four new members are sought.

Public Engagement Committee
Replacements are sought for four members.

Science Committee
Four new members are sought.

Please see www.endocrinology.org/about/committee.html for more information.

SOCIETY CALENDAR

11–14 April 2011
Society for Endocrinology BES 2011
ICC, Birmingham, UK

19–20 September 2011
Endocrine Nurse Update
Stratford-upon-Avon, UK

14–16 October 2011
Autumn Endocrine Retreat 2011
Milton Hill Hall, Oxfordshire, UK

7–9 November 2011
Clinical Update 2011
Hilton Hotel, Sheffield, UK

With regret

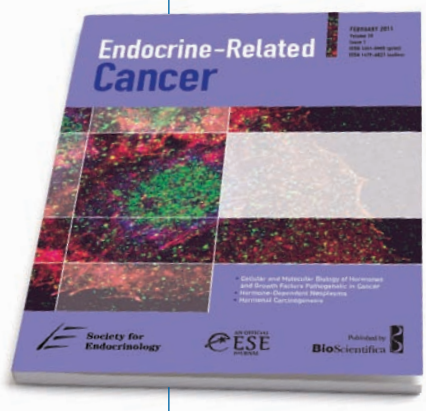
We are sorry to announce the death of Senior Member Dr A Dewar MBE

NEW EDITOR-IN-CHIEF FOR *ENDOCRINE-RELATED CANCER*

We are delighted to announce that Professor Charis Eng, at the Cleveland Clinic, USA, succeeded Dr Jim Fagin as Editor-in-Chief for Endocrine-Related Cancer *(ERC) in January 2011.*

Professor Charis Eng is the Chair and founding Director of the Genomic Medicine Institute of the Cleveland Clinic, and the founding Director of the institute's clinical component, the Center for Personalized Genetic Healthcare. She is Professor and Vice Chair of the Department of Genetics at Case Western Reserve University School of Medicine, Professor of Molecular Medicine at the Cleveland Clinic Lerner College of Medicine, member of Cleveland Clinic's Taussig Cancer Institute and of the CASE Comprehensive Cancer Center. She continues to hold an honorary appointment at the University of Cambridge. Professor Eng holds the Sondra J and Stephen R Hardis Endowed Chair in Cancer Genomic Medicine and the American Cancer Society Clinical Research Professorship. More recently, she was elected to the Institute of Medicine of the US National Academies.

Professor Eng's research interests can be broadly characterized as clinical cancer genetics translational research. Her work on RET testing in multiple endocrine neoplasia type 2 and the characterization of the widening clinical spectra of PTEN mutations have been acknowledged as the paradigm for the practice of clinical cancer genetics. In the clinic, Professor Eng is acknowledged as one of the rare 'go to' people on how to implement genetic and genomic-informed personalized healthcare. Professor Eng has received numerous awards and honours including the Doris Duke Distinguished Clinical Scientist Award, 2005 ATA Van Meter Award, and the 2006 Ernst Oppenheimer Award of The Endocrine Society.



Professor Eng grew up in Singapore and Bristol, UK, entering the University of Chicago at the age of 16. After completing an MD and PhD at the Pritzker School of Medicine, she specialized in internal medicine at Beth Israel Hospital, Boston and trained in medical oncology at Harvard's Dana-Farber Cancer Institute, Boston. She was formally trained in clinical cancer genetics at the University of Cambridge and the Royal Marsden, UK, and in laboratory-based human cancer genetics by Professor Sir Bruce Ponder. At the end of 1995 Professor Eng returned to the Dana-Farber Insititute as Assistant Professor of Medicine, and in 1999 was recruited by The Ohio State University as Director of the Clinical Cancer Genetics Program. In 2002, she was promoted to Professor and Director of the Division of Human Genetics, and was conferred the Klotz Endowed Chair. She was recruited by the Cleveland Clinic in September 2005.

Professor Eng has broad editorial experience, as North American Editor of *Journal of Medical Genetics* (1998–2005), Senior Editor of *Cancer Research* (2004–2009), Associate Editor of *Journal of Clinical Endocrinology and Metabolism* (2005–2009), and Associate Editor of *American Journal of Human Genetics* (2007–2009). Professor Eng completed a 3-year term on the Board of Directors of the American Society of Human Genetics, a 2-year term as Chair of the Clinical Science Committee of the Personalized Medicine Coalition and is serving a 5-year term on the Board of Scientific Directors of the National Human Genome Research Institute. She has also been appointed to the US Department of Health and Human Services' Secretary's Advisory Committee on Genetics, Health and Society (2009–2011) and is currently co-chair of this committee's task force to examine whole genome sequencing for clinical application.

ERC also moves to six issues a year (bimonthly) from February 2011.

IMPORTANT – 2011 SCE date change

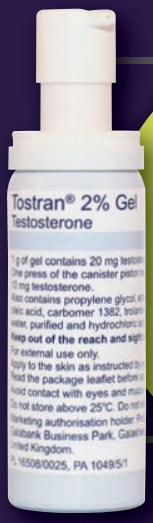
The registration and examination dates of the 2011 Specialty Certificate Examination (SCE) in Endocrinology and Diabetes have changed. The examination will now take place on 1 June 2011 (previously 15 June). Entrants are eligible to sit the exam during higher specialty training after entering ST3, although it is recommended that they wait until their penultimate year of training.

Registration for UK candidates: 2 February–27 April 2011 **Examination date: 1 June 2011**

Trainees who pass the exam will be awarded a Certificate in Endocrinology and Diabetes. Trainees who gain the Certificate in Endocrinology and Diabetes and who are recommended for a Certificate of Completion of Training (CCT) will be entitled to apply for the postnominal MRCP(UK) (Endocrinology and Diabetes). For further information see www.mrcpuk.org/SCE/Pages/ExamDates.aspx.

174 candidates sat the endocrinology and diabetes examination in 2010 with 86.7% of the UK trainees passing the examination (this was the fourth highest pass rate of all specialities). The overall pass rate for the 174 candidates was 69.5%. Comparisons with the other specialties can be found at: http://www.mrcpuk.org/SCE/Pages/Results.aspx.

Hypogonadism – an endocrine issue which causes significant morbidity and substantial reduction in quality of life[1]



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Tostran® – a simple solution to a serious problem

Control

- Tostran® returns and maintains hypogonadal patients T levels to normal[2]
- The metered dose system allows for easy dose titration

Concentration

- Tostran® is the only 2% testosterone gel

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Convenience

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The first metered dose
Tostran®
2% testosterone gel
A simple solution to a serious problem

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Tostran (testosterone) 2% Gel Prescribing Information
Please refer to Summary of Product Characteristics (SPC) before prescribing.
Presentation
Tostran 2% Gel, contains testosterone, 20 mg/g.
Indications
Replacement therapy with testosterone for male hypogonadism when testosterone deficiency has been confirmed by clinical symptoms and laboratory analyses.
Posology
The starting dose is 3 g gel (60 mg testosterone) applied once daily at approximately the same time each morning to clean, dry, intact skin, alternately on the abdomen or to both inner thighs. Adjust dose according to clinical and laboratory responses. Do not exceed 4 g of gel (80 mg testosterone) daily. Patients who wash in the morning should apply Tostran after washing, bathing or showering. Do not apply to the genitals. Do not use in women, or children under the age of 18 years.
Contraindications
Known or suspected carcinoma of the breast or the prostate; hypersensitivity to any of the ingredients.
Special warnings and precautions for use
Tostran should not be used to treat non-specific symptoms suggestive of hypogonadism if testosterone deficiency has not been demonstrated and if other aetiologies responsible for the symptoms have not been excluded. Not indicated for treatment of male sterility or sexual impotence. All patients must be pre-examined to exclude a risk of pre-existing prostatic cancer. Perform careful and regular monitoring of breast and prostate. Androgens may accelerate the development of subclinical prostatic cancer and benign prostatic hyperplasia. Oedema with/without congestive heart failure may be a serious complication in patients with pre-existing cardiac, renal or hepatic disease. Discontinue immediately if such complications occur. Use with caution in hypertension as testosterone may raise blood pressure. Use with caution in ischemic heart disease, epilepsy, migraine and sleep apnoea as these conditions may be aggravated. Care should be taken with skeletal metastases due to risk of hypercalcaemia/hypercalcuria. Androgen treatment may result in improved insulin sensitivity. Inform the patient about the risk of testosterone transfer and give safety instructions. Health professionals/carers should use disposable gloves resistant to alcohols.
Interactions
When androgens are given simultaneously with anticoagulants, the anticoagulant effect can increase and patients require close monitoring of their INR. Concurrent administration with ACTH or corticosteroids may increase the likelihood of oedema and caution should be exercised.
Undesirable effects
Very common (≥1/10): application site reactions (including paresthesia, xerosis, pruritis, rash or erythema); common (≥1/100, <1/10): increased haemoglobin, haematocrit; increased male pattern hair distribution; hypertension; gynaecomastia; peripheral oedema; increased PSA. Certain excipients may cause irritation and dry skin. Consult SPC for other undesirable effects of testosterone.
Pack Size and Price
Packs containing one or three 60 g metered-dose canisters per pack. Price £26.67 per canister.

Legal Category POM
Further information is available from the Marketing Authorisation Holder ProStrakan Limited, Galabank Business Park, Galashiels, TD1 1QH, UK.
Marketing Authorisation Number PL16508/0025

 Date of PI Preparation: September 2010

Adverse events should be reported. Reporting forms and information can be found at www.yellowcard.gov.uk. Adverse events should also be reported to ProStrakan Limited on 01896 664000.

References:
1. Nieschlag E et al. Hum Reprod Update 2004; 10: 409 - 419
2. Dumas C. Poster presented at the 25th Scandinavian Meeting of Urology, Göteborg, June 2005
3. MIMS December 2010
4. Swerdloff R. J Clin Endocrinol Metab 2000, 85; 12: 4500 - 4510
5. Tostran® data calculation - ProStrakan data on file 2011
6. Tostran® Summary of Product Characteristics June 2010

ProStrakan

M015/1103 Date of preparation January 2011

SOCIETY FACEBOOK GROUP LAUNCHED

Now it's even easier to keep up to date with news, views and announcements from your favourite society! The Society has launched its brand new Facebook page to keep members informed of our activities. So, to find out the latest news from the Society, what's hot in the world of endocrinology and join the online endocrine community visit us at www.facebook.com/SocietyforEndocrinology.

Also, don't forget to check out the Society's Twitter channel at www.twitter.com/Soc_Endo.

SOCIETY FOR ENDOCRINOLOGY CAREERS WEBSITE

The Society for Endocrinology careers website is continually updated with science, medicine and nursing vacancies, funding opportunities and prizes, as well as providing other careers resources and links. If you fancy a change of career or are looking for more funds for your research, come and have a look at www.endocrinology.org/careers.

If you have a vacancy or grant you want to advertise free of charge please email us at careers@endocrinology.org.

Upcoming Society public events

The Society is organising a number of public events in 2011. T*he Doctor and The Master* which will take place at the Edinburgh International Science Festival, 9–22 April 2011, will explore the role of the body's 'master' gland, the pituitary, in controlling many functions such as growth, fertility and metabolism. Tickets are available now at www.sciencefestival.co.uk.

The Society will also visit the Cheltenham Science Festival, 7–12 June 2011. This year, we will be an official festival partner and will be sponsoring two events on topics involving gender and obesity, in association with the Society of Biology. Further details can be found at http://cheltenhamfestivals.com/science/

For more information on all Society public events, see www.endocrinology.org/public/.

New public website

The Society is pleased to announce that we will be launching our new website, *You & Your Hormones*, at the Society BES conference in Birmingham, 11–14 April 2011. *You & Your Hormones* is a brand new resource for the public with the aim of providing accurate and reliable information on hormones and hormone-related conditions.

More information on the project can be found at www.yourhormones.info or visit our stand at the Society BES meeting to find out more about this exciting new resource.

2011 Society BES conference

There's still time to register to attend the Society BES conference, taking place in Birmingham 11–14 April 2011. The Society BES conference is the UK's premier scientific meeting on hormone research, where you can find out about the latest cutting edge developments in your field of research.

This four day meeting will encompass the breadth of endocrinology from basic science and translational research to clinical investigation and practice. There will be oral communication sessions, along with a large poster display and exhibition. We will be running tailored sessions for nurses, the highly popular Young Endocrinologists' Symposium will provide advice on having a successful research career and, back by popular demand, our 'Meet the Expert' sessions return for both clinicians and basic scientists.

Conference highlights will include plenary lectures from Professor Evan Simpson (Melbourne, Australia), Professor Peter Fuller (Melbourne, Australia), Professor John Kopchick (Athens, OH, USA), Professor Bruno Allolio (Wurzberg, Germany), Professor Xavier Bertagna (Paris, France), Professor Graham Williams (London, UK), Professor Samuel Refetoff (Chicago, USA), Professor John Bevan (Aberdeen, UK) and Dr Jim Fagin (New York, USA).

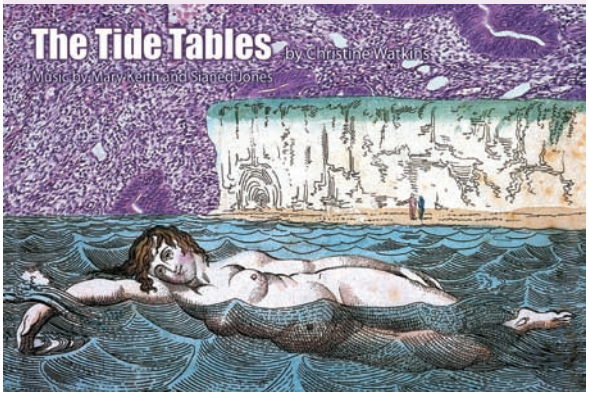
To find out more, to register, or to view the full programme see www.endocrinology.org/meetings/2011/sfebes2011.

The Tide Tables – New UK tour

Following a successful pilot production supported by the Wellcome Trust and the Society for Endocrinology at The Courtyard, Hereford, in May 2009, Christine Watkins of Honeysuckle Direction has won further backing to allow The Tide Tables to undertake a small UK tour.

The play examines the conscious experiences of mid-life for women and the biomedical science that underlies these experiences. Scientific input for the play was provided by Professor Saffron Whitehead, St George's University, London.

Opening on Thursday 5 May at Aberystwyth Arts Centre, the tour goes on to visit Brecon, Ludlow, Darlington, London, Jersey and Canterbury; full dates and details can be found at www.honeysuckledirection.org.



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Genotropin® (somatropin, rbe). Abbreviated Prescribing Information Genotropin 5.3 mg Pre-filled pen (GoQuick). Genotropin 12 mg Pre-filled pen. (GoQuick) Genotropin 5.3 mg Two chamber cartridge. Genotropin 12 mg Two chamber cartridge. Genotropin MiniQuick 0.2 mg. Genotropin MiniQuick 0.4 mg. Genotropin MiniQuick 0.6 mg. Genotropin MiniQuick 0.8 mg. Genotropin MiniQuick 1 mg. Genotropin MiniQuick 1.2 mg. Genotropin MiniQuick 1.4 mg. Genotropin MiniQuick 1.6 mg. Genotropin MiniQuick 1.8 mg. Genotropin MiniQuick 2 mg. Please refer to the SmPC before prescribing Genotropin. **Presentation: Genotropin Pre-filled Pen (GoQuick):** Two-chamber cartridge sealed in a disposable multidose pre-filled pen GoQuick. The cartridges contain either 5.3 mg or 12 mg somatropin (rbe). Each cartridge also contains 0.3% metacresol as preservative. The 5.3 mg pre-filled pen GoQuick is colour coded blue. The 12 mg pre-filled pen GoQuick is colour coded purple. **Genotropin Cartridge:** Two-chamber cartridge for use in a re-useable injection device, Genotropin pen, or in a reconstitution device. The cartridges contain either 5.3 mg or 12 mg somatropin (rbe). Each cartridge also contains 0.3% metacresol as preservative. The Genotropin Pens are colour coded, and must be used with the matching colour coded Genotropin two-chamber cartridge to give the correct dose. The Genotropin Pen 5.3 (blue) must be used with Genotropin 5.3 mg cartridge (blue). The Genotropin Pen 12 (purple) must be used with Genotropin 12 mg cartridge (purple). Instruction on reconstitution plus use of devices is supplied separately as are the Pen and Genotropin Mixer devices and any necessary consumables. **Genotropin MiniQuick:** Two compartment cartridge in single dose syringe containing powder and solvent for injection together with an injection needle. Each device contains either 0.2 mg, 0.4 mg, 0.6 mg, 0.8 mg, 1 mg, 1.2 mg, 1.4 mg, 1.6 mg, 1.8 mg or 2 mg somatropin (rbe). **Indications: Children:** Treatment of growth disturbance due to insufficient secretion of growth hormone (growth hormone deficiency, GHD) or associated with gonadal dysgenesis (Turner Syndrome) or chronic renal insufficiency (CRI) or in short children born Small for Gestational Age (SGA) with a birth weight and/or length below –2SD, who failed to show catch-up growth by 4 years of age or later. Prader-Willi syndrome (PWS), for improvement of growth and body composition. The diagnosis of PWS should be confirmed by appropriate genetic testing. **Adults:** Replacement therapy in adults with pronounced GH deficiency. Adult onset: Patients who have severe growth hormone deficiency associated with multiple hormone deficiencies as a result of known hypothalamic or pituitary pathology and who have at least one known deficiency of pituitary hormone not being prolactin. Childhood Onset: Patients who were growth hormone deficient during childhood as a result of congenital, genetic, acquired, or idiopathic causes. **Dosage and Administration:** Dose should be personalised for each individual. The subcutaneous injection site should be varied to prevent lipoatrophy. **Insufficient Secretion of GH in children:** 0.025–0.035 mg/kg body weight day. Higher doses have been used. Where childhood onset GHD persists into adolescence, treatment should be continued to achieve full somatic development (e.g. body composition, bone mass). For monitoring, the attainment of a normal peak bone mass defined as a T score > –1 (i.e. standardised to average adult peak bone mass measured by dual energy X-ray absorptiometry taking into account sex and ethnicity) is one of the therapeutic objectives during the transition period. **Prader-Willi Syndrome:** 0.035 mg/kg body weight per day. Daily doses of 2.7 mg should not be exceeded. **Gonadal Dysgenesis (Turner Syndrome):** 0.045–0.050 mg/kg body weight per day. **CRI:** A dose of 0.045–0.050 mg/kg body weight per day. Higher doses can be needed if growth velocity is too low. Dose correction can be needed after 6 months treatment. **Short children born SGA:** 0.035 mg/kg body weight per day until final height is reached. **GH Deficient Adults:** In patients who continue growth hormone therapy after childhood GHD, the recommended dose to restart is 0.2–0.5 mg per day. The dose should be gradually increased or decreased according to individual patient requirements as determined by the IGF-I concentration. In patients with adult-onset GHD, start with low dose, 0.15–0.3 mg/day. The dose should be gradually increased as determined by the IGF-1 concentration. Clinical response and side effects may guide dose titration. It is recognised that there are patients with GHD who do not normalise IGF-I levels despite a good clinical response, and thus do not require dose escalation. The maintenance dose seldom exceeds 1.0 mg per day. Women (especially those on oral oestrogen) may require higher doses than men. As normal physiological growth hormone production decreases with age, dose requirements are reduced. In patients above 60 years, therapy should start with a dose of 0.1– 0.2 mg per day and should be slowly increased according to individual patient requirements. The minimum effective dose should be used. The maintenance dose in these patients seldom exceeds 0.5 mg per day. **Contra-indications, Warnings etc:** Hypersensitivity to the active substance or to any of the excipients. Any evidence of tumour activity exists. Anti-tumour treatment must be complete. Genotropin should not be used for growth promotion in children with closed epiphyses. Patients with acute critical illness suffering complications following open heart surgery, abdominal surgery, multiple accidental trauma, acute respiratory failure or similar conditions should not be treated with Genotropin. Hypersensitivity to the active substance or to any of the excipients. **Precautions:** Diagnosis and therapy should be initiated and monitored by suitably qualified and experienced doctors. Somatropin may induce insulin sensitivity and in some patients diabetes mellitus. Patients with diabetes, glucose intolerance, or additional risk factors for diabetes should be monitored closely during somatropin therapy. As thyroid function may be affected, monitoring of thyroid function should be conducted in all patients. In patients with hypopituitarism on standard replacement therapy, the potential effect of growth hormone treatment on thyroid function must be closely monitored. Signs of any relapse of malignant disease should be monitored. In patients with endocrine disorders, slipped epiphyses of the hip may occur. In case of severe or recurrent headache, visual problems, nausea and/or vomiting, a funduscopy for papilloedema is recommended as some rare cases of benign intracranial hypertension have been reported and if appropriate treatment should be discontinued. Leukaemia has been reported in a small number of growth hormone deficiency patients, some of whom have been treated with somatropin. However, there is no evidence that leukaemia incidence is increased in growth hormone recipients without predisposition factors. As with all somatropin containing products, a small percentage of patients may develop antibodies to GENOTROPIN. The binding capacity of these antibodies is low and there is no effect on growth rate. Testing for antibodies to somatropin should be carried out in any patient with otherwise unexplained lack of response. Experience in patients above 80 years is limited. Elderly patients may be more sensitive to the action of Genotropin, and therefore may be more prone to develop adverse reactions. In acute, critically ill adult patients, GH may increase mortality. In CRI, renal function should be below 50% of normal before institution of therapy and growth should be followed for a year preceding institution of therapy. Conservative treatment for renal insufficiency should have been established and be maintained during therapy. Discontinue GH after renal transplantation. There have been reports of fatalities associated with the use of growth hormone in paediatric patients with Prader-Willi syndrome who had one or more of the following risk factors: severe obesity (those patients exceeding a weight/height of 200%), history of respiratory impairment or sleep apnoea, or unidentified respiratory infection. Patients with one or more of these factors may be at increased risk. Before initiation of treatment with somatropin in patients with Prader-Willi syndrome, signs for upper airway obstruction, sleep apnoea, or respiratory infections should be assessed. Patients should be monitored for signs of respiratory infections, which should be diagnosed as early as possible and treated aggressively. All patients with Prader-Willi syndrome should also have effective weight control before and during growth hormone treatment. Scoliosis is common in PWS and signs for scoliosis should be monitored. Experience of prolonged therapy in adults and patients with PWS is limited. In short children born SGA other medical reasons or treatments that could explain growth disturbance should be ruled out before starting treatment. Not recommended to initiate treatment in SGA patients near onset of puberty. **Interactions:** Concomitant treatment with glucocorticoids may inhibit the growth-promoting effects of somatropin containing products. Therefore, patients treated with glucocorticoids should have their growth monitored carefully to assess the potential impact of glucocorticoid treatment on growth. The clearance of compounds metabolised by cytochrome P450 3A4 (e.g. sex steroids, corticosteroids, anticonvulsants and ciclosporin) may be increased resulting in lower plasma levels of these compounds. The clinical significance of this is unknown. In diabetes mellitus, insulin dosage may need adjustment. Somatropin has been reported to reduce serum cortisol levels, possibly by affecting carrier proteins or by increased hepatic clearance. The clinical relevance of these findings may be limited. Corticosteroid replacement therapy should be optimised before initiation of Genotropin therapy. **Pregnancy and Lactation:** Animal studies are insufficient with regard to effects on pregnancy, embryofoetal development, parturition or postnatal development. There are no clinical studies available on exposed pregnancies. Therefore, somatropin containing products are not recommended during pregnancy and in women of childbearing potential not using contraception. There have been no clinical studies conducted with somatropin containing products in breast-feeding women. It is not known whether somatropin is excreted in human milk, but absorption of intact protein from the infant GI tract is unlikely. Therefore caution should be exercised when somatropin containing products are administered to breast-feeding women. **Overdosage:** Acute overdosage could lead initially to hypoglycaemia and subsequently to hyperglycaemia and Long-term overdosage could result in signs and symptoms consistent with the known effects of human growth hormone excess. **Side Effects:** In adult patients, common adverse effects related to fluid retention; such as peripheral oedema, stiffness in the extremities, paraesthesia, arthralgia and myalgia. These effects are mild to moderate, arise within the first months of treatment and subside spontaneously or with dose reduction. Formation of antibodies of low binding capacity in approximately 1% of patients; *in vitro* chromosome aberrations of unknown clinical significance. Very rare cases (< 1/10,000) of leukaemia have been reported in GH deficient children treated with somatropin, but the incidence appears to be similar to that in children without GH deficiency. In Prader-Willi Syndrome patients treated with somatropin rare cases of sudden death have been reported, although no causal link has been established. **Pharmaceutical Precautions:** Keep Genotropin in the outer carton to protect from light. **Before reconstitution:** store in the refrigerator (2–8°C). *Genotropin Miniquick:* Solely for ambulatory use, only, the product may be stored at or below 25°C by the end user for a single period of not more than 6 months. During and/or at the end of this 6 months period, the product should not be put back in the refrigerator. *Genotropin Cartridge:* Storage up to 1 month at or below 25°C allowed. **After reconstitution:** *Genotropin Miniquick:* Use immediately or within 24 hours. *Genotropin Cartridge:* Store in a refrigerator (2°C–8°C), do not freeze. Keep the container in the outer carton in order to protect from light. Use within 4 weeks. **Legal Category:** CD (Sch 4, Part I), POM. **Pack/Basic NHS Price/PL No:** Genotropin 5.3 mg Pre-filled pen (GoQuick) x 1 £122.87 00022/0085. Genotropin 12 mg Pre-filled pen (GoQuick) x 1 £278.20 00022/0098. Genotropin 5.3 mg Two chamber cartridge x 1 £122.87 00022/0085. Genotropin 12 mg Two chamber cartridge x 1 £278.20 00022/0098. Genotropin MiniQuick 0.2 mg x 7 £32.46 00022/0186. Genotropin MiniQuick 0.4 mg x 7 £64.91 00022/0187. Genotropin MiniQuick 0.6 mg x 7 £97.37 00022/0188. Genotropin MiniQuick 0.8 mg x 7 £129.82 00022/0189. Genotropin MiniQuick 1 mg x 7 £162.28 00022/0190. Genotropin MiniQuick 1.2 mg x 7 £194.74 00022/0191. Genotropin MiniQuick 1.4 mg x 7 £227.19 00022/0192. Genotropin MiniQuick 1.6 mg x 7 £259.65 00022/0193. Genotropin MiniQuick 1.8 mg x 7 £292.11 00022/0194. Genotropin MiniQuick 2 mg x 7 £324.56 00022/0195. **PL Holder:** Pharmacia Laboratories Limited, Ramsgate Road, Sandwich, Kent, CT13 9NJ, UK. Further information is available on request from Medical Information Department at Pfizer Limited, Walton Oaks, Dorking Road, Tadworth, Surrey, KT20 7NS, UK. **Date of preparation:** August 2010. **Company reference:** GN20_0

Adverse events should be reported. Reporting forms and information can be found at www.yellowcard.gov.uk. Adverse events should also be reported to Pfizer Medical Information on 01304 616161.

GEN3243C Date of preparation: January 2011

AUTUMN ENDOCRINE RETREAT
WISH YOU WERE HERE?

October 2010 saw another highly successful Autumn Endocrine Retreat in the environs of the picturesque Milton Hill Hall in Oxfordshire. We thank the faculty members for their support, especially convenors Dr Ruth Andrew and Dr Derek Renshaw. What did the 20 delegates think of the event?

Initially apprehensive about travelling alone to the stunning setting of the Milton Hill House, I was struck by the friendliness of the other delegates and the warm welcome from the faculty members. All the presentations given by the faculty were light-hearted, reflecting the laid-back approach to the whole retreat, but they also conveyed important messages about approaches to science and your career. The delegates were divided into groups, each tasked with critically reviewing a paper in an unfamiliar subject area. The main task of the weekend involved preparing a grant proposal based on the paper. Each group then presented their proposal to the faculty members, in the manner of Dragon's Den, which added some competitive fun, but this will also prove to be an extremely useful experience for most delegates in the near future. Overall, the weekend was a big success and I now have a new bunch of friends to network with at conferences, as well as possible collaborators for the future.

LOUISE DIVER, UNIVERSITY OF GLASGOW

Before I go on any course or event, I always worry about the following: the people will be strange, everyone will know so much more than me, and because it's free it must be in an awful place!

I can categorically state that all three of these statements were not true in the case of the Autumn Endocrine Retreat. Highlights of the weekend were the plenary lectures given by the faculty members, covering a range of important and relevant topics. But it was not all work related - the evenings were a great time to network and make friends. I would recommend the retreat to anyone.

MICHELLE SLEETH, IMPERIAL COLLEGE LONDON

The tasks we were assigned were challenging and intellectually stimulating; while the lectures ranged in subject matter from grant writing tips, to the pros and cons of doing a post-doc abroad - these were a great opportunity for us to learn from the experiences of eminent endocrine researchers.

KYLIE BEALE, IMPERIAL COLLEGE LONDON

The retreat is a fantastic opportunity for younger members of the Society; by providing an informal setting, the barriers sometimes seen between trainee and senior scientists are broken down. For me, the retreat allowed me to gain more confidence in my ability not only as a scientist but as a presenter. New friendships with people from different areas of research to my field of expertise will, no doubt, continue to be a source of support and help me to become a better academic researcher.

ROLAND STIMSON, UNIVERSITY OF EDINBURGH

As a PhD student, I found the retreat a fantastic opportunity - not only to meet my peers, but it also offered a friendly environment in which to meet principal investigators. I felt the retreat helped to shed light on how to tackle life as a post-doc, and how to work with people from different backgrounds and at different stages of their career.

AMANDA PATIST, UNIVERSITY OF MANCHESTER

The faculty members' personal accounts of their experiences in science at home and abroad exposed the career 'do's and don'ts' for a young scientist. I found these really inspiring, and found the faculty members' energy and enthusiasm for science contagious.

MITTAL SHAH, ROYAL VETERINARY COLLEGE

The team work elements of the retreat gave me insight into group dynamics, awareness of how I function within a group, and my potential strengths and weaknesses as a leader - which are all valuable lessons for co-ordinating a research group in the future. The faculty members remained good-humoured, positive, and encouraging about an academic career in science throughout.

FIONA WU, UNIVERSITY OF BRISTOL

Places on the 2011 Autumn Endocrine Retreat promise to fill quickly – register your interest early at conferences@endocrinology.org www.endocrinology.org/meetings/aer/.

Regional Clinical Cases
- from strength to strength

▶ In December the Society held its third Regional Clinical Cases meeting, this time in association with the South East Region Endocrine Club, at the Lansdowne Place Hotel in Brighton.

Building on the success of the Regional Clinical Cases meetings held in Birmingham and Edinburgh, Dr Simon Aylwin (London) and Dr Anna Crown (Brighton) constructed an excellent whole day programme in which the 10 case presentations were interspersed with lectures from Professor Colin Dayan,
Dr Pauline Kane, Dr John Miell, Dr John Newell-Price and a debate involving Dr John Quinn and Dr Tom Scanlon. The meeting was a big hit with the 45 delegates who defied the icy conditions, 92% of whom described the meeting as 'excellent' and complimented the programme as 'balanced and well designed'.

Dr John Miell thought that it was 'Great to see so many real juniors (medical students and foundation year trainees) performing at a standard that would have graced any international meeting'. Dr Aylwin thought that the meeting's success had much to do with the

format including the right mix of lectures and cases: 'We were delighted that so many eminent endocrinologists from the wider region and beyond braved the snow and agreed to share their knowledge and experience'.

Hearty congratulations are extended to the prize winners: Ms Rachel Roberts received first prize for her oral presentation, with Dr Ben Whitelaw receiving second prize; while the two poster prize winners were Dr Tomas Agustsson and Dr Julianne Mogford.

The details of the next few Regional Clinical Cases meetings can be found at www.endocrinology.org/meetings/.

Clinical Update – new coordinator, same old success

▶ In November the Society held the latest Clinical Update Course (CU10). This was the first in a new cycle, which covers the national curriculum over three years, and the first coordinated by Professor Wiebke Arlt (Birmingham). Wiebke introduced some new faculty members to teach and to deliver the workshops, but left the proven format of a mixture of didactic lectures, seminars and case presentations unchanged.

The eight convenors and 16 additional faculty members ensured that the course had experts in every field, while the informal collegiate atmosphere encouraged the sharing of expertise, advice and knowledge. An analysis of the evaluation forms revealed that the 194 delegates were attracted to the overall format of the course, the topics covered in the workshops and the positive experiences gained at previous Clinical Updates. Here is a small sample of what delegates had to say:

'*Best meeting for a trainee in endocrinology*'
'*Excellent teaching and interaction, information about management not obtainable elsewhere*'
'*Good update for an established consultant*'
'*Strengthened my knowledge in areas of weakness and further consolidated my knowledge in areas of strength*'
'*Formal format, yet an informal and inviting atmosphere*'

CU11 will be held in Sheffield, 7–9 November 2011. You need not have attended CU10 in order to go to CU11. Register your interest now at conferences@endocrinology.org www.endocrinology.org/meetings/clinicalupdate/.

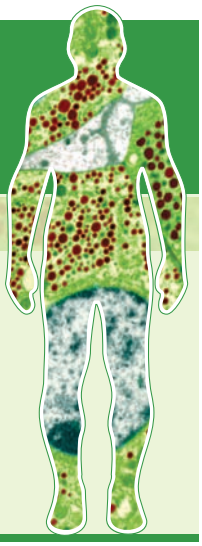
Society for Endocrinology
Clinical Update CU 11

7-9 November 2011 HILTON HOTEL, SHEFFIELD, UK

The Clinical Update programme provides essential training for all trainees and new consultants in endocrinology and diabetes, covering the PMETB national curriculum over a three year period. 2011 is the 2nd year of this cycle, although attendance at CU10 is not a prerequisite.

The three day programme comprises didactic lectures and small interactive workshops based around the presentation of routine cases by delegates. This mixed format ensures the generation of an excellent collegiate atmosphere that promotes an effective forum for networking with peers and more established endocrinologists.

This highly successful, premier clinical training course has been over-subscribed in the past and registration will be on a first-come, first-served basis, so register your interest at conferences@endocrinology.org to be notified by email when registration will go live.



ENDOCRINOLOGY AND DIABETES IN THE UNDERGRADUATE CURRICULUM: WHY CHOOSE OUR SPECIALTY?

Many of us go into clinical endocrinology because of role models who may have inspired or encouraged us at an early stage in our career. It might simply have been pure academic intrigue ignited by a dynamic lecture or seminar at medical school. Therefore, in order to attract and recruit the best people into our specialty, we need to ensure that inspirational clinical and academic endocrinologists are given sufficient airtime to students at medical schools across the UK.

With this in mind, John Wass asked me to conduct a survey on behalf of the Clinical Committee to look at the undergraduate medical school curriculum in the UK. By happy coincidence, Tony Weetman, Professor of Endocrinology at Sheffield, is Chair of the Medical Schools Council: he strongly advised sending the survey directly to our clinical colleagues rather than going through medical school red tape.

I duly sent a series of questions to senior clinical endocrinologists at all 31 medical schools in the UK. The responses were interesting and a few consistent themes emanated from the survey. Most people felt that it was important to involve senior clinicians at an early stage in both the design and delivery of the undergraduate curriculum; a lecture on Cushing's syndrome or hyperthyroidism is far better received if it is given by a clinician who routinely manages these conditions, than by someone who has never seen a real case.

Examples of particularly innovative practices include live multi-disciplinary team (MDT) discussions, such as the one at Addenbrooke's Hospital, Cambridge, which are filmed and given with a preceding refresher lecture on the relevant endocrine disorder. On the other hand The University of Aberdeen Medical School, is developing an electronic endocrinology clinical cases forum. Sadly, many of the responses indicated that not all students have compulsory exposure to endocrinology and diabetes at their medical school, which may be detrimental to recruitment into our specialty.

Encouragingly there are opportunities for students to perform BScs in endocrinology in departments with research activity, and all respondents were very happy with the concept of cross-pollinating students from other medical schools.

Other suggestions taken from the survey include: the development of core standards for a national undergraduate curriculum; ensuring questions on endocrinology appear in all finals examinations; the encouragement of innovative teaching methods, particularly those which embrace interactive technology. It was agreed that the best way forward was to set up a formal meeting, either face-to-face or via teleconference, between education leaders and other interested parties, to discuss the issues raised in the survey. Abhi Vora is bringing this all together and progress will be reported to the Clinical Committee, with more information to be disseminated via the Society website, and at future Diabetes UK and Society BES meetings.

MILES LEVY

Granting independence

In these straitened times, the Society is glad to be able to continue a full programme of grants and awards. Early career grants are intended to directly support endocrinologists, possibly through providing the resources to gain preliminary data before applying for other external funding, money for a specific piece of equipment, the resources to finalise a project or short term salary funding. A full review of these activities is published in the autumn issue of The Endocrinologist *each year; this report escaped to whet your appetite.*

▶ Glucocorticoids act via the intracellular glucocorticoid receptor to regulate cellular growth, metabolism, survival and the response to inflammatory stimuli.

Dividing cells have a reduced sensitivity to glucocorticoids, and so tissues with an increased mitotic index have impaired glucocorticoid sensitivity. This is accompanied by changes in glucocorticoid receptor function, which remain poorly defined. With support from the Society Early Career Grant, I have defined the localisation and activity of the glucocorticoid receptor during mitosis, and found an entirely new mode of glucocorticoid receptor action, as a regulator of chromosome segregation. This is a major new discovery, and one with implications not only in understanding glucocorticoid receptor biology but also for the field of steroid hormone action.

Work conducted over this past year has contributed to the completion of a significant body of work that now forms two manuscripts currently under review. This funding has also enabled the establishment of collaborative links between Tony Michael and Rachel Webb (St George's University of London), and myself at the University of Manchester. The preliminary data obtained so far is very exciting and will form the basis of an application for more substantive grant funding from other UK funding bodies.

Since receiving this grant, I have been awarded a 4-year University of Manchester 'FMHS Stepping Stones Fellowship' to continue my research. I have also successfully obtained funding for two PhD studentships: an integrative systems biology (MCISB) studentship and a BBSRC CASE studentship in collaboration with GlaxoSmithKline. I have submitted an application to fund a 5-year programme of collaborative research, and intend to apply for an externally funded personal fellowship in September 2011.

Support from the Society Early Career Grants programme has been instrumental in my progress over the past year. I now feel well placed to successfully compete for external fellowships, and establish myself as an independent researcher in the field of glucocorticoid receptor biology.

LAURA MATTHEWS, MANCHESTER UNIVERSITY

The next deadline for applications for the Early Career Grant is 27 May 2011, see www.endocrinology.org/grants/ for further details.

5th Hammersmith Endocrine Symposium

▶ The Society for Endocrinology sponsored the 5th Hammersmith Multidisciplinary Endocrine Symposium on 10 December 2010 at Hammersmith Hospital, London. This annual meeting brings together trainees and consultants from all specialties who manage complex endocrine patients in multidisciplinary teams, so that they can share best practice and discuss difficult cases. The 190 delegates also included 30 MEN-1 and MEN-2 patients, who attended the main meeting and the parallel sessions specifically designed for them. This year's meeting had a strong adrenal theme.

The audience were updated on the diagnosis of phaeochromocytomas by Professor Morris Brown (University of Cambridge) and learnt about localisation from Dr Bomanji (University College Hospital, London) and Dr James Jackson (Hammersmith Hospital). Professor John Wass (Churchill Hospital, University of Oxford) discussed the pre-operative preparation of phaeochromocytomas. There was lively interaction and debate from the audience during the Conn's presentations, both presentations used roving microphones and interactive clickers so that the audience could vote for particular options. This was followed by a Society for Endocrinology sponsored seminar by Professor Martin Walz (Essen, Germany) who gave a truly unique surgical experience of 1131 retroperitoneoscopic adrenalectomies. Adrenalectomies can now be performed through a laparascopic keyhole procedure from the back!

Professor Martin Walz delivering the Society for Endocrinology sponsored seminar on retroperitoneoscopic adrenalectomy

Later in the day focus turned to debating the role of surgery: Mr David Scott-Coombes (Univeristy Hospital of Wales, Cardiff) versus radioiodine treatment Professor Karim Meeran (Hammersmith Hospital) in Graves' disease. Congratulations to Mr Scott-Coombes who had a smaller share of the vote from the audience but gained a greater swing over Professor Meeran at the end of the debate.

The Society supported two £100 prizes for the best posters which were awarded to Dr N Sznerch (University Hospital Wales, Cardiff) and Dr A Theodoraki (Royal Free Hospital, London). You can enjoy all the abstracts online at http://metmed.info. Preparations are underway for the 6th Hammersmith Endocrine Symposium, which will take place on 9 December 2011, for further details see http://metmed.info/.

Nurses' News

On behalf of the Nurse Committee I would like to wish you all a Happy and Healthy New Year. I cannot believe that it is a year since I took over as Chair of the Nurse Committee. A lot of positive things have happened in that year, so I thought I would take this opportunity to share with you what the committee has been doing, and is planning to do in the future.

Following elections in November we are pleased to welcome two new committee members - Ann Marland from Oxford and Morag Middleton from Aberdeen. I would like to thank Jean Munday, who recently retired from the committee, for her commitment and hard work. I am pleased to say that Jean will still be involved, as she has agreed to join the sub-committee developing core endocrine nursing competencies.

We continue to work towards developing core competencies for adult endocrine nurses; to carry this out we have set up a working group comprised of a mixture of interested Nurse Members and committee members. We held our first sub-committee meeting in February, and will report on progress in a future issue: if any Nurse Member has an idea they would like to put forward, or would like to help in the development of these competencies please do get in touch with Ann Lloyd (ann.lloyd@endocrinology.org).

The nurses' sessions at the Society BES 2011, 13 April, are now finalised: the topics will be Turner and Klinefelter's syndrome in the morning session, and thyrotoxicosis in the afternoon. We are now busy planning the sessions for the Society BES 2012 and will be calling for volunteers to take part soon.

Following on from the successful re-launch of the Endocrine Nurse Update, the committee is busy preparing for this year's update. The recent call for case studies and speakers enjoyed an excellent response - thank you to those of you who have replied, we will be in touch soon. We plan to return to Stratford-upon-Avon on 19–20 September 2011 as the venue proved very popular with delegates last time. Please put the dates in your diaries!

The Certificate of Adult Endocrine Nursing is soon to be re-launched - we have been working hard to make this an even more robust educational achievement. There are four compulsory elements: attendance at Endocrine Nurse Updates; submission of a portfolio of evidence; attendance at the Society BES meeting, or Clinical Update meetings; and evidence of abstracts accepted for scientific meetings, on which the candidate is first author. The committee felt that a portfolio of evidence would more clearly demonstrate personal development than the previous Certificate requirement for an essay. If you are interested in undertaking the certificate please contact Ann Lloyd (ann.lloyd@endocrinology.org). The committee has put together a starter pack for guidance which is now available on the website, along with more details www.endocrinology.org/endocrinenurse/training.html.

For the first time, nurses were involved in the recent Interdepartmental Peer Review in Cardiff. In November two committee members, Chris Gibson (Manchester) and Lisa Shepherd (Birmingham), spent 2 days in Cardiff as members of the review team. Their input proved to be very useful and nurses are to be included in this process from now on.

We have been looking at other ways to support endocrine nurses and have developed an online resource which will soon be appearing on the website (www.endocrinology.org/endocrinenurse/). This includes 'how to' sections on: endocrine tests, writing an abstract, doing a case study, and chairing a meeting. There is advice on how to become a committee member and some examples of career pathways. It also lists patient group contact details and links to useful new research in endocrinology. It is hoped that this will be a valuable resource especially for nurses new to endocrinology.

Finally I would like to say to Nurse Members that we are your voice in the Society. We can only continue to promote endocrine nursing with your support. *The Endocrinologist* is published four times a year and we are always looking for copy. Articles, no matter how big or how small, are welcomed. Topics could cover something you have developed, a study you have been involved in, a case study on the nursing care of an endocrine patient: anything you think might be of interest. Otherwise you will have to put up with my ramblings instead, and I am sure you must by now be fed up with hearing my voice. If only to prevent this happening get your laptops out and get writing ready for the next issue!

NIKKI KIEFFER

Deadline for news items for the Summer 2011 issue: 1 April 2011.
Deadline for news items for the Autumn 2011 issue: 5 August 2011.

How do I join the Society?

The Society welcomes anyone working in an endocrine-related field anywhere in the world and at any stage in their career. If you would like to take advantage of the many benefits of membership, for example, access to a comprehensive list of grants, free online access to the Society's journals, reduced registration fees at Society-organised conferences, clinical days and training courses, just complete the application form at www.endocrinology.org/membership or contact the Society by emailing members@endocrinology.org.

Catherine Wilson

► Catherine Wilson, who died at the age of 74, will be remembered by her many friends and colleagues not only for her notable research career but also for her generous spirit and zest for life.

Cathy trained in Pharmacy at Chelsea College, London, and after graduating spent a few years working in the pharmaceutical industry. In 1969 she returned to Chelsea College as a research fellow in the Pharmacology Department and was appointed Temporary Lecturer in Pharmacology in 1971. From 1972–1974, she worked as Research Fellow to P G McDonald at the Royal Veterinary College, earning, in 1974, a lectureship in Pharmacology.

In 1979 Cathy was appointed Senior Lecturer in Reproductive Physiology in the Department of Obstetrics & Gynaecology at St George's Hospital. It was here that her research on the hypothalamic control of gonadal function really took off and in 1986 she was promoted to Reader in Reproductive Physiology. At St George's she played a major role in linking clinical and basic research. In 1992 she was awarded a personal chair and in the same year received a DSc from the University of London.

In addition to her work at St George's, Cathy was an active member of numerous scientific societies including the Society for Endocrinology, British Pharmacological Society, British Neuroendocrine Group and the Society for Reproduction and Fertility. She was also a founder member of the Society for Drug Research.

Many postgraduate students benefited from Cathy's guidance and friendship, while her research attracted workers from around the world. She was so enthusiastic about research and was most happy in the laboratory, considering it a way of life. Even after retiring she continued to work; thinking that freedom from academic duties would allow her more time for research. When I spoke with her, just a few weeks before she died, she was excited about some new experiments and could not wait to get back into the laboratory.

Cathy was not just an academic; she had many other interests and commitments. She actively promoted the arts and was a talented artist herself. Cathy will be fondly remembered by her colleagues and the many friends she made throughout her life: she was an inspiration to us all.

TONY THODY

Alan Michael Wallace

► Mike Wallace died suddenly in New York on his way home from the American Association of Clinical Chemistry annual meeting. He was just 60 years of age. Prior to his premature death Mike had been Consultant Clinical Scientist in the Department of Clinical Biochemistry at Glasgow Royal Infirmary, NHS Greater Glasgow and Clyde. Mike was also an honorary Professor at the University of Strathclyde.

Mike was born and raised in Dundee. He studied biochemistry at St Andrews University, where he met his wife Pat. He moved to the University of Glasgow, Department of Steroid Biochemistry in 1972 to commence a PhD on androgens. Thus began his lifelong interest in biochemical endocrinology.

After two years in London to complete his training as a clinical biochemist, Mike returned to his former department in Glasgow as an NHS clinical biochemist, rising through the grades and gaining FRCPath before achieving Consultant status in 2000.

Mike was an excellent research scientist - he developed an interest in paediatric steroid biochemistry and introduced novel assays, including the first neonatal screening programme for congenital adrenal hyperplasia. Later Mike became involved in polycystic ovarian disease and took the short step to involvement in the biochemical endocrinology of adipose tissue and clinical obesity. Another new area followed – this time in pioneering the assessment of ovarian reserve using anti-mullerian hormone. Most recently Mike introduced liquid chromatography tandem mass spectrometry into the laboratory and developed the first automated mass spectrometric assay for 25-hydroxyvitamin D. This last project led to him becoming Scottish Healthcare Scientist of the Year in 2008.

Throughout his research career Mike understood the value of working in partnership with clinical colleagues and he developed collaborative clinical research partners across the UK, in Europe and in the United States. He also worked closely with key diagnostic companies. As a result Mike was an invited speaker at several international conferences. Mike's expertise and reputation in endocrinology were recognised when he was elected to serve as the only clinical biochemist on the Society for Endocrinology Council. Mike also found time to work for the Association for Clinical Biochemistry, serving with distinction for many years.

But above all Mike was a great person – his middle name should have been 'fun'. He had a constant twinkle in his eye which told you that the next quip, tease or story was imminent. He always remained positive; the glass was always overflowing and tomorrow would be even better than today. Mike was an enthusiastic and talented teacher, especially in small groups and a generation of clinical biochemists have appreciated his encouragement and support. Evidence of Mike's popularity and respect was shown by the 'standing room only' service in celebration of his life - clinical biochemistry has lost a great scientist and many have lost a great friend.

GRAHAM H BEASTALL

Libel liable for reform

Whilst a thick skin or a good sense of humour has long been essential for survival in academia, libel actions are becoming increasingly commonplace in science. How is this affecting the scientific community?

Modern communication has outgrown UK libel laws. As an increasingly inquisitive public wants to know about cutting-edge science and medicine, so public funding schemes have adapted to meet and engage with this curiosity. Laudable though this is, does the exposure come at a price? Whilst a burgeoning science communication field is helping to accurately portray current scientific thinking to the public, the scientific method is facing a very real threat through legal actions facilitated by the UK's outdated libel system.

In an article published by the *Daily Mail* in October 2010, Dr Dalia Nield, a respected cosmetic surgeon at The London Clinic, expressed concerns over the supporting evidence and proposed mode of action of 'Boob Job' cream, a topical application advertised as being able to increase bust size. Rodial, the manufacturers of 'Boob Job' claim that her words were defamatory and have threatened her with legal action unless the comment is withdrawn.

The situation Dr Peter Wilmshurst finds himself in is more ominous. Dr Wilmshurst, a cardiologist at Royal Shrewsbury Hospital, UK, is currently defending two libel actions from Boston-based medical device company NMT Medical. The first action is being taken over comments regarding the research conduct of a trial he was participating in, made during a cardiology conference and subsequent interview with a journalist from heartwire, an online news website based in the USA. The second action concerns comments he made in defiance of the first libel action to BBC Radio Four's *The Today Programme*.

REAL SCIENTIFIC ADVANCEMENT, AND THE REALISATION OF ITS FULL ECONOMIC BENEFITS, REQUIRES CRITICAL APPRAISAL.

These two cases highlight a very serious threat to free speech and academic debate, as freely offering a professional opinion in the public interest is increasingly landing more and more academics with a choice between a retraction or a hefty legal bill. Dr Wilmshurst's case is notable because he is fighting it: the commitment in time and money that a libel defence requires makes the threat of libel action enough to silence many academics. A recent ruling ordered NMT Medical to pay £200 000 to the High Court in case Dr Wilmshurst won, as he could no longer afford to defend his case and make payments on his house.

Under UK libel law, even claimants based outside the UK enjoy the luxury of choosing their target, who then suffers the burden of proof; while newspapers are well placed to protect themselves against such suits, individuals are not. UK libel laws can also be used to force equally vulnerable scientific journals to retract a paper, as the philosopher AC Grayling warns in the *BMJ* 'even if the *BMJ* is confident it could win if sued, the huge expense of defending an action makes winning scarcely worthwhile … this is well known to those who sue'.

A recent survey of publishers carried out by the Libel Reform Campaign showed that 32% of medical and scientific editors say their journal has been threatened with libel action, 44% of editors have asked for changes to the way papers or articles are written to protect themselves from a libel action, and a third of publishers have refused work from authors for fear of libel action. These findings led Justice Minister Lord McNally to describe UK defamation laws as 'not fit for purpose'.

A great deal of increasingly scarce funding is likely to be wasted if the stifling of debate continues. Real scientific advancement, and the realisation of its full economic benefits, requires critical appraisal. Furthermore, if the capacity of academics to scrutinise and question continues to be hampered by the threat of libel, the impact on health, medicine and society at large could be devastating.

Whilst lawmakers must do what they can to make libel laws fair, academics should reconcile themselves with new legal realities. In the draft Defamation Bill making its way through the House of Lords, the defences of public interest, honest opinion (currently referred to as 'fair comment') and truth stand. Whilst truth is a quality denied to all but the most established scientific facts, statements about the available evidence can always be true, and the defence of public interest and honest opinion seem adequate to protect responsible critics. The science writer Simon Singh spent two years and over £200 000 fighting the British Chiropractic Association to claim the fair comment defence for well-founded public criticism, and it is largely thanks to him that we are seeing reform. Let us not make his efforts in vain.

TOBY STEAD

The Society for Endocrinology supports the Libel Reform Campaign, which is a coalition between Sense About Science, Index on Censorship and English PEN. You can find out more about UK libel laws and sign their petition for reform at www.libelreform.org.

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Almirall is an international pharmaceutical company based on innovation and committed to health, headquartered in Barcelona, Spain. At Almirall we research, develop, produce and market novel medicines with the aim of improving people's health and wellbeing. We devote significant human and economic resources to constantly research into new drugs and to obtaining effective and safe products to treat discomfort and disease.

Our research resources are focused on the treatment of asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, multiple sclerosis, psoriasis and dermatological conditions. Within dermatology an area of particular interest is the treatment of facial hirsutism, a distressing condition for sufferers that is often related to underlying endocrine disorders in women.

Our medicines are present in over 70 countries, with a direct presence in Europe and Latin America. Our objective is to help thousands of people around the world stay healthy.

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The pharmaceutical division of Bayer HealthCare focuses its research and business activities on the following areas: Diagnostic Imaging, General Medicine, Haematology & Neurology, Oncology and Women's Healthcare. Using innovative ideas, Bayer aims to make a contribution to medical progress and strives to improve the quality of patients' lives.

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BioScientifica manages conference services for the Society for Endocrinology, European Society of Endocrinology, British Fertility Society, Cancer and Bone Society, British Oncological Society, United Kingdom and Ireland Neuroendocrine Tumour Society, and Ipsen and Novartis Pharmaceuticals. We provide a full online abstract publishing service for several clients.

We act as the standing office for five learned societies, offering full membership services, enquiry handling, committee meeting management, production of newsletters and advice regarding governance and other procedural matters. BioScientifica handles the external relations for the Society for Endocrinology, European Society of Endocrinology and the British Fertility Society. The following publications are managed by BioScientifica:

- *Journal of Endocrinology, Journal of Molecular Endocrinology* and *Endocrine Related Cancer,* published in print and online with HighWire Press for the Society for Endocrinology
- *European Journal of Endocrinology*, published in print and online with HighWire Press for the European Society of Endocrinology
- *Reproduction*, published in print and online with HighWire Press for the Society for Reproduction and Fertility
- a range of books, including: the KIMS annual overview; *Acromegaly: a handbook of history, current therapy and future prospects, Handbook of Cancer-Related Bone Disease, Handbook of Gastroenteropancreatic and Thoracic Nueroendocrine Tumours* and *Handbook of Cushing's Disease.*

Our in-house website management service has created and maintains more than ten websites for societies and other organisations.

BioScientifica Ltd, Euro House, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: 01454-642240; Web: www.bioscientifica.com)

ELI LILLY AND COMPANY

Eli Lilly and Company is one of the world's largest research-based pharmaceutical companies, dedicated to creating and delivering innovative pharmaceutical healthcare solutions that enable people to live longer, healthier and more active lives. Our research and development efforts constantly strive to address urgent unmet medical needs. Eli Lilly and Company was founded in 1876 in Indianapolis, USA, and has had a long history of producing endocrine products, dating all the way back to the collaboration with Banting and Best and the introduction of the world's first insulin product in 1922.

Another element of Lilly's endocrine portfolio is GH replacement. Lilly manufactures recombinant human GH (somatropin) at Speke near Liverpool, UK. A full range of products and services is provided for the healthcare professional to use with their patients on GH replacement therapy for both adults and children. To assist in the therapeutic management of osteoporosis, Lilly has two products, each catering for different patient needs: Raloxifene and Teriparatide.

Finally, Lilly continues to focus significant resources on research into the endocrine area. For additional information about any of our endocrine products or services please log on to the Lilly website: www.lilly.co.uk.

Eli Lilly and Company Ltd, Lilly House, Priestley Road, Basingstoke RG24 9NL, UK (Tel: 01256-315000; Web: www.lilly.co.uk)

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Ferring Pharmaceuticals is a multinational company with corporate headquarters in Saint-Prex Switzerland; the organisation's marketing, medical services and sales teams operate in more than 45 countries and employ over 3700 people throughout the world.

Ferring's portfolio demonstrates an exceptionally innovative and successful track record in endocrinology, reproductive health – infertility and obstetrics, urology, gastroenterology and oncology. Ferring is a world leader in the research and development of peptides and hormone therapies, focusing on producing treatments that enable doctors to treat patients on the body's own terms.

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Ipsen is an innovation-driven global specialty pharmaceutical group with over 20 products and a total worldwide staff of nearly 4200. Its development strategy is based on a combination of specialty medicine, which is Ipsen's growth driver, in targeted therapeutic areas (endocrinology, oncology, neurology and haematology), and primary care products which contribute significantly to its research financing.

We have been pleased to support the field of endocrinology since 1998, and Ipsen's expanding portfolio includes a range of products with sophisticated sustained release delivery systems for the management of various hormone-related diseases. The location of its four research and development centres (Paris, Boston, Barcelona, London) and its peptide- and protein-engineering platform give the group a competitive edge in gaining access to leading university research teams and highly qualified personnel. More than 800 people in research and development are dedicated to the discovery and development of innovative drugs for patient care. For more information on Ipsen, visit our website at www.ipsen.com.

Ipsen Ltd, 190 Bath Road, Slough SL1 3XE, UK (Tel: 01753-627700; Fax: 01753-627701; Web: www.ipsen.com)

MERCK SERONO LTD

At Merck Serono, we are actively committed to bringing therapeutic innovations to patients. We specialise in the treatment of cancer, neurodegenerative diseases, infertility, endocrine and metabolic disorders, cardiovascular diseases and other conditions with unmet medical needs.

We are internationally recognised as a biotechnology leader, with innovative and successful products along with a well-stocked and promising development pipeline. Specialised know-how in research and production means that we are able to ensure very high-quality manufacturing, a key success factor especially in the biopharmaceutical industry.

Merck Serono is committed to improving the lives of people with a range of endocrine and metabolic disorders including growth hormone deficiency and diabetes. Merck Serono was a pioneer in making recombinant human growth hormone available for the treatment of growth hormone deficiency in children and adults. Merck Serono continues to bring benefits to patients through its treatments and family of easy-to-use drug delivery devices, we continue to pursue focused development in endocrinology.

Merck Serono Pharmaceuticals Ltd, Bedfont Cross, Stanwell Road, Feltham TW14 8NX, UK (Tel: 01371-875876; Web: www.merckserono.co.uk)

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Our mission at Novartis is to discover, develop and successfully market innovative products to prevent diseases, to ease suffering and to enhance the quality of life. As one of the largest pharmaceutical businesses in the world, Novartis has a responsibility to protect and invest for the future. In 2009 Novartis invested $7.5 billion USD in research and development.

Novartis Oncology has a strong heritage in cancer care. Indeed, over the past 25 years pioneering research has repeatedly resulted in new and innovative products, such as our cutting edge, rationally designed, molecularly targeted compounds.

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NOVO NORDISK LTD

Novo Nordisk was founded in 1923 out of a passion to help people with diabetes. With our strong commitment to patients and by offering the largest portfolio of products in the industry, we look to defeat diabetes by improving: awareness, prevention, detection, and treatment of this chronic disease. In addition, Novo Nordisk holds a leading position within the areas of haemostasis management, growth hormone therapy and hormone replacement therapy.

We also believe that it is important to change the future of diabetes and, together with others, we have introduced a number of initiatives to achieve this. In recognition of the fact that diabetes is a global epidemic, the World Diabetes Foundation (WDF) was established in 2002 to support the prevention and treatment of diabetes in the developing world. In 2008 Novo Nordisk launched a five year 'Changing Diabetes in Children' programme to reduce child mortality and save 10 000 children in sub-Saharan Africa by 2015. Within the UK, providing financial assistance to support the Oxford Centre for Diabetes, Endocrinology and Metabolism has gone some way to achieve the Oxford Vision 2020.

Novo Nordisk remains committed to improving the lives of patients with diabetes.

Novo Nordisk Ltd, Broadfield Park, Brighton Road, Crawley RH11 9RT, UK (Tel: 01293-762000; Web: www.novonordisk.com)

PFIZER LTD

The Speciality Business Unit of Pfizer Ltd has a long established portfolio of endocrine products (medicines and devices), with a broad range of indications, and innovative services, as well as a history of serving patients' and physicians' needs for more than twenty years.

Pfizer is committed to improving understanding of endocrine disorders such as adult growth hormone deficiency and acromegaly through the KIMS and ACROSTUDY databases, which now have more than 30 000 and 800 patients, respectively, enrolled worldwide. The partnership with endocrine health professionals in data collection has shown to be important in monitoring the safety and efficacy of the treatments. More recently KIGS & KIMS has been valuable in informing health technology assessors on the cost-effectiveness of growth hormone treatment. In 2010 Pfizer launched a web-based version of KIMS which will aim to make the use of the database more user friendly. Further application of the data collected is being investigated by Pfizer, with the aim of helping individual centres access valuable information to help in the effective management of patients on growth hormone treatment.

Pfizer have recently embarked on an initiative to help endocrine healthcare professionals improve their skills in non-clinical areas through a professional and personal development programme. This is delivered through structured courses and internet web-based learning. The programme is called E3 – Enhancing Excellence in Endocrinology.

Pfizer Ltd, Walton Oaks, Dorking Road, Tadworth KT20 7NS, UK (Tel: 01304-616161; Web: www.pfizer.co.uk)

SANDOZ LTD

Sandoz, a division of the Novartis group, is a world leader in high quality generics and biopharmaceutical medicinal products. Sandoz develops and markets a wide variety of active ingredients and finished products, having a portfolio of more than 840 compounds in over 5000 forms. Novartis is the only major pharmaceutical company to have leadership positions in both patented prescription drugs and generic pharmaceuticals.

In 2005, Hexal AG (Germany) and EonLabs Inc (USA) became part of Sandoz. In 2006, the business employed about 21 000 people worldwide. It sold its products in more than 110 countries and posted sales of $6 billion USD. Sandoz's recombinant human growth hormone Omnitrope received marketing authorisation from the European Commission in April 2006 and has been launched subsequently in several European countries. In the USA, Omnitrope was launched in January 2007. In Australia, Omnitrope has been on the market since November 2005.

Biosimilar medicines made by Sandoz: fully adhere to the new and rigorous European standards for biosimilar medicinal products; guarantee a high quality production process, as Sandoz ranks among the world's largest and most experienced manufacturers of biotechnological products; ensure patient care and safety through appropriate preclinical development, clinical trials and postmarketing surveillance, including a state of the art pharmacovigilance system; help reduce the burden on healthcare systems by providing the public with safe and effective medicines at competitive prices.

Sandoz International GmbH, Industriestrasse 25, 83607 Holzkirchen, Germany (Tel: +49-8024-4762591; Fax: +49-8024-4762599; Web: www.sandoz.com)

New Funding for Clinical Endocrine Audit

available from the Clinical Endocrinology Trust

The Clinical Endocrinology Trust (a charity which derives its income from a profit-share of the Society's official clinical journal, *Clinical Endocrinology*) has long supported Endocrine Audit projects within the UK. Recent examples include the UK Acromegaly Database and the CaHASE audit of adults with CAH. The CET has recently awarded funding to the BTA to evaluate the iodine status of teenage girls across the UK.

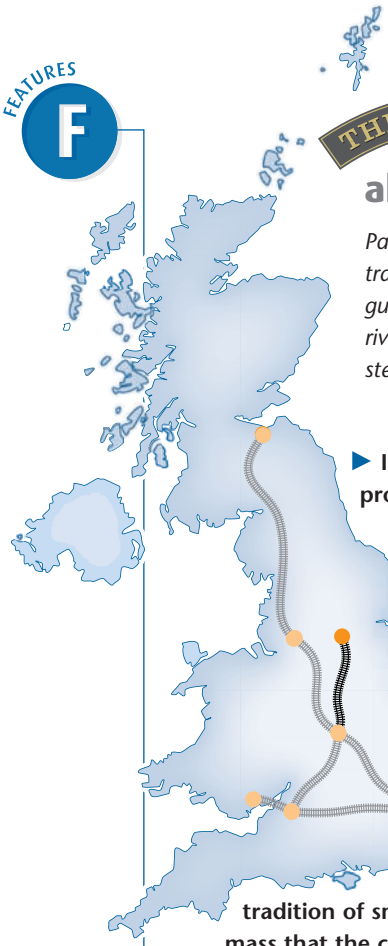
The Trustees now invite further Clinical Endocrine Audit applications from Societies or Endocrine Centres. Preference will be given to projects involving multicentre collaborations. We are particularly interested in receiving applications related to areas of endocrinology the Trust has not supported previously. A sum of £40 000 is available during 2010–2011 for one or more projects judged by the Trustees to be worthy of support: their decision will be final.

Applications should be limited to three A4 sides and structured as follows: Background, Aims, Methods, Funding Justification and References.

Closing date for applications is 30 June 2011 and should be sent to Professor Julian Davis (CET Secretary) at julian.davis@manchester.ac.uk

The CET looks forward to hearing from you!

The Clinical Endocrinology Trust (Registered Charity 288679)
Trustees: Prof A P Weetman *Chairman,* Prof J R E Davis *Secretary & Treasurer*, Prof J M Connell, Prof J A Franklyn, Mrs E Whelan
Society for Endocrinology Secretary & CET Observer: Prof P M Stewart



THE ENDO TRAIN

all aboard for... Sheffield

Passengers on the Endo Train will arrive in Sheffield on the Master Cutler, the express train from London, named after the head of the Company of Cutlers, one of the few guilds outside London. Sheffield, like Rome, was built on seven hills – these generate the rivers that powered the water wheels that turned the grindstones that sharpened the steel that made Sheffield famous. Richard Ross takes us for a tour.

In the 18th century Sheffield produced a third of the world's specialised steel and the hallmark, '*Made in Sheffield*', was found on cutlery the world over. The backbone of Sheffield's cutlery and tool making industry were the craftspeople, known as the Little Mesters, who enjoyed a reputation as highly skilled and specialised workers. It is in this tradition of small groups creating a critical mass that the current Department of Human Metabolism in Sheffield has developed to include the top UK centre for bone research, and one of the largest UK groupings of adult and paediatric endocrinologists.

Sheffield has a rich academic heritage of endocrinologists on which to build. In 1920, Sir Edward Mellanby opened the way for the discovery of Vitamin D by demonstrating that cod liver oil was curative of rickets in dogs. Mellanby recruited Howard Florey to Sheffield, who went on to jointly receive the Nobel Prize for the discovery of penicillin. Mellanby was also influential in appointing Hans Adolf Krebs to Sheffield, who, in 1953, received the Nobel Prize for describing the carboxylic acid cycle. It is in Mellanby's honour that the recently opened Centre for Bone Research was named. At the same time, Professor (later Sir) Edward Wayne and colleagues undertook a number of pioneering studies in thyroid disease and in 1951 reported the first use in the UK of radioiodine treatment for hyperthyroidism.

The modern era of bone research in Sheffield began with the establishment of the Department of Chemical Pathology in 1974 by Professor Jack Martin and continued by Professor Graham Russell in the Department of Human Metabolism and Clinical Biochemistry. Graham played a major role in the discovery and medical application of bisphosphonates. Professor John Kanis established the first Metabolic Bone Unit in Sheffield and now heads the WHO Collaborating Centre for Metabolic Bone Diseases - responsible for developing a fracture prediction tool (FRAX) that is widely used internationally. In 1995 Professor Richard Eastell opened a dedicated Osteoporosis Centre; the University of Sheffield now has one of the world's top osteoporosis research centres.

The Mellanby Centre for Bone Research was the joint inspiration of its first and current directors, Professors Peter Croucher and Richard Eastell; this joint appointment of basic and clinical researchers emphasises the importance of a translational approach to bone diseases. Clinical research includes: metabolic bone diseases such as osteoporosis (Professors Richard Eastell, Eugene McCloskey); childhood bone diseases (Professor Nick Bishop); tumour-induced bone diseases (Professors Peter Croucher, Rob Coleman and Eugene McCloskey); osteoarthritis and rheumatoid arthritis (Mr Mark Wilkinson, Professor Gerry Wilson).

Clinical research is underpinned by world-class basic biomedical research; including new appointments (Professor Tim Skerry, Drs Ilaria Bellantuono, Allie Gartland) and the relocation of all laboratory activities to one floor of the newly refurbished Henry Wellcome Laboratories in the Medical School. These laboratories contain the latest automated immunoassay analysers, high resolution microCT imaging equipment and the equipment to undertake quantitative dynamic bone histomorphometry. These enviable facilities are complemented by the NIHR funded Bone Biomedical Research Unit (Director, Professor Richard Eastell). The two Sheffield clinical bone services merged in 2003 to form the current Metabolic Bone Centre (clinical lead Dr Nicola Peel) which is one of the largest NHS centres for the management of bone disease; close integration with the clinical research programme offers state of the art facilities to patients.

In endocrinology, Professor Donald Munro opened the Clinical Sciences Centre in the 1970s, developing one of the first bioassays for Graves' disease. Endocrinology has always been strongly supported through basic science: Professors Chester Jones and Ian Henderson (comparative endocrinology), Professor Barry Brown and Dr Pauline Dobson (intracellular signalling pathways). On Donald's retirement, Tony Weetman was appointed as Professor of Medicine in 1991; since then Sheffield has become one of the largest endocrine centres in the UK.

Locomotive 45407
The Master Cutler

University of Sheffield

The Academic Unit of Diabetes, Endocrinology and Metabolism is now centralised on 'O' floor of the Royal Hallamshire Hospital site, commanding a view down the Don valley which fifty years ago was a haze of smoke and fire from the steel furnaces and is now a flourishing business park. The laboratories are co-located with the recently opened Clinical Research Facility, close to the inpatient and outpatient endocrine facility on 'Q' floor which provides an ideal setting for translational research.

The backbone for endocrine research in Sheffield is the very large patient base, 3 million, and the critical mass of endocrinologists. This has led to the development of specialist clinics, some of which are unique to Sheffield. The Pituitary Clinic (Professor Richard Ross, Drs William Bennet, John Newell-Price, Jonathan Webster) is supported by surgeons Mr Showkat Mirza and Mr Saurabh Sinha. Endocrine surgery is blessed with two surgeons, Mr Sabapathy (Saba) Balasubramanian and Mr Barney Harrison, leading the UK in laparoscopic adrenal surgery.

Sheffield established the first UK Stereotactic radiosurgery service, while much of the early work on somatostatin analogues and carcinoid tumours was initiated by Prof Frank Woods who brought his carcinoid interest from Oxford; the carcinoid clinic has over 130 patients (Professor Nigel Bax, Dr John Newell-Price). Paediatric endocrinology in Sheffield was established in the 1970s by the late David Milner who was renowned, with Dr David Hill, for his work on pancreatic development and human growth hormone. He was succeeded in 1989 by Dr Jerry Wales, one of the first paediatric specialists to be trained outside of London. Since then the team has expanded to include Dr Paul Dimitri and Dr Neil Wright. Sheffield is renowned for its paediatric to adult transitional clinics and appointed the first consultant in late effects, Dr Helena Davies, who had trained both in endocrinology and oncology and led the development of the Late Effects Group in Sheffield (LEGS). Sadly Helena had to retire early but the current late effects service in Sheffield boasts a Nurse Consultant (Dr Diana Greenfield), a Nurse Specialist (Ms Tanya Urqhart), four endocrinologists (Professor Richard Ross, Drs Paul Dmitri, Anna Jenkins, Jennie Walsh), and the Head of Obstetrics & Gynaecology Professor Bill Ledger. The excellence of the clinical services is based around the team of Endocrine Nurse Specialists (Ms Kay Dunkley, Ms Vicky Ibbotson, Ms Betty Roberts) supported by multi-disciplinary team (MDT) coordinators (Ms Emma Howard, Ms Helen Sutcliffe) who manage a weekly endocrine MDT and alternate week pituitary and neuroendocrine tumour MDTs. This provides an ideal setting for training and education.

Current endocrine research in Sheffield is focused, amongst other areas, around the thyroid, pituitary and adrenal. Thyroid research (Professor Tony Weetman, Drs Helen Kemp, Phil Watson) has been exploring antibody – antigen interactions in autoimmune thyroiditis and related disorders like vitiligo, as well as the immunogenetic basis for these conditions. Pituitary research (Professor Richard Ross, Drs Sarb Pradnanhanga, Ian Wilkinson) has had a focus on growth hormone and pituitary hormone replacement with the development of long-acting growth hormone analogues to provide once monthly therapy in growth hormone deficiency and acromegaly. In the adrenal setting, the work of Dr John Newell-Price is being translated into clinical benefits and novel therapies for patients with Cushing's and cortisol-excess. Sheffield has proved a fertile environment for spin-doctors and the Department of Human Metabolism has four spinout companies, two of which are endocrine: Asterion Ltd and Diurnal Ltd. Asterion has undertaken the commercial development of long-acting growth hormone agonists and antagonists whilst Diurnal has a program developing a modified release formulation of hydrocortisone, Chronocort, for the treatment of adrenal insufficiency (specifically congenital adrenal hyperplasia).

Richard Ross

Richard Eastell

John Newell-Price

Jonathan Webster

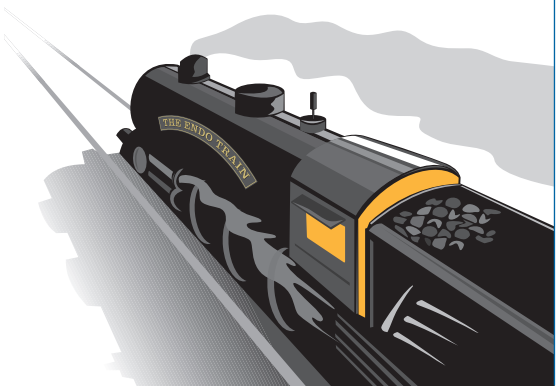
Jennifer Walsh

Tony Weetman

Anyone visiting Sheffield is struck by the number of young people and the proximity to the Peak District. The two Universities have a student population of over 35 000, who universally love Sheffield: more graduates remain in Sheffield than any other UK university city. A key reason for this loyalty is the ease with which you can get out of the city; most of us can as readily walk from home to work as into the countryside.

If you ask anyone what they know about Sheffield they will usually mention three things: steel, football and *The Full Monty*. In this spirit, we have attempted to bare all to you and we hope you have enjoyed your visit. We wish you a safe onward journey and that, like many of our graduates, the next time you visit, you will stay.

RICHARD ROSS



Age of austerity hits universities

The Higher Education Sector has been singled out for tough treatment in the comprehensive spending review, particularly in England. The Higher Education Funding Council for England (HEFCE) budget for teaching has been slashed. While Science, Technology, Engineering, and Mathematical (STEM) subjects will enjoy some protection and many universities are frantically seeking sponsorship to support scholarships, the vast majority of undergraduate students will be facing annual fees in the region of £6000–9000 from 2012. Universities will be required to be more transparent about their degree programmes and the employment prospects they offer, there are also calls for tighter regulation through the Quality Assurance Agency (QAA). 'More for less' is the call from the government. For those at the coalface, this scenario will certainly pose new challenges – more bureaucracy, an inevitable drive for efficiency savings, and more demanding students expecting (not unreasonably) good value for their money.

Curiously, little has been said publically about master's courses, which are currently funded from the same HEFCE pot as undergraduate programmes and are, if anything, even more expensive to run, particularly in the STEM subjects. Universities may well wish to hike their fees for these courses accordingly; however, if they do, they may price themselves out of the home market as any extension of the student loan system to postgraduate education seems unlikely. This, in turn, could have a serious impact on the pool of students eligible for PhD places, particularly as universities increasingly require a master's qualification to ensure Bologna compliance (the Bologna Process seeks to make academic degree standards more comparable and compatible across Europe).

At first reading, things sound brighter on the research front – certainly the maintenance of science research budget was a welcome surprise. However, it is not all a bed of roses. In reality the science budget will be flat over the next four years while inflation rises (current consumer price index 3.7%) – this is a significant cut in real terms. Infrastructure will also be hit with a drop in the capital budgets of both the Research Councils and HEFCE. Full economic costing (FEC) rates will also fall in the light of the Wakeham review, but the savings made by the Research Councils will be directed to research which is good news for researchers, if not for their institutions.

Inevitably the winners in this new climate will be those who find new ways of doing things – Darwinism or *Animal Farm*, however you choose to view it! Where are the opportunities for endocrinologists and how can the Society help its members maximise these opportunities? With respect to teaching and education, the results of our recent member survey requested the Society do more to support education for scientists, clinicians and nurses by, for example, the provision of online material. Could we go further and produce a core set of teaching resources which could be readily downloaded by those delivering or receiving undergraduate and postgraduate teaching in our universities and hospitals? We would need commitment from experts in the various subfields to ensure that the material was kept up to date but the upshot would be an invaluable high quality resource which would not only support those delivering and taking the courses but also help students appreciate just how exciting endocrinology is.

With respect to research, the door is open for endocrinology. The MRC, Wellcome Trust and other charities invest heavily in this area. The BBSRC strategic plan focuses strongly on the healthy organism (not disease which is the remit of the MRC) and food security, both of which are rich picking grounds for endocrinologists, while the EPSRC offers opportunity to break new ground at the interface between engineering and the physical and life sciences. The funding letter from the Department of Business, Innovation and Skills to the Research Councils emphasises investing in world-class science and promoting impact to support the economy. Much is made of concentrating resources for research and research training on 'research centres of proven excellence with critical mass and multidisciplinary capacity'. A further emphasis is on partnership both between universities, and between universities, research council institutes and the private sector.

The Research Assessment Exercise did much to enhance research in the UK, but as league tables gained momentum universities increasingly competed against each other. As we move to an era of big grants supporting big science we need to move away from such tribalism – partner or perish will be the mantra of the future. I think that the UK should be proud of its endocrinology – only by working collectively will we capitalise on our expertise, rise to the new funding challenges, take our discipline forward and protect our talented young researchers.

If you have ideas as to how the Society can help, do please let us know (info@endocrinology.org). We are undertaking a strategic review of our activities in the summer and any suggestions you put forward will be fed into this process.

JULIA BUCKINGHAM

The Struggle for Existence

▶ Changes to the research environment are an inevitable consequence of the election of a new government; we are beginning to see how these changes will manifest themselves. In the last issue we reported that science had, in having its budget frozen, faired relatively well. This may be the case in direct funding but large cuts elsewhere, particularly to universities and capital spending, can still affect science.

Thankfully, the Conservative party pre-election commitment to medical research has been honoured through the transfer of budgetary responsibility for the new UK Centre for Medical Research to the Department of Health, which has been protected from spending cuts.

Even so, the Campaign for Science and Engineering (CaSE) has warned that cuts of over 40% to capital spending will mean that funding for facilities, maintenance and other long-term commitments will have to be taken from money for research grants. Furthermore, large scale cuts to University funding will have a huge impact on science.

Monetary concerns aside, other developments in science policy include the Rawlins review of the regulation and governance of health research, conducted by the Academy of Medical Sciences. The review calls for a single body – a Health Research Agency – to conduct a streamlined approach to the regulation of research, following concerns that the complex and bureaucratic system currently in place is stifling progress (the full report can be found at www.acmedsci.ac.uk/p47.html). The Health Secretary Andrew Lansley recently led a cull of regulatory authorities, including the Human Fertilisation and Embryology Authority: the scientific community should watch these developments closely.

The Wellcome Trust

▶ The changes to Wellcome Trust funding for science have been well publicised … but for any member not on the Wellcome roadshow tour, here is a brief overview:

The Wellcome Trust is moving away from funding a large number of medium-term project and programme grants towards Wellcome Trust 'Investigator Awards'.
The project and programme grant scheme often tied researchers into a cycle of focusing on securing grants rather than devoting themselves to their research. The new initiative builds on the Trust's highly successful fellowship schemes, which provide funding for scientists at all stages of their careers, providing the flexibility and length of tenure necessary to tackle important research questions. The initiative is now also extended to researchers who are salaried by their university or research institute.

Funding is now flexible in both length and scale: awards of up to £425 000 per year for up to seven years can be made depending on the researcher, and the resources that will be required to realise their research goals. Funding is available to researchers at all career stages.

At the point of application, researchers will no longer be expected to provide a detailed methodological description or an exact budget. The application form will ask researchers to outline their research vision, what their approach to answering their key research questions will be, and the approximate costs involved.

Applications will be shortlisted by the Trust's 'Expert Review Groups', formed by independent research scientists from the UK and overseas. These groups will assess the vision, ambition and track record of each applicant and the potential for success. Shortlisted applications will be sent out to peer review by referees. Applicants will then be invited to interview, where they will be given the opportunity to present their case.

Further details and applications for Investigator Awards can be made here: www.wellcome.ac.uk/Funding/ Biomedical-science/Funding-schemes/Investigator-Awards/index.htm

Biotechnology and Biological Sciences Research Council

▶ The Biotechnology and Biological Sciences Research Council (BBSRC) is one of the seven Research Councils that comprise Research Councils UK (RCUK). The RCUK is funded from the Government's Department for Business, Innovation and Skills (BIS); like every government department, the spectre of budget cuts looms large. We asked Professor Douglas Kell, BBSRC Chief Executive, what the outcome for bioscience funding looked like in the wake of the comprehensive spending review:

'Given the current pressure on public finances in the UK, our allocation of almost £1.5 billion over the next four years is an excellent outcome for bioscience. This represents a 3% fall in our programme budget to £351 million in 2014/15 compared to our baseline of £362 million in 2010/11. As with other research councils our capital budget has had to reduce significantly – in BBSRC's case from a baseline of £60 million in 2010/11 to £30 million in 2014/15. The redevelopment of the Pirbright Laboratory of BBSRC's Institute for Animal Health is proceeding with a further £37 million of funding from the Large Facilities Capital Fund.

We will need to make further efficiency savings and will be working with our community of researchers to ensure that we extract maximum value from our investments. I remain confident that we will be able to maintain the UK's world-class research base in bioscience.

In particular we will be focusing on our priority science areas of Global Food Security, Industrial Biotechnology and Bioenergy, and Bioscience Underpinning Health and Wellbeing. This will include, for example, preparing for an ageing population and maintaining wellbeing through improved understanding of the basic biological mechanisms underlying healthy physiology. For more details please see www.bbsrc.ac.uk'

Journal of Endocrinology

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Hot Topics

Journal of Endocrinology

Prolactin and atherosclerotic plaques

Cardiovascular disease and prolactin have been linked. Reuwer and colleagues investigated the role of prolactin and its receptor in the inflammatory response of human carotid atherosclerotic plaques: they found the plaques contained mRNA of the prolactin receptor but not the ligand. The receptor was most abundant in the plaque shoulder regions, and in macrophages embedded in the plaques. This may aggravate local inflammation.

Read the full article in *Journal of Endocrinology* **208** 107–117

Combination therapy in cancer cachexia

Cancer cachexia has a multifactorial pathogenesis, including loss of weight, muscle atrophy and loss of appetite. Chen & Qiu studied the effects of different combinations of growth hormone, insulin and indomethacin in a murine cancer cachexia model. They found that combination therapy with these agents alleviated cachexia and noted an increase in survival, indicating that a combination therapy targeting different pathogenic mechanisms has great therapeutic potential.

Read the full article in *Journal of Endocrinology* **208** 131–136

Novel thiazolidinedione mechanism

Thiazolidinediones (TZDs) are prescribed in type 2 diabetes as an anti-atherogenic. Hu and colleagues report that NUR77, an orphan nuclear receptor, exhibits increased mRNA expression when stimulated by TZDs and that TZDs inhibit this receptor by a peroxisome proliferator-activated receptor γ (PPAR-γ)-independent molecular mechanism, alongside inhibited NUR77 promoter activity, suggesting a TZD transcriptional effect on mRNA expression. These findings could contribute to the design of future atheroprotective agents.

Read the full article in *Journal of Endocrinology* **208** R1–R7

Endocrine-Related Cancer

Multikinase inhibitors and thyroid cancer

Medullary thyroid cancers (MTCs) frequently feature somatic RET mutations. Vitagliano and colleagues studied the mechanism of action of tyrosine kinase inhibitor vandetanib in human MTC cells with oncogenic RET mutations. They found that vandetanib reduced cell proliferation, inhibited phosphorylation of the Shc/MAPK pathway, and inhibited vascular endothelial growth factor receptor and epidermal growth factor receptor kinases. This suggests that vandetanib simultaneously inhibits multiple kinases.

Read the full article in *Endocrine-Related Cancer* **18** 1–11

PPGL catecholamine phenotype

Eisenhofer and colleagues retrospectively analysed catecholamine biomarkers in patients with phaeochromocytoma and paragangliomas (PPGLs). Patients with PPGLs due to multiple endocrine neoplasia type 2 and neurofibromatosis type 1 tumours had a distinct phenotype compared to those with von Hippel-Lindau and succinate dehydrogenase gene mutations. The authors suggest that the differences may result from different tumour progenitors: immature noradrenergic or dopaminergic chromaffin progenitor cells, or highly differentiated adrenergic chromaffin cells.

Read the full article in *Endocrine-Related Cancer* **18** 97–111

Journal of Molecular Endocrinology

PPAR-γ and aldosterone production

Aldosterone is a factor in atherosclerosis and hypertension. The role of peroxisome proliferator-activated receptor-γ (PPAR-γ) in aldosterone production is unclear. Uruno and colleagues found that overexpression of PPAR-γ resulted in suppression of aldosterone secretion and reduced expression of the aldosterone synthase gene *CYP11B2*. Calcium/calmodulin-dependent protein kinase 1 stimulates *CYP11B2* transcriptional activity and is suppressed by PPAR-γ. This sheds light on why PPAR-γ agonists are effective in hypertension.

Read the full article in *Journal of Molecular Endocrinology* **46** 37–49

Apelin stimulates glucose uptake

Activation of AMP-activated protein kinase (AMPK) is used in the treatment of obesity-associated disorders such as type 2 diabetes mellitus. Attané and colleagues have shown, for the first time, that apelin stimulates AMPK phosphorylation in human adipose tissue. Apelin administration did not effect lipolysis, but stimulated glucose uptake in human adipose tissue explants. As such, the apelin-signalling pathway is a promising therapeutic target.

Read the full article in *Journal of Molecular Endocrinology* **46** 21–28

Clinical Endocrinology

Comparing radionuclide imaging methods

Charrier and colleagues evaluated non-metastatic extra-adrenal paragangliomas using two imaging methods: [18F]FDOPA-PET and [111In] pentetreotide-SPECT somatostatin receptor scintigraphy (SRS). [18F]FDOPA-PET appeared to be the most reliable diagnostic tool, detecting 39 of 45 lesions. Both scans detected significantly more head and neck lesions than abdominal lesions. The study concluded that [18F]FDOPA-PET should replace SRS as the first-line imaging procedure.

Read the full article in *Clinical Endocrinology* **74** 21–29

Subclinical thyrotoxicosis

In this retrospective study Schouten and colleagues sought the point at which subclinical thyrotoxicosis (SCT) progresses to overt hyperthyroidism, and to identify the risk factors associated with progression. Of the risk factors assessed, underlying thyroid pathology was the only independent predictor of outcome. They found a 5–8% rate of disease progression, with a high rate of hyperthyroidism found in patients with autonomous nodules. This study could assist in the preparation of guidelines on when individuals with SCT should be treated for overt disease.

Read the full article in *Clinical Endocrinology* **74** 257–261

Thyroxine dose prediction

The initial thyroxine replacement dose after total thyroidectomy is often calculated purely by bodyweight; the dose is then titrated to the individual patient. Optimising therapy in each patient can be time consuming. Mistry and colleagues report a simple calculated regression equation which more accurately predicts the optimal initial thyroxine replacement dose. More accurate dose prediction could help save time and resources, while increasing control and patient satisfaction.

Read the full article in *Clinical Endocrinology* **74** 384–387

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Genotropin® (somatropin, rbe). Abbreviated Prescribing Information Genotropin 5.3 mg Pre-filled pen (GoQuick). Genotropin 12 mg Pre-filled pen. (GoQuick) Genotropin 5.3 mg Two chamber cartridge. Genotropin 12 mg Two chamber cartridge. Genotropin MiniQuick 0.2 mg. Genotropin MiniQuick 0.4 mg. Genotropin MiniQuick 0.6 mg. Genotropin MiniQuick 0.8 mg. Genotropin MiniQuick 1 mg. Genotropin MiniQuick 1.2 mg. Genotropin MiniQuick 1.4 mg. Genotropin MiniQuick 1.6 mg. Genotropin MiniQuick 1.8 mg. Genotropin MiniQuick 2 mg. Please refer to the SmPC before prescribing Genotropin. **Presentation: Genotropin Pre-filled Pen (GoQuick):** Two-chamber cartridge sealed in a disposable multidose pre-filled pen GoQuick. The cartridges contain either 5.3 mg or 12 mg somatropin (rbe). Each cartridge also contains 0.3% metacresol as preservative. The 5.3 mg pre-filled pen GoQuick is colour coded blue. The 12 mg pre-filled pen GoQuick is colour coded purple. **Genotropin Cartridge:** Two-chamber cartridge for use in a re-useable injection device, Genotropin pen, or in a reconstitution device. The cartridges contain either 5.3 mg or 12 mg somatropin (rbe). Each cartridge also contains 0.3% metacresol as preservative. The Genotropin Pens are colour coded, and must be used with the matching colour coded Genotropin two-chamber cartridge to give the correct dose. The Genotropin Pen 5.3 (blue) must be used with Genotropin 5.3 mg cartridge (blue). The Genotropin Pen 12 (purple) must be used with Genotropin 12 mg cartridge (purple). Instruction on reconstitution plus use of devices is supplied separately as are the Pen and Genotropin Mixer devices and any necessary consumables. **Genotropin MiniQuick:** Two compartment cartridge in single dose syringe containing powder and solvent for injection together with an injection needle. Each device contains either 0.2 mg, 0.4 mg, 0.6 mg, 0.8 mg, 1 mg, 1.2 mg, 1.4 mg, 1.6 mg, 1.8 mg or 2 mg somatropin (rbe). **Indications: Children:** Treatment of growth disturbance due to insufficient secretion of growth hormone (growth hormone deficiency, GHD) or associated with gonadal dysgenesis (Turner Syndrome) or chronic renal insufficiency (CRI) or in short children born Small for Gestational Age (SGA) with a birth weight and/or length below −2SD, who failed to show catch-up growth by 4 years of age or later. Prader-Willi syndrome (PWS), for improvement of growth and body composition. The diagnosis of PWS should be confirmed by appropriate genetic testing. **Adults:** Replacement therapy in adults with pronounced GH deficiency. Adult onset: Patients who have severe growth hormone deficiency associated with multiple hormone deficiencies as a result of known hypothalamic or pituitary pathology and who have at least one known deficiency of pituitary hormone not being prolactin. Childhood Onset: Patients who were growth hormone deficient during childhood as a result of congenital, genetic, acquired, or idiopathic causes. **Dosage and Administration:** Dose should be personalised for each individual. The subcutaneous injection site should be varied to prevent lipoatrophy. **Insufficient Secretion of GH in children:** 0.025–0.035 mg/kg body weight day. Higher doses have been used. Where childhood onset GHD persists into adolescence, treatment should be continued to achieve full somatic development (e.g. body composition, bone mass). For monitoring, the attainment of a normal peak bone mass defined as a T score > −1 (i.e. standardised to average adult peak bone mass measured by dual energy X-ray absorptiometry taking into account sex and ethnicity) is one of the therapeutic objectives during the transition period. **Prader-Willi Syndrome:** 0.035 mg/kg body weight per day. Daily doses of 2.7 mg should not be exceeded. **Gonadal Dysgenesis (Turner Syndrome):** 0.045–0.050 mg/kg body weight per day. **CRI:** A dose of 0.045–0.050 mg/kg body weight per day. Higher doses can be needed if growth velocity is too low. Dose correction can be needed after 6 months treatment. **Short children born SGA:** 0.035 mg/kg body weight per day until final height is reached. **GH Deficient Adults:** In patients who continue growth hormone therapy after childhood GHD, the recommended dose to restart is 0.2–0.5 mg per day. The dose should be gradually increased or decreased according to individual patient requirements as determined by the IGF-I concentration. In patients with adult-onset GHD, start with low dose, 0.15–0.3 mg/day. The dose should be gradually increased as determined by the IGF-1 concentration. Clinical response and side effects may guide dose titration. It is recognised that there are patients with GHD who do not normalise IGF-I levels despite a good clinical response, and thus do not require dose escalation. The maintenance dose seldom exceeds 1.0 mg per day. Women (especially those on oral oestrogen) may require higher doses than men. As normal physiological growth hormone production decreases with age, dose requirements are reduced. In patients above 60 years, therapy should start with a dose of 0.1– 0.2 mg per day and should be slowly increased according to individual patient requirements. The minimum effective dose should be used. The maintenance dose in these patients seldom exceeds 0.5 mg per day. **Contra-indications, Warnings etc:** Hypersensitivity to the active substance or to any of the excipients. Any evidence of tumour activity exists. Anti-tumour treatment must be complete. Genotropin should not be used for growth promotion in children with closed epiphyses. Patients with acute critical illness suffering complications following open heart surgery, abdominal surgery, multiple accidental trauma, acute respiratory failure or similar conditions should not be treated with Genotropin. Hypersensitivity to the active substance or to any of the excipients. **Precautions:** Diagnosis and therapy should be initiated and monitored by suitably qualified and experienced doctors. Somatropin may induce insulin sensitivity and in some patients diabetes mellitus. Patients with diabetes, glucose intolerance, or additional risk factors for diabetes should be monitored closely during somatropin therapy. As thyroid function may be affected, monitoring of thyroid function should be conducted in all patients. In patients with hypopituitarism on standard replacement therapy, the potential effect of growth hormone treatment on thyroid function must be closely monitored. Signs of any relapse of malignant disease should be monitored. In patients with endocrine disorders, slipped epiphyses of the hip may occur. In case of severe or recurrent headache, visual problems, nausea and/or vomiting, a funduscopy for papilloedema is recommended as some rare cases of benign intracranial hypertension have been reported and if appropriate treatment should be discontinued. Leukaemia has been reported in a small number of growth hormone deficiency patients, some of whom have been treated with somatropin. However, there is no evidence that leukaemia incidence is increased in growth hormone recipients without predisposition factors. As with all somatropin containing products, a small percentage of patients may develop antibodies to GENOTROPIN. The binding capacity of these antibodies is low and there is no effect on growth rate. Testing for antibodies to somatropin should be carried out in any patient with otherwise unexplained lack of response. Experience in patients above 80 years is limited. Elderly patients may be more sensitive to the action of Genotropin, and therefore may be more prone to develop adverse reactions. In acute, critically ill adult patients, GH may increase mortality. In CRI, renal function should be below 50% of normal before institution of therapy and growth should be followed for a year preceding institution of therapy. Conservative treatment for renal insufficiency should have been established and be maintained during therapy. Discontinue GH after renal transplantation. There have been reports of fatalities associated with the use of growth hormone in paediatric patients with Prader-Willi syndrome who had one or more of the following risk factors: severe obesity (those patients exceeding a weight/height of 200%), history of respiratory impairment or sleep apnoea, or unidentified respiratory infection. Patients with one or more of these factors may be at increased risk. Before initiation of treatment with somatropin in patients with Prader-Willi syndrome, signs for upper airway obstruction, sleep apnoea, or respiratory infections should be assessed. Patients should be monitored for signs of respiratory infections, which should be diagnosed as early as possible and treated aggressively. All patients with Prader-Willi syndrome should also have effective weight control before and during growth hormone treatment. Scoliosis is common in PWS and signs for scoliosis should be monitored. Experience of prolonged therapy in adults and patients with PWS is limited. In short children born SGA other medical reasons or treatments that could explain growth disturbance should be ruled out before starting treatment. Not recommended to initiate treatment in SGA patients near onset of puberty. **Interactions:** Concomitant treatment with glucocorticoids may inhibit the growth-promoting effects of somatropin containing products. Therefore, patients treated with glucocorticoids should have their growth monitored carefully to assess the potential impact of glucocorticoid treatment on growth. The clearance of compounds metabolised by cytochrome P450 3A4 (e.g. sex steroids, corticosteroids, anticonvulsants and ciclosporin) may be increased resulting in lower plasma levels of these compounds. The clinical significance of this is unknown. In diabetes mellitus, insulin dosage may need adjustment. Somatropin has been reported to reduce serum cortisol levels, possibly by affecting carrier proteins or by increased hepatic clearance. The clinical relevance of these findings may be limited. Corticosteroid replacement therapy should be optimised before initiation of Genotropin therapy. **Pregnancy and Lactation:** Animal studies are insufficient with regard to effects on pregnancy, embryofoetal development, parturition or postnatal development. There are no clinical studies available on exposed pregnancies. Therefore, somatropin containing products are not recommended during pregnancy and in women of childbearing potential not using contraception. There have been no clinical studies conducted with somatropin containing products in breast-feeding women. It is not known whether somatropin is excreted in human milk, but absorption of intact protein from the infant GI tract is unlikely. Therefore caution should be exercised when somatropin containing products are administered to breast-feeding women. **Overdosage:** Acute overdosage could lead initially to hypoglycaemia and subsequently to hyperglycaemia and Long-term overdosage could result in signs and symptoms consistent with the known effects of human growth hormone excess. **Side Effects:** In adult patients, common adverse effects related to fluid retention; such as peripheral oedema, stiffness in the extremities, paraesthesia, arthralgia and myalgia. These effects are mild to moderate, arise within the first months of treatment and subside spontaneously or with dose reduction. Formation of antibodies of low binding capacity in approximately 1% of patients; *in vitro* chromosome aberrations of unknown clinical significance. Very rare cases (< 1/10,000) of leukaemia have been reported in GH deficient children treated with somatropin, but the incidence appears to be similar to that in children without GH deficiency. In Prader-Willi Syndrome patients treated with somatropin rare cases of sudden death have been reported, although no causal link has been established. **Pharmaceutical Precautions:** Keep Genotropin in the outer carton to protect from light. **Before reconstitution:** store in the refrigerator (2–8°C). *Genotropin Miniquick:* Solely for ambulatory use, only, the product may be stored at or below 25°C by the end user for a single period of not more than 6 months. During and/or at the end of this 6 months period, the product should not be put back in the refrigerator. *Genotropin Cartridge:* Storage up to 1 month at or below 25°C allowed. **After reconstitution:** *Genotropin Miniquick:* Use immediately or within 24 hours. *Genotropin Cartridge:* Store in a refrigerator (2°C–8°C), do not freeze. Keep the container in the outer carton in order to protect from light. Use within 4 weeks. **Legal Category:** CD (Sch 4, Part I), POM. **Pack/Basic NHS Price/PL No:** Genotropin 5.3 mg Pre-filled pen (GoQuick) x 1 £122.87 00022/0085. Genotropin 12 mg Pre-filled pen (GoQuick) x 1 £278.20 00022/0098. Genotropin 5.3 mg Two chamber cartridge x 1 £122.87 00022/0085. Genotropin 12 mg Two chamber cartridge x 1 £278.20 00022/0098. Genotropin MiniQuick 0.2 mg x 7 £32.46 00022/0186. Genotropin MiniQuick 0.4 mg x 7 £64.91 00022/0187. Genotropin MiniQuick 0.6 mg x 7 £97.37 00022/0188. Genotropin MiniQuick 0.8 mg x 7 £129.82 00022/0189. Genotropin MiniQuick 1 mg x 7 £162.28 00022/0190. Genotropin MiniQuick 1.2 mg x 7 £194.74 00022/0191. Genotropin MiniQuick 1.4 mg x 7 £227.19 00022/0192. Genotropin MiniQuick 1.6 mg x 7 £259.65 00022/0193. Genotropin MiniQuick 1.8 mg x 7 £292.11 00022/0194. Genotropin MiniQuick 2 mg x 7 £324.56 00022/0195. **PL Holder:** Pharmacia Laboratories Limited, Ramsgate Road, Sandwich, Kent, CT13 9NJ, UK. Further information is available on request from Medical Information Department at Pfizer Limited, Walton Oaks, Dorking Road, Tadworth, Surrey, KT20 7NS, UK. **Date of preparation:** August 2010. **Company reference:** GN20_0

Adverse events should be reported. Reporting forms and information can be found at www.yellowcard.gov.uk. Adverse events should also be reported to Pfizer Medical Information on 01304 616161.

GEN3243A Date of preparation: January 2011