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The Endocrinology - ISSUE 97

A new role for Endocrine Nursing

PLUS

A fond farewell to Sue Society grants update Set phasers to stun: it's a Science Festival ...





► How to weather major upheavals? It's not an easy task, especially when there's a sea change. The observant amongst you will have seen the recent emails, informing of Sue Thorn's departure from her role as Chief Executive of our Society. She will be sorely missed, having provided stability, guidance and innovation, with almost two decades of dedicated service to the Society. Julia Buckingham's resume of Sue's exceptional contribution to the Society (page 4) is followed by Sue's own words and personal reflection (page 5).

We are losing someone of exceptional talent who will be sorely missed. Nevertheless, the Society is in safe hands with a highly experienced Senior Management Team, whose roles and backgrounds are discussed by Pat Barter, our Acting Chief Executive (page 6); they, in turn, are ably supported by the other members of staff at the Bristol office.

The continuing close relationship that the Society has with it members is illustrated by the very generous funding of a range of awards, including early career grants, summer studentships, lab visit grants and undergraduate achievement awards: the breadth of support can easily be appreciated from the recipients' reports (pages 9–12). One especially encouraging feature, as a direct result of these initiatives, is the increased awareness of endocrinology in undergraduate science and medicine curricula across the UK, particularly at a time when recruitment into endocrinology appears to be especially challenging.

Some of the aspects of clinical endocrinology and endocrine science that really gets the public going are the issues surrounding sex and gender. In her prize winning undergraduate essay Harriet Nerva discusses the recent high profile case concerning a track athlete (page 13), whilst similar issues have been the subject of discussion at Society-sponsored meetings and Science fairs (page 7), aimed at dispelling commonly held myths about the singular role of sex chromosomes in this arena and the major influence of the endocrine system.

Whilst scientists and clinicians have always been well represented in *The Endocrinologist*, it is wonderful to have, for the first time, a feature directly from the nurses committee. Sofia Llanaha extols the virtues of becoming the UK's first Consultant Nurse in Endocrinology, describing the taxing path to get there, the roles she performs and how these differ from a Clinical Nurse Specialist role (page 14). Following on from this is the well-established Endo Train, this time from the Royal Veterinary School (page 16). Rob Fowkes has kindly provided us with a careful insight into the excellence in endocrinology at this famous institution; fear not, a quiz on comparative endocrinology doesn't appear at the end!

Finally, 'publish or perish!' is a maxim carefully examined in Hotspur's latest piece (page 18), together with aspects of self-promotion. Perhaps the inhabitants of the Big Brother house should take note ...

JOHN NEWELL-PRICE

How do I join the Society?

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



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Deadline for news items for the Winter 2010 issue: **15 October 2010**. Please send contributions to the above address.

RE-ELECTION OF OFFICERS

► The Society's Officers must offer themselves for re-election in their second and subsequent years of office. The current post-holders are Julia Buckingham (Chairman), Paul Stewart (General Secretary),

Márta Korbonits (Programme Secretary) and Graham Williams (Treasurer). If any member wishes to propose alternative names for any of the above posts, please contact Julie Cragg (julie.cragg@endocrinology.org) by 12 November 2010.

New Officers and Council Members needed

Professor Julia Buckingham, Professor Paul Stewart and Professor Marta Korbonits will retire from the posts of Chairman, General Secretary and Programme Secretary in 2012, having served their terms of office. Full Members are invited to make nominations for these positions and a nomination form is available at www.endocrinology.org/about/committee/ council.html

Dr Nigel Brooks, Professor Peter Clayton and Professor Steve O'Rahilly will retire from Council in April 2011, having served their 4-year terms of office. Full Members are requested to make nominations to fill these three vacancies. A nomination form is included with this mailing or can be downloaded from www.endocrinology.org/about/committee/council.html. To provide the correct balance on Council, the Society is seeking two clinicians and one member working in industry to fill the vacancies.

The deadline for nominations is 10 December 2010.

Congratulations

The Society is delighted to announce that Professor Julia Buckingham was recently awarded the prestigious Athena Award. The award aims to recognise exceptional female scientists with a proven track record of academic excellence, for more details see www.athenainternational.org/ pages/athena_award_/14.php.

We also congratulate Professor Andrew Hattersley, who has been made a Fellow of the Royal Society; Dr Mary Armitage, who received a CBE in the Queen's Birthday Honours list for services to Medicine; and Professor Iain Robinson, who received an OBE for Services to Science.

Change of imprint for Society for Endocrinology journals

► We are pleased to announce that from 2011 the Society for Endocrinology's journals will be published by BioScientifica on behalf of the Society.

This change of imprint applies to the Society's three leading journals: Journal of Endocrinology, Journal of Molecular Endocrinology, Endocrine-Related Cancer, including the Society for Endocrinology Archive.

These journals join the three journals already published by BioScientifica: *European Journal of Endocrinology*, published on behalf of the European Society of Endocrinology; *Reproduction*, published on behalf of the Society for Reproduction and Fertility; and *Endocrine Abstracts*.

The journals will continue to be published from the Bristol office shared by the Society for Endocrinology and BioScientifica Ltd, and the publishing staff will remain the same.

As a member of the Society for Endocrinology you will continue to receive free online access to the current content of the Society journals and you will be able to subscribe to the print journal at the lowest price available anywhere.

Conference grants – more funding for Overseas Members

Council has just increased funding for conference grants which will enable more Overseas Members to attend the Society BES meeting, in addition to other overseas endocrine-related conferences. Full details are available at www.endocrinology.org/grants/ grant_sfeoverseas.html

MEMBERSHIP OPTIONS - NEW FOR 2011

For 2011, the Society is introducing a scheme so that members may take advantage of a discount for paying for more than one year's subscription at a time. The options are:

Lifetime Membership – This is for Full Members and the price is equivalent to paying for 16 years worth of membership.

Three year Membership – Available to all members at a discounted rate.

Student Membership – FREE to undifferentiated clinical trainees, full-time undergraduate bioscience or veterinary students, students undertaking a Masters and first year students undertaking a 1+3 year PhD.

For full details and conditions see www.endocrinology.org/membership

Prize draw winners

In June, we held a prize draw of members who had completed a direct debit mandate for payment of membership subscriptions. The prize was a £50 Amazon voucher, which was won by Professor Tony Weetman, University of Sheffield.

Thanks to Caroline

Caroline Brewser joined the Society staff as a Desk Editor in 1994; she retained her links with the Society even after leaving the staff, working as a freelance sub-editor on *The Endocrinologist* for the best part of a decade. We have now brought the sub-editing of this newsletter back in-house, and wish to thank Caroline for her diligence, hard work and exacting standards.

8–10 November 2010
Clinical Update
Bristol Marriott Royal Hotel, Bristol
10 December 2010
Regional Clinical Cases Meeting
Lansdowne Place Hotel, Brighton

1 March 2011 National Clinical Cases Meeting Royal Society of Medicine, London

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

With regret

SOCIETY CALENDAR

We are sorry to announce the death of former Council Member Professor Mike Wallace, and of Senior Members Dr K Fortherby, Dr W Hanke, Dr J S M Hutchinson and Professor J Tanner.



A fond farewell to Sue

Sue joined the Society in July 1991 as Manager of the Journal of Endocrinology Ltd. A great deal of the progress made since those times can be attributed to Sue's drive, determination and acumen.

► This issue marks the end of an era for the Society. Sue Thorn, our Chief Executive, has decided that after 19 years at the helm it is time to step down to pursue other activities, both personal and professional. From the time she joined us in the relatively modest surroundings of our first office in Bristol, Sue has injected great dynamism into the Society and steered us through a period of unprecedented growth and development.

Always open to new ideas, and certainly never short of her own, Sue has relentlessly sought new opportunities to advance the Society's mission and enhance its influence in the broader biosciences community. Under her leadership our scientific meetings and educational programmes have been transformed, our publishing activities have expanded, and the Society has explored new territory in areas such as patient support and public engagement. Not surprisingly, all this has necessitated the move to not one, but two new offices in Bristol during her tenure, and plans for further expansion are in the pipeline! Due to these developments the Society's financial turnover has increased considerably and maintaining financial stability has, necessarily, been high on Sue's agenda. Very early on she recognised the need to diversify our sources of income and was instrumental in the establishment of our trading company, BioScientifica Ltd, which builds on the expertise available in the Bristol office to provide professional services to the bioscience community. BioScientifica now provides the Society with a healthy independent income stream, which funds, for example, educational activities and grants for young scientists, clinicians and nurses to support pilot studies, laboratory visits and travel grants to meetings.

Native environment: the dancefloor





Meeting the great and good, Sue with John Wass (left) and Margaret Beckett (centre)



Sue with Gavin Vinson (centre) and David Anderson (right)

Naturally, Sue's expertise and commercial acumen are recognised well beyond the Society, particularly in the spheres of scientific publishing and charity governance. She has worked with the Biosciences Federation and Universities UK to spearhead a drive to devise a sustainable financial model to support open access publishing. In addition, she has played a key role in the establishment of the Society of Biology and now chairs the Membership, Marketing and Communications Committee.

I have been closely associated with the Society in one guise or another for much of the time that Sue has been with us. It has been a huge pleasure and privilege for me to work with her over these years; I can't thank her enough for all she has done for the Society - gosh I am going to miss her! She has been a wonderful colleague, a great friend to many of us, unfailingly loyal to the Society and supportive of her staff. Like all good leaders, she has an excellent eye for talent: she leaves the Society with an exceptionally able Senior Management Team, well equipped to take the Society forward as we seek a new Chief Executive. I am delighted that Sue has accepted Council's invitation to become an Honorary Member of the Society; I hope that she will take full advantage of it to attend meetings and remain in touch with her many friends.



The time of my life

I was interviewed for the role of Manager, Journal of Endocrinology Ltd (what a quaint-sounding title that now seems) at the Brighton BES in 1991. At the time I was Sales & Marketing Director of a small, privately-owned publisher of science journals and I was looking for a new challenge. The interview panel consisted of Ian Henderson (then Chairman of the Society), Barry Furr (General Secretary), Vivian James (Treasurer) and Gavin Vinson (Editor of Journal of Endocrinology). They made a formidable panel and gave me quite a grilling. I knew I'd won Gavin over when I produced a copy

of *Journal of Endocrinology* and made a suggestion for improving the layout of the plates (pages of betterquality paper, on which illustrations were printed – another quaint concept).

I was offered the job and thus began over 19 years with the Society. I can't begin to say how often in the early years I got confused about the difference between the Society for Endocrinology, Journal of Endocrinology Ltd and the British Endocrine Societies. Bizarrely, it seemed it was Journal of Endocrinology Ltd that was the charity as it gave out grants called Society for Endocrinology grants, although there was actually no legal link between the two organisations. I have a tidy mind (or perhaps one that can't cope with complexity – I'll leave you to make your own judgement), so I gradually encouraged the combining of these three into one; the Society for Endocrinology as we know and love it today.

It's been my privilege to work with a varied and talented group of Officers, committee chairs, editors and staff over these years and it really has been team work that has taken the Society from a small organisation with two small meetings, two small journals and about £20K per year of grants into today's organisation, with a meeting that, this year, attracted over 1100 people, with three successful journals and an alliance with a fourth, an active nurse group, substantial representational activities in science and clinical areas, and around £400–450K of grants made each year.

In my early years with the Society I could see there was a daunting amount to achieve. Endocrinology is such a wide subject; this is both a strength and also a limitation, because there is a society for every element of it, and it was clear to me that we needed to ensure that the discipline of endocrinology in its widest definition did not get lost. It was also clear that, like most learned societies we had to generate our own charitable funds from primary trading. Therefore, we would need to identify wider sources of funding as there is a limit to the number



of endocrine journals and meetings, for example, which the UK needs or can support. I knew I had a talented staff (Julie, Steve and Helen were already with us by then) and I wanted to set up a business unit in order for us to use our expertise to provide services to other organisations, thus helping sister societies to strengthen themselves, while also generating money for the Society. There were some initial concerns about the risks associated with this.

In the mid nineties we were asked by the British Society for Paediatric Endocrinology and Diabetes (BSPED) to run their annual conference. We were

able to help them to increase delegate and abstract numbers, thus beginning an association that remains to this day. Around the same time we hosted a visit from Albert Burger, then Editor-in-Chief of European Journal of Endocrinology, who surprised us at the end of the meeting by asking if we would take over its publication. This was the start of our link with the European Federation of Endocrine Societies (EFES), later the European Society of Endocrinology (ESE), another very important collaboration. As we now had both publishing and events business on offer, I was able to get approval for a trading company - this is how BioScientifica came into being. We have always tried to balance those twin aims of strengthening client societies and generating funds for the Society and I believe our clients see that we have their interests very much at heart. BioScientifica is now really successful and I can see several potential routes for my successor to take the company down to make it even more successful in the future.

I came into the Society with a fairly broad knowledge of science publishing and a bit of general business skill. Various Officers have supported me in expanding on these by taking on roles within organisations such as the Association of Learned and Professional Society Publishers (in particular, as Chair from 2000-2002) and by taking an MBA at Reading, but in addition I have been able to learn a lot 'on the job' about charity governance and law, which I have found fascinating (no, really). The Society's growing profile has given me the opportunity to share what I've learned with other societies, in courses we have organised for them. I think it is the mixture of the breadth and depth of the role that has kept it so interesting and challenging over the years, and made it so hard to decide to leave; and, of course, the complete fascination of endocrinology as a subject and the pleasure of working with such an amazing group of people. Endocrinologists really are special and I will never forget what a wonderful time I have had working with you all since 15 July 1991.

SUE THORN

Finding the path forward ...

Pat Barter introduces the senior manaaement team, stepping in until the next Chief Executive is found



I joined the Society for Endocrinology & BioScientifica in 2003 as its Finance & Administration Director. My previous experience had been 18 years in practice as a Chartered Accountant, followed by a couple of years as Company Accountant in the advertising industry. Much has happened

during the last eight years and throughout it has been a privilege to work with Sue Thorn. Her dynamism and

innovation have continually driven the group forward through some challenging and interesting times. There is no doubt that Sue will be a hard act to follow and will be sorely missed. As Julia Buckingham mentions, Sue leaves behind a robust Senior Management Team, which is well placed to continue the good work, whilst the Officers take time to recruit a new Chief Executive.

The Officers have asked me to take on the role of Acting Chief Executive of the Society, and of Managing Director of BioScientifica during this period. The experience and knowledge I have gained should stand me in good stead. This is complemented by the Senior Management Team's strength and depth in each key area; the Senior Management Team is, in turn, ably supported by our dedicated staff. Many of you will know the Senior Management Team members, but for those who don't, it's worth highlighting the individuals and their areas of responsibility (see right).

We would all like to express our thanks and gratitude to Sue for the time that she has invested in our development and that of the Group. Sue, we wish you all the very best for the future: we'll endeavour to match your high standards. We all hope that you can now enjoy a well-earned rest and spend time on your other interests! PAT BARTER, ACTING CHIEF EXECUTIVE

JOE/JME basic science journal prize



New Prize for 2011

The Society's journals, Journal of Endocrinology and Journal of Molecular Endocrinology are pleased to announce a new annual award. Designed to recognise an outstanding young researcher who has made a significant contribution to basic research in endocrinology, the prize is awarded on alternate years by the two journals. The 2011 prize is to be awarded by Journal of Molecular Endocrinology.

The prize consists of a certificate and €2000. The winner's name and details will be published in the Society's newsletter and on the website.

The deadline for nominations is 31 December 2010. Full details can be found at www.endocrinology.org/grants/



Manager, Society Services

Rachel Evans heads up the Society Services team, taking responsibility for membership, science, clinical and public & media relations activities. Rachel joined the Society in 2004 and has developed a detailed understanding of each of these key charitable activities.



Publications Director

Steve Byford has 25 years' experience of scientific publishing and has worked for the Society for more than 15 years. He is responsible for all Society and BioScientifica publishing activities.

Commercial Director

Nigel Garland joined the Society and BioScientifica in 2006, bringing considerable experience from the pharmaceutical and medical fields. Nigel leads the Events and Secretariats teams,

and has responsibility for developing new business, with an emphasis on BioScientifica.

Operations Director



Helen Gregson has worked for the Society for over 10 years, gaining experience in a wide variety of activities related to events and secretariats. Her role involves

developing appropriate operations and systems in delivering client-based activities, whilst retaining specific responsibility for certain key clients.

REGIONAL CLINICAL CASES MEETINGS

The success of the Clinical Cases meetings held at the Royal Society of Medicine in London prompted the Society to hold additional clinical cases meetings outside of London. It was hoped that these would more easily meet the needs of local endocrinologists; an aim that is aided by holding the meetings in association with the local endocrine organisation. Two Regional Clinical Cases meetings have been held: in Birmingham, in association with the Midland Endocrine Club; and in Edinburgh, in association with the Caledonian Society for Endocrinology. A third will take place on 10 December 2010 in Brighton, in association with the South East Region Endocrine Club. Please see www.endocrinology.org/meetings/ for more details.

The success of the Regional Clinical Cases meetings encourages us to make them a permanent feature of the Society's meetings calendar: we invite regional endocrine clubs or organisations to submit proposals for hosting future meetings. For more information see www.endocrinology.org/news/docs/ ProposalToHoldRegionalClinicalCasesMeetings.doc. Proposals should be submitted by 11 November 2010.

Set phasers to stun: it's a Science Festival ...



As I'm sure you're all aware, it's part of the Society's strategy to go out into the wider world and provide the public with opportunities to find out more about the wonderful world of endocrinology! Here, we report on our latest ventures to two of the country's largest science festivals.

Gender: More than X versus Y ...

▶ With the April sun shining brightly, the Society headed north to Edinburgh and the world renowned Edinburgh International Science Festival (http://www.sciencefestival.co.uk/). This two week celebration of all aspects of science aims to encourage people of all ages and backgrounds to be enthused by science, and discover the benefits that are being realised from exciting new advances.

In the wake of many misleading media reports on gender last year, the Society decided to run the event 'Gender: More than X versus Y' to communicate the science surrounding gender and how gender identity develops. While society likes to categorise people as male or female depending upon whether or not they possess a Y chromosome, the reality is not so straightforward.

Professor Richard Sharpe of Edinburgh's Medical Research Council (MRC) Human Reproductive Sciences Unit chaired the event and kicked off proceedings with an entertaining and light-hearted look at society's preconceptions about the differences between men and women.

Our two speakers, Professor Chris Kelnar from the University of Edinburgh and the Royal Hospital for Sick Children in Edinburgh and Professor Richard Anderson, also from the MRC Human Reproductive Sciences Unit in Edinburgh, then took the floor. There followed a fascinating discussion on how an individual's gender develops from conception through to birth, and on through life. The talk focused, in particular, on the effect of testosterone on the body and brain, and what happens if the process is disturbed. The topic then moved on to the role of puberty; specifically why the age of puberty differs in boys and girls and how the timing of puberty can affect a whole range of factors in subsequent life, which can include height, bone health and even personality. The event was rounded off with some extremely well-thought out and intriguing questions from the audience.

The audience was left in no doubt that while sex chromosomes have a major role to play in gender assignment, they are by no means the whole story, as an individual's gender identity depends on many other factors; including external appearance, internal make-up, hormone levels and the effects that hormones had on the brain during development.

Blame it on the hormones

► It seems barely a day goes by without some news story linking hormones to all manner of human emotions and traits, from risk taking and rage, to naivety and fairness. The aim of our event at the Cheltenham Science Festival (http://cheltenhamfestivals.com/science/) was to dispel some myths and discuss the real effects that hormones have on both our brains and behaviour.

Taking place in early June, Cheltenham is one of the best established science festivals, bringing together a wealth of scientists and some science-friendly celebrities to produce a week of activities which enthuse, educate and entertain audiences of all ages.

Our event, which the Society co-sponsored with the Biochemical Society and Society of Biology, took place on a tranquil June evening. As the sun dipped behind the trees at Cheltenham Town Hall, over 200 attendees made their way to the auditorium – all eager to find out more about what exactly they can and cannot blame on their hormones!

The event was expertly chaired by Dr Mark Lythgoe from University College London and Director of the Festival. Our speaker, the esteemed Professor John Bancroft, a former Director of the Kinsey Institute, provided the audience with a fascinating talk and insight into the role of hormones in sexual development, delving into the differing actions of testosterone and oestrogen in men and women. He then went on to relate what effect the artificial manipulation of these hormones has, with particular reference to the effects of the oral contraceptive pill in women. A final delight was an impromptu lesson on how the length of your fingers roughly correlates to your exposure to testosterone in the womb.

However, the audience's appetite for hormone knowledge was not yet sated; discussions continued after the event for another hour on the fine detail behind the effects of hormones in all manner of conditions and behaviours. When the discussions finally ended, all were left with the feeling that we had only just scratched the surface; there was much more to learn about the myriad effects of hormones.

Our thanks go to all the participants for both events, and to Edinburgh and Cheltenham Science Festivals for allowing us to participate in their events. If you would like to find out more about upcoming SfE public events or have an idea for the perfect event, please email public@endocrinology.org

Silver Clinical Excellence Award

Clinical Excellence Awards seek to reward exceptional contributions by NHS consultants, over and above contractual requirements. Congratulations are due to Professor Peter Trainer (Chair, Clinical Committee), who was this year awarded a Silver Award. The Society was delighted to support his and others' nominations to the awards.

Send your suggestions for Society BES 2012

Please submit your suggestions for scientific sessions by the end of January 2011 through www.endocrinology.org/meetings/ ScientificSessions/index.aspx

Sense About Science for Patient Support Groups

RALNEWS

One of the aims of the Society is to provide support to patient groups, including media relations. Toby Stead asks Ellen Raphael, Director of Sense About Science, to divulge some tips on achieving good science journalism.

Sense About Science is an independent charitable trust that works to promote good science and evidence in public debates. By responding to news stories as they break and conducting campaigns to clarify the more endemic controversies Sense About Science fights junk science with an arsenal of expert panels and objective judgement.

However, Sense About Science recognises how valuable the media can be in raising awareness and enacting change in policy and practice. 'Journalists can be one of your biggest ambassadors' says Ellen; 'they can work with you to develop a story.'

So you've contacted a reporter and they're interested in your story. Most reporters work to a very short timeframe: if they can't get their facts from you promptly, they will try elsewhere. Where resources, staff or time are at a premium, this can be problematic. Ellen advises that preparation is essential; quotes can be obtained beforehand and questions can be practised. Don't underestimate the power of local press; they often



OTSUKA PHARMACEUTICAL COMPANY LTD

Founded in 1964, Otsuka is a healthcare company with the mission statement: Otsuka-people creating new products for better health worldwide. Otsuka researches, develops, manufactures and markets innovative, original products, focusing its core businesses on pharmaceutical products for the treatment of disease and consumer products for the maintenance of everyday health.

Otsuka Pharmaceutical Company Ltd is a wholly owned subsidiary of Otsuka Holdings Company Ltd, the holding company for the Otsuka Group. The Otsuka Group comprises 153 companies and employs approximately 36 000 people in 23 countries and regions worldwide. Otsuka and its consolidated subsidiaries earned ¥955.9 billion in annual revenues in fiscal 2008.

Otsuka Pharmaceuticals (UK) Ltd, 3 Furzeground Way, Stockley Park, Uxbridge, Middlesex UB11 1EZ, UK (Tel: 0208-7563100; Web: www.otsuka-global.com) have more time to produce stories and, perhaps surprisingly, they can achieve higher coverage.

So, how does one deal with the media storm that can accompany virtually any piece of research? The important thing is to set out the evidence. Where differences in medical opinion exist, explain that the area is contested. When a celebrity claims that a night spent at Stonehenge can cure infertility, remind any concerned individual that the celebrity is without a medical degree, and that the virility of druids has yet to be assessed by a randomised controlled trial. Comments that are backed up by evidence (or the lack thereof), are the greatest weapon in the fight against bad science.

One last point – in the media there is no such thing as off the record!

The literature that Sense About Science produce cover a wide range of topics, from evidence-based medicine to an introduction to peer review. More help can be found on the Sense About Science website (www.senseaboutscience.org).

TOBY STEAD

Raise money for the Society

You can now raise money for the Society through a website called JustGiving. If you are considering any charity events, at www.justgiving.com/endocrinology you can create a fundraising page so that others can donate at the click of a button. GiftAid is automatically added to any donations, which are then transferred quickly and securely.

All money raised by this route will help support all Society activities, including our grant and education programmes, funding for research into endocrinology and to promote best practice in the clinic.

We'd like to give a big thanks to our first fundraiser, who raised £560 on a sponsored walk.

Teale Essay Prize for Trainees

The Trainees Committee of the Royal College of Physicians of London invites submissions annually for the Teale Essay Prize for Trainees. The prize-winner receives a cheque for £200 and the winning entry may be published by the Royal College of Physicians of London.

Entrants should be trainees in one of the 30 specialties of the College (not necessarily MRCP) at the time of writing, and the essay must not have been previously published.

For further details and an application form, contact: Trust Funds Administrator (Tel: 020-30751564; Email: trustfunds@rcplondon.ac.uk)

Grants and awards 2010

Welcome to this special section on the Society's grant and award activities. As many of you know, the Society has been able to increase the budget for these activities considerably. They include Early Career Grants, Summer Studentships and support for laboratory visits or endocrine seminars.

Last year, we launched this special section in The Endocrinologist as an annual update on the awards made that year, to give you a flavour of the breadth of activities the Society supports. In the update this year you can find reports from some of the grant recipients, and just some of the positive feedback we have received from Society events. Thank you for all the comments you have supplied via forms and email in the past year; it really helps us mould our meetings better and match awards to members' needs.

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

AWARD WINNERS

Early Career Grants

We congratulate the following successful recipients of awards for the May 2010 deadline:

- Paul Bech (Department of Diabetes, Endocrinology & Metabolism, Imperial College London) awarded £9400
- Michelle Bellingham (Institute of Comparative Medicine, University of Glasgow) awarded £10 000
- Teng-Teng Chung (Centre for Endocrinology, Barts • & the London School of Medicine & Dentistry) awarded £10 000
- Gillian Cooper (Department of Anthropology, University of Durham) awarded £10 000
- Daniel Ezra (Adnexal Department, Moorfields Eye Hospital, London) awarded £10 000
- Irina Grigorieva (Nuffield Department of Clinical Medicine, University of Oxford) awarded £10 000
- Leonardo Guasti (Centre for Endocrinology, Barts & the London School of Medicine & Dentistry) awarded £10 000
- Channa Jayesena (Department of Investigative • Medicine, Imperial College London) awarded £10 000
- Hamidreza Mani (Diabetes Research Group, • University of Leicester) awarded £10 000
- Michael Patterson (Department of Investigative Medicine, Imperial College London) awarded £10 000
- Roland Stimpson (Centre for Cardiovascular Sciences, University of Edinburgh) awarded £10 000
- lain Thompson (Division of Endocrinology, Diabetes and Hypertension, Brigham and Women's Hospital/Harvard Medical School, Boston, MA, USA) awarded £10 000
- Sophie Turban-Rajaonah (Centre for Cardiovascular Sciences, University of Edinburgh) awarded £10 000

'The Early Career Grant [...] has given me the opportunity to gain invaluable experience, not only in the actual performance of experimental work but in the art of networking [...] which cannot be underestimated in research. The funding has enabled me to carry out an independent project which has had the added benefit of boosting my confidence and increasing my potential [...] for other funding opportunities, for which I am most appreciative.'

comment received from a recipient of an Early Career grant

Summer Studentship Winners 2010

ALAN MCNEILLY, GRANTS PANEL CHAIR, SCIENCE COMMITTEE CHAIR

The following departmental applications were accepted and awarded grants in March 2010:

- Department of Biosciences, Brunel University, Uxbridge
- Department of Human & Health Sciences, School of Life Sciences, University of Westminster, London
- Centre for Integrative Physiology, University of Edinburgh
- Glasgow Cardiovascular Research Centre, British Heart Foundation, Glasgow
- Centre for Endocrinology, Diabetes & Endocrinology, University of Birmingham
- School of Biological Sciences, University of Reading
- School of Clinical & Laboratory Sciences, University of Manchester
- King's College School of Medicine, The Rayne Institute, London
- Royal Veterinary College, University of London
- Department of Clinical Science North Bristol, University of Bristol
- Centre for Neuroscience, University of Dundee •

Undergraduate Achievement Award 2010

These awards are to encourage excellence in the study of endocrinology by undergraduate students by providing a 3 year grant for departments to use as they see fit. The following each received an award for £300 per annum for 3 years, following the 16 July 2010 deadline:

- School of Medicine, University of Manchester
- Department of Endocrinology, Barts & the London School of Medicine & Dentistry, London
- School of Biosciences, Cardiff University
- Department of Endocrinology, St Bartholomew's Hospital, London
- Department of Endocrinology, Queen's Medical Research Institute, London
- Department of Veterinary Basic Sciences, Royal Veterinary College, University of London
- Department of Physiology, King's College London
- Centre for Endocrinology, Diabetes & Metabolism, University of Birmingham
- School of Health Sciences & Social Care, Brunel University, Uxbridge

Overseas conference grants

December 2009 deadline: 138 awarded April 2010 deadline: 42 awarded

Postgraduate Essay Prize Competition

The Society's new essay competition, launched last year, is open to all students registered for a higher degree in the UK or Ireland at the time of essay submission (e.g. a Masters Course or research degree such as MPhil/PhD/MDRes or equivalent). Full details can be found at www.endocrinology.org/grants/prize_postgraduateessay.html.

GRANT REPORTS

Sponsored Seminar Report 2009: 7th Junior Academics Meeting on Molecular Mechanisms of Exocytosis and Endocytosis

► This meeting was held at the University of Edinburgh, attracting international delegates and proved to be a great success, not only in terms of the presented science but also in promoting interaction between young scientists in the field of exocytosis and endocytosis.

The format of this scientific workshop for junior academics is unique in targeting a young audience, mainly post-graduate students and post-doctoral fellows. We maintain a very high international standard at this biennial series of conferences, covering the molecular mechanisms involved in exocytosis and endocytosis in endocrine and neuronal systems. As in previous years, and in contrast to mainstream meetings, this conference was designed to be a forum for junior academics from the leading laboratories in Europe and worldwide, in order to foster scientific exchange and encourage new collaborations between the next generation of scientists and group leaders.

With the exception of the plenary speakers, the speakers' list was limited to postdoctoral fellows and young lecturers in the early stage of their careers. The presentations given in previous years were of a very high standard; however, the quality of presentations by the junior academics this year was, if anything, even higher. It was very positive that many presentations included unpublished and particularly interesting findings. The plenary lectures, given by Jennifer Lippincott-Schwartz and Gero Miesenböck, were outstanding and excellent, highlighting the latest advances in their respective fields. To allow a high degree of informal but informative exchange, the delegate numbers and the format were chosen perfectly beforehand, permitting some very lively discussions, during the poster presentation in particular! To reflect the generous support of the Society for Endocrinology, the last day of the meeting was entitled the 'The Society for Endocrinology Seminar'. We would like to thank the Society for the financial contribution which made it possible to stage this successful conference. GARETH LENG, UNIVERSITY OF EDINBURGH

CORPORATE SPONSORS

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

Lab Visit Grant Report 2009: Gata3 and Sox3 in the development of parathyroid glands

► The Society for Endocrinology funded my visit to Dr Nancy Manley's laboratory at the University of Georgia in Athens, GA, USA for a period of three weeks. Dr Manley and her group are the world experts in the transcriptional regulation of pharyngeal pouch development, from which the parathyroid glands originate.

It was a very valuable experience to study parathyroid developmental abnormalities in the hypoparathyroidism deafness and renal dysplasia (HDR) syndrome and X-linked isolated hypoparathyroidism (XLHPT) models, which exhibit disrupted Gata3 and Sox3 alleles, respectively. The purpose of the visit was to learn in situ hybridization techniques and to analyze the expression of genes involved in parathyroid organogenesis in these models. The results I obtained during the visit have shown that expression of the Gcm2 gene is absent in the developing parathyroid glands, in null-models of Gata3. These results have confirmed our previous data which showed that the GCMB gene has functional GATA3 binding sites in its promoter, and is therefore a direct target gene of GATA3. The work is currently being prepared for submission to a peer-reviewed journal. Without this visit and the opportunity of collaboration, the establishment of the techniques used to obtain these findings and the analysis of results would have been much more complicated and time-consuming. I have pursued these studies since returning to the UK, and I am in the process of establishing these new techniques in my current laboratory.

IRINA GRIGORIEVA, UNIVERSITY OF OXFORD

'The lab visit grant awarded to me last year [...] was very generous, I hope I have conveyed the benefit it has brought to me within the report'

comment received from a recipient of a Lab Visit grant

Clinical Department Visit Grant 2009: Building confidence in treating complex disorders

▶ I visited The Mayo Clinic, Rochester, MN, USA for two months as part of their visiting clinician programme. My host during this time was Professor William F Young Jr, Vice-Chair of the Division of Endocrinology, Diabetes, Metabolism and Nutrition. Professor Young is a world leader in the field of adrenal pathology and endocrine hypertension; as an academic endocrinologist with a particular interest in these subspecialties, I spent an extremely worthwhile two months learning from him within a state-of-the-art clinical setting.

The period I spent working at the Mayo Clinic and learning from Professor Young was extremely enjoyable and rewarding. As a result, I am much more confident in the diagnosis and management of complex adrenal disorders; especially in the interpretation of CT and MRI scans of adrenal and pituitary tissues. I was honoured to receive the William McConahey Visiting Clinician Award during my time at the Mayo Clinic. I am extremely grateful to the Society for Endocrinology for their invaluable financial support which helped fund this extremely worthwhile trip. MARIE FREEL, UNIVERSITY OF GLASGOW

Undergraduate Achievement Award Report 2007–2009: King's College London

The award scheme which the Society has sponsored at King's College London 2007–2010 was used as a prize for the best overall performance (examinations and coursework) on the Endocrinology of Diabetes course, which we run as a final year (level 6) module for BSc Honours students in Physiology, Biomedical Sciences and related BSc programmes in the School of **Biomedical Sciences. The Endocrinology of Diabetes** module is taken by single honours (3-year) BSc students in the third year of their programme, and by MBBS students as part of their one-year intercalated BSc programme. The structure of the BSc programme at King's means that this module is not compulsory and registration is by student choice, so it is gratifying that it has become one of the most popular final year modules offered by the Physiology Department, with a cohort of 82 students for the 2009/10 session.

We use the award scheme to endow two annual prizes – one for the best performance by an intercalating MBBS student, and one for the best performance by a 3-year BSc science students are not always eclipsed by the intercalating MBBS students who are academically very capable, and who are further selected by academic ability to enter the intercalated BSc programme. Over the past three years we have had some exceptional students and the awards have always been for first class performances on the module. For example, this year's prize winners achieved final marks of 79% and 75% for the module, which are excellent performances. These are the type of students that we need to keep in the fields of clinical and basic

endocrinology, and the award of the prizes raises the profile of our discipline and, we hope, inspires the students.

Here is an extract from a recent email from one of this year's prize winners:

"I just wanted to say that the endocrinology module was one of my best modules this year, I can't tell you enough about how much I enjoyed it ... it definitely made me more curious about the subject as a whole! I recently found out that I won the prize and I'm really happy about it!"

Occasionally, it all seems worthwhile.

PETER JONES, KING'S COLLEGE LONDON

'I regard this scheme as great success. For a relatively small outlay, these prizes have succeeded in raising the profile of endocrinology at both undergraduate and, ultimately, at post-graduate level. Thank you very much for your support'

'We have had a very successful year with our Endocrinology BSc students: 10 were awarded first class honours out of a total of 39 students [...] I would like to express our thanks to the Society for providing us with an excellent opportunity to [support] tomorrow's endocrinologists'

comments received from recipients of an Undergraduate Achievement award

Undergraduate Achievement Award Report 2007–2009: University of Edinburgh

► The University of Edinburgh ran the award scheme to reward excellence in endocrinology. The funds were allocated as prizes for exceptional achievement in research projects with an endocrine theme by students studying for Honours degrees in Biological Sciences (Pharmacology, Physiology, Neuroscience or Reproductive Biology). The student cohort comprises scientists and medical students.

The annual award of £300 was split into four £75 prizes, one per course, thus allowing us to attract the attention of around 150 students per year to the awards, and hence raise the profile of the activities of the Society for Endocrinology. The opportunity to award a prize based solely on research performance allowed recognition of students who had achieved highly within the research environment, but perhaps not been top of their year in written exams. We often observe students blossoming upon exposure to research labs.

A brief overview of some of the prize winners to benefit from the scheme follows:

Pharmacology

Winners: Thomas Reid, Lucy Codrington, Paul Heron and Daniel Houslay. Two of the prize winners have been medical students achieving 1st class Honours degrees, these students performed basic science projects, often with very few pre-existing laboratory skills. The prize winner from 2010 was a scientist obtaining a 2:1 overall but a first class mark for their project. Over and above these prize winners, it was noticeable that other students within endocrine pharmacology expressed an interest in the award and even those who did not win have since applied to the Society for Endocrinology for other opportunities.

Physiology

Winners: Peter Carson, Christopher Saunders and Rachel White. The first prize winner, Peter Carson, obtained a 2:1 and subsequently secured a place as a mature student to study Medicine in Liverpool. The award scheme raised the profile of endocrinology with another student, Bayanne Olabi, a medical student awarded 1st Class Honours. Bayanne applied for, and was awarded, a Society Summer Studentship in 2009.

Neuroscience

Winners: James Catterson and Louise Owen. James Catterson was awarded a 2:1 and secured one of our prestigious British Heart Foundation PhD studentships to study for a doctorate in circadian endocrinology. Louise Owen received a 1st Class degree and is continuing to study for an MSc in Forensic Medicine at King's College London.

Reproductive Biology

Winners: Anusha Reddy, Ashley Simpson and Margaret Dunne. Anusha Reddy had expressed an interest in endocrinology in the early stages of undergraduate science, with a voluntary summer project focussing on the developmental programming of hepatic steroid metabolism. Her practical experience placed her in an excellent position to excel in her 4th year dissertation, again in the field of prenatal programming of metabolic disease. Anusha was awarded a 2:1 and is now studying Medicine in Aberdeen.

RUTH ANDREW, ALISON DOUGLAS, MEGAN HOLMES, CHRIS KENYON, SIMON RILEY, UNIVERSITY OF EDINBURGH

Undergraduate Achievement Award Report 2007–2009: Cardiff University

► This award provided annual prizes of £200 or £100 to the Biomedical Sciences students achieving the highest or second highest marks, in the 2nd year Signalling in Endocrine Systems module. Since introducing the Society for Endocrinology prizes in the academic year ending June 2008, there has been a sustained improvement in the overall student performance in this challenging module. The average mark has increased, while the number of students who fail has declined. This pleasing improvement is more impressive when viewed in the context of our recent introduction of demanding lectures on insulin, IGF-1 signalling and the functioning of nuclear receptors.

Feedback from students taking this module reveals that, from their perspective, the Society for Endocrinology prizes represent a significant incentive, engendering a healthy competition to succeed. Other year 2 module leaders would love the opportunity to introduce such prizes.

From my perspective as an endocrinologist, this excellent initiative from the Society has increased the profile of our discipline among the Biomedical Sciences undergraduates in Cardiff, with a dramatic increase in demand for endocrinology-based final year projects from our brighter students. If only I could meet the demand. With a number of these students indicating a desire to pursue careers in endocrine research, this relatively small outlay from the Society should be regarded as money well spent.

TIMOTHY WELLS, CARDIFF UNIVERSITY

Early Career Grant Programme Report 2009:

Placental selenoproteins' iodothyronine deiodinase expression and activity in normal and pre-eclamptic pregnancies

I thank the Society for Endocrinology for funding these studies, which have allowed us to build on earlier work and provide sufficient basis for future external funding applications.

A manuscript is being prepared for publication and I have been able to receive other funding to travel to a highly specialised international conference. This funding has greatly helped in initiating new interdisciplinary collaborations between Nottingham and Erasmus University Rotterdam, and provided opportunities to learn from the leading experts in the field.

LESIA KURLAK, UNIVERSITY OF NOTTINGHAM

Summer Studentship 2009: Differential roles of PAPSS1 and PAPSS2 in the control of androgen synthesis

► The studentship has provided great value to both the student (Alex Ward) and to our laboratory. Working in a research environment has provided Alex with a useful exposure to the laboratory environment. In this time she has acquired many transferable skills, including those of time management, presentation, record keeping, general bench-side skills such as pipetting accurately, and the use of basic laboratory equipment. She has gained an appreciation of the demands of research and the time frames involved in producing a publication. All of these provide Alex with a firm foundation on which she may now build during her final year of undergraduate study.

In turn, the laboratory has gained valuable data that will be very useful in future experiments. Her findings will aid members of our laboratory plan appropriate study protocols and research ideas. This foundation will lead to several publications arising from this laboratory. Training Alex in an array of techniques has provided us with additional useful experience in the supervision of undergraduate students and helped to include other laboratory personnel in providing the teaching and supervisory skills that will be necessary to provide future students with an enhanced level of training.

WIEBKE ARLT, UNIVERSITY OF BIRMINGHAM

The curious case of Caster Semenya: intersexed athletes and competitive advantage

The Society's 2010 undergraduate essay competition again attracted a healthy number of submissions, and once more, the quality of the 47 submitted essays was highly impressive. Each submission was marked and ranked by a distinguished panel, and the process was overseen by the Society's Education representative to Council. This year the top prize of £1000 was awarded to Harriet Nerva, who is currently in her 2nd year at the Liverpool Medical School. A summarised version of her essay appears here. Read the full referenced version at: http://www.endocrinology.org/grants/prize_undergraduateessay.html

Gender verification and sport are two terms which when put together provide a bang louder than any starting pistol. In August 2009, Caster Semenya, an 18 year old South African female athlete, won an 800m sprint in a world-record time. Her muscular build and fast time fuelled rumours of hermaphroditism and levels of testosterone three times that of 'normal'. She was ordered to take a gender verification test. The worldwide controversy that followed has forced athletic organisations to create new guidelines for intersexed athletes, also known as those with a disorder of sexual differentiation (DSD).

So are you female or male? The answer may seem simple enough - except that is, for the 1.7% of the population who are born intersexed. For any young budding intersexed athlete out there, the consequences may be far-reaching.

Introduced in 1936, and used to catch male imposters in female sporting events, compulsory gender testing of female athletes was abolished in 1992. Organisations retained the right to test anyone thought of as 'suspicious'. Males and females have traditionally been separated in elite sport because of the competitive advantage that men are argued to possess. Advantages stem from biologically determined sex differences in physical characteristics such as height, body composition, muscle mass, endurance and cardiovascular capacity.

However, gender testing was never meant to address the issue of intersexed athletes. There is no evidence that female athletes with DSD have displayed any sportrelevant physical attributes which have not been seen in biologically normal female athletes. Why is Semenya being tested? The grounds for her testing and the test itself have not been clarified.

DSD or 'intersex' refers to an atypical appearance of the external genitalia at birth where they differ from the usual development of either sex and create difficulty in sex assignment. DSDs can broadly be split into 3 groups. Firstly, disorders of chromosomal sex occur when there is a nondisjunction of sex chromosomes during meiosis. Secondly, in disorders of gonadal sex, chromosomal sex is normal but the differentiation of the gonads is abnormal. Thirdly, there are disorders of phenotypic sex. Phenotypic sex can be ambiguous or in complete disagreement with chromosomal and gonadal sex. Female pseudohermaphrodites have a 46, XX karyotype and female gonads, with ambiguous or male external genitalia. Male pseudohermaphrodites have a 46, XY karyotype and male gonads, with ambiguous or female external genitalia. A true hermaphrodite has both ovarian and testicular tissue, irrespective of karyotype. Internal

genitalia may also be mixed and external genitalia may be male, female or ambiguous.

Methods of defining gender in sport have been notoriously controversial. In essence what gender verification attempts to do is to find a cut-off point between females and males. This is harder than it sounds -



sex is not defined by one parameter, it is a complicated combination of many factors. Athletics bodies have, however, broadly used chromosomal sex for differentiation.

Besides, does a DSD always result in a competitive advantage? What about all this testosterone rumoured to be flying around? If the IAAF does not want women to enjoy the benefits of higher testosterone levels, what should be used as a 'cut-off' value for intersexed athletes in the wide no man's land between 'normal' female and male levels? Furthermore, little is certain about the effect of testosterone, if any, on the 'athleticism' of female or male competitors.

In women, levels of testosterone are about 10% of those observed in men. This has been suggested to be responsible for differences in muscle hypertrophy and strength. When strength is adjusted for body mass, women are reported to be as strong as men in the lower limbs while testosterone has not been shown to affect the specific tension or fatigability of skeletal muscle. Whereas in men a testosterone dose-response relationship has been shown to exist in sport, in women this relationship has only been found in relation to 'explosive performance'.

What of Caster Semenya? If judged ineligible to compete as a woman, she would also be ineligible to compete as a man; must she be allowed to compete as an intersexed athlete based on a moral obligation of athletic organisations? Finally, as organisations move to open 'centres of excellence' around the world which are equipped to 'treat' intersexed athletes with anything from hormone therapy to surgery, what is the role of an endocrinologist? Torn between controlling athletic prowess and the best interest of the client, we have to ask how level the playing field can, and should, ever be. HARRIET NERVA

The Society also awarded four prizes of £250 to runners-up Kirsten Mitchell (London), Nicholas Robertson (Newcastle), Rena Sookun (London) and Karina Vanadzina (Warwick). Highly commended certificates were presented to Nawaz Ahmad (Oxford), Chi Kit Chuen (Dundee), Attiya Khan (London), Imran Mahmud (Oxford), Daniel Tagg (Brighton) and Shahrzad Zonoozi (London).



NEWS NEWS

Nurses' News



▶ This issue sees the launch of what we hope will be a regular nurses' spot in *The Endocrinologist*. It was decided that, rather than a separate publication for nurses, this would be an ideal way for nurses to share their ideas and achievements with the wider endocrine society. There are many nurses out there in the endocrine world doing exciting and interesting things, with no real way of sharing their achievements or ideas with others. *The Endocrinologist* is an ideal medium for this. We should be proud of our achievements and there is no shame in singing our own praises. We are grateful to Sofia Llahana for sharing her achievement in becoming the first Consultant Nurse in Endocrinology in order to launch this new nurses' section. I am sure you will all join me in

congratulating her on attaining this post and to thank her for all her hard work in pushing for this role to be established. It just shows that with perseverance, things that may appear unlikely to happen can be achieved, especially with the backing of a good group of colleagues. I hope that our medical colleagues will also be inspired by our tale and that Sofia will not be the lone Nurse Consultant for long.

The Endocrinologist is published quarterly, so if this has inspired you to put pen to paper please send your articles no matter how big or small to Andrew Lowe (info@endocrinology.org) at the Bristol office for inclusion on our page.

NIKKI KIEFFER, CHAIR, ENDOCRINE NURSE COMMITTEE

Consultant Nurse in Endocrinology: a role that has become a reality

Introduction

The Consultant Nurse concept was first introduced to the UK in 1999 in order to advance nursing practice, research, education, professional leadership and to provide better outcomes for patients by improving services and quality of care. Another factor was the need to provide a satisfactory career structure, which would encourage the retention of expert nurses within clinical practice. There are more than 500 Consultant Nurses working in different specialties across the UK; I am extremely pleased and proud to be the first Consultant Nurse in Endocrinology.

With the assistance of Gerard Conway, Consultant Endocrinologist, we recognised that the endocrine services offered at University College London Hospitals would benefit greatly from the establishment of a Consultant Nurse position in the department. This would assist us in achieving national and local standards. This short article presents an overview of how this role was established.

Following wide discussions and consultations with different stakeholders within the Trust and the Strategic

Health Authority, a Consultant Nurse role proposal was developed. The Consultant Nurse would be pivotal in developing:

- a more patient-centred approach; thus, enhancing the quality and the level of care available
- expert, innovative and evidence-based endocrine nursing care at clinical and strategic levels
- an educational strategy and a new pathway for clinical nursing within endocrinology
- a focus for endocrine care across the range of patient groups and care settings, in order to advance and maintain an optimum level of care

Job description and role set

Being involved in writing the job description for this post, in discussion with key stakeholders, enabled me to determine how the components of the Consultant Nurse role fitted into endocrine care at the local level. Compared with the Clinical Nurse Specialist role, entry criteria are more stringent and the role description is more specific. The Consultant Nurse is expected to hold a degree in nursing, in addition to a Masters degree.

PERCEIVED DIFFERENCES DETWEEN ROLES	
Consultant Nurse	Clinical Nurse Specialist
Has a dynamic role	Has a descriptive role
Makes decisions where there is no precedent	Makes decisions based on protocol and policy
Has protected time for non-clinical work	Spends most of their time in clinical practice
Has a broad patient group focus	Manages the individual patient caseload
Works alongside senior medical staff	Often answers to senior medical staff
Is an advanced research adviser	Is a resource for current research-based practice
Conducts and coordinates research	Uses research to inform practice
Has authority and strategic influence	Often has vision but little authority or influence
Conducts clinical and strategic planning	Acts as an informal specialist consultant and advisor
Has power vested in role	Must seek support of others

PERCEIVED DIFFERENCES BETWEEN ROLES

As seen in the figure below, the Consultant Nurse has four essential elements (or 'core components') in their role; 50% of working time should be based in clinical practice. Compared to the Clinical Nurse Specialist role, I find that as a Consultant Nurse I have protected time for research and service development away from the pressures of clinical practice. The table opposite lists some of the role differences between the Consultant Nurse and Clinical Nurse Specialist.

The role set includes input from all the parties involved with the Consultant Nurse, including any expectations for the role that the nurse may have themselves (see figure below). These expectations can influence how the role develops and its impact on patient care; it is, therefore, important to carefully define and control the role set from the outset.

As I was changing roles within the same Trust, ensuring that the Consultant Nurse role was viewed as separate and distinct presented a considerable challenge. During my first 3 months in the Consultant Nurse post, I met with a large number of colleagues and key stakeholders from different areas and disciplines within the Trust, asking for their advice on how I could make it successful. I have incorporated their views and suggestions into my role structure and objectives. This proved to be a great opportunity to advertise the role within the Trust. I am now invited to a lot more meetings and have an active involvement in strategic decisions within the Department as well as at Trust level.

Becoming a Consultant Nurse in Endocrinology is possible

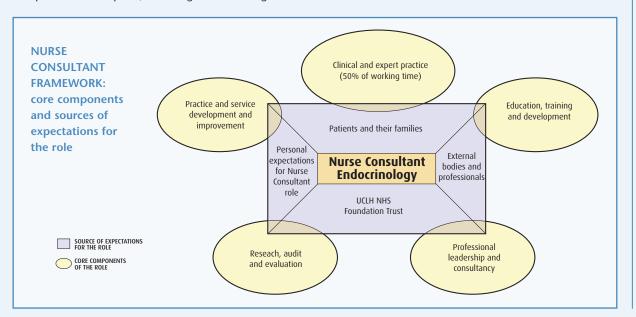
It has been a difficult and long journey: the Consultant Nurse post would not have become reality without the vast effort of my many colleagues and stakeholders, especially the Lead Consultant Endocrinologist, Gerard Conway. For any of my Endocrine Nurse colleagues wishing to take up the challenge, there is one thing I can say for certain: it is totally worth it! If I can share a few words of advice from my personal experience, these would be:

Ensure you are up to the challenge of the role, that you are prepared for the additional responsibilities and that you have the relevant competencies and qualifications in place, including a Masters degree.

- Ensure you write a strong proposal to justify the need for a Consultant Nurse in your organisation. What more can a Consultant Nurse offer compared with a Clinical Nurse Specialist? Unless you can prove that the Consultant Nurse role will result in a significant and cost-effective improvement in patient care, the role may not be approved
- It will be impossible to achieve this on your own, irrespective of your own competence. I am very fortunate to work with an excellent Lead Consultant Endocrinologist, who values the input of nursing in patient care, and was supportive of my role. Similarly, my Nurse Manager, Chief Nurse and other key stakeholders in the Trust believed that this role would bring about improved care; pushing back boundaries to make it happen. Working within a supportive team is the key to success; if you believe this is not the case for you, perhaps it is time to move to a different setting
- Talk to other Consultant Nurses to find out what their role entails. I spent about 12 months gathering information and talking to people before finalising the proposal
- Remember that the Consultant Nurse post, once advertised, will be open to anyone to apply. Be prepared for a rigorous interviewing process to select the right candidate. Have you thought about what you will do if, after all your hard work, you do not get the job?
- Finally, persevere and do not give up! You will face a lot of hurdles, especially in the current financial climate, but if you really believe you have what it takes, a Consultant Nurse role will be a reality SOFIA LLAHANA, UNIVERSITY COLLEGE LONDON HOSPITAL

CORRECTION - BES PRIZEWINNERS

In the spring issue of *Endocrine Nursing News*, the prize winners of the Society BES meeting were incorrectly reported: Jean Munday was awarded the runner-up prize for the Annette Louise Seal Memorial Award; and Violet Faizal-Sanderson won the Clinical Endocrinology Trust Prize, a new award made this year to recognise the best overall abstract submitted by a nurse.



THE ENDO TRAIN RVC

The first veterinary school in the UK was established in Camden – a stone's throw from the newly renovated St. Pancras Station – in what was once countryside outside of central London. Rob Fowkes takes us for a tour.



The Royal Veterinary College (RVC) received a Charter of Incorporation from King George IV in 1875. However, in the year it was founded, 1791, the newly established veterinary college had but one aim: to understand how a racehorse named Eclipse could have been so successful in life, to the extent that he had beaten every horse there was to race! The following year, the college opened its doors to the first intake of veterinary medicine students (four of them, to be precise) and teaching at the

college commenced. Since those times, student numbers have increased considerably and Camden is no longer in the countryside, but teaching and research into veterinary medicine has continued and developed.



David Church

URES



Claire Wathes

Whilst those studies into the physiological mechanisms of *Eclipse* failed to implicate any sort of endocrine or metabolic adaptation, much of the clinical and basic research that is carried out at the RVC today has a firm grounding in endocrinology. Compared with other universities in the UK, we are relatively small in size, but not stature. Our last RAE return ranked us 3rd overall in our unit of assessment; this success was driven by strong research groups focussing on diverse areas including locomotion, welfare, cardiovascular, bone, developmental, endocrine and reproductive biology.

We teach our undergraduates that endocrinology affects virtually all aspects of homeostasis, and one of the ways we try to convey this message is through the development of our Endocrinology, Development, Genomics and Reproduction (EDGaR) cooperative

(www.rvc.ac.uk/Research/Labs/EDGaR/index.cfm). EDGaR members at the RVC include Professor Claire Wathes and Dr Robert Abayasekara, who lead successful groups investigating the effects of dietary content on ovarian function and fertility; Dr Abir Mukherjee, who developed FSTL3 knock-outs and continues to characterise the effects of follistatin-like proteins in endocrine development and function; and Professor Neil Stickland and Dr Stephanie Bayol, whose ongoing work on the consequences of poor maternal nutrition on the susceptibility of offspring to metabolic disorders continues to receive much interest from the media. My own work, addressing the importance of natriuretic peptides and other local regulators in the pituitary, has benefited greatly from combined projects run with Dr Imelda McGonnell and Dr Claire Russell, both established developmental biologists who have harnessed the power of Zebrafish as a model organism. From these relatively diverse research interests, we have established a programme of research that continues to receive funding from many sources, including the Wellcome Trust and DEFRA. We have, of course, benefited greatly from the Society for Endocrinology's various grant schemes, which has funded overseas conference attendance for numerous trainees, allowed us to visit the laboratories of collaborators and even funded small research projects.

The other side to endocrinology at the RVC is the provision of clinical care. Endocrine disorders in companion and production animals are relatively common. However, one of the major differences for our clinicians is that, unlike in the NHS, they require a translator to be present at every consultation - and most of their patients bite! Our clinicians spend time at both of the main RVC sites: the Camden campus as well as our large Hawkshead campus, which is also the site of our referral hospital, the Queen Mary Hospital. Led by Professor David Church, and ably supported by key faculty members including Dr Hattie Syme and Dr Brian Catchpole, our clinicians see a steady stream of metabolic disorders in the small animal clinics. Hattie Syme's research continues to establish potential risk factors for the development of thyroid disease in cats, which include both dietary and environmental elements. Brian Catchpole's research has focussed on the development of novel therapies for treating type I diabetes in dogs, and establishing various genetic variations that may contribute to disease susceptibility.

None of us need to be reminded of the great challenges that have presented themselves in terms of the struggle to maintain funding and continue to be internationally excellent. Whilst we at the RVC are just as affected by these pressures as our colleagues at more conventional endocrine establishments around the country, our-multidisciplinary approach, coupled with the interesting (if not unique!) exposure to a variety of patients, will hopefully allow us to continue to develop a niche for endocrine research that will maintain our presence in the UK endocrine community and beyond.



A new politic for science

► In contrast to disciplines where eloquence overrides evidence, science is a field that has the potential to benefit greatly from the meeting of Liberal and Conservative policy. How has the landscape of UK science changed in these first stages of this unlikely alliance? What can we as a community do to ensure that future changes are made for the better?

The Times Higher Education Supplement estimates that 15 fewer MPs with science backgrounds sit in the new government, and only about 1 in 20 have worked in higher education. Of small but real consolation is the introduction of a science induction course by the Parliamentary Office for Science and Technology, which has been designed to educate new MPs on matters such as evidence, statistics and transparency. Whilst this initiative deserves praise, the presence of just 3 PhDs in the entire House of Commons (compared with 8 in the previous government) has left parliament with a drastic lack of true scientific expertise and representation.

We may, however, have gained an unexpected ally in the new Science Minister, David Willetts. Although he has no scientific background, Willetts has shown a good understanding of the principles of science and is able to relate this to a political agenda, 'Coalition, I believe, is good for government and for science, given the premium now attached to reason and evidence'. To illustrate his preference for long-term benefits (something he terms 'intergenerational fairness'), one of his first major acts was to announce a delay to the inclusion of impact measures in the Research Excellence Framework (which from 2014 will assess the quality of research at all UK higher education institutions to determine government funding) to allow for wider debate, a move welcomed by a number of academics who felt that the measures place too great a value on immediate economic outcomes.

The minister's intention to advocate an evidencebased approach across all government departments is admirable, but there is a bigger task at hand; with June's emergency budget providing no real clues as to where the inevitable spending cuts will fall, all eyes are now turned to October's Comprehensive Spending Review. A traditionally restrained and honest group, the scientific community will have to do what it does best and build a strong, evidence-based case for the need to protect the science budget. A recent paper by Haskel and Wallis (http://eprints.imperial.ac.uk/handle/10044/1/5280) has described the 'market spillover' from public investment in research councils, and further work continues in this area (for example, the STAR-METRICS study http://sites.nationalacademies.org/PGA/fdp/PGA_057189). However, Lord Drayson, the previous Science Minister, had great difficulty proving a quantitative economic return on public R&D investment at the Treasury, and there is nothing to suggest it will be any easier this time around.

Using science to back-up economic proposals may not, therefore, be the best option. In politics, evidence is nothing without action; as amply demonstrated by the ongoing campaign to bring reform to the UK's defamation laws. The Libel Reform Campaign (itself a coalition between Index on Censorship, English PEN and Sense About Science) has so far received over 52 000 signatories to its petition, and was supported by both the Liberal Democrats and Conservatives in their manifestos. We are pleased to report that a Bill is now moving through the House of Lords, bringing scrutiny to the outdated laws which currently stifle academic debate and prevent potentially valuable scientific findings from reaching the public eye. In the same way as direct voter action can keep a school open or prevent a development, MPs will act for change if their constituents make their voices heard; the scientific community would do well to become the 'scientific constituency'.

How might the scientific constituency vote? The peculiar 'no going back' career structure of academia, an evidence base for how the total budget is split, and proper support to maintain our enviable position in the global scientific community are issues that are likely to sway our scientist voter. The Society of Biology has made educational issues a priority, advocating the need to maintain practical science classes in schools, and to keep science as a cornerstone of our education system. The Society for Endocrinology supports them in this. One thing is certain: changes will come.

TOBY STEAD

Science policy resources:

- The Campaign for Science and Engineering (CaSE) blog - http://blog.sciencecampaign.org.uk/
- The Society of Biology policy news http://www.societyofbiology.org/policy
- The Libel Reform Campaign http://www.libelreform.org/

Considering a change?

The Society for Endocrinology careers page is continually updated with positions in medicine, science and nursing, as well as funding opportunities from across the world for all sorts of projects.

If you'd like to advertise a job, grant or PhD on the careers page free of charge, please send the information to careers@endocrinology.org.

www.endocrinology.org/careers/jobsgrants.aspx

Britain has a coalition government for the first time in over 30 years. What effect will this have on science?

Fame: spur or deterrent?

Hotspur evades awkward questioning

ATURES

▶ J D Salinger died recently; he was one of the most famous writers of the 20th century, known for his controversial novel, *The Catcher in the Rye*. He was also a recluse and several quotes attributed to him reflect his longstanding desire to avoid the limelight: 'I'm sick of not having the courage to be an absolute nobody'; 'There is a marvellous peace in not publishing'.

Professor W, however, was not recluse material and the thought of refraining from publishing never entered his head. He was a world famous paediatric endocrinologist and I first met him way back when I attended my first European Society of Paediatric Endocrinology (ESPE) meeting. At that time I was a research fellow with a research project in the field of growth and puberty and I had just had my first ever abstract accepted as an oral communication at the annual ESPE meeting. I recognised his name as soon as I saw his badge; he was a legend in the specialty with at least one syndrome named after him. He took one look at my name badge and calmly said: 'I have read your abstract, you're wrong'.

Our relationship continued in this tortured vein for many years but gradually I got to know him a little better. I was keen to understand the secret of his success. He was not coy, he told me that he had published 1200 articles, and whilst I was trying to come to terms with the scale of his productivity, he blurted: 'and I have written four more articles in the last two weeks'. An article every 3¹/₂ days, he was clearly destined to live for at least another decade – another 1000 articles to come!

The extremity of these two opposite attitudes to publishing reminded me of my distaste for religious extremism; speaking of which, one year ESPE held their annual meeting in Professor W's home town, in which I was staying at one of the conference hotels. Unable to sleep one night, I started to rummage through the bedside cabinet for something to read. In the top draw of the cabinet, in a place occupied by the bible in most hotels, was a copy of Professor W's CV. More useful for weightlifting than cosy reading, to this day I am unaware of how Professor W's version of the bible got there, nor do I know if all hotel rooms occupied by delegates were similarly equipped.

Personal attitude to self promotion and fame clearly varies enormously; what is important, however, is that each individual determines what really matters to them, what price is to be paid, and whether it is worth paying.

Even as a student I knew that there were specialties that I enjoyed but felt unable to pursue. Psychiatry was a

prime example; I feared it would lead to an overdose of introspection. I remembered a game of table tennis with a young schizophrenic inpatient; the score was 17–17 and I knew that I could beat him, but would my victory be detrimental to the patient's well being if I did so? On the other hand if I lost intentionally, would he realise, and if so, how would he react? The multiple questions gave me a headache and I had to stop playing, thus resolving my dilemma.

Group therapy also unnerved me as a medical student. The placing of my chair led to sleepless nights; a few inches outside the ring and I questioned why I was trying to exclude myself from the group; whilst a few inches the other way and I was trying to seek all the attention. Somehow it always felt like I was being tested.

The anxiety associated with such memories is never forgotten and it all resurfaced recently when I was an external examiner for a PhD in a large English university. The topic of the thesis was situated at the interface between psychology and endocrinology, the candidate was a psychology trainee, and the oral exam was held in the department of psychology. The lead up to the exam surprised me; I was questioned about how many higher degrees I had examined previously and, more specifically, how many in the last three years. Yes, I, the examiner, was being assessed but why, and would it continue? Well on the day of the exam things went smoothly, the candidate performed well, both in the quality of the written thesis and in the oral exam. Therefore her pass was guickly agreed with my co-examiner. Afterwards her supervisor invited me back to his office for some lunch, and I relaxed knowing that I was no longer under scrutiny myself. He asked me which type of sandwich I wanted and I told him cheese. He popped down to the canteen and returned ten minutes later with a bag containing four sandwiches, which he offered to me. I examined the label on the first sandwich, pork and salad, quickly noting that the remaining three were the same. With a sinking heart I realised this was my final test; he would ask me how much I enjoyed my cheese sandwich? What should I say: 'This is the best cheese sandwich I have ever tasted' or 'Don't be silly you got it wrong, this is a pork and salad sandwich?'. When the question came, my answer was prepared: 'I have a severe headache and I have lost my appetite'.

Following which I scurried home to the safety of endocrinology.

'HOTSPUR'

Hot Topics

Journal of Endocrinology

MIF knockdown impairs glucose homeostasis

Journal o Endocrinolog

Macrophage migration inhibitory factor (MIF) has been linked to obesity and insulin resistance. Serre-Beinier and colleagues, using MIF knockout mice, found MIF deficiency resulted in mice with a lower birth weight and greater body weight gain after birth, due to increased food intake. Older MIF-deficient mice had impaired glucose tolerance, an increase in fasting insulin levels and increased fat mass. The work highlights MIF as a potential target in type 2 diabetes.

DOI: 10.1677/JOE-09-0342

Regulation of FGF23 production in bone

Vitamin D regulates the concentration of phosphate in the bloodstream. Vitamin D deficiency causes rickets and osteomalacia. Yamamoto and colleagues investigated the regulation of fibroblast growth factor 23 (FGF23) expression during osteoblast development. FGF23 is involved in phosphate metabolism and has been identified as the factor responsible for hypophosphatemic rickets. This study found that vitamin D and inorganic phosphate synergistically increased FGF23 production and the expression of vitamin D receptor mRNA. DOI: 10.1677/JOE-10-0058

MAPK and anti-apoptotic effects in muscle Apoptosis plays a key role in the skeletal muscle mass loss seen in old age. 17β -estradiol (E2) promotes survival in skeletal muscle cells, while decreased levels of E2 can lead to degenerative pathologies such as sarcopenia. However, the molecular mechanism behind the protective effect of E2 is poorly understood. Ronda and colleagues demonstrated that ERK and p38 MAPK play a role in mediating the protective effects of E2 in apoptosis.

DOI: 10.1677/JOE-09-0429

Endocrine-Related Cancer

Lancer

Endocrine-Related

Improving breast cancer therapy biomarkers More precise biomarkers of endocrine therapy response are needed in breast cancer. Skliris and colleagues observed that estrogen receptor- α (ER α) phosphorylation on the serine-282 residue is predictive of a good clinical outcome and that phosphorylation on threonine-311 is predictive of a poor clinical outcome in a tamoxifen-treated cohort. This suggests that an improvement over the current ER α status system could be developed based on which ER α residues are phosphorylated in a given tumour.

DOI: 10.1677/ERC-10-0030

Paragangliomas of the organ of Zuckerkandl

The organ of Zuckerkandl is a body of extra-adrenal chromaffin cells. Normally quiescent in adults, the clusters of chromaffin cells can serve as sites of tumour development. In the first study to specifically focus on this anatomical site, Lodish and colleagues investigated the genetic defects evident in paragangliomas arising from the organ of Zuckerkandl. They found that mutations in genes encoding succinate dehydrogenase subunits were highly prevalent. DOI: 10.1677/ERC-10-0004

MOLECULAR ENDOCRINOLOGY

UAG and Ob prevent STZ-induced diabetes

In this study, Granata and colleagues show that, like acylated ghrelin, unacylated ghrelin (UAG), and obestatin (Ob) prevent diabetes in streptozotocin (STZ)-treated rats, a common animal model. They found that UAG and Ob increased β -cell mass and upregulated expression of insulin, Pdx1 mRNA and the antiapoptotic protein BCL2. UAG and Ob had long-term beneficial effects on glucose homeostasis, β -cell function and survival. As such, they are promising candidates for diabetes treatment. DOI: 10.1677/JME-09-0141

Estrogen is anti-inflammatory in smooth muscle

Lipopolysaccharide (LPS) triggers the release of inflammatory cytokines, including monocyte chemoattractant protein-1 (MCP-1), from vascular smooth muscle cells (VSMCs), leading to the initiation and acceleration of atherosclerotic lesions. Estrogen is vasoprotective against atherosclerosis but the mechanisms involved in its anti-inflammatory activity are unclear. Using a p38 MAPK inhibitor and siRNA, Jiang and colleagues demonstrate that 17β -estradiol inhibits LPS-induced VSMC migration by downregulating MCP-1 production and inhibiting the p38 MAPK/NFkB cascade. DOI: 10.1677/JME-09-0166

Clinical Endocrinology

CLINICAL ENDOCRINOLOGY

Cabergoline treatment during pregnancy

Cabergoline is a dopamine agonist used to treat hyperprolactinaemia. In their retrospective study, Lebbe and colleagues sought to investigate whether foetal exposure to the drug in women taking cabergoline at conception has adverse effects on the foetus. They found that the occurrence of spontaneous miscarriage and pregnancies resulting in babies with congenital malformations was not influenced by the dose of cabergoline at conception, the time of drug withdrawal nor the cumulative foetal exposure to the drug. DOI: 10.1111/j.1365-2265.2010.03808.x

Hypopituitarism is uncommon after SAH

Studies have suggested aneurysmal subarachnoid haemorrhage (SAH) is a cause of chronic hypopituitarism, advocating routine neuroendocrine screening as a preventative measure. In the largest reported SAH cohort to date, Klose and colleagues assessed the prevalence of hypopituitarism, finding no cases in SAH survivors. They conclude that routine neuroendocrine screening should not be introduced at this stage and recommend using strict diagnostic criteria in patients with a low pretest probability of hypopituitarism.

DOI: 10.1111/j.1365-2265.2010.03791.x

Cabergoline and valvular heart disease

Treatment with cabergoline for Parkinson's disease has been linked with increased risk of valvular heart disease. Tan and colleagues found no similar increase in prevalence of valvulopathy in patients receiving cabergoline for hyperprolactinaemia. They support continued use of lowdose cabergoline for patients with hyperprolactinaemia but recommend limiting cumulative dose exposure and advocate more frequent echocardiographic screening in patients with hypertension, cumulative dose exposure of ≥ 2 mg/week, or those aged >70 years. DOI: 10.1111/j.1365-2265.2010.03827.x Society members get free access to Journal of Endocrinology, Journal of Molecular Endocrinology and Endocrine-Related Cancer via www.bioscialliance.org

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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.

References:

1.Dumas C. Poster presented at the 25th Scandinavian Meeting of Urology, Göteborg, June 2005 2. MIMS April 2009 3. Tostran® Summary of Product Characteristics October 2006 4. Testogel® Summary of Product Characteristics November 2006