

The Endocrinologist

THE NEWSLETTER OF THE SOCIETY FOR ENDOCRINOLOGY • ISSUE 101

AUTUMN 2011

A career in endocrinology: where is the pathway?

PLUS

Society Grants Update

The first 63 days ...

The endocrine system:
a friend in dark places

Published by
BioScientifica 





► September is the new January apparently: something to do with it being a better time of year to set goals and stick to resolutions. Of course, anyone associated with academia is already used to this slightly skewed view of the calendar, but as we prepare to welcome the latest intake of undergraduates and research students, maybe now is also the time to consider what might lie ahead for those we manage to inspire into a career in endocrinology.

The career structure for basic scientists is pretty dire, but Alan McNeilly, current chair of the Society's Science Committee (the remit of which he outlines on page 10) provides some really sound advice on how to maximise the chance of success (page 18). We also hear the views and experiences of three scientists at different stages on the tenure 'track' (pages 19–20). It seems that, contrary to the popular belief of many basic scientists, it's not all that straightforward for clinical endocrinologists either. The issues facing current trainees are outlined by Emma Wilmot on page 20. Challenging career paths aren't restricted to just UK endocrinologists. Turn to page 17 for an interesting and inspiring account of a day in the life of Johanna Miquet, one of the Society's Argentinean members. Perhaps career paths and job prospects, particularly in light of the forthcoming changes to university and NHS funding, would make a good topic for our proposed new feature for *The Endocrinologist* – Letters to the Editor; turn to page 3 for more information on how to have your say on this, or any other point you want to raise for discussion.

Someone else looking forward – after first doing a little reflecting – is Leon Heward-Mills, the Society's new Chief Executive. Leon shares some observations from his first 63 days in office and outlines his plans for reviewing the Society's strategy (page 5). It's reassuring to see that 'clear and relevant' benefits to Society membership will remain a priority. Some of the ways the Society currently supports its members are highlighted in this issue; many of these rely on funds generated by the Society's commercial subsidiary, BioScientifica, so it was good hear of their recent success in some major conference industry awards (page 21). Congratulations to all involved.

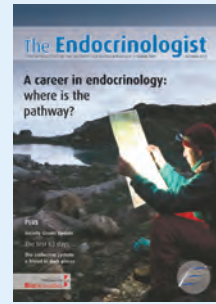
The Society's Clinical Committee has also been considering the way ahead: specifically the implications of the upcoming changes to the commissioning of endocrine clinical services; their findings and suggestions for how endocrinologists and the Society can engage with the process are summarised on page 7.

The Society offers a wide range of grants and this year's winners are detailed on page 11. There are grants to support Young Investigators as they move towards independence (e.g. Early Career Grants), schemes to promote collaboration, both nationally and internationally, and awards to foster undergraduate interest in the discipline. See page 12 for reports from recipients of the Undergraduate Achievement Award and Summer Studentships, and page 16 for an excerpt from this year's winning Undergraduate Essay, in which Frederick Vonberg posits the endocrine system as an additional hero in the Chilean miners' crisis.

The Society's involvement with public engagement continued over the summer through a number of sponsored events at *The Times* Cheltenham Science Festival (page 9). If you're interested in doing something similar, see page 10 for grants available from the Society, including support for Young Endocrinologists to attend media workshops aimed at encouraging young researchers to get involved in public debates about science (page 15). Whilst we're on the topic of communication, Hotspur makes a welcome return (page 22), with some thoughts on the non-verbal kind.

MELISSA WESTWOOD

The Society welcomes contributions and article suggestions; contact the Editorial office at info@endocrinology.org. Deadline for news items for the Winter 2011 issue: 21 October 2011. Deadline for news items for the Spring 2012 issue: 21 December 2011.



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New Council member needed

Professor Evan Simpson will retire from Council in March 2012, having served his four-year term of office. Full Members are invited to make nominations for this position. A nomination form is included with this mailing or can be downloaded from www.endocrinology.org/about/committee/council.html. To provide a balance of expertise on Council, the Society is seeking one basic scientist to fill the vacancy. The deadline for nominations is 12 December 2011.

NEW APPOINTMENT TO SCIENCE COMMITTEE

We are pleased to announce that Professor Julia Buckingham from Imperial College London has agreed to take on the role of External Relations Advisor to the Science Committee from January 2012. The role represents the Society and the specialty as a whole to external bodies with regard to scientific professional issues.

A similar position representing the Society to external bodies with regard to clinical professional issues is held by Professor John Wass via the Clinical Committee.

Society BES 2013 – call for suggestions

Deadline: 31 January 2012

The Society's Programme Committee is keen to receive suggestions for scientific sessions at the 2013 Society BES meeting: visit www.endocrinology.org/meetings.

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.

SOCIETY PRIZE DRAW

We held a prize draw for those members who completed a direct debit mandate for their membership. The prize was a £50 Amazon voucher, which was won by Miss Natalie Burrows, University of Manchester.

With regret

We are sorry to announce the death of Senior Member, Dr Ray Edwards.

Society BES 2012 free places – worth up to £750

Opening date: 31 October 2011

Application deadline: 5 December 2011

This popular scheme is for trainees and nurses who have not yet chosen endocrinology as their specialty, and is open to candidates who are not members of the Society, with the exception of Student Members. Candidates need to be nominated by a Full Member, for further details see www.endocrinology.org/grants/grant_sfebesFreePlaces.html.

Undergraduate essay prize

Submission deadline: 13 February 2012

Included in this mailing, you will find a flier for the 2012 Undergraduate Essay Prize. Please encourage your students to apply and display the flier on your institution's noticeboard. For an electronic copy contact grants@endocrinology.org.

The first prize is £1000, runner up prizes also available.

SOCIETY CALENDAR

7–9 November 2011

Clinical Update 2011

Hilton Hotel, Sheffield, UK

12 December 2011

Regional Clinical Cases

The Rougemont Hotel, Exeter, UK

29 February 2012

National Clinical Cases

The Royal Society of Medicine, London, UK

19–22 March 2012

Society for Endocrinology BES 2012

Harrogate International Conference Centre

Letters to the Editor

Sometimes it's difficult to know what you're all thinking about. We'd like to open the floor to the discussion of contentious or important issues in endocrinology, or direct feedback on the newsletter, via The Endocrinologist's Letters to the Editor page. Contact info@endocrinology.org.

Endocrine effects of inhaled corticosteroids in respiratory disease

Professor Ashley Grossman (Oxford) and Dr Jeremy Tomlinson (Birmingham) have, on behalf of the Society, produced a position statement that highlights the suppressive effects of inhaled corticosteroids on the endogenous hypothalamo-pituitary-adrenal axis.

To read the full statement, please visit www.endocrinology.org/policy.

15 glorious years

In September, Ailsa Bailey and Christine (Chris) Davis celebrated their fifteenth anniversary with the Society. Ailsa, as Production Manager in the Publications department, has had the unenviable task of keeping the platforms and systems used in producing our books, journals and newsletters up-to-date and competitive. Many of you will know Chris for, amongst other things, her sterling work in handling the process involved in

awarding conference grants. What you may not know is that Chris has had only one day of absence – no mean achievement! Our thanks go to Ailsa and Chris for all their hard work over the past 15 years.



Ailsa



Chris

CONGRATULATIONS

Personal chairs

Congratulations are due to Professor Waljit Dhillon, who has been awarded a personal chair in Endocrinology & Metabolism at Imperial College London, and Professor Sadaf Farooqi who has been appointed a personal chair in Cambridge.

Prizes and awards

We also congratulate: Dr Isabel Braidman, who has been awarded a National Teaching Fellowship by the Higher Education Authority, which rewards excellence in teaching and learning at higher education institutes; Professors Krishna Chatterjee and Steve O'Rahilly, both amongst the first recipients of the Wellcome Trust's Investigator Awards, which support exceptional researchers; Professor Waljit Dhillon, who has been selected as the Royal College of Physicians' Goulstonian Lecturer. He will give his lecture entitled 'The critical role of kisspeptin in human fertility' on Monday 31 October at the Royal College of Physicians; Professor Jonathan Seckl, who has been selected to receive the 2012 European Society of Endocrinology Geoffrey Harris Prize; Professor John Wass, who has been awarded the US Endocrine Society's Distinguished Physicians' Award, this is the first time the award has been bestowed upon an endocrinologist outside the USA; and Professor Bob Webb, who has been awarded the Marshall Medal. This is the premier award offered by the Society for Reproduction and Fertility.



7-9 November 2011

CLINICAL UPDATE 2011

Hilton Hotel, Sheffield, UK

12 December 2011

REGIONAL CLINICAL CASES

The Rougemont Hotel, Exeter, UK

29 February 2012

NATIONAL CLINICAL CASES

The Royal Society of Medicine, London, UK

19-22 March 2012

SOCIETY FOR ENDOCRINOLOGY BES 2012

Harrogate International Conference Centre

10 July 2012

REGIONAL CLINICAL CASES

TBC, Oxford, UK

5-7 November 2012

CLINICAL UPDATE 2012

Stratford-upon-Avon, UK

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Tel +44 (0) 1454 642210; Email conferences@endocrinology.org

www.endocrinology.org/meetings

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The first 63 days

Leon Heward-Mills joined the Society as Chief Executive in June. Here, Leon outlines his experiences at the Society so far and his plans for the future.

► Unfortunately the usual 100 day retrospective does not quite apply in this case; the vagaries of publication deadline dates mean that I have to forego the hindsight of an additional 37 days' experience, so instead I am reflecting on my first 63 days as Chief Executive of the Society for Endocrinology.

I was Head of Publishing at the Institution of Civil Engineers and have spent the last 15 years working closely with engineers. My heroes have been Brunel, Telford, Bazalgette and Arup. I had the pleasure of working with some of the brightest engineering minds of this generation, publishing world class research and project papers on some of the iconic projects of this and the last century, including the Channel Tunnel, the infrastructure for London 2012 and perhaps less well known, some of the extraordinary projects to deliver sustainable water supplies and critical infrastructure in the developing world.

And so, as I immerse myself into the world of endocrinology, it is fascinating to compare the similarities and differences between the two professions. Yes in endocrinology we have our eminent clinicians and scientists, but what has also struck me (another parallel with the engineers) has been the passion and commitment that exists across our Society at every level. I was fortunate to attend the Society BES conference in April and get a flavour of the breadth of expertise, the enthusiasm to advance our discipline and to demonstrate real public benefit. Over the past 63 days I have worked with many of the Society's technical and expert committees. The commitment to the Society's aims from all members and staff has been an inspiring and welcome introduction.

Of course the current state of funding in science for basic research and indeed in the NHS for delivering and improving patient care remains a major issue for many members. My commitment as Chief Executive of the Society is to continue to deliver excellent services, but to ensure that the benefits of membership remain clear and relevant, so that we keep you our current members, and attract and retain the best new minds in the discipline.

In June the Society was active at the Cheltenham Science Festival (see page 9); over 400 members of the general public enjoyed two lively Society sponsored discussions and debates on the science of hunger and the development of gender, demonstrating to me both the breadth and public interest in the work that we do.

The major task in my in-tray is the organisation of the Society's five year strategic review, an opportunity for us to review our priorities and set our strategic direction. A working party comprising council members and others will meet in October to consider several broad themes forming the basis of the review. The themes will include:

- ▷ A review of the Society's purpose
- ▷ Member engagement and professional support
- ▷ Our public voice and influence
- ▷ Education and the transfer of knowledge
- ▷ Customer and member focus
- ▷ A review of our commercial activities
- ▷ The development of our staff

The October meeting will not be the only chance to inform the strategic review. I hope also to use this as an opportunity to develop high level themes and we will be working with our committees and the broader membership to develop these ideas and provide a framework and action plan to help us prioritise what matters most and deliver against it. Please look out for further details on this soon.

As well as Chief Executive for the Society, I am also Managing Director of BioScientifica, the Society for Endocrinology's wholly owned commercial subsidiary that funds many of our activities by generating profit to gift aid back to the Society. We have a committed and dedicated team in Bristol and I am looking forward to leading them as we deliver the surplus that allows the Society to fulfil its core aims. It is an exciting time for BioScientifica – we have a strong publishing portfolio in addition to our secretariat and events services and we are well placed to develop these activities further in the coming years.

Finally, a request: please let me know what you want of your Society. I have only had 63 days and I need to gather the views of as many of our members as possible, nurses, clinicians and basic scientists. Let me know what we do well and what we need to do better. I'm committed to working with you to continually improve the service we provide and to ensure that our Society continues to grow, remaining relevant, influential and agile.

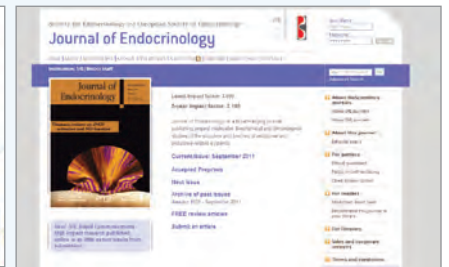
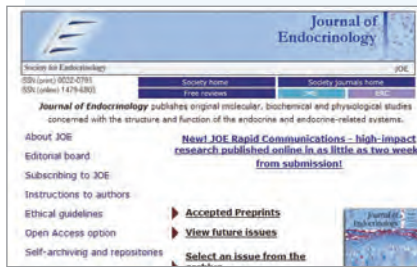
LEON HEWARD-MILLS

Please send any feedback you have to members@endocrinology.org

SOCIETY JOURNALS JOIN THE WEB 2.0 REVOLUTION

► It's been nearly seven years since the Society first moved its journals to the Californian online host, HighWire Press. At the time there was much excitement about the new features available to readers, especially the HTML full text of every article, the opportunity to browse articles categorized by most cited or most read, and the possibility of reading the full text of any article hosted by HighWire if your chosen article in one of the Society's journals cited it. Over the years we've added other features including supplementary data (now considered to be a mixed blessing!), PowerPoint versions of figures and the fantastic retrodigitized archive.

However, the standard design available to us in 2004 looked out of date then and has been in desperate need of an overhaul ever since. In 2008 HighWire announced that it was updating its platform to bring it into line with Web 2.0 technology. Publisher content would need to be 'migrated' to this new platform and, as part of this migration, HighWire would be giving its publishers the opportunity for a free website redesign, provided it was based on one of their vastly improved standard designs. We jumped at the chance and, thanks to the efforts of our excellent designer, have come up with an easy-on-the-eye design that neatly ties our family of journals together.



▲ then ▲ now

This new design, combined with the new platform, means that our sites are vastly more user-friendly and offer great features such as pop-up abstracts from the tables of contents, a 'figures only' view, pop-up references, and improved navigability around the rest of the sites to dedicated areas for readers, authors and librarians. For the techies among you, the new platform is a fully XML-based environment, incorporating standards such as the Atom Publishing Protocol (backed by Google and Microsoft), and powerful tools such as the MarkLogic Server. In time this will allow us to repurpose our journal content in any number of ways, perhaps by creating collections of content and re-using these collections in feeds, widgets, blogs and networking sites.

As ever, we're always keen to have your feedback on the journal websites and any ideas you may have for new features: contact info@endocrinology.org.

AILS BAILEY



▲ umbrella page



▲ pop-up abstract



▲ pop-up reference

View the Society's journals online at www.endocrinology-journals.org

Latest impact factors

► An impact factor is one measure of reflecting the average number of citations to published articles. The new (2010) impact factors for the Society's journals have now been announced: all impact factors have increased and are also all now above the usual benchmark figure of 3.

Journal of Endocrinology's impact factor has increased above 3, to 3.099, and the underlying five-year figure is 3.169. A number of new initiatives, including Rapid Communications and themed review articles should enhance the journal's standing even further.

Journal of Molecular Endocrinology has increased its impact factor this year to 3.628, due to an impressive review article commissioning programme over the past few years.

Endocrine-Related Cancer continues to give the strongest showing of the Society's journals at 4.432, and a combined strict acceptance policy and active commissioning should stand the journal in good stead for future impact factors. Its five-year figure remains robust at 5.443.

Clinical Endocrinology's impact factor has also increased to a robust 3.323, with a very strong underlying five-year figure of 3.607.

Commissioning of clinical services – some considerations for endocrinology

Dr Garry Tan (Derby) and Professor John Wass (Oxford), both members of the Society's Clinical Committee, together with Dr Miles Levy and Dr Helena Gleeson (both based in Leicester) have recently produced a document on the upcoming changes to the commissioning of endocrine clinical services for members to consider. A summarised version of the full document appears here. Read the full version, complete with useful links, via the Society's Clinical Portal at www.endocrinology.org/clinical.

► In July 2010, the coalition government produced a White Paper, 'Liberating the NHS'; this was later amended following a review by the NHS Future Forum. One of the key areas focuses on the way in which clinical services will be commissioned in the future.

How can endocrinologists better engage with these impending changes?

1. Ensure that endocrinology is appropriately presented to your new local Clinical Commissioning Board
2. Familiarise yourself with data on local prevalence/incidence of endocrine disorders and your local activity in managing them – these will be used by commissioners
3. Develop and publicise your local guidelines on initial investigations of endocrine patients, and when and where they should be referred
4. Develop care pathways to implement the local guidelines, minimum standards of care and outcome measures. Your local chemical pathology laboratory can help support your care pathways
5. Build good working relationships with your local GP commissioners

Various developments in the organisation of the delivery of endocrinology services are highlighted in the web article along with their potential pitfalls and benefits you may wish to consider.

What is the Society for Endocrinology doing?

The Society is committed to ensuring that the specialty is appropriately represented in national discussions related to the implementation of any new procedures for commissioning of services. In order to better inform these wider discussions and support endocrinologists at a local level, the Society plans to:

1. Gather relevant data, including accurate new:follow-up patient appointment ratios, incidence/prevalence of endocrine conditions etc, from a variety of sources
2. Use this information to set minimum recommended standards of care and related outcome measures to help with benchmarking
3. Provide the information in such a way as to support endocrinologists with operationalising and commissioning services at a local level

We would welcome your comments, please forward them in the first instance to Abhi Vora (abhi.vora@endocrinology.org).

Society for Endocrinology Clinical Guidance

Many endocrine diseases are rare diseases; consequently guidelines on best practice are not always available due to a lack of evidence-based medicine. In order to address this issue, the Society for Endocrinology has begun a programme to produce clinical practice guidelines or guidance for endocrine diseases where none is currently available, and a clinical need has been identified.

The aim of the guidance is to support clinical professionals in the diagnosis and treatment of endocrine disease to help improve patient care. The guidance is written on the basis of the evidence available and extensive professional experience. Members of the working party are selected from a range of stakeholders appropriate to each condition to ensure representation from relevant specialities, professional bodies, users of the guidance and patient representatives. Where the condition involves a multi-disciplinary approach to treatment, the guidance authorship reflects this.

The guidance is subject to wide external consultation and peer review before publication in the Society's official clinical journal, *Clinical Endocrinology*. Guidance on pituitary apoplexy¹ was published in January and guidance on the initial approach to an infant with a suspected disorder of sex development was published in July.²

Both sets of guidelines can be downloaded from the Society's website at www.endocrinology.org/clinical/clinicians/prof_Guidelines.html

Information aimed at the general public and patients on the conditions covered by the guidelines is provided on the Society's public website, *You & Your Hormones*, www.yourhormones.info

Future guidance topics will include:

- ▷ Multiple endocrine neoplasia
- ▷ Adult congenital adrenal hyperplasia
- ▷ Turner's syndrome
- ▷ The endocrine consequences of cancer therapy

If you have suggestions for other endocrine-related guidance, please contact Debbie Willis debbie.willis@endocrinology.org.

DEBBIE WILLIS

References

- 1) Rajasekaran S, Vanderpump M, Baldeweg S, et al. 2011 UK guidelines for the management of pituitary apoplexy. *Clin Endocrinol* 74 9–20.
- 2) Ahmed SF, Achermann JC, Arlt W, et al. 2011 UK guidance on the initial evaluation of an infant or an adolescent with a suspected disorder of sex development. *Clin Endocrinol* 75 12–26.

You & Your Hormones

► The Society's brand new public website *You & Your Hormones* is now up and running and provides accurate and reliable information on hormones and endocrine conditions.

Please help us to promote *You & Your Hormones* by spreading the word to colleagues and patients and encouraging your workplace to link to www.yourhormones.info.

If you would like to get involved by writing or reviewing articles for the website, please contact us at public@endocrinology.org.



Clinical Endocrinology Editorial Board: a call for clinical trainee members

► The Editors of the Society's official clinical journal *Clinical Endocrinology* are seeking two trainee members to join the Editorial board. This is a new venture and reflects our desire to maintain the relevance of the journal for clinicians at all levels of experience. 'Review' and 'Clinical Question' articles are already providing important educational materials for journal clubs around the UK. We are particularly interested in hearing new ideas from our trainee readers.

The *Clinical Endocrinology* Editorial board holds two meetings annually, one in the autumn and the other during the Society BES conference. The term of office would be for two years in the first instance. Reasonable travel and subsistence expenses for board meetings will be reimbursed.

If you wish to be considered, please contact Professor John Bevan (*Clinical Endocrinology* Senior Editor) at johnbevan@nhs.net. You should attach a mini-CV (no more than one A4 side) indicating your present post, stage of training, clinical interests, research experience and previous publications (select up to three). Please describe the skills and contributions you feel you would bring to the Editorial board.

The deadline for applications is 23 November 2011.

CLINICAL ENDOCRINOLOGY

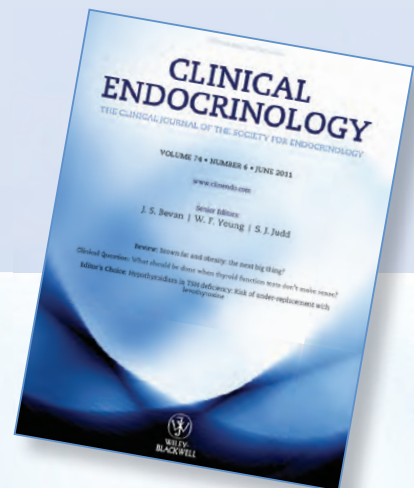
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HUNGRY FOR SCIENCE, BOYS AND GIRLS?

In June 2011 the Society for Endocrinology, in association with the Society of Biology, sponsored two events at The Times Cheltenham Science Festival.

► *The Times Cheltenham Science Festival* is an internationally renowned showcase of activities centred on public engagement with science. For the Society's first event 'Hungry?' we stepped out of the sun and into the cool shade, picking our seats amongst the 270 people present.

This first event dealt with appetite and the varied approaches that scientists and doctors are taking to investigate why we eat and why we gain or lose weight. Opening the event, Professor Sadaf Farooqi (Cambridge) outlined her work on the genetic basis of appetite, focussing on what we have learned from her group's studies into leptin deficiency. Next up, Dr Kevin Murphy (London) described research into the short-term control of appetite by gut hormones, and the potential development of a gut hormone analogue which could be used to chemically control appetite. Lastly, Professor Jane Wardle (London) addressed the psychological aspects of appetite, covering reward, behavioural cues and programming during early life.

Our second event, 'Gender: more than X vs. Y', sought to challenge the traditional male/female concept of gender and drew a similar sized crowd. Dr Robin Lovell-Badge (London) opened proceedings by discussing gender determination in the developing embryo, in particular the role of the SRY gene. After this introduction, Professor Leuan Hughes (Cambridge) addressed disorders of sex development – where parents and doctors are presented with a newborn child whose sex is difficult to determine immediately – and discussed the medical and ethical considerations this presents. Professor Melissa Hines (Cambridge) brought things to a close by outlining her work in gendered behaviour, including a startling finding that monkeys can display sex-typed choices of toys (e.g. male monkeys tend to pick up cars, females dolls).

Among science festivals, Cheltenham stands out for its audience participation: after each event the audience was invited to join the speakers for a more informal discussion



Dr Robin Lovell-Badge speaking at the 'Gender: more than X vs. Y' event



Prof Sadaf Farooqi, Dr Kevin Murphy and Prof Jane Wardle answering questions.

in a breakout area. Topics brought up by the audience ranged from the humorous to the personal; including fad diets, anorexia and bulimia, food policy, androgen excess, and the qualities that sex-type a toy, all clearly showing the public's interest in, and enthusiasm for, hormones and science at large.

TOBY STEAD

The annual Times Cheltenham Science Festival brings together the biggest names in public engagement to celebrate science. Find out more at www.cheltenhamfestivals.com/science.

To get your great idea off the ground, find out how to apply for up to £1000 with our new **Public Engagement Grant** scheme: visit www.endocrinology.org/grants.



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Grants and awards showcase 2011

Outgoing Grants Panel Chair, Alan McNeilly, reports on his time in office.

► I have had the privilege of chairing the Science Committee for the past 4 years and will be handing over the reins to Karen Chapman in January. It has been a pleasure to work with the committee and especially the staff at the Bristol office, Rachel Evans and Ann Lloyd. Most of you will not know what the Science Committee does. We are responsible for organising symposia on scientific topics for the Society BES meeting each year; this includes the entire process from initial suggestions of topics through to inviting the speakers. We also, if accepted by the Programme Committee, help to chair the sessions at the Society BES meeting. There are lively discussions regarding these topics, as we are always trying to provide up-to-the-minute symposia that will be important to you, the members.

While this is the 'public' face of the committee, most of our time is taken up with refereeing grants for members. These include the grants for Lab Visits, Sponsored Seminars and most importantly the Early Career grants for which we have received 60 applications in the past 12 months alone (regrettably, we may only award 19 in this time period). The Early Career grants from our junior members are particularly satisfying to assess, as they are almost always of the highest quality. It is very pleasing to see that a number of recipients have used these grants as

a stepping-stone to their future careers in endocrinology or science in general. The committee also looks after the education side of the Society, which includes the undergraduate and postgraduate essay prizes. We are always looking for ways to improve the support for you as members at all stages of your careers, and I would urge you to consider how this can be achieved, and to support the Science Committee in their endeavours.

Finally, I would like to highlight the Autumn Endocrine Retreats, which were established by Rob Fowkes some years ago and are now an annual event. Having up to 20 young, highly motivated endocrinologists, together with several senior faculty for a long weekend has provided some of the most stimulating discussions we have had on general aspects of endocrinology, career development and how to write grants. Each year the attendees seem to gain a great deal from attending and it is gratifying that so many continue as active members of the Society. I would like to reiterate my thanks to all the members of the committee and staff at Bristol for all their support and wish them well for the future of the committee.

ALAN MCNEILLY, SCIENCE COMMITTEE CHAIR, GRANTS PANEL CHAIR

For information about all the Society's grants see the website at www.endocrinology.org/grants.

NEW

Public Engagement Grants

Up to £1000 available

In August, the Society launched its new Public Engagement Grant scheme, designed to provide funding for outreach activities to schools and the general public.

If you've got a great idea that will capture the public's imagination and reveal just what it is that drives you as a scientist, from hosting an event at a science festival to bringing a class of children into your lab, find out how to make it a reality at www.endocrinology.org/grants.

A limited number of these grants will be awarded to members of all membership classes, excluding Student Members, with rounds running 1 August–31 July each year.

CORPORATE SUPPORT

We take this opportunity to thank all our Corporate Supporters for their generous assistance, which enables the Society to offer many of the grants to fund endocrinologists at all stages of their careers. For more information about the Society's corporate support, see www.endocrinology.org/corporate.

Money well spent

Despite challenging trading conditions in the past few years, the Society and BioScientifica have worked hard to increase the amount available for all prizes, grants and awards. Future trading conditions promise to be more challenging still, but the Society is committed to supporting its grants and awards activities as much as possible. Here is what we have awarded over the past three years:

2010/2011 – £473 346

2009/2010 – £463 320

2008/2009 – £361 820

Society passes AMRC peer review audit

We are pleased to announce the Society has passed the Association of Medical Research Charities (AMRC) peer review audit, demonstrating that we work to the highest standards of accountability and probity in the allocation of grants and awards. The AMRC carries out an audit of member organisations every five years.

Further information can be found at www.amrc.org.uk.



Award winners

Summer Studentships 2011

Departments awarded grants in May 2011:

- ▶ Barts and the London School of Medicine and Dentistry: Centre for Endocrinology, William Harvey Institute
- ▶ Birmingham University: Centre for Endocrinology, Diabetes & Metabolism; Institute of Biomedical Research; and School of Clinical & Experimental Medicine
- ▶ Bristol University: Henry Wellcome Laboratories for Integrative Neuroscience & Endocrinology; and School of Clinical Sciences
- ▶ Cardiff University: Centre for Endocrine & Diabetes Sciences; and School of Biosciences
- ▶ University of Dundee: Biomedical Research Institute
- ▶ Durham University: Endocrinology & Ecology Laboratories, Wolfson Research Institute
- ▶ Edinburgh University: Centre for Cardiovascular Science; and Queen's Medical Research Institute
- ▶ Glasgow University: BHF Cardiovascular Research Centre; and Institute of Biodiversity, Animal Health & Comparative Medicine
- ▶ Imperial College London: Department of Endocrinology; Division of Experimental Medicine; Division of Investigative Science; Institute of Reproductive & Developmental Biology; and Wolfson Neuroscience Laboratories
- ▶ King's College London: Diabetes Research Group, Division of Diabetes & Nutritional Sciences
- ▶ Leicester Royal Infirmary: Department of Cancer Studies & Molecular Medicine
- ▶ Newcastle University: Institute of Cellular Medicine
- ▶ Nottingham University: School of Veterinary Medicine & Science
- ▶ Queen Margaret University, Edinburgh: Department of Dietetics, Nutrition & Biological Sciences
- ▶ St George's University of London: Department of Clinical Developmental Sciences; and Reproductive & Developmental Biology Group
- ▶ Ulster University: School of Biomedical Sciences
- ▶ Westminster University London: School of Life Sciences

Clinical Department Visit Grant 2011

- ▶ Cristini Capatina (University of Medicine and Pharmacy, Bucharest) visited the Oxford Centre of Diabetes, Endocrinology and Metabolism to experience endocrinology in a world-class referral centre, improve clinical and research expertise, and establish protocols for collaborative studies in pituitary pathology

Early Career Grants 2011

Recipients of awards made after the May 2011 deadline:

- ▶ Saira Hameed (Imperial College London) '*New nongenomic effects of thyroid mediated by $\alpha\beta3$ integrin*'
- ▶ Jeshmi Jeyabalan (Royal Veterinary College London) '*Investigating the mediation of AMPK in the skeletal action of the anti-diabetic drugs metformin and rosiglitazone*'
- ▶ Dawn Livingstone (University of Edinburgh) '*The contribution of the liver to the metabolic disturbances in 5 α null mice*'
- ▶ Alison McNeilly (University of Dundee) '*An investigation into the relationship between endocrine and cognitive dysfunction in response to high fat diets*'
- ▶ Johanna Miquet (University of Buenos Aires) '*Growth hormone excess, impaired insulin signalling and cardiac pathology*'
- ▶ Samantha Mirczuk (Royal Veterinary College London) '*Generation of a conditional Nppc-null mouse to allow pituitary-specific deletion of the Nppc gene*'

- ▶ Mark Nixon (University of Edinburgh) '*Characterisation of glucocorticoid receptor activation by 5 α -reduced glucocorticoids*'
- ▶ Victoria Parker (University of Edinburgh) '*Stress-induced cytokine impact on neuroendocrine control of prolactin secretion in early pregnancy*'
- ▶ Michelle Sleeth (Imperial College London) '*Colonic long chain fatty acids and the release of GLP-1 and PYY*'
- ▶ Andrew Young (University of Exeter) '*A casual role for prolactin in the regulation of cooperative care?*'
- ▶ Mohammed Zariwala (University of Westminster) '*The role of macronutrients on the expression of dipeptidyl peptidase-IV in intestinal epithelial cells*'
- ▶ Lei Zhang (University of Cardiff) '*Identification of targets for non-immunosuppressive therapy of Graves' orbitopathy*'

Undergraduate Achievement Awards 2011

Awards to departments of £300 per annum for 3 years, made after the July 2011 deadline:

- ▶ Hull York Medical School, Department of Endocrinology
- ▶ Imperial College School of Medicine, Department of Investigative Sciences
- ▶ Royal Victoria Hospital Belfast, Regional Centre for Endocrinology and Diabetes
- ▶ University of Cambridge, Institute of Metabolic Science

Laboratory Visit Grants 2011

- ▶ Jyothis George (Queen's Medical Research Institute, Edinburgh) visited Centre for Translational Science Activities, Mayo Clinic, Rochester, MN, USA '*Deconvolution techniques for analysing pulsatile luteinising hormone secretion*'
- ▶ Rowan Hardy (University of Birmingham) visited Anzac Research Institute, University of Sydney '*Wnt signalling in inflammatory arthritis and inflammation related bone loss: the role of local glucocorticoid synthesis*'
- ▶ Ana Wojcicka (Medical Centre of Postgraduate Education, Warsaw) visited Department of Medicine, Imperial College London '*Effect of triiodothyronine and thyroid hormone receptors on expression of DNA methyltransferase 1 (Dnmt1) in mice*'

Sponsored Poster Grant 2011

- ▶ Thomas Barber (University of Warwick). Poster session at the 1st Warwick Conference on Advances in Human Metabolism Research, to be held 11 November 2011

Sponsored Seminar Grants 2011

- ▶ Faisal Ahmed (Royal Hospital for Sick Children, Glasgow) '*Complex bone disorders in children and young people – education day*'
- ▶ Simon Aylwin (King's College London) '*Sponsored case presentations with seminar lectures addressing current issues in endocrine practice*'
- ▶ Karen Chapman (University of Edinburgh) '*Leptin and the regulation of body weight*'
- ▶ Waljit Dhillon (Imperial College London) '*Multidisciplinary endocrine symposium: educating clinical trainees, nurses and young researchers*'
- ▶ Kevin Murphy (Imperial College London) '*MedEx – a week long course giving year 12 pupils a hands-on experience of life as a medical student*'
- ▶ Robert Semple (University of Cambridge) '*The UK adipose tissue discussion group meeting*'
- ▶ Raj Thakker (Oxford Centre for Diabetes, Endocrinology and Metabolism) '*A celebration of endocrinology in Oxford*'

GRANT REPORTS

Undergraduate Achievement Award Report 2007–2009: University of Nottingham

The award was given to the student that scored the highest examination mark in our 2nd year Endocrinology module. The mandatory module is 4 weeks long and carries a credit rating of 15 toward an overall of 120 that must be attained that year, as part of the Bachelor of Veterinary Medicine and Bachelor of Veterinary Science degree programmes, ultimately leading to the professional MRCVS qualification after 5 years of study. Over the last 3 years we have had 95–100 students taking the course. The three winners of the prize were: Lorna Roberts (2007, graduated MRCVS 2011 with Honours); Joanne Hinsley (2008, now in 5th year clinical rotations); Ruth Webb (2009, now in her 4th year).

For Ruth Webb, the Endocrinology module clearly didn't put her off hormones: for her 3rd year intercalated research project – 10 weeks in the laboratory with a 10 000 word dissertation – she chose to investigate 'The influence of environmental chemicals on steroidogenesis in the sheep ovary'. She is now trying to decide whether to become a Specialist in Internal Medicine, or to focus on exotics through the clinical Extra-Mural Studies program.

... Wow! Thank you. I was not expecting that at all – just off the phone to my mum and she is really proud! ...

... I can't express how delighted I am with having been selected for this award! I fully enjoyed every minute of my project, and the opportunity to work on this with incredible people in such a wonderful environment ...

COMMENTS RECEIVED FROM RECIPIENTS OF AN UNDERGRADUATE ACHIEVEMENT AWARD

Our students really enjoy the Endocrinology module and the feedback we get is often some of the most positive for any of the 2nd year taught courses. Some examples are: 'I liked the clinical content and the context helped

me learn the physiology'; 'really enjoyed the clinical aspects of this course, it was very interesting'; and 'the clinical-based material was great as it helps to consolidate the physiology'. At Nottingham, endocrinology is alive and well!

DAVID GARDNER, UNIVERSITY OF NOTTINGHAM

Summer Studentship 2008

After the Society for Endocrinology funded a placement with Prof Ghatei (Imperial College London) in 2008, I was able to successfully apply for a placement with the London Research Institute in Dr Downward's laboratory in the summer of 2009. I'm sure the experience of that first placement was one of the main reasons I got this second placement, so I'm very grateful. After the second placement, I finished my final year at Imperial College London and secured a first-class degree grade. I left Imperial to join the Institute of Cancer Research in Chelsea as a PhD student in Prof Isacke's laboratory.

Thanks again for the opportunity you guys gave me back in 2008. I'm sure having a summer placement between my first and second years helped me a lot in getting my PhD studentship.

MATTHEW ASHENDON, INSTITUTE OF CANCER RESEARCH, LONDON

Early Career Grant 2009

As a recent appointment at the University of Westminster (School of Life Sciences), the funding made available from the Society for Endocrinology has allowed me to further develop my research into the effects of novel exercise regimes on adenosine monophosphate-activated protein kinase (AMPK) activation and its role in glucose disposal and insulin sensitivity. In doing so, I have developed analytical skills that may not have been possible without this support. Furthermore, the funding from the Society for Endocrinology was combined with internal funding to establish collaborative research projects with the University of Auckland (New Zealand) and Charles Stuart University (Australia). The data streaming from this work has led to grant applications via Diabetes Research and Wellness Foundation, The Royal Society and Diabetes UK. A proportion of the preliminary data has also been used to make a recent funding application to the Medical Research Council (MRC) New Investigator Research Grant.

RICHARD MACKENZIE, UNIVERSITY OF WESTMINSTER

Conference Grant 2011: ENDO 2011 – Boston, MA, USA

In June, I was fortunate to attend the American Endocrine Society conference in Boston. Think of the Society BES, on steroids, and you will have some idea of the scale of the event. There were 7800 delegates in a conference centre so big it could take you up to 20 minutes to walk between rooms. Every day there were different posters, with a total of 2600 posters presented over the three days.

Conference sessions started as early as 6am and continued until 9.30pm. I found the 'Case Management forums' and 'Meet the Professor Sessions' most relevant. These were usually repeated throughout the programme, so with careful planning it was possible to fit in a few hours sightseeing each day. Boston is a lovely city, on the coast, and suitable for walking. On Saturday afternoon a gap in the talks I wanted to attend gave me the opportunity to visit Harvard University and have a tour with a student.

I would recommend that every endocrine nurse should attend ENDO at least once in their career. I started planning a year before I wanted to go and was fortunate to be awarded a Society Conference Grant, with a little help from several pharmaceutical companies to top up the fund. It is expensive to attend an international conference, but the benefits of networking with the wider endocrine community are extensive.

JEAN MUNDAY, ENDOCRINE NURSE SPECIALIST, PORTSMOUTH HOSPITALS NHS TRUST

... the student is really excited about being able to spend some time in the lab, and it will be good to give him a chance to grasp some relevant physiological techniques, which will hopefully assist him when applying for research posts after graduating ...

... the student went on to a PhD in my lab, has received highly competitive external funding support, and has just published his first manuscript in endocrinology. He is a top student, and a great success story!

COMMENTS RECEIVED FROM SUMMER STUDENTSHIP SUPERVISORS

► **How quickly this year has gone. It seems like only yesterday we were arranging the Society's BES meeting and Endocrine Nurse Update was far ahead.**

I would like to take the opportunity to reply to a few points from the Society BES evaluation. The first was the lack of a nurses' tea: this has been poorly attended in years past, did not allow nurses time to network, and we are often told that nurses feel slightly marginalised by the Society; a separate tea won't make nurses feel more included.

The second point was nurses' session scheduling: this often clashes with other interesting clinical talks. The Programme Committee has the mammoth task of scheduling three parallel sessions and nurses have little say in this process. To arrange them alongside basic science sessions would be impossible unless the nurses' sessions were split over two days. As many of you have limited study leave, and can often only spare one day, it was agreed to leave the nurses' sessions as scheduled.

This edition includes reports on new initiatives in Norfolk and Bradford. It is great to see how these initiatives are improving the patient's experience and the overall quality of the service. Please let us know if you have developed something in your department – we are always looking for reports for *The Endocrinologist*. It is good to share.

NIKKI KIEFFER, CHAIR, NURSE COMMITTEE

Preclinic tests in Norwich

► Our lead endocrinologist, Dr Frankie Swords, suggested that we introduce preclinic blood tests. This means new referrals have tests performed before their appointment. Aside from putting this procedure into practice, we needed to decide which common endocrine conditions needed these investigations: together with our biochemists we came up with a list, and appropriate blood and urine tests for each condition were then selected.

The system has now been in action successfully for a year. When a hyperthyroid patient is referred to us, the appropriate blood test forms can be ordered on our computer system and sent to the patient with a condition-specific covering letter explaining what they need to do before clinic.

So where do endocrine nurses fit into this? Consider a more complex situation, such as an incidental adrenal tumour. We arrange an appointment and order preclinic tests for Conn's, Cushing's and pheochromocytoma. This generates several blood and urine request forms. When the patient attends clinic we are then able to talk them through each test: we all know that many patients asked to perform a 24-hour urine collection do not do so accurately; an endocrine nurse can explain what is needed and why, on a one-to-one basis. We can also give the patient a brief idea of why they have been referred to us. This sometimes requires a little diplomacy to prevent unnecessary anxiety.

Preclinic blood tests also provide the opportunity for the patient to meet the clinic staff; some patients will be visiting the clinic for the rest of their life. This is a vital first encounter with the endocrine nurse who will be there to support, educate and clarify often complex medical issues for them. Anecdotal feedback has been very positive, and we feel it improves our overall quality of service by shortening the time from referral to diagnosis and treatment. In many cases, it also leads to fewer outpatient appointments, as patients can often be discharged after one visit, thereby reducing cost. It's really made a difference.

SONDRA GORICK, NORFOLK AND NORWICH UNIVERSITY HOSPITAL

Adrenal incidentalomas in Bradford

► Steve Peacey and Louise Osborne carried out an audit to identify how many adrenal incidentalomas reported by Radiology were referred to the endocrinology team. Over a 1 year period only 1 of 69 patients with a benign-appearing adrenal adenoma were referred to the endocrinology department. To ensure these patients were assessed for hormonal activity, it was agreed with Radiology that an addendum would be added to reports, to remind colleagues and GPs to consider endocrine referral. This is important because a proportion of benign adenomas may have some endocrine function.

This led us to develop a new service in Bradford using a defined endocrine nurse protocol. Adrenal incidentaloma referrals are reviewed to ensure they have a benign-appearing adrenal lump and are passed to endocrine specialist nurses. The endocrine nurses replace any medication that may interfere with the test, using the protocol and our non-medical prescribing qualifications to identify a suitable alternative treatment.

On admission, 30 minute recumbent renin, aldosterone, urea and electrolyte tests are performed. Two 24-hour urinary metanephrine collections, or plasma metanephrines, and a 1mg overnight dexamethasone suppression test are then arranged. Testosterone, oestradiol, DHEA and androstendione are also checked if appropriate. All bottles, forms, medication, information leaflets and contact details are given to the patient or carer. We explain in detail about any potential future investigations or treatments that may be required dependent upon the results.

The benefit to patients is clear: an efficient outpatient consultation, with results ready for the new patient appointment one month later. The protocol fulfils the 18 week criteria and generates day case admission income for the trust. We are auditing our results to assess the effectiveness of the protocol.

DIANNE WRIGHT,
BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST

EURO-WABB: an EU rare diseases registry

A new project to develop a Europe-wide registry of three rare and highly complex diabetes syndromes

► **Wolfram, Alström, Bardet Biedl (WABB) and other rare diabetes syndromes each affect less than 1:300 000 people, include several hormone system complications, are poorly recognized, and often diagnosed late. Funded by the EU Directorate General for Health and Consumers (DG Sanco), the EURO-WABB project was launched 1 January 2011 and will run for three years. Through EURO-WABB, we hope to provide faster diagnosis, more research, and support better medical care for patients with WABB syndromes across Europe. Funded project partners include clinicians, scientists and patient groups with representation from 6 EU countries.**



www.euro-wabb.org

WABB syndromes are rare, with patients distributed throughout the EU. There are as yet no orphan drug treatments available and no access to well characterized patient cohorts. In common with many rare diseases, the lack of specific health policies for these diseases and the scarcity of expertise often translate into delayed diagnosis and difficult access to care.

Current activities include the determination of 'core' and 'extended' data sets to form the basis of the registry database, and the submission of applications to ethics and institutional review boards. Work is also being undertaken to identify and catalogue known mutations in the WABB genes. The catalogue will be published and accessible from the EURO-WABB website using the Leiden Open (source) Variation Database (LOVD) software. These activities will mean that we are now able to recruit our first participants.

Recruitment will be diagnosis-driven and any individual where a local physician makes a diagnosis of a WABB disease is eligible to be included in the registry. Patients with other rare diabetes syndromes such as Wolcott-Rallison and Thiamine-responsive megaloblastic anaemia will also be eligible to take part. Physicians who aren't able to access molecular genetic diagnostic testing via their national healthcare systems will be able to do so via participation in this project.

The project website, www.euro-wabb.org, provides more information about the project plan, the associate partners and includes regular progress updates. As the project develops, we hope that the website will become a valuable resource for families and healthcare professionals.

Patients, clinicians and other stakeholders can register their interest via the EURO-WABB website. Feedback and queries can be sent via email to the Project Manager, Ms Amy Farmer, euro-wabb@bch.nhs.uk.

ENDO ESE INTERNATIONAL SCHOLARS PROGRAMME

To promote the career development of trainee endocrinologists from around the globe by identifying talented investigators and offering them an exceptional training experience, the Endocrine Society and the European Society of Endocrinology have launched an International Scholars Programme. Applications are invited from candidates who wish to gain training for a period of 2–3 years in a world-class laboratory. Ideal candidates are post-doctoral endocrinologists who have completed at least two but no more than five years of research training. Full details can be found at www.euro-endo.org/education/iesp.aspx. The deadline for applications is 31 December 2011.



**European Society
of Endocrinology**
the European hormone society



Kallmann Syndrome Organisation now on Facebook

The Kallmann Syndrome Organisation is a small patient support group for patients with Kallmann syndrome (KS) or hypogonadotrophic hypogonadism (HH). As the condition is rare and of a personal nature, the benefit of being able to talk to fellow patients and the opportunity to meet up with them cannot be underestimated. With this in mind the Kallmann Syndrome Organisation has recently set up two new groups on Facebook. The first group, 'Kallmann's syndromers', is open to any and all who wish to join. Since some patients would rather not let all their friends see they have joined a patient support group, you may also join a private group. Membership to this private group is administered by Neil Smith (neilsmith38@hotmail.com). To find out more about the Kallmann Syndrome Organisation and the Facebook groups, visit www.kallmanns.org.

Living with Hypoparathyroidism project

In June the patient group Hypoparathyroidism UK (HPTH UK) launched their 'Living with Hypoparathyroidism' project, which aims to highlight the patient experience in being diagnosed and living with this long-term condition. The first stage of the project will focus on post-surgical hypoparathyroidism. HPTH UK has launched a new section on their website, where patients with permanent hypoparathyroidism following thyroid (or parathyroid) surgery describe their disorder and how it has affected their lives. To find out more, visit www.hpth.org.uk.

Society stands up for science

The Society for Endocrinology awarded five Young Endocrinologists a place on the Sense About Science 'Standing up for Science' media workshop, which took place on 17 July 2011.

► **Sense About Science is a charitable organisation that promotes an evidence-based approach to decision-making and addresses misconceptions in the public debate of science. Their network of early career researchers, Voice of Young Science (VoYS), encourages young researchers to get involved in public debates about science. I attended the latest VoYS 'Standing up for Science' media workshop, held at the Linnean Society, London.**

Don't quote me!

The workshop opened with some personal accounts of dealing with the media from some media-savvy scientists: Dr Robin Lovell-Badge (Medical Research Council), Dr Alan Dangour (London School of Hygiene and Tropical Medicine), and Dr Deirdre Hollingsworth (Imperial College London). From their experience in dealing with the media with relation to their own research and providing comment on science news stories, the panel highlighted some pros and cons of talking to the media, and gave us their 'top tips': be prepared – write down the key points you wish to make; stand up for your research – back your own evidence; and be wary of the 'throw-away comment' – anything can be quoted out of context. The overriding feeling was that scientists have a duty to communicate with the public, especially given the extent to which research in the UK is publicly funded.

The other side of the fence

The afternoon sessions afforded a view from science reporting, with a panel of science journalists including Tom Feilden of BBC Radio 4's *Today* programme, Richard

Van Noorden of *Nature* and freelance science journalist Claire Coleman. The panel provided a fascinating insight into how a science story is chosen, the rapid turnover of stories and deadline pressures journalists face from their editors. A lively debate ensued surrounding the media coverage of some infamous stories such as the MMR vaccination, bird-flu and global warming. The panel stressed the importance of scientists getting their voices heard in public debates.

Muffling misinformation

In the final session, Simon Levey, a press officer from Imperial College London, Julia Wilson from Sense About Science, and Tamlyn Peel from the Voice of Young Science network, shared tips on how to get involved in public debates about science, and tackle irresponsible claims. These ranged from starting small by blogging or setting up a Twitter account, to working with your press office. The session reinforced the overriding message of the day to young scientists – don't wait until the end of your career, go out and get your voices heard now!

THOMAS FOX

The next Standing up for Science media workshop will be held at the University of Glasgow, 18 November 2011. For more information, contact Julia Wilson jwilson@senseaboutscience.org. The Society will be offering more places and travel grants to attend the London workshop on behalf of the Society next year - keep an eye out for announcements.

THE NATIONAL TURNER SYNDROME REGISTER

Can you help to improve the follow-up care of patients with Turner syndrome?

The aim of the Turner Register is to monitor the provision of clinical care provided to young women with Turner syndrome (TS) aged 16 years and above during adult life. We are asking young women to join the register, and to complete a simple questionnaire once a year.

The study has REC approval: South West Research Ethics Committee, reference 03/6/075

The study is being coordinated by the British Society for Paediatric Endocrinology and Diabetes (BSPED) Clinical Trials Group. *Principal Investigator:* Professor David Dunger (Cambridge University)

Patients who are attending adult clinics may register themselves. A poster is available to advertise the register in your clinic, please contact: Tel 01223 769386; Email as336@medschl.cam.ac.uk



British Society for Paediatric Endocrinology & Diabetes

THE ENDOCRINE SYSTEM: A FRIEND IN DARK PLACES?

We are delighted to announce that the Society received 55 entrants for the undergraduate essay competition in 2011. Each submission was marked and ranked by a distinguished panel, and the process was overseen by the Society's Education representative to Council. The high standard of entries impressed once again, but ultimately there could be only one winner: this year the top prize of £1000 was awarded to Frederick Vonberg (University College London). A summarised version appears here. Read the full referenced version at www.endocrinology.org/grants

► For 69 days, 33 men were trapped more than two thousand feet underground in a collapsed mine near Copiapó, Chile. A huge and successful rescue effort was launched, and both the miners and rescuers were rightly praised for their tenacity and endurance. I would like, however, to consider the contribution of an unsung hero: the endocrine system.



Being trapped in a hot, dark, confined space with very limited supplies is an extremely stressful situation, both physiologically and psychologically. There are various endocrine mechanisms that respond to stress in an attempt to limit the damage. One of the best characterised of these is the release of cortisol. Stimuli such as trauma, decreased oxygen, pain, fright and starvation, all of which were features of the miners' experience at various points, lead to an increase in the secretion of cortisol from the adrenal cortex. By stimulating gluconeogenesis in the liver, catabolism of triacylglycerol in adipose tissue, and protein catabolism, the cortisol helps to maximise energy supply to the body's cells and ensure that fuel for the brain is prioritised.

Cortisol was not the only hormone active in the mine. The temperature was high (30°C) and the water supply was limited. The miners' restricted fluid intake would have led to the release of anti-diuretic hormone (ADH) from the posterior pituitary and aldosterone from the adrenals. Both hormones prevent water loss and, in addition, ADH induces vasoconstriction to maintain adequate tissue perfusion despite a decreased circulating volume.

However, the endocrine response may not have been entirely beneficial. Chronically elevated cortisol, combined with extended inactivity in cramped conditions would result in muscle atrophy and osteoporosis: exercise advice from NASA was sought.

Cortisol's suppressive effect on the immune system was also a risk, as conditions were ideal for the spread of infection. One of the men suffered pneumonia, several had severe dental problems and many suffered skin complaints. It is conceivable that elevated cortisol made these infections worse, as has been demonstrated in people with depression, which is also characterised by high cortisol.

The most dangerous aspect to elevated cortisol for the miners was, however, the effects it can have on mood. The

morale of the miners was apparently remarkable, but chronically elevated cortisol can lead to depression and irritability. Given the very real importance of maintaining good spirits, the effects on mood may have been the most serious endocrine-mediated threat to the miners.

As well as being a very stressful place, the collapsed mine was also very dark. The body requires energy from the UV component of sunlight to convert cholesterol into vitamin D. Vitamin D is then converted into active 1,25-dihydroxycholecalciferol which maintains calcium and phosphate levels. In the mine there was no sunlight at all – to receive a dose of UV radiation equivalent to one minute of sunlight, the miners would have had to sit under a fluorescent lamp for eight hours. Vitamin D deficiency, in turn, increased the risk of osteomalacia.

Low calcium can have other, potentially lethal, effects too – including cell hyperexcitability and muscle spasm. Luckily the endocrine system can counter this by releasing parathyroid hormone, returning serum calcium back to acceptable levels. This solution, however, acts as both friend and foe: the calcium is derived from enhanced bone osteoclastic activity, compounding the bone weakening effect of elevated cortisol and vitamin D deficiency.

So, in the end, were the miners helped or hindered by their endocrine systems? This essay has tried to show how the miners would almost certainly have died were it not for their endocrine systems. It is also true that some endocrinological effects were not beneficial and may even have endangered the miners. Is this surprising? While the fantastically complex endocrine system has evolved in response to various environmental pressures, it is unlikely that these included subterranean incarceration! We should also bear in mind what Shakespeare's Othello would have called 'the ocular proof': despite the endocrine system's shortcomings, all the miners came out alive and remarkably healthy. Thus, as the Chilean government rallied to save the miners, their co-ordinated efforts were being mirrored on a much smaller but equally important scale 2000 feet below them, in the endocrine system of each miner.

FREDERICK VONBERG

The Society awarded six prizes of £250 to runners-up Cameron Green (London), Chris Hogan (London), Sharif Ismail (London), Catriona Kemeny (London), Christina Krivcevska (London) and Louise Murchison (Glasgow). Essays by Derek Ho (London), Andrew Lawson (Cambridge), Sean Noronha (Oxford) and Ibrahim Sheriff (London) were highly commended.



A day in the life of an Argentinean endocrinologist

The University of Buenos Aires

Founded in 1821, the university is composed of 13 faculties, 6 hospitals, 10 museums and 4 associated high schools. With around 6650 teachers and over 100800 students, it is the largest university in Argentina and a leading educational institution in Latin America. As the university is free, even for foreign students, many come to study here from all over the region.

The university has a long tradition in science: around 6000 researchers and scholars are based here, working on over 1500 current research projects. I work in the Institute of Biological Chemistry and Physic-Chemistry (IQUIFIB), which is part of the National Council of Scientific and Technical Investigation (CONICET).

It's Monday and a very busy week starts ...

I don't want to be late for work, so I try to take the subway, but the trains are delayed. I manage to arrive at the university just on time; the hall is crowded with students making long queues for the elevators – I'm happy that the elevator reserved for professors is working today. It's winter and very cold, even inside, as the heating doesn't work in this old building; so I prepare a cup of hot coffee and start working.

The course that started it all

I have so many things pending that I decide to start with the top priority: teaching. I am in charge of a biological chemistry module, which around 500 students will start in just a few weeks. I have already ordered all the chemicals I need for the laboratory practice, so I check to see if we have any money left to repair six spectrophotometers that were severely damaged last year after being used by hundreds of students; we'll only be able to repair three of them. I send the instructions and teaching material I've been preparing to the other professors and assistants who will help teach the course. I still have to prepare the exams, and I think about the time I'll spend correcting over 1000 papers and laboratory work reports this semester. I recall when I was a student on this course 12 years ago; I enjoyed it so much that I later enrolled as a laboratory assistant and joined a research group.

Midday already?

I turn now to my research activities. I have to order an antibody to finish some experiments suggested by a manuscript reviewer. The antibody has to be imported and it will not arrive for two months; therefore, I ask the journal editor to extend their deadline, as we won't be able to finish the experiments within three months. Import taxes also double the cost of the antibody; considering the

research grant I have is in Argentinean pesos, I will spend a significant part of my annual research budget on this antibody, so I really hope it works!

Continuing the traditions

Although it's getting late, I start an experiment. I am trying to obtain some preliminary data to apply for research funding on a new project, as I gradually work towards becoming an independent researcher. It is rather difficult to get a grant, and the funding is usually so small that I will need the financial support of my director for quite a few more years. On my usual route to the laboratory I pass a very old sign 'Center for the Study of Hypophysary Hormones': one of this institute's founding research groups was devoted to the study of the chemical structure and biology of hypophysary hormones. Back in those days, human growth hormone was purified here from cadaveric hypophyses. Many decades have passed, but I am glad to be able to continue with this tradition in a certain way, as I study growth hormone and insulin signalling pathways.

Inspired by the view

After a long day, I look through the window to see Houssay Square, a park in memory of Bernardo Houssay, a former student and professor of this university who was, in 1947, awarded a Nobel Prize in Physiology for his contribution to the understanding of the role of the anterior hypophysis in carbohydrate metabolism. Houssay also received the Society for Endocrinology's Dale Medal in 1960.

Working at the University of Buenos Aires can be a challenge, but I am proud of being part of an institution which is devoted to research, public education, and acts as an extension of the community.

JOHANNA G MIQUET, BUENOS AIRES, ARGENTINA



Houssay Square and University of Buenos Aires School of Medicine



'Erythrina crista-galli', the national flower of Argentina

Career pathways in endocrinology: some thoughts



► Soon after I had heard several eminent leaders talk about the wonderful opportunities available for scientists these days, I was asked to speak at the Society BES Young Endocrinologists' symposium on career pathways for scientists. When I actually sat down and considered the reality, I wondered who these people had been talking to and where this pathway actually was! The reality is that there is no career pathway as such, and most successful scientists in the field of endocrinology would probably agree that there is a large element of luck involved in furthering your career. Success requires much more effort than simply turning up in the lab each day, and if you do not find yourself thinking of your research at odd times of the day and night, then you may wish to consider if you are really cut out for a career in research.

Your best chance

If there is no set formula to follow, how do you give yourself the best chance? The normal pathway for a career in research starts with your first postdoc position. You should start considering this in your second year or early in the final year of your PhD. Decide which area of research you want to concentrate on for the next few years, carefully choose where you would like to go and contact these people immediately. It is probable that there will not be a position available immediately; if you are lucky a position may open in the near future, or they may suggest you could apply for funding to work with them. If not – keep trying! It is important to determine how good the supervisor is with regards to looking after you in the lab, and caring about your future. If you are only going to be one of many working hard for no reward, then it would be wise to tread carefully. With this in mind, determine what track record the supervisor has with their staff. This is best done by talking to previous and current postdocs; a visit to the lab is important if at all possible. There is a difference between meeting your potential new boss at a conference and in the day-to-day life of the lab: you may never see your supervisor until they want wonderful results for their next talk!

Broaden your mind

The next test is near the end of your first postdoc position. By now you should know if the area of research you are working in is for you: if you are undecided make a list of what you know you definitely do not want to do. This at least clears the air and leaves you with a clearer view of the potential ways forward. It is highly unlikely that you will be in a position to apply for a junior fellowship, or a permanent post, that elusive final goal. Thus, a second postdoc is normal; by now you should be in an interesting field and have contacts from your first postdoc position. If you have been wise then you have learnt a lot of techniques, not just those useful in your own research. Similarly you should have broadened your knowledge base beyond the narrow

confines of your immediate research area. At interviews it is obvious if someone has enthusiasm for research: when discussion turns to areas outside their current research area, a good candidate will have a basic understanding and some ideas. In this way you convey interest and an enquiring mind, which is what we are looking for in research: unexpected results coupled with some tangential thinking can take you in a completely new direction. It is no use just sitting in the lab and not attending seminars because the topic is not what you work on. Go to as many as possible: during the seminar the speaker may say or describe something that resolves a problem that you are having, or you will be riveted by the amazing talk you have just heard. Even if the seminar is of no use, spending time daydreaming about your own research can be useful in its own way.

Money talks

A series of postdoc positions may follow as you develop your career, and with luck you will eventually be in a position to apply for a fellowship, or if you are very lucky a permanent position. Your chances are certainly enhanced if you have been active in your department's journal clubs and seminar committees, and within societies like the Society for Endocrinology. Evidence of securing your own funding is an excellent advert of your ability and desire to make a career in science; the Society's Early Career grants are a good example.

Is research for me?

Having said all this, it is equally important to make hard decisions after your PhD or postdoc positions: is research really for you? A complete change may be the best and there are many opportunities to start afresh, for example: administration, where you would at least know how things actually happen in a lab; teaching; scientific writing; clinical trial management; publishing, etc. Whatever the choice might be, you should always remember that during your PhD and postdoc positions you have developed a wide range of skills. In computing alone you will have had to become familiar with a great many packages, while the average person may use two at most. You will have spoken in public, prepared presentations, had to think independently and worked within a team, defended your ideas during cross examination, and learnt how to manage your time highly effectively.

Before writing this I was concerned that it would turn out to be negative, and there is no doubt that a permanent position in research is difficult to achieve. There may be no clear pathway, but if you are determined and proactively build the pathway yourself, success then usually follows.

ALAN MCNEILLY, CHAIR, SCIENCE COMMITTEE

Career pathways in endocrinology: some thoughts



The bumpy road to independence: a supervisor's view

Many scientists struggling to follow the traditional career path of their peers do not realise their own potential in other markets and career avenues. As a supervisor I now recognize that PhD and postdoc position training can prepare you not only for an academic career, but for multiple career paths, thanks to the 'beyond the bench' skills obtained during this time. Many institutions are now slowly recognizing and promoting the translational skills obtained in these training periods, and providing the necessary career support to accompany these skills. So what could or should you do to make the most of this training time?

Obviously the focus during a postdoc position is on research and increasing your publication record, but it should also represent an opportunity to expand your skill set and maximise your potential. Ask your supervisor or mentor (these do not always end up being the same person) about having an undergraduate or Masters student research project to supervise, or ask to give tutorials or lectures. Create opportunities in improving your communication skills and 'salesmanship' by applying for travel awards and fellowships. Get involved in peer review and co-authoring review papers or book chapters. Your supervisor will generally be happy with delegating some of this out. Networking and increasing your own visibility are vital skills to cultivate, so present as much as possible outside of lab meetings and in different formats, from informal chalk talks to formal seminars. Collaborative projects are essential for any scientist's research progress – this is also another way of finding useful contacts and increasing your publication record.

So when is the right time to move on? I was almost always certain that I wanted to become a principal investigator; however, I found that there was a period in my postdoc where I was unsure, so I set about exploring how my skill set could be applied to other career options. It wasn't until an opportunity presented itself that I could be sure my decision to pursue this path was right. I do remember questioning whether I was ready, and whether I had learned enough to be starting my own group. The advice I received was not to let these opportunities pass, as sometimes if you wait until you feel ready, it can be too late. So if it seems an academic career path has become an increasingly bumpy road, do not lose sight of the rich environment that your academic training provides in preparing you for a wide range of careers.

AYLIN HANYALOGU, IMPERIAL COLLEGE LONDON

The advantage of certainty

I have always known, without question, what my career path would be, or at least what I hoped it would be; so I have been very careful about my choices, taken lots of advice and have tried to remain relatively focussed. After completing my PhD and my first postdoc position, I applied for and was awarded an internal fellowship at the University of Manchester. My next goal is to obtain an external fellowship, and then hopefully a permanent post.

Mind the gap

What I have come to realise is that there is an enormous gap between being a postdoc and a principle investigator. As a postdoc I thought that if I could just get to that next critical stage then I could relax for a little while, get familiar in my new role and plan my next step. The truth is there really isn't time to slow down. I understand now that I need to keep pushing forward; otherwise I cannot effectively compete for an external fellowship.

These are difficult times for all research scientists; although major funding bodies have tried to ensure that fellowships remain relatively protected, there are without question fewer fellowships available. It's inherently difficult to obtain a fellowship, and arguably more so for basic scientists. Even if you succeed in obtaining a permanent position, then you have a relatively short 3 year probation period to find your feet, develop your lab and prove yourself.

When you reach this stage you are in a vulnerable position: you feel relatively inexperienced, yet your direct competition is suddenly the 'grown up scientists', authors of all the brilliant papers you've been reading over the past few years. Why would a funding body 'risk' money on a relative unknown when they could invest in a senior academic with a proven track record? The situation is not impossible, but it's important to prepare accordingly.

On the edge

To have a real competitive edge at this early stage the key is to achieve sufficient momentum. This means developing a track record of publications, grants, student supervision and successful collaborations. From my own experience, I have been very fortunate to receive a great deal of support from my supervisor and from the Society for Endocrinology. The University of Manchester Stepping Stones scheme and Society for Endocrinology Early Career Grants, for example, provided funding for me to drive my own research as principal investigator in a relatively protected environment, as well as valuable experience in leadership, being interviewed, and writing grant or fellowship applications. I have been able to establish collaborative links within the University and with industry, and have secured funding for 4 postgraduate students. I am now 5 years post doctorate and it is the right time for my external fellowship application. Obviously, there's no guarantee that I get one, but if I do, thanks to these schemes I am much better prepared to move forward and be successful.

LAURA MATTHEWS, UNIVERSITY OF MANCHESTER

Career pathways in endocrinology: some thoughts



The track to tenure ...

So, I sit here trying to recall my experience so far on the 'track to tenure' but what I really want to know is: will tenure still exist when it matters for me? I have just started my second postdoc position and would love, one day, to achieve the heady heights of a permanent academic position. Things at the top seem to be changing: when I started my PhD, those scientists who had networked and gained good publication records would stand a good chance of gaining an academic position as people moved on, moved up or retired. However, tough times are afoot: universities and funding bodies are facing cut-backs, academic departments are becoming smaller, and the chance of a fellowship seems more remote. At the same time there seem to be more PhD students and the competition for postdoc positions is increasing.

Don't lose heart; no one ever said this road would be easy. If there is one piece of advice I could offer, it is to network; don't wait for the right job to come up on jobs.ac.uk. You need to make people aware that you are looking for future work, go and see the people you want to work for, maybe write a grant with them.

The second piece of advice I can offer is to thoroughly think through your next step after your PhD: do you stay where you are, or move on? There are challenges associated with both choices. If you stay, you are probably on a high and producing your best work. You will get papers out quickly, but may paint yourself as someone who cannot move on or work independently. If you move on, you will be starting from scratch and may not publish until well into your second year, just as funds are starting to run out.

I took the second option and moved on; yes I am less well published than some of my contemporaries, but I can honestly say it has made me a more adaptable, free-thinking scientist and it didn't stop me from moving on a second time. It may take me longer to secure an academic position, but I feel it will make me better placed to negotiate the tricky probation period if I get there. I don't know if I will ever gain the position I strive for, but I will always be able to say that I tried. If all else fails, you never know, all those alternative career events I went to may come in handy one day.

*VICTORIA CABRERA-SHARP,
IMPERIAL COLLEGE LONDON*

A clinical view

Concern is mounting amongst the UK's 400 doctors training to specialise in diabetes and endocrinology about future employment prospects. In the current diabetes epidemic it is difficult to imagine that a doctor trained in diabetes and endocrinology may find it difficult to secure employment in the NHS. However, a recent survey by the Royal College of Physicians (RCP) and Joint Royal Colleges of Physicians Training Board (JRCPTB) identified that diabetes and endocrinology is the second worst medical speciality for securing substantive NHS consultant posts upon completion of training. Another survey by the Young Diabetologist Forum (YDF), the trainee wing of Diabetes UK, then confirmed that 1 in 3 trainees fail to secure a substantive NHS consultant post following completion of training. 1 in 10 trainees emigrate, many citing the lack of employment opportunities in the UK.

What are the reasons for this employment opportunity shortfall? The ongoing UK financial crisis has prompted the transfer of much care into the community, and there are very few community-based consultant posts. Furthermore, in secondary care there is an increasing focus on the delivery of front line care, often at the expense of more traditional diabetes and endocrinology consultant posts. Diabetes and endocrinology trainees have become reliant on front line posts for employment.

An employment crisis is potentially evolving in diabetes and endocrinology: we must ensure that the time and money invested in training UK diabetologists and the subsequent specialist skills acquired by these trainees are not wasted. Solutions include restricting trainee numbers, creating more part time or job share consultant posts and an expansion of community-based consultant posts. The YDF are actively engaging with the Royal College and the specialist societies to identify potential solutions to this problem.

EMMA WILMOT, LEICESTER ROYAL INFIRMARY



Volcanoes and Vol-au-vents

BioScientifica is the commercial subsidiary of the Society. It provides secretariat services, event management, website development, publishing services, abstract management and public engagement activities. For more information visit www.bioscientifica.com.

Triumph in the face of adversity

On 20 March 2010, the whole of Europe was suddenly thrown into chaos by the eruption of an Icelandic volcano, the name of which – Eyjafjallajökull – most could not even pronounce. The volcanic ash cloud which resulted from a number of large eruptions caused paralysis throughout Europe’s airline industry as airline chiefs grounded flights. Naturally this had a knock-on effect across sea, road and rail networks.

Why should this matter to BioScientifica? Well, we had the matter of managing the European Congress of Endocrinology in Prague. In April 2010 there was no hint of when transport could return to normal; with airports stuffed full of delayed air passengers could speakers get to the conference? Could delegates get to the conference? Could we even get to the conference?

First of all, we had to decide whether the congress should be cancelled or not, in a situation where we did not know the potential impact of the volcano. We evaluated, over a matter of days, all the criteria relevant to the planning and management of a successful meeting. It was decided that the events team should prepare for the event to take place. To be absolutely sure of arrival, the events team was despatched overland via bus to Prague, prior to the final decision that the event should go ahead. A second team handling the crisis management plan once the first team had left, were despatched by train following the decision, only two days in advance of the congress, that the event could proceed.

The congress took place in full with over 2200 delegates, 150 speakers and little disturbance to the programme. The client afterwards described BioScientifica as ‘extraordinary’ and said that the event was the company’s finest hour.

Such a success prompted an entry into the Conference Awards 2011 for BioScientifica, in the category ‘Triumph in the Face of Adversity’. These awards, the major conference industry awards, were held at the Queen Elizabeth II Conference Centre, London. Narrowly piped to the top prize, BioScientifica were still very pleased to receive a highly commended award. This shows, once again, the dedication and professionalism of BioScientifica and its events team.

The volcano Eyjafjallajökull erupting in Iceland



TRUSTEE TRAINING: a Society of Biology seminar, in collaboration with BioSciAcademy

BioSciAcademy is a division of BioScientifica which provides seminars, briefings and other services that will assist the Officers and Chief Executives of medical and scientific societies in the UK and around the world.

► On 9 June BioSciAcademy ran its first joint training event with the Society of Biology. The two organisations had identified a need for training specifically tailored to the trustees of learned societies, so a programme based around governance issues suitable for both new trustees and those wanting a ‘refresher’ on their responsibilities was developed. An all day event, the seminar comprised of presentations, a lunchtime expert’s surgery, and ample networking opportunities.



The list of experienced speakers was headed by key note speaker John Low, from the Charities Aid Foundation, who tackled the topic of the challenge for the CEO in managing trustees or being managed by them. An immensely useful session on the roles, responsibilities and challenges for trustees was run by Elliott Harris of Chantrey Vellacott, and Pat Barter of the Society for Endocrinology took care of the all important finance issues. The hot topics of board effectiveness and public benefit were covered by Tony Bennett from Action Planning and Seb Elsworth from ACEVO respectively. Mark Downs, Society of Biology, rounded off the day with a stimulating talk on whether learned societies should be run as businesses or as charities.

Feedback from the thirty delegates was excellent and another meeting is planned for next year. The speaker presentations from this event and details of upcoming events can be found at www.bioscientifica.com/biosciacademy.

Stridulation, high fives and chest bumps

► The majority of the loudest animals on Earth are also the biggest, with blue whale songs reaching 188db and elephants' rumbling calls measuring 117db. Although remarkable acoustic signals are made by a range of invertebrates including the miniature cricket and praying mantis, and by large mammals, none compare with the tiny water boatman (*Micronecta scholtzi*). Recently scientists recorded the aquatic animal 'singing' at up to 99.2db.

Micronecta scholtzi are freshwater insects measuring just 2mm and the male produces the sound by rubbing its penis against its abdomen in a process called stridulation. Researchers believe that their song is a part of a courtship display performed to attract a mate. If you scale the sound level they produce against their body size, *Micronecta scholtzi* are the loudest animals on Earth. An honour, incidentally, up to now I had believed to be mine. Not, I hasten to add, through the use of stridulation, but rather in my attempt to gain success at tennis.

In truth, I lack talent at tennis in the conventional areas such as physical mobility, capacity to serve, forehand and backhand returns, etc; however, I do have one supreme gift in that I possess the loudest grunt ever heard on a tennis court. This is not just a grunt, this is a worldclass grunt. Unlike the use of stridulation by *Micronecta scholtzi*, the function of my grunt is to distract the opposition rather than to attract mates, and I can reassure readers that at no time does my worldclass grunting require any bodily activity below the diaphragm to take place.

My reliance, when playing tennis, on my first serve grunt leaves me vulnerable against an opponent who is hard of hearing; sign language indicating a grunt has taken place proving less effective than the real thing. In reality, vulnerability of one sort or another affects all of us in some way. This stark realisation was brought home to me recently when I met up with Superman. At the time I was cycling through a village in Derbyshire, one that I have passed through on many occasions. Always watching the world go by, while sitting in a comfortable chair in the middle of the village, was the same man dressed, unfailingly, in a Superman outfit. On this occasion, however, I noticed that he was wearing varicose vein surgical stockings. I was stunned! My boyhood hero, Superman, afflicted by varicose veins. Could it have been the fact that he was a frequent flyer or, more likely in my view, the damage was kryptonite-induced? After all, we are aware of the potency of endocrine disruptors; who is to say what venous disruptors exist at different layers of the stratosphere?

The human phenotype may be altered by multiple mechanisms, thereby modifying vulnerability to various external forces. One such mechanism is genetic: epigenetic factors exert their effect on chromatin structure across various time scales, from minutes in receptor signalling to generations in imprinting. Epigenetics presumably explain the reported increased prevalence of deformed newborn babies with a bent elbow and hand placed in juxtaposition to the ipsilateral ear, born to mothers prone to excessive mobile phone use.

To unwind and get away from endocrine disruptors and epigenetic mechanisms, I like to watch televised top level sport. A disconcerting element has, however, cast a shadow over my pleasure, in the constant need of professional sportsmen to bond with their team-mates. In international cricket when the batsman hits a boundary he walks up to the other end of the pitch and bangs knuckles with his batting partner. In tennis doubles every point is followed by high fives or, even worse, chest bumps between the successful pair. Imagine if endocrinologists behaved in a similar fashion and used the same techniques. Would I have to run through the clinic high fiving the rest of the endocrine team because I had diagnosed a pituitary tumour successfully? We would not turn our backs on chest bumps either, as these could be reserved for the happy resolution of a difficult case of gynaecomastia.



Hot Topics

Journal of Endocrinology

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BTB drug transporters

The blood-testis barrier (BTB) acts as an immunological barrier, transporting out unwanted molecules from the apical compartment with efflux pumps located in Sertoli cells. Su and colleagues investigated the mechanism by which compounds cross the BTB. The knockdown of Oatp3, an organic anion transporter, did not impede Sertoli cell tight junction barrier function, but did impede the entry of [3H]adjudin, a toxicant to spermatogenesis.

[Read the full article in *Journal of Endocrinology* 209 337–351](#)

IL10 and Graves' disease

Graves' hyperthyroidism can be experimentally induced in mice, resulting in the secretion of interferon (IFN-) and interleukin 10 (IL10). Ueki and colleagues sought to elucidate the role of IL10 in the pathogenesis of Graves' disease. Using IL10 deficient mice, they found that IL10 deficiency results in a lower incidence of Graves' hyperthyroidism due to impaired B cell function.

[Read the full article in *Journal of Endocrinology* 209 353–357](#)

Insulin in atherosclerotic plaques

The mechanisms by which glycaemic control reduces diabetic cardiovascular complications remain unclear. Schuyler and colleagues suggest enhanced atherosclerotic plaque stability in diabetes. Using diabetic apoE-/- mice, they found treatment with insulin attenuated the size of intimal lesions and inhibited the expression of matrix metalloproteinase 9, which is known to increase in diabetes and is involved in plaque destabilization.

[Read the full article in *Journal of Endocrinology* 210 37–46](#)

[Commentary *Journal of Endocrinology* 210 1–2](#)

JOURNAL OF MOLECULAR ENDOCRINOLOGY

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Sphingosine kinase in ER signalling

Estrogen receptor (ER)-positive breast cancer drug resistance is a big problem. Antoon and colleagues propose a strategy for targeting ER signalling via inhibition of sphingosine kinase. The inhibitor SKI-II abrogates ER receptor signalling *in vitro* in human breast cancer cells, and diminishes the survival and proliferation of breast cancer cells.

[Read the full article in *Journal of Molecular Endocrinology* 46 205–216](#)

Chronic glucokinase activation

Glucokinase acts as a glucose sensor in pancreatic beta cells; activation stimulates insulin secretion. Gill and colleagues investigated whether sustained activation of glucokinase leads to beta cell exhaustion. They measured gene expression and insulin secretion in rodent islets treated with a glucokinase activator, finding increased glucose-stimulated insulin secretion, and significantly improved insulin content and secretion. Thus, glucokinase activators have therapeutic potential in type 2 diabetes.

[Read the full article in *Journal of Molecular Endocrinology* 47 59–67](#)

Endocrine-Related Cancer

Endocrine-Related
Cancer

RET germline variants and Sorafenib

Inherited mutations of the *RET* proto-oncogene cause multiple endocrine neoplasia type 2 (MEN2) and apparently sporadic medullary thyroid carcinoma (AS-MTC). Prazeres and colleagues assessed 3 previously uncharacterised germline *RET* variants. Arg886Trp and Glu511Lys had increased *in vitro* transforming potential; however, Cys634Arg had a higher transforming efficiency. Sorafenib, a kinase inhibitor, is a potential therapeutic option as the compound inhibited the transforming activity of these *RET* variants.

[Read the full article in *Endocrine-Related Cancer* 18 401–412](#)

Androgens and bladder cancer

While the role of epidermal growth factor receptor (EGFR) in bladder cancer is well known, the role of androgen receptor (AR) signalling in the EGFR pathway is unclear. Zheng and colleagues found that activation of AR upregulates the expression of EGFR in bladder cancer cells. Androgens promoted the phosphorylation of EGFR and downstream proteins. This is the first study to link AR status with tumour progression.

[Read the full article in *Endocrine-Related Cancer* 18 451–464](#)

Clinical Endocrinology

CLINICAL
ENDOCRINOLOGY

Sex development disorder guidance

Ahmed and colleagues present, with support from the Society for Endocrinology, UK guidelines on the initial evaluation of infants or adolescents with a suspected disorder of sex development. A multidisciplinary team is required to achieve a management plan, anticipate future problems, and provide the patient with all necessary information and psychological care. Clinicians are also advised to share information via national and international research collaborations, particularly in the case of rare conditions.

[Read the full article in *Clinical Endocrinology* 75 12–26](#)

Mortality and morbidity in mild hyperparathyroidism

The majority of patients with mild primary hyperparathyroidism (PHPT) remain untreated. Yu and colleagues examined a large subset of patients from a record linkage study in Tayside, Scotland. Compared to matched cohorts, the risk of mortality, fatal and nonfatal cardiovascular disease was increased in patients with asymptomatic PHPT. The risk of developing other comorbidities was also increased, particularly for renal failure.

[Read the full article in *Clinical Endocrinology* 75 169–176](#)

Vitamin D and PTH during pregnancy

The relationship between serum parathyroid hormone (PTH) and vitamin D has not been studied extensively during pregnancy. Haddow and colleagues measured serum PTH and 25-hydroxy vitamin D (25(OH)D) in a cross-sectional sample of pregnant women, finding that the PTH/25(OH)D relationship is weaker during early pregnancy, making it unreliable for estimating vitamin D sufficiency. A suitable reference point for sufficiency might be the maternal 25(OH)D level considered sufficient for adequate transfer to neonates.

[Read the full article in *Clinical Endocrinology* 75 309–314](#)

HT

HOT TOPICS

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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.

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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.

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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.

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