Magnificent Manchester: Society BES reviewed

PLUS

Society of Biology gets to work

Endocrinology as She is Spoke

Revalidation and peer review: embracing opportunities?

Biologics for bone loss
Despite ‘X factor’ performances on televised debates the three main party leaders were unable to convey the nuances of their policies sufficiently for the UK electorate to reward one with an outright majority. Simultaneously, in numerous other arenas, volcanic ash forced many to interact by phone and video conferencing.

In contrast, highly effective direct face-to-face communication was much in evidence at the Society BES 2010, which was yet again an exemplar of supreme organisation and finely balanced content; your Programme Secretary Marta Korbonits and the whole team from the Society should be congratulated on another fabulous job well done. The quality of the plenary lectures was truly outstanding, but for those of you that missed them, or wanted to see them again, you can hear the transcripts and see the slides via the BioScientifica website (page 7). Of these superb speakers the Clinical Endocrinology Trust Visiting Professor, Bill Young, also undertook an exhausting tour of several UK endocrine centres, inspiring all on his way, before delivering his medal lecture in Manchester (page 7). Now is also the time to get your nominations in for the 2012 medal lecturers (page 4). It was really encouraging to see how many Young Endocrinologists and Endocrine Nurses attended the meeting; Nikki Kieffer and Alia Munir give their reports of these groups’ activities on page 6. The Society is also trying to encourage students into our speciality; one means of doing this is by the sponsorship of places at the Society BES meeting. Mohammad Mahmud, a beneficiary of this scheme gives his report on page 5, he was clearly impressed – you may have candidates in mind for next year.

Communicating concepts in endocrinology is an essential part of the activity of the Society. Chris McCabe gives us his wonderfully crafted and provocative thoughts on matters of public and other engagement, invoking the need for our speciality to be more outward looking by illustrating how, in other arenas, even with the best intentions things can go badly wrong! (page 11). The Society is doing its utmost to lead in such areas by ensuring appropriate news coverage at the Society BES meeting (page 7) and by playing a key role in the Society of Biology, which will be hugely important in advising and lobbying our new government on scientific and biological matters (page 9). Along these lines we have the first in a series of reports from the Society’s Special Interest Groups on new developments in specific areas of endocrinology (page 14).

Meanwhile for the clinicians amongst you the word ‘Revalidation’ may evoke uneasy and unpleasant feelings. If so, Julian Davis has provided a detailed guide to help put your mind at rest (page 12). In a complementary article the Society’s Peer Review scheme is presented in detail by John Bevan (page 13). As he is now handing over the reigns, it is timely to thank John for all his tireless work in instigating and running this scheme. For those departments that have not yet requested a visit, I can thoroughly commend the process – it improves service quality, engenders better practice and will certainly be of value in the revalidation process!

JOHN NEWELL-PRICE

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.
YOU & YOUR HORMONES: CALL FOR CONTRIBUTORS

The Society’s new website, ‘You & Your Hormones,’ will provide the public with access to reliable information on all aspects of their hormones, glands and related endocrine conditions, as well as areas such as the science of endocrinology and diagnostic tests.

In February, we asked members of the scientific community to help us by volunteering to be contributors. We’ve had an amazing response so far, and thank everyone who contacted us to register their interest. The project is now rolling along at a merry rate.

However, we are by no means finished, and would love to hear from any other scientists, doctors or nurses who want to help develop the public understanding of endocrine science. If you are interested in gaining experience in science writing and public engagement by becoming a contributor, please contact the Society’s Public and Media Relations team at public@endocrinology.org.

Committee nominations needed

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 will commence on 1 January 2011 for a period of 4 years.

Clinical Committee Two new members are sought, especially from those members working outside tertiary centres.

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.

Science Committee One new member is sought.

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

Still ‘gentle and youthful’ after 15 years!

On 1 April, Julie Cragg reached her fifteenth anniversary with the Society. Julie is probably known to more members than anyone else on our staff. She has had a range of roles over these years, but is currently responsible for all membership issues. She also developed and produces the new-style Annual Report that attracts so many compliments each year.

Julie is a fantastic member of the team – always hard-working and committed – and she never lets us down. We celebrated in the office with champagne, a large bouquet of flowers and emailed best wishes from many members. John Bevan pointed out that Julie’s name means ‘gentle and youthful’, and John Wass described her as ‘one of the most lovely, reliable, quietly spoken but thoroughly supportive team members in Bristol’. Michael Sheppard commented that ‘the Society continues to go from strength to strength and this success has only been possible because of the hard work and loyalty of staff such as Julie.’ There were many more messages like this and the key theme running through them was a hope that Julie will continue for another 15 years!

New Council members

We are delighted to announce that, following a ballot amongst full members, Dr Steve Ball (Newcastle upon Tyne), Professor Karen Chapman (Edinburgh), Dr Helen Christian (Oxford) and Professor Richard Sharpe (Edinburgh) joined the Society’s Council of Management with effect from the AGM held on 17 March. We look forward to working with them.

We thank the retiring members of Council - Professor Kevin Docherty, Dr Rob Fowkes and Professor Mike Wallace - for their time and commitment over the past 4 years. We also thank those members who stood for election but who were unsuccessful on this occasion.

SOCIETY CALENDAR

27-28 September 2010
Endocrine Nurse Update
Holiday Inn, Stratford upon Avon

15-17 October 2010
Autumn Endocrine Retreat 2010
Milton Hill House, Steventon, Oxon

8-10 November 2010
Clinical Update
Bristol Marriott Royal Hotel, Bristol

10 December 2010
Regional Clinical Cases Meeting
Park Inn, Lansdowne Place, Brighton

11-14 April 2011
Society for Endocrinology BES 2011
ICC, Birmingham

Time for a Tweet!

You can now follow Society for Endocrinology news and announcements on Twitter, as well as news and views from our Chief Executive, Sue Thorn. Twitter is a free social networking and micro-blogging service, which will allow to you keep up-to-date with the latest Society news.

For Society news and announcements see twitter.com/Soc_Endo

For news and views from Sue Thorn, the Society’s Chief Executive, see twitter.com/Soc_Endo_Sue
WHO MERITS A MEDAL IN 2012?

The Society awards several medals annually, in recognition of outstanding contributions to endocrinology. All members are invited to make nominations for the 2012 awards. Nomination forms can be obtained at www.endocrinology.org/about/medals.html. Please return them by 30 July 2010.

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 ER Simpson, S O’Rahilly, M Thorner, AS McNeilly, S Lamberts, JK Findlay, R Kahn and W Vale. The Society Medal is awarded to an endocrinologist working in the UK, in recognition of outstanding studies. It has previously been awarded to GR Williams, W Arlt, A Hattersley, HOD Critchley, BR Walker, VKK Chatterjee, JMC Connell and R Eastell.

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 X Bertagna, B Alloio, W Wiersinga, N Skakkebaek, AM Colao, C Strasburger, A Maggi and K Oberg. 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 PJ Fuller, T Yoshimura, M Kawata, K Ho, K Morohashi, G Risbridger, K Kangava and P Leedman. The Transatlantic Medal is awarded to an endocrinologist working in North America, and has previously been received by JJ Kopchick, S Melmed, L Jameson, R Rosenfeld, B Spiegelman, DJ Mangelsdorf, K Korach and JS Flier.

Grants awarded

The Society is pleased to announce that the following grants have recently been awarded. Congratulations to all recipients.

Lab Visit Grants of up to £2000 have been received by Dr Irina Grigorieva (University of Oxford), Ms Katherine Hughes (University of Edinburgh), Dr Hiten Mistry (King’s College London), Dr Iliai Permogamvros (Christie Hospital, Manchester), Dr Nicole Reisch (University of Birmingham), Ms Paula Williams (University of Nottingham), Dr Jarod Wong (Royal Hospital for Sick Children, Glasgow) and Ms Elena Zachariades (Brunel University, Uxbridge).

Sponsored Seminar Grants of up to £3000 have been awarded to Dr Waljit Dhillon (Imperial College London), Dr Tara Kearney (Hope Hospital, Salford) and Professor John Wass (OCDEM, Churchill Hospital, Oxford).

Early Career Grants were awarded following the November 2009 deadline to Dr Alfrezo Abbas (University of Leeds, £10 000 for ‘Preliminary characterisation of a novel transgenic model of endothelium specific insulin and IGF-1 resistance’), Dr Gavin Bewick (Imperial College London, £9772 for ‘Does GPCR 43 regulate the release of L-cell gut hormones?’), Dr James Brown (Aston University, £8350 for ‘Aquaporins: novel regulators of adipose tissue biology?’), Dr Harvinder Chahal (Barts and the London School of Medicine, £10 000 for ‘The role of PDE4A-AIP interaction in the development of familial isolated pituitary adenomas?’), Dr Sakina Gooljar (Barts and the London William Harvey Research Institute, £9971 for ‘Functional rescue of intracellular retained melanocortin-4 receptor mutants by accessory protein interaction?’), Dr Claire Hughes (Barts and the London School of Medicine and Dentistry, £9950 for ‘Identification of a novel gene responsible for the pathogenesis of ACTH-insensitivity (familial glucocorticoid deficiency) in the Irish traveller population?’), Dr Kerr McNlnes (University of Edinburgh Centre for Cardiovascular Science, £10 000 for ‘Creation of a novel fat-specific androgen receptor knockout mouse to confirm the importance of androgen signalling in adipose tissue for insulin sensitisation?’), Dr Richard MacKenzie (University of Westminster, £9979 for ‘Can moderate intensity intermittent exercise increase AMPK-2β activation and AS160/TBC1D4 phosphorylation in type 2 diabetic skeletal muscle?’), Dr Vicki Smith (University of Birmingham, £9967 for ‘NIS expression and function in a PBF knock-out mouse model?’), and Dr Paula Williams (University of Nottingham, £8860 for ‘Do alterations in kisspeptin isoform/receptor expression increase the risk of pre-eclampsia?’).

Summer Studentships of up to £2850 were awarded for a period of up to 10 weeks to the following departments in March 2010: Centre for Endocrinology, Diabetes and Endocrinology, University of Birmingham; Department of Clinical Science North Bristol, University of Bristol; Centre for Neuroscience, University of Dundee; Centre for Integrative Physiology, University of Edinburgh; Glasgow Cardiovascular Research Centre, British Heart Foundation, Glasgow; King’s College School of Medicine, The Rayne Institute, London; Royal Veterinary College, University of London; Department of Human and Health Sciences, School of Life Sciences, University of Westminster, London; School of Clinical and Laboratory Sciences, University of Reading; and Department of Biosciences, Brunel University, Uxbridge.

Congratulations

Professor Richard Sharpe has been elected a Fellow of the Royal Society of Edinburgh. Richard has achieved recognition as a leading authority in disorders of male reproductive development and function, and the effect on these of lifestyle factors and environmental endocrine disruptors. He is currently co-convenor of the Society’s Special Interest Group on Endocrine Disruptors and has just been elected to Council.

Congratulations are also due to Professor Wiebke Arlt who has recently been elected a Fellow of the Academy of Medical Sciences.
**HPTH UK: supporting patients**

> ‘I haven’t seen you here before!’ said various visitors to our stand at the Society BES meeting.

Indeed, this was the first time that Hypoparathyroidism UK (HPTH UK) had exhibited. We attended the conference to introduce the organisation and to ‘launch’ our new leaflet for patients living with HPTH.

HPTH UK is a national organisation supporting people with HPTH and related parathyroid conditions, and promoting better medical understanding. We operate a telephone support line and an online forum where patients can support each other and share experiences.

We especially appreciated the opportunity to meet professional endocrinologists at the meeting, and to hear about their experiences in managing HPTH. It was also a great chance to meet representatives from other patient support groups (PSGs), who have many years’ experience which they were happy to share.

The Society hosted a meeting of PSG representatives, where we exchanged ideas about the common issues we face. One such is the reluctance of many physicians to prescribe medicines for chronic, stable endocrine conditions for longer than 28 days, and we were encouraged to hear that the Society plans to issue a statement on this issue. Some of us also attended a talk by Ellen Raphael of Sense About Science which the Society arranged for PSGs, this explained how we can make most effective use of the media and the importance of peer review.

It was exciting to hear the positive reactions from people discovering our patient leaflet for the first time. We prepared it with our Clinical Advisory Team, in conjunction with the Society’s Bone and Mineral Special Interest Group, and we are very grateful for their involvement. We hope it will help patients understand and manage their condition better, and improve communication between doctors and patients. We’re also delighted to have been awarded a grant from the Society to produce the leaflet, which can be downloaded from www.hpth.org.uk. Printed copies can be obtained from HPTH UK’s Director, Liz Glenister (Tel: 01342 316315; Email: liz@hpth.org.uk).

Very many thanks to the Society for inviting us to participate at the meeting. We hope that, space allowing, we will be asked back to future conferences.

**JUDITH TAYLOR, PUBLIC AFFAIRS OFFICER, HPTH UK**

**http://hpth.org.uk**

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**A prize opportunity!**

> If I ask you to don your ‘medical student goggles’, I am sure you will recall how much you enjoyed studying endocrinology at university. However, the reality of dedicating your career completely to this field may have seemed a world away. As a 5th year medical student at Imperial College London, I was no different in this respect.

The term ‘specialisation’ would arouse a fear of ‘impending doom’ concerning my future freedom to dip and dab in my career forever. In my view, it was still associated with ‘limiting’ myself, despite the incredible joy of undertaking an endocrinology BSc. However, this all seemed to change when I was awarded a prize to join world-leading experts in endocrinology at this year’s meeting in Manchester, free of charge!

The event was a fantastic eye opener to the vast, never-ending questions that deserve investigation and an intuitive research mind in endocrinology that will no doubt come to shape the future. My research was presented as a poster and faced a large amount of enquiry, leading to stimulating conversations that inspired my study. Such inspiration can only be gained from attending a conference that attracts top scientists and clinicians from all backgrounds to engage in novel areas within endocrinology. Over the week, many lecture topics, although not directly relevant to my stage, taught me the methodology of thinking and practical approach to direct my future learning.

This enthusing experience was only accessible to me through the availability of the Society’s prizes for the Society BES meeting. The prize covered the full costs (up to £750) for young endocrinologists, who are apprehensive about financing such events. It allowed me to build on previous achievements, giving me a fantastic picture of exactly what endocrinology is all about and what it can become.

**MOHAMMAD MAHMUD**
Endocrinologists in training

The third Young Endocrinologists’ Quiz Night demonstrated the event’s enduring popularity, and provided an opportunity for younger Society members to network with each other and with senior endocrinologists. Teams were captained by John Wass, John Newell-Price, Peter Trainer, Alan McNeilly, Waljiet Dhilllo, Melissa Westwood and Bill Young (CET Visiting Professor), to name but a few! The scores were tight, but ‘Gin’ll fix it’, captained by John Newell-Price, were triumphant, followed closely by the ‘Imperial Rangers’. The prize winners received four bottles of Cava.

This year’s Young Endocrinologists’ Symposium tackled the difficult topic of alternative careers. We heard from paediatric endocrinologist Dr John Porter, who now works for the ‘dark side’ in the pharmaceutical industry. He gave an insight into possibilities for alternative careers for medics as medical advisors to clinical research scientists, and outlined similar opportunities for research scientists. Susan Knox brought to life the opportunities for post-docs to take up careers in clinical biochemistry in the NHS. Joanne Nettleship then outlined her career change from researcher to ghost writer. Finally, we heard from Natalie Thatcher, toxicologist for the Food Standards Agency, who described the interplay between public service, science and research as a civil servant.

The Young Endocrinologists’ Oral Communications session was a fantastic confirmation of the great ability of our trainee members and a testament to their supervisors. In an unprecedented move this year, all speakers in that session received a prize of £100 and a certificate of excellence, as presentations were of such a high standard.

There was good attendance by the Young Endocrinologists at the conference dinner and dance, with the more senior endocrinologists showing us how to grace the dance floor! We look forward to next year for another brilliant and memorable Society BES.

Prize winners

Many awards were presented, with 23 prizes for Young Endocrinologists. Winners of the £2500 Prize Lectureships were Vicki Smith (basic science) and Alia Munir (clinical). Mahsa Javid received the £500 prize for best basic science oral communication, with Alexander Lawson receiving the clinical award. The recipient of the £500 prize for the best overall basic science poster was Irina Grigorieva, and the prize for the best clinical poster went to Roland Stimson. Winners of £100 prizes for individual poster categories were Rochan Agha-Jaffar, Barbara Alberts and Tom Hopkins (clinical practice); Greg Lewy (cytokines and growth factors); Isabel Huang-Doran and Sian Piret (diabetes and metabolism); Jan Idkowiak (growth and development); Jan Idkowiak (growth and development); Jan Idkowiak (growth and development); Jan Idkowiak (growth and development); Jan Idkowiak (growth and development);

The meeting saw two new prizes for nurses. The Annette Louise Seal Memorial Award of £500, kindly donated by the Addison’s Disease Self-Help Group, was awarded for the best abstract by a nurse on hypoadrenalism. We congratulate Sue Stewart (winner) and Jean Munday (runner-up). We also congratulate Violet Faizal-Sanderson, winner of the Clinical Endocrinology Trust Award for best overall abstract in the nurse category. It was great to see so many posters that had a nurse as first author.

The two nurse sessions were well attended by a mixture of nurse, doctor and patient group delegates. Carol Gibling, a genetics counsellor and former nurse, began the session on neuroendocrine tumours (NETs) with an excellent explanation of the genetics, at a level useful for all. She included an insight into her role in dealing with the psychological impact of being told you have a heritable condition. The psychological impact and the nurse’s role in helping patients cope was also illustrated by an excellent case study from Chris Gibson. The work of the NETs patient group was discussed by Catherine Bouvier. She introduced nurse Phillippa Davies, who presented an excellent case study, and patient group member Ian White, who told us his journey so far, which was, not unusually, a fairly protracted and difficult one.

The session on acromegaly included an excellent overview by Frankie Swords, with particular reference to the psychological impact of having a chronic disease. The nurse’s role in supporting patients was illustrated by case studies from Sondra Gorick, who talked about a patient with long-term problems with obesity, Shashana Shalet, who presented an unusual case of a patient with visual and auditory hallucinations, and Kathy Powell, who presented a case of McCune-Albright syndrome. Steve Harris, a member of The Pituitary Foundation, shared his story with us, giving an insight into the impact of living with a chronic disease.

Feedback confirmed that the two sessions had been excellent, and had more than fulfilled our intention of showing the psychological impact of these conditions and the role of the nurse in caring for these groups of patients.

Charlotte Boughton (neuroendocrinology and behaviour). Congratulations to all prize winners, including the recipients of the new prizes for nurses mentioned above.
Manchester medal lectures online

Members can view the following medal lectures from Society BES 2010 at https://www.bioscientifica.info/sfe/sfemembers/meetings/2010/sfebes2010/. The upgraded interface provides a fully navigable recording of the lecture, accompanied by the slides from the original presentation, nested within your browser.

- **Dale Medal Lecture**: Common metabolic disease: lessons from the extreme S O’Rahilly (Cambridge)
- **Transatlantic Medal Lecture**: Pathogenesis of pituitary adenomas S Melmed (Los Angeles, CA, USA)
- **Society for Endocrinology Medal Lecture**: The hitchhiker’s guide to the steroid galaxy W Airt (Birmingham)
- **Hoffenberg International Medal Lecture**: Molecular and endocrine mechanism of seasonal reproduction in birds and mammals T Yoshimura (Nagoya, Japan)
- **BTA Pitt-Rivers Lecture**: Thyroid associations T Weetman (Sheffield)
- **CET Visiting Professor Lecture**: Endocrine hypertension: then and now W Young (Rochester, MN, USA)
- **CET Lecture**: Ubiquitination - the ‘kiss of death’ for human growth P Clayton (Manchester)

Society BES in the news

The scientific content of the lectures and posters at this year’s conference was as exceptional as ever. Testament to this is the widespread coverage that research from the meeting received in the media.

Work by Dianne Farrar (Bradford Institute for Health Research) into the effects of pregnancy on memory received global coverage, with headlines in *Health Research* and *Daily Telegraph*.

Findings also featured across the medical press. Reports included studies by John Wass and Barbara Alberts (Oxford University), highlighting the need for increased support for patients with long-term conditions to return to work, and Graham Leese (Ninewells Hospital, Dundee), who found that higher doses of thyroxine than are currently recommended may be safe in patients with hypothyroidism.

The Society's continuing work to engage with the media aims to keep both the public and the medical community up-to-date with new developments in endocrinology. A huge thanks goes to all the speakers that helped us reach a truly international audience.

Bill Young: CET Visiting Professor

As well as delivering a medal lecture at the annual Society for Endocrinology BES meeting, the Clinical Endocrinology Trust (CET) Visiting Professor makes visits to several UK endocrine centres over a 10-day period before the meeting takes place.

In 2010, our guest was Professor Bill Young from the Mayo Clinic, an international authority on the adrenal and endocrine hypertension. The pre-Society BES tour is a major endurance test, but Bill rose admirably to the challenge. These centres are partly of the Visiting Professor’s own choosing, and partly selected by UK endocrinologists.

Accompanied by his wife Judy, Bill visited nine UK endocrine centres in less than 2 weeks, enjoying a mode of transport they rarely experience in the USA - the train!

Remarkably, Bill delivered twelve talks on eight different adrenal topics before he even arrived at the Manchester conference venue. However, the tour also included plenty of opportunities for relaxation: hiking, museums, history lessons and tasting new foods and beverages, to list only a few. Bill’s Herculean efforts were highly appreciated by everyone he met.

So, 15 days after starting his UK tour, Bill delivered the CET Visiting Professor Lecture at the Society BES meeting, where he had a final surprise for everyone. He presented four clinical cases: two phaeochromocytomas followed by two Conn’s adenomas. The first phaeo was the earliest one to be resected at the Mayo Clinic (1926), and the first Conn’s adenoma was the original case described by Jerome Conn (1954). Clearly ‘length of hospital in-patient stay’ was not an issue in those days, but clinical acumen and scientific curiosity, as today, remained paramount. The historical documents and movie footage of the early cases were fascinating.

Bill’s second cases in each pair were taken from the modern era and reminded us of the remarkable advances in adrenal medicine that have taken place in recent years. The lecture was a masterpiece and captivated a packed house.

CET chairman, Tony Weetman, presented the medal to a truly deserving recipient.

Bill said the CET Visiting Professorship had been an invaluable and unique experience. He commented, ‘It would take at least 2 months to properly visit all of the centres of excellence in the UK, but I thoroughly enjoyed the nine centres I had the opportunity to see.’ Typical of Bill’s prodigious work rate, he was heading for the ICE meeting in Japan just 2 days after his return from the Society BES meeting!

We owe Bill a debt of gratitude and look forward to his return. He is a terrific supporter of British endocrinology and has made an major contribution as one of the Senior Editors of *Clinical Endocrinology*. As we say in Scotland, ‘Haste ye back!’

The CET, which funds the Professorship, is a UK charity, supported by a profit-share from the Society’s official clinical journal, *Clinical Endocrinology*.

JOHN BEVAN, CET SECRETARY
NEW THYROID CANCER BOOKLET

The second revised and expanded edition of the British Thyroid Foundation (BTF) booklet Thyroid Cancer - for Patients by Patients has just been published.

The booklet has been endorsed by the British Thyroid Association (BTA), the British Association of Endocrine and Thyroid Surgeons, the Association for Multiple Endocrine Neoplasia Disorders, the Butterfly Thyroid Cancer Trust, Thyroid Cancer Support Group Wales, and HPTH (Hypoparathyroidism) UK. It also contains an endorsement by TV presenter and sports journalist Clare Balding, who was treated for thyroid cancer last year.

It has been revised in line with the BTA Guidelines for the Management of Thyroid Cancer (2nd edition, 2007). Much of the content has been contributed and reviewed by thyroid cancer survivors. Information about the low-iodine diet now includes a 7-day meal plan and recipes, and there is a checklist of items for patients to take into hospital if they are having radioactive iodine ablation, as well as an extensive glossary and list of useful contacts.

The booklet costs £3.50 for members of the BTF and £6.50 for non-members, and there is a bulk discount available for over 10 copies. Copies can be obtained from BTF, 2nd Floor, 3 Devonshire Place, Harrogate HG1 4AA, UK (Tel/Fax: 01423 709707 or 709448; Email: books@btf-thyroid.org).

Hammersmith Endocrine Symposium

The Society for Endocrinology sponsored the 4th Hammersmith Multidisciplinary Endocrine Symposium on 11 December 2009 at Hammersmith Hospital. 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 160 delegates also included 30 MEN-1 and MEN-2 patients, who attended the main meeting and the parallel sessions specifically designed for them.

The morning session discussed difficulties in the management of patients with MEN-1. Prof Ashley Grossman gave the first Dave Francis Memorial Lecture on pancreatic neuroendocrine tumours. Physicians then learnt about methods for parathyroidectomy, transsphenoidal hypophysectomy and adrenalectomy, and took part in an interactive discussion of specific clinical cases which posed difficult management decisions.

After lunch, sessions covered the most appropriate surgical intervention for renal hyperparathyroidism, and how there are only three thyroid operations. Everyone was treated to the Society for Endocrinology sponsored International Seminar, delivered by Prof Ian Hay from the Mayo Clinic on the ‘best evidence’ approach to postoperative follow-up of papillary thyroid cancer patients.

The Society supported a £100 prize for the best poster demonstrating the importance of a multidisciplinary team in patient management. It was awarded to Dr D Sennik, Ashford and St Peters Hospital. You can enjoy all the abstracts online at (endocrine-abstracts.co.uk). You can find details of the next meeting on 10 December 2010 at metmed.info.

STATEMENT OF FITNESS FOR WORK

The Department for Work and Pensions has developed a new ‘fit note’ to replace the Forms Med 3 and Med 5, and to shift the forms’ emphasis from a ‘sick note’ to a Statement of Fitness for Work. The changes made allow for a more case-by-case approach to sickness certification, and enable hospital doctors to take greater responsibility for a patient’s sickness certification needs where appropriate. The new statement came into effect from 6 April 2010. For more information see www.dwp.gov.uk/fitnote.

Horizons in Medicine 21

The Royal College of Physicians has published the proceedings of its Advanced Medicine Conference 2009. Horizons in Medicine 21 offers physicians of all levels and backgrounds insights into cutting edge medicine and the chance to broaden their knowledge of other specialties. Topics covered include metabolic syndrome, steroid resistance and thyroid disease. The publication can be found at www.rcplondon.ac.uk/pubs/brochure.aspx?e=293.

New training event for Specialist Endocrine Nurses

ENDOCRINE NURSE UPDATE

27-28 September 2010, Stratford upon Avon

Come and learn more about the full range of topics you will encounter in your role as a specialist endocrine nurse, and network with your peers.

This year’s topics are:
- Prolactinomas
- Vitamin D
- Diabetes insipidus
- Thyroid eye disease and EUGOGO guidelines
- Is there a role for the endocrine nurse in the management of thyroid cancer?
- PCOS
- Adrenals
- Hypoadrenalism

There are also workshops on case presentation, abstract preparation and poster presentation skills.

For further information
www.endocrinology.org/endocrinenurse/
Society of Biology sets the agenda

► As most readers will be aware, the Society of Biology came into existence in October 2009 following the unification of the Biosciences Federation and the Institute of Biology.

The Society’s official launch was held on 25 March 2010 at Fishmonger’s Hall, London Bridge, with a formal reception and speeches from Nobel prize-winner Sir Paul Nurse, broadcaster and naturalist Sir David Attenborough, and Dr Ceri Harrop (winner of the Society of Biology’s 2009 Science Communication Award). The Society’s President, Professor Dame Nancy Rothwell, welcomed around 300 guests to an event that truly celebrated the diversity of the biosciences, and emphasised the value of the biological sciences working together proactively as a single voice to both the public and politicians, in crucial decisions that affect us all.

The Society of Biology Council has identified four priority areas for 2010:
► the importance of practical biology - it is not tenable to expand undergraduate science education without additional resources for hands-on experience of designing real experiments and interpreting the results. On the web, the Society of Biology supports www.practicalbiology.org
► to build on existing work to present a consistent and clear case for the impact of biology from applied case studies to blue sky research. If you have data or views to share please email markdowns@societyofbiology.org
► working towards a pilot accreditation programme for some biological science degrees
► forcing political parties to focus on their science agenda and to represent the interests of biology, to argue for investment
To find out more visit www.societyofbiology.org

With over 70 organisational members and nearly 12,000 individual members representing over 80,000 bioscientists around the world, the formation of the Society of Biology adds legitimacy and weight to the viewpoint of bioscientists in wider education, science policy and public debates.

Science funding: the need for a common purpose

► As the new Government takes the reins of power after the general election, one thing is certain: they will not be over-endowed with scientific expertise. Partly as a fall out from the expenses scandal, the number of parliamentarians that stood down at this election was significant. Whichever way the electorate chose to vote, there were always going to be at least 300 new MPs.

Only a handful has any background in science. The scientific community will need to support these members and nurture an empathy with others to ensure the importance of science to our economy, health, the environment and social infrastructure is not lost.

They will need to be engaged in the issues rather than lectured to. Above all, we need to avoid the trap of special pleading. The new Government and backbenchers need to hear a simple and consistent message about the value of science. The scientific community will need to support these members and nurture an empathy with others to ensure the importance of science to our economy, health, the environment and social infrastructure is not lost.

They will need to be engaged in the issues rather than lectured to. Above all, we need to avoid the trap of special pleading. The new Government and backbenchers need to hear a simple and consistent message about the value of science. The science budget must continue to be ring-fenced and the amount within it at least maintained. If we can win the wider argument, biology has a strong heritage on which to call, to ensure the life sciences are not undervalued.

The Society of Biology is taking every opportunity to lobby. We wrote to each parliamentary candidate to raise the profile of biology, but with a clear focus on the bigger picture. For more information on the key issues that we are highlighting, see www.societyofbiology.org/policy. We encourage you to write to your local MP with these messages and stand ready to offer support wherever possible.

DR MARK DOWNS
CHIEF EXECUTIVE, SOCIETY OF BIOLOGY

The Society for Endocrinology is heavily committed to the Society of Biology with Professor Julia Buckingham and Sue Thorn both having significant posts within the new organisation. The Society looks forward to continued and future collaboration with the Society of Biology and anticipates very exciting times ahead.
Autumn Retreat 2010

The Society’s 3rd Autumn Endocrine Retreat will take place at the picturesque Milton Hill Hall in Oxfordshire, on 15-17 October 2010. Delegates will be Society members who are registered for PhDs or MDs, and early-career post doctorate researchers, with an interest in pursuing a career in scientific research in endocrinology.

Our retreat aims to:

- foster scientific interactions between trainee members of the Society in a non-threatening environment
- deliver keynote lectures from established endocrine researchers on topical subjects particularly related to career development
- provide an informal setting to present data and discuss research approaches

Delegates will have the opportunity to present and discuss their work with peers, participate in group work designed to help your project planning and management skills, and learn from established endocrine researchers who have experienced the highs and lows (and subsequent lows!) of a scientific career. Delegates will have the support of several academic tutors from a range of backgrounds, including established endocrine researchers, group leaders and newly appointed faculty members.

Do register your interest early, as places are strictly limited to just 20 places (email conferences@endocrinology.org). We look forward to meeting you.

DEREK RENSHAW AND RUTH ANDREW
PROGRAMME CO-ORDINATORS

Reasons to treat yourself to a Retreat...

What the organisers say

We took over the organisation of the 2009 Autumn Endocrine Retreat with some trepidation, as the previous year’s course was a hard act to follow. Any worries were, however, unfounded. It was very clear on the first afternoon that the formula was working again, and a diverse group of PhD students and young post-docs were quickly engaged together in the tasks.

The 2009 delegates prepared a critical review of a recent article from a leading endocrine journal in advance. This aided a smooth transition to the weekend’s main task: to write a grant application based on the findings from the initial publication. Again, we were amazed to see how much can be achieved from scratch in the space of 3 days, with plenty of hard work and enthusiasm on the part of the delegates.

The faculty members provided a series of informative talks covering career choices and planning, grant writing and working abroad, which were well received, with delegates commenting that they appreciated the honesty of the senior scientists.

One aim of the Retreat is to start a network of young endocrine scientists, and it was evident from the enquiries received by the faculty following the event that this network is active and gaining momentum. Previous delegates have also commented that the Society BES meeting seemed a less intimidating place, since they recognised faces and friends.

We think this event is very worthwhile in giving young endocrinologists an opportunity to discuss their plans and concerns in a supportive environment, and we look forward to receiving a new group of delegates this year.

And some comments from delegates

“We were split into groups to assess a paper we had been given in advance. I benefited from this exercise, as it allowed me to gain insights in how scientists from different backgrounds evaluate certain points differently.

“As a second year PhD student I found this weekend extremely useful, since it provided me with an opportunity to gain skills in project design and grant applications. Furthermore, faculty members took time to advise us on career choices and discuss any plans we had already formulated.”

GEORGE SCHLOSSMACHER

“It was great learning from peers - each of us bringing knowledge, skills and experience from different areas of science. The group grant-writing exercise involved developing ideas, planning experiments and other aspects critical to a grant application. The final day of the Retreat culminated in each group having to ‘sell’ its grant proposal to the faculty, to win the funding.

‘The Retreat was a very enjoyable experience. The informative interactive teaching sessions led by faculty members provided information, advice and tips on careers in academia, grant writing, sources of funding, and other practical skills.’

KATHERINE HUGHES

“I found the Autumn Endocrine Retreat a rare opportunity to get experience at networking, which for me as a post-doc, is a really important skill. The Retreat has given me much more confidence in my ability to strike up conversations with my peers.

‘The plenary talks were all really enjoyable, as the faculty members all gave personal accounts of their experiences in science. I personally found these really inspiring, and found their energy and enthusiasm for their subjects contagious.’

PAULA WILLIAMS

“The organisers did really well to strike the balance between structured seminars, which helped demystify the processes behind grant applications, and flexible time to allow us to work where we wanted using the free WiFi, as well as time to play when we wanted, using the great indoor pool and sauna!

‘We were free to pose questions to the faculty members, who were more than happy to reveal their personal secrets of success, as well as to expose potential pitfalls, whether it came to writing grants or post-doctoral research in the USA.’

VANCE NAUGHTON

DATES AND DEADLINES:
Registration opens - Tuesday 1 June
Registration closes - Sunday 20 June
N.B. Applications received before the opening date will not be accepted
Endocrinology as She is Spoke

My favourite author’s favourite book is called, rather promisingly, English as She is Spoke. Mark Twain loved the book so much that he used his own money to bring it back into print when it failed to sell, and even provided his own foreword, extolling its values. For Pedro Carolino’s masterpiece was possibly the least well-conceived piece of work of all time - and tells us everything we need to know about modern endocrinology.

In 1883, Carolino spotted a gap in the market: a lack of Portuguese-English phrasebooks allowing the Portuguese traveller to come to England and converse like a native. He therefore began to pen the magnificent English as She is Spoke.

Carolino was somewhat hamstrung by the fact that he didn’t possess an English-Portuguese lexicon. What he did have, however, was a Portuguese-French dictionary, and a French-English dictionary. For 2 tortuous years, Carolino dragged perfectly commonplace sayings from Portuguese to French, and then from French to English. And the result, as Mark Twain attested, was a triumph.

For instance, should the casual Portuguese traveller have wished to comment, ‘Barriga cheia, cara alegre’ (‘A full stomach makes for a happy face’), he would actually have remarked, ‘After the paunch comes the dance.’ For ‘This lake seems like it’s full of fish. Let’s have some fun fishing,’ he would have confused matters considerably by uttering, ‘That pond it seems like it’s full of fish. Let’s have some fun fishing.’ And if the poor Portuguese had ventured into Popular English phrases, he would have enthralled onlookers with such treats as ‘A horse baared don’t look him the tooth’ (‘Don’t look a gift-horse in the mouth’), and the inimitable ‘To craunch the marmoset’ (your guess is as good as mine).

As Carolino admirably illustrates, then, communication can easily go astray, particularly when some form of translation is involved. And this is where endocrinology comes in. Endocrinology is all about the transmission of messages and the dissemination of information. But as scientists and endocrinologists, we have an interesting and paradoxical approach to the business of communication.

Endocrinologists tend to communicate almost entirely in an autocrine manner. In essence, one scientist conveys information to another within a tightly defined research area, via a variety of mechanisms including publications, oral presentations etc. We may occasionally venture uncomfortably into the paracrine arena, briefing geneticists on what happens downstream of the gene, or updating biochemists on how tests relate to a patient’s condition. But the very thing we tend not to do is communicate in an endocrine manner. Our messages rarely diffuse over long distances or outside our immediate area to have a long-lasting effect elsewhere. Particularly, we don’t communicate well with the general public. And that, as we know, can result in very negative feedback.

When we do attempt to engage with the wider public, things can get messy. Often we blunder into the public arena, very much as Carolino’s travellers would have blundered into England. Lacking the tools for effective communication and overly confident of our abilities. But does this matter? Do we really need to get our message across to society?

The answer is clearly ‘yes’. We are scientists, but we are also the general public. There is no division, just a continuum. I still don’t really understand what the Large Hadron Collider is supposed to do, but I need to hear about it. As a person living in the 21st century, it should be my duty to understand as much of the world - whether natural or experimental - as is possible. And never has this been easier.

Whether we say something meaningful to a minute number of people (a scientific paper) or something meaningless to a huge number of people (Twitter), our ability to communicate is almost infinite. It is confined only by our time, our willingness to learn, our openness to new information and whether there is anything good on the TV.

Carolino’s brave and futile experiment reminds me very much of Chinese whispers. And this is often what the communication of a scientific discovery becomes - a positive feedback loop, amplifying and distorting, twisting and warping.

Take for example a scientist attempting to describe his findings to a journalist. He has performed some preliminary DNA studies analysing PCR products, which hint that breast cancer patients might differ in their reaction to a certain drug. The journalist attempts to understand him, then returns to his office and tries to summarise the discussion, several hours, and possibly several gin and tonics, later.

The journalist’s editor reads the interpretation of what the scientist said, and makes what he takes to be incisive changes, increasing the potential of the findings so that he can sell more newspapers. The sub-editor runs through the article, and maybe adds a couple of tweaks of his own for good measure. These include the words ‘cure’ and ‘cancer’ in the title.

The news story is published, and a whole host of lazier journalists copy it down. Then they rewrite it, adding their own layers of interpretation so that they don’t appear to be copying someone else’s work. These myriad secondary articles then appear and, if it is an important story, may well get reworked again, maybe after several gin and tonics. By this time, the scientist is reading his own words in a newspaper stating that he has cured cancer by running an agarose gel, wondering what went so catastrophically wrong, and staring nervously at the phone.

So, as endocrinologists, we’ve become good at communicating with each other, but maybe not with wider society. We have eschewed the endocrine for the distinctly autocrine. Rather than follow Carolino’s brave lead, we have retreated, staying in Portugal and keeping ourselves to ourselves. But maybe this is for the best. For, as Carolino famously observed, sometimes it is distinctly preferable to ‘Take out the live coals with the hand of the cat’ - words of wisdom from which we could all learn.
Revalidation and endocrinologists

Consultant clinical endocrinologists working in the UK will have heard the term ‘revalidation’ with some foreboding.

In the wake of the Shipman Inquiry, chaired by Dame Janet Smith, the Chief Medical Officer was asked to review medical regulation, and in the Department of Health report Good doctors, safer patients, proposals were made to ‘strengthen the system to assure and improve the performance of doctors and protect the safety of patients’. Forty-four recommendations were made, and among these was a framework for revalidation.

A white paper was published in 2007 in response to consultations on the Department of Health document, and this proposed a programme of reform of regulatory mechanisms. The key aims were to reassure the public that each individual physician is competent, up-to-date and working to satisfactory standards.

What will revalidation be like?

Many people have been worried that revalidation will imply the use of an exam, but this is very unlikely for most doctors. Revalidation is about what doctors do in their actual practice, and is intended to be based upon annual appraisal in the workplace. Indeed, many doctors work in specialties where their area of expertise is too specialised to be appropriate for a generic exam, and no-one has an appetite for producing multiple individual examinations!

Appraisals - the annual appraisal of all doctors is now well-established, and this will form the cornerstone of the revalidation process. Multi-source feedback (MSF) has been introduced for many clinical trainees and is likely to become a standard component of the consultant appraisal. At present, this is likely to utilise a generic MSF form, although a list of suggested specialties and colleagues will be made available to consultants to ensure that the feedback is appropriately directed from a range of sources.

Continuing Professional Development (CPD) - this has become a central component of the current appraisal process and will continue, with regular auditing of a random sample of submissions by the RCP.

Skills - for some specialties, skills assessment for specific craft components will be essential, such as for endoscopy and cardiac catheterisation. However, in endocrinology very few procedures are routinely used and there is no plan to make any such skill assessment essential for revalidation in our specialty. In some instances, evidence of personal accreditations will be important: for example ARSAC licensing for specialists prescribing radioactive iodine, or accreditation for ultrasonography.

The GMC set up a UK Revalidation Programme Board, and the Academy of Medical Royal Colleges has established a Revalidation Development Group to facilitate consistent development and implementation across the various specialties. The Royal College of Physicians (RCP) has established a steering group, and has held meetings of representatives from all of the medical specialties, including endocrinology. The Medical Director for revalidation at the RCP is Dr Ian Starke, and a series of working documents has been produced and pilot collaborative projects set up across the country to investigate the tools that might be used. For more detail about the background and likely operation of revalidation, the RCP website publishes useful information, which is continually updated, at www.rcplondon.ac.uk/professional-issues/revalidation/pages/overview.aspx.

Audits - it is likely that a single audit will be required in any one 5-year cycle, and this will require the direct involvement of the consultant in some way.

Observation of practice - this has been proposed and could include commentaries on out-patient clinics or ward rounds. However, this may pose some practical problems, and in some services it will not be possible for consultant colleagues to undertake such observational assessments, so at present it is more likely that MSF approaches will be used.

Peer review - though not currently included, participation in peer review visits might increasingly come to be seen as an integral part of the evidence that individual consultants can bring to the revalidation process.

A large amount of information will need to be brought together for the appraisals that will be a central part of the revalidation cycle, and the RCP is developing an electronic storage and retrieval system (e-portfolio) that should support the process. A number of operational details remain to be established, for example the operation of the revalidation process through ‘local responsible officers’, and the RCP and the GMC are in close consultation about many of these details, which should be settled in the coming year.

In summary, revalidation is coming soon: the intention is that the first roll-out of revalidation will take place in 2011. Most doctors should not find the process too onerous, especially in more out-patient-based, non-craft specialties such as endocrinology, and it should feel like a rather more rigorous development of our current appraisal process.

JULIAN DAVIS
Interdepartmental Peer Review in endocrinology

Have you ever asked yourself...
Who can best review my work as a consultant endocrinologist?
Does my annual consultant appraisal achieve this aim?
How should the performance of the wider endocrine team in my centre be assessed?
How does my endocrine centre compare with others in the UK?
Is my centre relatively under-resourced in terms of staffing?
How can I raise the priority of endocrinology with local NHS management?

If these issues are relevant for you, please read this article about the Society’s Peer Review project, the initial results of which were presented at Society BES 2010. The project has evolved during the past decade, and aims to improve patient care by organising 2-day visits by external reviewers to endocrine centres.

So far, the reviewers have been consultant endocrinologists - one from a teaching centre and the other from a district general hospital (DGH) - but it is hoped to include an endocrine nurse in the future. The visits are voluntary, supportive and non-confrontational, but have also been tough and rigorous. Considerable time was spent in the early days refining 10 basic standards of clinical endocrine care. These comprise 30 ‘essential’ and 18 ‘desirable’ items, full details of which are available at www.endocrinology.org/about/projects/peerreview.html. The website also provides advice on how to prepare for a peer review visit (PRV), together with the full PRV documentation.

How many visits have taken place?
To date, 20 hospitals providing specialist endocrine services have been visited: 12 teaching hospitals and 8 DGHs. In total, 15 volunteer peer reviewers have undertaken 9 PRVs. We have received positive feedback from the reviewed centres and the reviewers. A DGH consultant commented, ‘I believe the PRV was very important ... our MD and CEO used the official Society report to lobby primary care trusts (PCTs) whenever they had a chance.’ A reviewer from a teaching centre said, ‘I found the exercise very valuable and it led to more reflection about our own unit.’ All centres felt the PRV report had analysed their situation objectively.

How well did the endocrine centres do?
In terms of the ‘essential standards’, 84% were met or exceeded in teaching centres and 82% in DGHs (Fig. 1). The corresponding figures for ‘desirable standards’ were 55% and 45%, thus highlighting further targets towards which centres should work. A total of 128 recommendations were made by the peer reviewers, 71 of which were ‘main points’ and 57 comparatively ‘minor’ (Fig. 2). About a quarter of the recommendations were relatively simple organisational changes and a fifth were for additional staff appointments.

Have the PRVs made any difference?
Comprehensive updates were obtained from the centres in early 2010, an average of 3.4 years after the PRV (range 1–7 years). An impressive 58% of the recommendations have been achieved, including 17 new staff appointments (Fig. 3). Centres reported that the PRV had made a significant (and sometimes crucial) contribution to the successes. We found that 24% of objectives had not been achieved but were still needed; unsurprisingly, the current financial climate is impeding several desired improvements. Importantly, only 4% of the recommendations were felt to be impractical or unimportant, thus reinforcing the validity of using external specialists to review complex endocrine practice.

Can centres be compared using PRV?
Early workload comparisons have shown considerable variations in the number of endocrine new/review patients seen per consultant DPA (direct programmed activity) between different teaching hospitals and DGHs. Waiting times, communication standards and imaging delays also vary between centres.

In the future, such national bench-marking will strengthen the case for hard-pressed centres to bid for increased resources.

What is the future for PRV?
As noted by Julian Davis in his accompanying article, peer review is not currently included in the revalidation process. However, the early results of the Society project should encourage more endocrine centres to become involved in peer review. The PRV reports have proved useful in local negotiations with Trust management and PCTs, but also provide helpful external evidence for a consultant to add to his/her appraisal documentation. Furthermore, the reports emphasise that endocrinologists work in multidisciplinary teams and not as individuals.

On a personal note, I’m now handing on the role of Society Peer Review Co-ordinator to Dr Petros Perros from Newcastle. It’s been rewarding to set up the project and I’m most grateful to the Society for administrative support (particularly Ann Lloyd), to the Clinical Endocrinology Trust for financing the project’s inception and to John Wass who originally inspired the venture. I am confident the Peer Review project has an important future role in enhancing endocrine services for our patients.

If you wish to request a PRV for your centre or to volunteer as a peer reviewer, please contact Debbie Willis in the first instance (debbie.willis@endocrinology.org).

JOHN S BEVAN
Denosumab: a new biologic on the block!

- Mention biological agents, and most people think of complex and severe rheumatological diseases. Denosumab, a human recombinant monoclonal antibody against RANKL (receptor activator of nuclear kinase B ligand), is the first ‘biologic’ for the treatment of osteoporosis.

Denosumab exerts its antiresorptive effect through the RANK/RANKL/osteoprotegerin (OPG) system. RANKL is derived from osteoblasts and binds avidly to its receptor, RANK, on the surface of osteoclasts and their precursors, initiating a cascade of actions resulting in bone resorption. Inhibition of RANKL reduces osteoclast activity and survival, and reduces bone turnover. Denosumab, being a human recombinant monoclonal antibody to RANKL, binds to and inhibits RANKL, thus reducing bone turnover.

Unlike bisphosphonates, RANKL inhibition by denosumab allows targeting of immature osteoclasts, preventing their maturation and activation before they adhere to the bone matrix. This difference in the mechanism of action may contribute to larger increases in bone mineral density and the more pronounced decreases in bone turnover with denosumab.

In phase 1 trials, single dose administration of denosumab had a rapid (within 12h), sustained (up to 6 months) and potent (60–80% suppression of bone turnover) but reversible decrease in bone resorption in a dose-dependent manner.

The pivotal Freedom study recruited 7808 post-menopausal women aged 60–90 years with osteoporosis (T-score -2.5 to -4). Compared with placebo, subcutaneous denosumab at 60mg every 6 months over 3 years reduced the risks of incidental vertebral fractures (2.3% vs 7.2%, P<0.001), hip fractures (0.7% vs 1.2%, HR 0.4, P=0.04) and non-vertebral fractures (6.5% vs 8%, HR 0.8, P=0.01). Relative risk reductions for vertebral, hip and non-vertebral fractures of 68%, 40% and 20% respectively showed denosumab to be a potent anti-fracture treatment for post-menopausal osteoporosis. Bone histology and histomorphometry also showed that denosumab treatment resulted in normal mineralised bone, albeit with suppressed bone formation.

Subjects in Freedom were at lower risk of fractures (45% considered high risk) than populations in comparable trials of zoledronic acid (Horizon) and alendronate (FIt-I). Freedom also enrolled fewer patients with baseline femoral neck T-scores lower than -2.5 and vertebral fractures (e.g. 2% vs 63% for Horizon and 100% for FIt-I). It is therefore not possible to make direct comparisons between outcome data in different studies of different anti-fracture agents. Only head-to-head analyses would allow such comparisons to be made, but such studies are impracticable.

The side-effect profile of denosumab was similar to placebo in Freedom but the incidence of eczema (3% vs 1.7%) was statistically higher in the denosumab group. No increase in the risk of cancer, infection, cardiovascular disease, delayed fracture healing, hypocalcaemia, or osteonecrosis of the jaw was reported. However, the risk for infections and cancers cannot be lightly dismissed. RANKL is expressed on T and B lymphocytes, which are responsible for foreign antigen recognition. Patients with high fracture risk might use this therapy for years and may include subjects with impaired immune function related to age, comorbidities or concomitant medications. Pooled data submitted to the US Food and Drug Administration have recently suggested an increased risk of serious infections and slight increases in incidence of breast, gastrointestinal, gynaecological and unspecified endocrine neoplasms. There are also early reports of osteonecrosis of the jaw, a side-effect seen rarely with other potent antiresorptives.

Where would denosumab fit in treatment algorithms for osteoporosis? It is likely to be used for those with a high risk of fractures, for whom bisphosphonates are contraindicated or not tolerated. Cost-effectiveness considerations will influence its use. Denosumab may be relatively safe in chronic kidney disease (CKD). This is especially relevant for secondary prevention in older patients, many of whom have CKD. Six-monthly injections can be administered by district nurses in the community; this makes it an attractive proposition to treat the frail elderly. Its licence may also be extended to treatment of bone loss in androgen-ablated patients. As it does not cause prolonged suppression of bone turnover, it may be useful in a selective group of younger patients with low bone mass and very high fracture risk due to secondary causes. Data will emerge in time for use in glucocorticoid-induced osteoporosis. Sequential use with teriparatide and other bisphosphonates will be subjects for on-going and further research.

Denosumab is the first of a completely new class of agents for treatment of osteoporosis. It is a potent, well-tolerated agent with a novel mode of action and is a welcome addition to the therapeutic landscape now largely dominated by bisphosphonates.

MO AYE, NEIL GITTOES, STEVE ORME
**Hot Topics**

**Journal of Endocrinology**

**Effects of nicotine during lactation**

The dangers of smoking whilst pregnant are well publicised. However, little is known about the effects of smoking during lactation.

Oliveira and colleagues evaluated the short-term consequences of maternal nicotine exposure on hormonal, biochemical and nutritional profiles during lactation, concluding that nicotine affects these profiles deleteriously. In addition, the data presented in this study utilize a long exposure period not typically employed in cigarette or nicotine toxicology studies.

DOI: 10.1677/JOE-09-0430

**Clinical Endocrinology**

**Modified-release hydrocortisone in CAH**

Many clinicians will be aware of the challenges faced in optimising the treatment of patients with congenital adrenal hyperplasia (CAH) using conventional hydrocortisone, despite the availability of short-, intermediate- and long-acting formulations.

Verma and colleagues conducted an open-label phase 2 study on a new modified-release formulation of hydrocortisone which more closely mimics normal physiological patterns of serum cortisol levels. The indications are that this type of formulation could be highly useful in CAH patients.

DOI: 10.1111/j.1365-2265.2009.03636.x

**Natural history of subclinical hyperthyroidism**

Subclinical hyperthyroidism (SCH) is characterised by low levels of serum thyrotrophin (TSH) with normal tri-iodothyronine (T3) and thyroxine (T4) levels. Treating SCH risks progression to overt hyperthyroidism and the true repercussions of treating endogenous SCH in elderly patients with SCH are unclear.

In this prospective study, Rosario concludes that appropriate treatment of elderly patients with endogenous SCH rarely results in progression to overt hyperthyroidism.

DOI: 10.1111/j.1365-2265.2009.03696.x

**Endocrine-Related Cancer**

**Stat5 promotes prostate cancer progression**

The mechanism by which organ-confined prostate cancer tumours metastasise throughout the body is largely unknown. Stat5 is critical for the growth of cancer cells, involved in increased migration and decreased expression of cell surface markers. This study by Gu and colleagues provides the first evidence that active Stat5 is involved in the majority of distant prostate cancer metastases both in vitro and in vivo.

DOI: 10.1677/ERC-09-0328

**HP1β upregulates AR activity**

Options for the treatment of castration-resistant prostate cancer (CRPC) are severely limited. CRPC is thought to result from augmented activation of the androgen receptor (AR) signalling pathway. In this study, Shiotia and colleagues found that heterochromatin protein 1β (HP1β) enhanced the DNA-binding ability of AR. In prostate cancer tissues, silencing HP1β suppressed prostate cancer progression and may present a novel therapeutic target.

DOI: 10.1677/ERC-09-0321

**Food deprivation and DBI expression in mice**

For the first time, the effect of food deprivation on diazepam-binding inhibitor (DBI) gene expression in glial cells has been investigated. Comperé and colleagues have shown that acute fasting in mice dramatically reduces DBI mRNA levels in the hypothalamus and ependyma bordering the third and lateral ventricles. These studies support the role of glial cells in signalling to neurones involved in central regulation of energy homeostasis.

DOI: 10.1677/JME-09-0176

**Glucose metabolism in diabetic pregnancies**

Colomiere and co-workers have used Western blotting and quantitative RT-PCR to profile the insulin-signalling pathway in patients with gestational diabetes mellitus. Diabetes and obesity in pregnancy were found to cause defects in insulin-signalling pathways in adipose tissue and skeletal muscle. The authors conclude that long-term studies on maternal tissue after pregnancy would be useful in assessing the future risk of type 2 diabetes mellitus.

DOI: 10.1677/JME-09-0091

**EPO and blood glucose**

Erythropoietin (EPO) regulates erythrocytes. However, several studies have recently suggested that EPO also has pleiotropic functions.

In this study Katz and colleagues address the interplay between EPO, glucose metabolism and body weight by investigating the effects of EPO on plasma glucose levels and glucose tolerance in a number of animal models. The results place EPO in a new and important area with significant potential clinical applications in diabetes and obesity.

DOI: 10.1677/JOE-09-0425

**KLF9 and ESR1 crosstalk in ESR1 signalling**

Early exposure to oestrogenic compounds is associated with increased risk of endometrial cancer. Although the dysregulation of ESR1 signalling mediates early events in tumour initiation, the activity of ESR1 in oncogenic pathways later in life remains poorly understood.

Simmons and colleagues evaluated the contribution of the transcription factor KLF9 to ESR1 signalling. Their in vivo model revealed a molecular network between KLF9 and ESR1. Silencing KLF9 could contribute to increased susceptibility to endometrial cancers.

DOI: 10.1677/JOE-09-0474

**GH replacement and muscle strength**

GH replacement in GH-deficient (GHD) adults has clearly demonstrated improvements in body composition, cardiovascular risk factors, bone mineral density and exercise capacity.

A meta-analysis of short-term controlled studies conducted by Widdowson and Gibney failed to demonstrate any evidence for increased muscle strength in GH replacement, despite clear evidence of this occurring in longer-term studies. The authors suggest this is due to the low statistical power and duration of the original studies.

DOI: 10.1111/j.1365-2265.2009.03716.x

**SCH risks progression to overt hyperthyroidism**

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DOI: 10.1677/ERC-09-0321
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- Shower after only 2 hours compared to 6 hours with Testogel³,⁴

Tostran Abbreviated Prescribing Information

Please refer to Summary of Product Characteristics before prescribing. Presentation:Tostran 2% gel, contains testosterone, 20 mg/g. Indications: Replacement therapy with testosterone for male hypogonadism where testosterone deficiency has been confirmed by clinical symptoms and laboratory analyses. Posology: The recommended starting dose is 3 g gel (60 mg testosterone) applied once daily at approximately the same time each morning to clean, dry, intact skin, wherever on the body or in both inner thighs. Application elsewhere should be avoided. This dose should be adjusted to the clinical laboratory response. The daily dose should not exceed 6 g gel (120 mg testosterone). The gel must not be applied to the face, neck, or children under the age of 15 years. Contraindications: Androgens are contraindicated in known or suspected carcinomas of the breast or the prostate, known hypersensitivity to testosterone or any of the excipients, and in women. Warnings and Precautions: Tostran should not be used to treat non-specific symptoms suggestive of hypogonadism if hypogonadism deficiency has not been demonstrated and if other etiologies responsible for the symptoms have not been excluded. Tostran is not indicated for treatment of male stridency or sexual impotence. Prior to initiation of therapy, all patients must be examined to exclude a risk of pre-existing prostate cancer. Careful and regular monitoring of breast and prostate must be performed. Testosterone may accelerate the development of subclinical prostatic carcinomas and benign prostatic hypertrophy. Patients with or without prostatic hypertrophy may be at a serious complication in patients with pre-existing cardiac, renal or hepatic disease. The treatment must be discontinued immediately if such complications occur. Testosterone may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Tostran should be used with caution in patients with ischemic heart disease, epilepsy, migraines and sleep apnoea. Other conditions may be aggravated. Care should be taken in patients with cardiac arrhythmias due to risk of hypercalcemia/hyperuricemia. In diabetic patients, the metabolic effects of androgens may decrease blood glucose and therefore needs requirements. Patients who wash in the morning should apply Tostran after washing, bathing or showering. Avoid the potential for transfer of testosterone from the patient to another person by careful hand washing and the wearing of loose clothing after the gel has been applied and has thoroughly dried. Beds or shower before any dose contact with another person. Particular care must be taken to prevent transfer of testosterone to pregnant women or children via skin contact. Interactions: When androgens are given simultaneously with anticoagulants, the anticoagulant effect may increase and patients receiving anticoagulants require close monitoring of their INR. Concurrent administration of testosterone with ACTH or corticosteroids may increase the likelihood of edema and caution should be exercised. Undesirable effects: Key summary (≥1/10): application site reactions (including pruritus, pruritus), pain, pruritus, rash or erythema, common (≥1/100): peripheral edema, hypertension, polyuria, increased prostate specific antigen, lacrimation, gynecomastia. Common, gastrointestinal: constipation, nausea, abdominal pain. Drug interactions: All androgens may cause a rise in lipids and a fall in HDL cholesterol level. Metabolic: Testosterone may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Endocrine: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Gastrointestinal: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Immune: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Reproductive: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Special populations: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Pregnancy: Testosterone therapy may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Tostran - The only 2% metered dose testosterone gel

The first metered dose

2% testosterone gel

A simple solution to a serious problem