Welcome to the autumn edition of The Endocrinologist, which is a special issue on education. This is a timely publication as we are now well into the new academic year. Summer, such as it was, has come to an end, the seemingly endless resit season has finally concluded, and that great summer zeitgeber, the cricket season, is over. It is a good time to think about education.

As the Council’s education representative, the topic is close to my heart, particularly the many aspects of endocrine education. The articles in this special issue reflect the diversity of educational activities in the Society’s portfolio. There are features on the diploma scheme for Young Endocrinologists (page 12) and on the Certificate in Adult Endocrine Nursing (page 14). Page 12 also includes a challenge from medical undergraduate Julia Prague, who encourages us to be inspirational teachers. With a subject like ours that really shouldn’t be too difficult.

Tom Parkhill is a busy chap: in this issue he looks at engaging public interest in endocrinology, which the Society has been addressing through public meetings (page 11). On page 13, three former holders of Society awards tell us how this support has influenced their careers. Current Society Clinical Fellow Alia Munir takes us through this year’s fundamental changes for clinicians in training on page 10.

In this education issue, I am especially pleased to publish an extract from the first winning undergraduate prize essay (page 15). Congratulations to Harry Leitch, recipient of the £1000 first prize. The 2008 competition was launched earlier this month. See the back cover for further details, and encourage your students to enter an essay.

Among the usual features, Hotspur offers educational opportunities, as well as his usual offbeat humour. I hadn’t heard of paraskevidekatriaphobia until I read the article on page 17. It’s certainly an education.

Many thanks to all of you who sent me examples of the funniest exam answers you saw this year. A selection are printed elsewhere on this page, but the prize goes to Dr Pauline Jamieson from Edinburgh for the following: ‘Q. Name a condition caused by hypersecretion of hormone from the adrenal cortex and list the symptoms. A. Cushion’s disease with a pop belly!’ My favourite from among my own students was ‘women with congenital adrenal hyperplasia have abnormally long pubic hair and agnostic genitalia’.

I hope you enjoy this issue. Very best wishes for the new academic year. JOY HINSON

(j.p.hinson@qmul.ac.uk)
Interdepartmental peer review

This autumn sees visits setup under the Society’s clinical peer review initiative to the following institutions: Western Infirmary, Glasgow (led by Prof John Connell), City General Hospital, Stoke (Prof Dick Clayton), Bristol Royal Infirmary (Dr Colin Dayan), Manchester Royal Infirmary (Prof Julian Davis) and University Hospitals NHS Trust, Nottingham (Dr Renee Page).

Let us know if you would like a visit from the peer review team by contacting ann.lloyd@endocrinology.org. As a further incentive, the Clinical Endocrinology Trust has agreed to pay reviewers’ expenses for the first ten visits, and there are still funds available on a first-come, first-served basis.

Re-election of Officers

The Society’s Officers must offer themselves for re-election every year. The current post-holders are: John Wass (Chairman), Julia Buckingham (General Secretary), David Ray (Programme Secretary) (all in their third and final year of office) and Michael Sheppard (Treasurer) (second year of office). Members wishing to propose alternative names for any of these posts should contact Julie Cragg (julie.cragg@endocrinology.org) by 12 December 2007.

CALL FOR NOMINATIONS

Council and Officers

Professor Steve Atkin and Dr Neil Gittoes will retire from the Council of Management in April 2008. Ordinary Members are invited to nominate replacements to take office from the 2008 AGM. A nomination form is included in this mailing; the deadline is 12 December 2007. To provide a balanced Council, we particularly seek nominations for basic scientists. An online ballot will be held in early March if necessary. Note that you will only be able to participate in the ballot if you have paid your 2008 membership fees.

New Officers will be elected at the 2008 AGM to take up office at the 2009 AGM. Council has nominated Professor Julia Buckingham for Chairman, Professor Paul Stewart for General Secretary and Dr Marta Korbonits for Programme Secretary. If any member wishes to make further nominations, please contact the Bristol office for a form.

New online services!

Moving the Society’s membership database into the Bristol office means new online facilities for members. Now you’ll be able to pay for membership and journal subscriptions via the web, and search for other members geographically, by area of interest and by job title/position, using our secure, up-to-date, searchable directory. Members may also update their contact details online. In addition, Cherry McGinnity is the new contact in the office for all membership enquiries; contact her at members@endocrinology.org. We thank Portland Press for running our membership database over the past 10 years.

Careers information now on the web

The new careers section of the Society website is up and running! Students should visit www.endocrinology.org/careers to find opportunities in endocrinology and options for career paths. A vacancies board will soon advertise jobs and grants in endocrinology. You can advertise any jobs, PhDs or courses on this site free of charge, by contacting jennie.evans@endocrinology.org.

MISSING MEMBERS

Please let us know if you have contact details for any of the following:

- Dr D Armstrong, Dr G Bottazzo, Ms C Bowles, Dr PGH Byfield, Dr Wai Fong Chau, Ms Diane Davies, Miss Evelyn L Davies, Ms Anita Doane, Dr P Driver, Dr Dilip A Eapen, Professor RG Edwards, Dr Seleena Farook, Dr Sonke Friedrichsen, Dr F Gibb, Dr Jerry Greenfield, Dr IC Hart, Dr SP Lee, Ms J Lyons, Dr F Miro, Dr Paul Peter, Dr Shamala Rajalingam, Dr Kashif Rizvi, Dr Sofia S Salahuddin, Dr Laniitha Srikugan, Mr Avnesh Thaker, Dr M Vogt, Miss A Weddell, Dr JS Woodhead.

Keeping in touch

If you do not receive regular email bulletins from the Society, it means that we do not have a valid email address for you. If this is the case, please send your correct contact details to members@endocrinology.org.

Congratulations...

... to Society member Graham Beastall, who was awarded a CBE for his services to medicine in this year’s Queen’s Birthday Honours.

We are also delighted to announce that the Society’s Treasurer, Michael Sheppard, has been appointed Vice Principal of the University of Birmingham with effect from October 2008.

Congratulations are also due to the former Editor of The Endocrinologist, Peter Trainer, of the Christie Hospital, Manchester, Karim Meeran from Imperial College London and the Hammersmith Hospitals NHS Trust, and Claire Stewart of Manchester Metropolitan University, who have all been awarded Chairs.

5-7 November 2007
Clinical Update
Renaissance Manchester Hotel

26 February 2008
Society for Endocrinology
Clinical Cases Meeting
Royal Society of Medicine, London

7-10 April 2008
Society for Endocrinology
BES 2008 Meeting
Harrogate International Conference Centre
Abstract deadline: 15 November 2007
**Committee News**

The latest from each of the Society’s committees

**Council of Management** Aside from discussing strategic issues, Council has approved: free registration at Society BES meetings for Honorary Members, new Chairs for the Awards and Science Committees (Professors Stephen Hillier and Alan McNeily respectively), deduction of the Society’s International Medal to commemorate the life of Professor Raymond (Bill) Hoffenberg for 5 years, funding to patient support groups for telephone support training, and the 2008 Society journal subscription prices.

**Awards** We welcome Professor John Funder to the committee, to replace Professor Evan Simpson whose term of office ended in December 2006.

**Clinical** The committee will explore ways of raising the Society’s profile in the clinical and academic aspects of obesity management, perhaps by running courses like the BioScientifica-led osteoporosis training, and making use of the Society BES.

In light of the ongoing changes in MTAS, PMETB and the ‘exit’ exam/MRCP part 3, Professor John Connell will represent the Society in the development of content for the proposed examination.

The Society has received enquiries from clinicians concerned about how to respond to publications in *New England Journal of Medicine* on dopamine agonist and the heart. Uncertainty about the applicability of certain dopamine agonist therapy observations to pituitary patients has led the Clinical Committee to produce a position statement for clinicians which is now on the Society’s website.

We welcome confirmation that 25 recently qualified medical graduates will receive free travel, registration and accommodation for the Society BES 2008 meeting.

**Nurse** Unfortunately, the endocrine nurse training course in Glasgow this year had to be cancelled for a number of reasons. However, planning for the 2008 course on ‘The Pituitary Gland’ is under way. We have set up an initiative so that nurse members can volunteer their departments to host visits from other nurses, particularly those new to their posts, with a view to gaining experience in clinics/techniques. Four departments have offered their services and the details are available on the nurse web pages.

**Programme** Remember that the abstract deadline for the 2008 Society BES meeting is 15 November 2007. Further details of the meeting are available at www.endocrinology.org/meetings/2008/bes2008/welcome.html. Venues for subsequent years have been agreed as Harrogate (2009), Manchester (2010) and Birmingham (2011).

The first Clinical Update meeting takes place on 5-7 November 2007 at the Renaissance Manchester Hotel, Manchester. This 3-day meeting includes stand-alone lectures and interactive workshops. Find out more at www.endocrinology.org/meetings/2007/clinicalupdate2007.

**Publications** Impact factors for 2006 have recently been released as follows (previous year’s figures in brackets): *Journal of Endocrinology* 3.072 (3.059), *Journal of Molecular Endocrinology* 2.988 (2.474), *Endocrine-Related Cancer* 4.763 (4.905), *Clinical Endocrinology* 3.358 (3.412).

**Science** The committee is very pleased with members’ responses to the Society’s new grants, prizes and awards. You can find details and deadlines at www.endocrinology.org/grants.

We are considering a new initiative: a postgraduate/postdoctoral retreat. This would aim to foster scientific interactions, giving an opportunity for young researchers to present data and participate in keynote lectures in an informal environment.

Our scientific suggestions for the Society BES 2009 will be confirmed in December, ready for submission to the Programme Committee.

We welcome confirmation that 25 basic science students (including Masters students) will receive free travel, registration and accommodation for the Society BES 2008.

**Young Endocrinologists** The steering group has recently finalised the funding-related symposium for the Society BES 2008 and is discussing and finalising a rolling 3- to 4-year curriculum of themes, as well as symposium ideas for the Society BES 2009.

**Grant winners**

Our new initiative to provide members with extra funding has led to Lab Visit Grants for K Jonas (London), D McDonald (Newcastle) and R Watkins (Birmingham), and grants from the Small Grant Programme for Scientific Research for Dr R Bland (Warwick), Dr R Fowkes (London), Dr P Jamieson (Edinburgh), Dr E Karteris (Uxbridge), Prof G Leng (Edinburgh), Dr M Ludwig (Edinburgh), Dr L Metherell (London), Dr K Piper-Hanley (Southampton), Dr M Simmonds (Birmingham) and Dr P Thompson (Celeraine).

Undergraduate Achievement Awards have been awarded to: Dept of Medicine and Endocrinology, Birmingham University; Dept of Biosciences, Brunel University; School of Biosciences, Cardiff University; Dept of Endocrinology, Edinburgh University; Dept of Child Health, Glasgow University; Dept of Diabetes and Endocrinology, Gloucestershire Royal Hospital; Division of Reproduction and Endocrinology, King’s College London; School of Medicine, Manchester University; Dept of Endocrinology, Queen Mary’s University of London; Dept of Veterinary Sciences, Royal Veterinary College, London.

The next Small Grants Programme deadline for applications is 2 November 2007. Please email (only) in Word format to grants@endocrinology.org.

An application form and full details can be found at http://www.endocrinology.org/grants/
The pod is mightier than the pen.

Innovation for the growing generation

Prescribing information can be found on the reverse
If it's happening, it's an EVENT!

Many an event organiser has been asked, ‘But when you're not at an event, what do you do for the rest of the year?’ Well, let’s see…

The life-cycle of an event begins with an idea. This might develop from the Society, or from a client like the British Fertility Society (BFS) or a large pharmaceutical company. From that point we set the initial timeline. Some events might be a few years away, whilst others need to be executed within a few weeks!

Timing is everything when establishing the best time of year to hold the event, be it to accommodate the academic holidays or to avoid clashing with other industry events. Then it’s location, location, location - where should the event take place? Once the venue has been set, rates negotiated and dates chosen, the work begins in earnest…

...working to budget, the team establishes the programme, arranges marketing materials and web pages, co-ordinates mailings to potential delegates, invites speakers, oversees abstract submissions, compiles the programme book, sells exhibition stands and sponsorship opportunities, and books contractors to supply floor plans, exhibition stands, poster boards, catering, name badges, audio visual facilities, insurance, security, stewards, first aid cover, and that’s not even including the all-important social events. The list goes on.

Sounds like a lot of work? Not until you multiply all this across a full events schedule covering a whole year, with more than fifteen different events taking place in as many locations.

And what does this result in? A successful string of events: most recently BFS Winter College in Glasgow, Society for Endocrinology BES 2007 in Birmingham and various European events for Ipsen, to name just a few.

The individual events can differ in many ways – for instance, some last only a few hours whilst others could be a week long – but the events team understand that they all have one thing in common: each one really matters. And, on that point, it’s good to see the Oxford English Dictionary agrees with us, defining an event as ‘a thing that happens or takes place, especially one of importance’.

Sir Raymond (Bill) Hoffenberg

Bill Hoffenberg, one of the great physicians of our time, died in Oxford on 22 April this year. Bill came to England from South Africa where he had been a ‘banned person’ because of his active opposition to apartheid. Indeed, Bill will be remembered for publicly espousing important social causes, as well as for his contributions to endocrinology.

As a South African citizen, Bill undertook war service voluntarily. He subsequently qualified in medicine in Cape Town and worked in the metabolic unit there, from which he was awarded a travelling fellowship. This took him to endocrine departments in the UK and USA, one of which was headed by Sidney Werner, an eminent thyroidologist. Although he had done important work on protein metabolism, it was in thyroid research that Bill became known internationally.

He led a team, first at the National Institute for Clinical Research and later in Birmingham, where he became William Withering Professor of Medicine. Apart from his own interests, he encouraged and supported developments in other areas of the specialty, such that his department acquired a reputation that could hold its own anywhere. While in Birmingham, he became President of the Royal College of Physicians and then President of Wolfson College, Oxford, before finally holding a Chair in Medical Ethics in the University of Queensland.

Bill was a natural leader, inspiring loyalty and affection in those who worked with him. Generous and warm, he was a person of great charm and wit - using the latter to devastating effect on those, particularly politicians, whom he considered arrogant and incompetent.

He was distinguished from his medical contemporaries by his humanity and his courage in displaying it. Besides his South African activities, he spoke out against the health service reforms of the Thatcher government, and against the Blair government, when it made political capital with its hysterical response to the events at Alder Hey. He actively opposed the further development of nuclear weapons and was a founding patron of the Medical Foundation for the Care of Victims of Torture. A remarkable man.
Communications Group helps spread the message

A 2005 MORI poll showed that 95% of people think scientists should use popular media to tell them about developments in their field. A poll in 2002 showed that 90% of people learn most about scientific issues in this way.

Consequently, we aim to promote the Society’s expertise to the media, so that journalists contact us first when an endocrine story breaks. This means we have to be seen to be involved with all endocrinology, not just news from the Society’s office.

It’s the role of the Society’s Communications Advisory Group to provide technical and practical support to the External Relations staff who undertake this media work. All group members are interested in science communication and raising the public profile of endocrinology. They translate science and scientific method for the External Relations team and provide a sounding board for the team’s ideas. Combining the complementary skills of the group and the Society’s staff means we promote the right information in the right way.

In the last 3 months, we have started to publicise research papers from our journals to the press. The Communications Group plays a vital role in developing these press releases, from choosing the papers to highlight to making sure the science is interpreted clearly. We have already received press calls that we would not have received before, and the research has featured prominently in the national press.

The Guardian’s front page carried a study on the effects of stress in pregnancy on the unborn child by Sarkar and colleagues from Clinical Endocrinology. The story was also covered by The Times, The Daily Telegraph, Daily Mail and New Scientist. Research into the relationship between exercise and gut peptides by Martins and coworkers from Journal of Endocrinology was featured by BBC News, as well as in The Daily Telegraph and several international newspapers.

Meanwhile, BBC World Service ran an interview with Society member Fahrettin Kelestimur, about his work on damage to the pituitary gland as a result of kickboxing.

We are developing this approach, and looking at other outlets to increase the public’s understanding of endocrinology, like science fairs, outreach programmes in schools and public events.

We are extremely grateful to the Communications Advisory Group members: Rob Fowkes, Neil Gittoes, Joy Hinson, leuan Hughes and Saffron Whitehead. If you have ideas to promote the Society and endocrinology, please contact jennie.evans@endocrinology.org.

Meanwhile, find details of our press releases at www.endocrinology.org/press, and watch out for further examples of the Society’s success in the media in the coming months!

JENNIE EVANS

NEW MEMBERS

We welcome the following new members to the Society.


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JENNIE EVANS

NEW MEMBERS

We welcome the following new members to the Society.


Tostran® Abbreviated Prescribing Information

Please refer to Summary of Product Characteristics before prescribing.

Presentation
Tostran 2% gel, contains testosterone, 20 mg/g.

Indications
Replacement therapy with testosterone for male hypogonadism when testosterone deficiency has been confirmed by clinical symptoms and laboratory analyses.

Posology
The recommended starting dose is 3 g gel (60 mg testosterone) applied once daily at approximately the same time each morning to clean, dry, intact skin, alternately on the abdomen or to both inner thighs. Application elsewhere should be avoided. The dose should be adjusted to the clinical or laboratory response. The daily dose should not exceed 4 g of gel (80 mg testosterone). The gel must not be applied to the genitals. Not for use in women, or children under the age of 18 years.

Contraindications
Androgens are contraindicated in known or suspected carcinoma of the breast or the prostate, known hypersensitivity to testosterone or any of the excipients, and in women.

Warnings and Precautions
Tostran should not be used to treat non-specific symptoms suggestive of hypogonadism if testosterone deficiency has not been demonstrated and if other aetiologies responsible for the symptoms have not been excluded. Tostran is not indicated for treatment of male sterility or sexual impotence. Prior to initiation of therapy, all patients must be examined to exclude a risk of pre-existing prostatic cancer. Careful and regular monitoring of breast and prostate must be performed. Testosterone may accelerate the development of subclinical prostatic carcinoma and benign prostatic hypertrophy.

Oedema with or without congestive heart failure may be a serious complication in patients with pre-existing cardiac, renal or hepatic disease. The treatment must be discontinued immediately if such complications occur. Testosterone may cause a rise in blood pressure and Tostran should be used with caution in men with hypertension. Tostran should be used with caution in patients with ischaemic heart disease, epilepsy, migraine and sleep apnoea as these conditions may be aggravated. Care should be taken in patients with skeletal metastases due to risk of hypercalcaemia/hypercalcuria. In diabetic patients, the metabolic effects of androgens may decrease blood glucose and therefore mask requirements. Patients who wash in the morning should apply Tostran after washing, bathing or showering. Avoid the potential for transfer of testosterone from the patient to another person by careful hand washing and the wearing of loose clothing after the gel has been applied and has thoroughly dried. Bathe or shower before any close contact with another person. Particular care must be taken to prevent transfer of testosterone to pregnant women or children via skin contact. Interactions
When androgens are given simultaneously with anticoagulants, the anticoagulant effect can increase and patients receiving anticoagulants require close monitoring of their INR. Concurrent administration of testosterone with ACTH or corticosteroids may increase the likelihood of oedema and caution should be exercised. Undesirable effects

Very common (>1/10): application site reactions (including paresthesia, xerosis, pruritis, rash or erythema);

common (>1/100, <1/10): peripheral oedema, hypertension, polycythemia, increased prostate specific antigen, hirsutism, gynaecomastia. Certain excipients may cause irritation and dry skin.

Pack Size and Price
Packs containing one, two or three 60 g metered-dose canisters per pack. Price £26.67 per canister.

Legal Category

References

Tostran® is the only 2% testosterone gel:
- Accurate 10 mg dosing
- Simple dose titration
- Easy to apply, with minimal waste

With Tostran®, 92% of patients are within normal range after only one dose adjustment

The body of evidence

Low testosterone

The first metered dose

Tostran®

2% testosterone gel

A simple solution to a serious problem

Low testosterone

Approximately 1 in 10 men aged 40 to 79 years have low testosterone with signs AND symptoms

42% prevalence in men with Type 2 Diabetes and 10-20% prevalence with Erectile Dysfunction

Tostran® is the only 2% testosterone gel:
- Accurate 10 mg dosing
- Simple dose titration
- Easy to apply, with minimal waste

With Tostran®, 92% of patients are within normal range after only one dose adjustment

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42% prevalencia en hombres con Diabetes tipo 2 y 10-20% prevalencia con Disfunción Eréctil

Tostran® es el único gel de testosterona 2%:
- Dosis exacta de 10 mg
- Sencillo ajuste de dosis
- Fácil de aplicar, con mínimo desperdicio

Con Tostran®, 92% de los pacientes están dentro del rango normal después de solo una dosis ajustable
Thyroid eye disease affects about 200,000 people in the UK, and is severe enough to threaten vision in about 5,000 of these. Symptoms include pain, discomfort, redness, eyelid swelling, excessive watering, sensitivity to light, double vision and even visual loss. Eye protrusion and eyelid swelling can cause disfigurement leading to social isolation, with visual problems affecting employment and hobbies.

Non-sufferers know very little about what living with TED is really like. This study aimed to help healthcare professionals develop a greater understanding of the emotional and psychological impact of this disease, so helping them improve education, counselling and support for patients in clinical practice.

Analysis of transcripts from interviews with 20 TED patients (4 male, 16 female, age range 28-90 years, median 54 years) identified three main themes.

First, there was the development of an altered identity in response to changes in physical ability, appearance and social function, often including a loss of confidence and increased social isolation. Experiences were described in the context of ‘before and after’ the disease, and were often associated with grief and periods of mourning and depression: ‘It’s almost as if that was another life’. Secondly, the study identified a variety of coping strategies, including the use of ironic humour, denial and social withdrawal. Many participants expressed a longing to tell their ‘story’ of events, and all acknowledged there was little choice but to carry on with their everyday lives: ‘I just get on and live with it really. I’ll survive’. Thirdly, the development of an altered identity appeared to influence interactions with healthcare professionals. Participants found that the uncertainty surrounding the diagnosis and treatment of TED, together with the desire to deny what was happening, often resulted in anger and frustration: ‘I come away from clinic feeling worse, I don’t feel anything productive has come of it’. Being actively involved in treatment decisions reduced feelings of anxiety and frustration, and left them feeling that they could engage more fully in their treatments.

This qualitative study has identified the concept of an altered identity amongst patients, associated with lowered self-esteem and social withdrawal. It recognises there is often a difference between healthcare professionals’ assessment of the disease and that of the patients, which can lead to anxiety and frustration. Recommendations include more patient-centred evaluation of disease severity and impact, provision of innovative sources of support, like telephone and email support networks, and development of multidisciplinary combined endocrine and ophthalmology clinics that can better meet patients’ needs.

Evelyn Ashley Smith Award 2008

Applications are invited annually from nurses in the UK and Eire for this award of £500, offered by the British Thyroid Foundation to enable a nurse with a specialist interest in thyroid disorders to provide improved care to patients. The award can (a) support training needs including conference attendance, (b) support a specific project lasting 1 year, (c) reward a piece of work already completed, but not yet published. Applicants must show that the activity supported by the award aims to enhance care of patients with thyroid disorders. For further details contact 01423-709707 or see www.btf-thyroid.org.

British Pharmacological Society

The BPS is pleased to announce that Kate Baillie is its new Chief Executive Officer. Kate was previously Executive Director of the International and European Associations for the Study of Obesity.

Bayer Schering Pharma

Bayer plc and Schering Health Care Ltd merged on 1 July 2007. The new Bayer Schering Pharma will have its international headquarters in Berlin, with its UK base in Newbury. It will maintain interests in testosterone therapy, hormonal contraception, multiple sclerosis, haematology and cardiology, as well as in oncology and diagnostic imaging.

Talking to the media

The Science Media Centre has produced a set of media guides for doctors and scientists on how to communicate research to journalists effectively and deal with common difficult questions. These media guides are now available to download from our website at www.endocrinology.org/press.

Radioiodine in benign thyroid disease

Many regard clinical endocrinology as the last bastion of true general medicine. Of course, traditionally, medical registrars were revered (and feared) for their depth of knowledge and MRCP teaching. However, March 2007 brought about a colossal change in the recruitment, structure and training pathways for the specialties for junior doctors and the introduction of the academic trainee.

The four health departments sought to improve patient care by introducing a modern focused career structure, streamlining training and reconfiguring the junior doctor roles, placing an emphasis on measured competency. Thus modernising medical careers (MMC) was born. Doctors who underwent this seamless medical training would be eligible for entry to the specialist register. Thus a new tier of consultant would emerge and the change from specialisation - senior doctors and consultants will be called SpRs were issued with the generic curriculum and specialty endocrine and diabetes curriculum and have traditionally been assessed at yearly RITAs (record of in-training assessments). There is now a new curriculum and the RITA replaced by the annual review of competence progression (ARCP). This will consist of an assessment of performance (MSF/CEX/DOPS/CbD, videos, examinations, and a structured report), an annual competence review and planning of the next part of training.

The so-called ‘Gold Report June 2007’ contains all the essential reading for trainees and is available online at www.mmc.nhs.uk. Notably time out of programme for research is at the discretion of the local deanery, although it is unlikely to be permitted in the final year of training. Additionally, the Society for Endocrinology has introduced the Clinical Update in Endocrinology course to cover the new curriculum over 3 years, which is available for both trainees and consultants to attend; this replaces the Advanced Endocrinology Summer School.

There is a concern that we produce a medical workforce up to the job, and not adapt the jobs to cope with the new training programmes. We want and need thinking doctors, not just doctors with well-inked portfolios.

The effect of this upon clinical endocrinology, and many other specialties, is twofold. First, individuals must choose their desired training specialty early on, which may limit exposure to the vast range of specialties available. Secondly, if the trainee is even contemplating research, or wishes to pursue an academic career, they must apply appropriately.

The training scheme is as follows: the potential trainee exits medical school and applies for a 2-year foundation training programme (F1 and F2, former preregistration house officer plus senior house officer year 1 merged together). If at this early stage they are considering an academic career, they can apply for an academic F2. After this time, and attainment of adequate competency, the trainee can apply for their choice of specialty training and pursue royal college exams.

There are formalised portfolios for all, with new assessments in the form of: (1) multisource feedback (MSF) consisting of a mini peer assessment tool or team assessment behaviour; (2) a mini clinical evaluation exercise (CEX); (3) direct observation of clinical skills (DOPS); and (4) case-based discussion (CbD). Specialty training is divided into basic and higher training over approximately 5 years, depending on competency and specialty. At this stage the trainee can exit as a consultant, or undergo further subspecialty training.

To pursue a career in teaching or academia, you must apply for alternative pathways. The academic training pathway resulted from the Walport Report, and these posts are managed by the National Co-ordinating Centre for Research Capacity and Development. The former specialist registrar, SpR, is now termed a specialty registrar, StR, and the academic equivalent is the academic clinical fellow (ACF). The ACF must establish a research project of interest and secure funding through a training fellowship. The post of academic clinical lecturer succeeds this. Further subspecialty training or a senior lectureship post may then be pursued. SpRs were issued with the generic curriculum and specialty endocrine and diabetes curriculum and have traditionally been assessed at yearly RITAs (record of in-training assessments). There is now a new curriculum and the RITA replaced by the annual review of competence progression (ARCP). This will consist of an assessment of performance (MSF/CEX/DOPS/CbD, videos, examinations, and a structured report), an annual competence review and planning of the next part of training.

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There is a concern that we produce a medical workforce up to the job, and not adapt the jobs to cope with the new training programmes. We want and need thinking doctors, not just doctors with well-inked portfolios. Concerns in some quarters are that as experience on the shop floor dwindles - a product of the European Working Time Directive and early specialisation - senior doctors and consultants will be called upon more and more for routine on-call work. This will in turn have an impact on patient care and teaching of juniors. Maybe a new government will change it all again! 

ALIA MUNIR
SOCIETY FOR ENDOCRINOLOGY CLINICAL FELLOW AND CLINICAL ENDOCRINOLOGY TRUST FELLOW
Tom Parkhill ponders how best to catch the public’s attention.

What makes science matter?

I recently attended a BA (British Association for the Advancement of Science) Science Communication Conference in London. A chap from Belgium told the audience about a famous French edition of ‘Who wants to be a millionaire?’. A contestant was asked what orbits the Earth: (a) the moon, (b) the sun, (c) Mars, or (d) Venus? The poor guy didn’t know, so he took a gamble on asking the audience. You can watch the whole thing at: www.youtube.com/watch?v=IhlERjW0bhw, but I’m still going to spoil it by telling you that 56% of the audience thought that the sun went round the earth.

The audience at the conference was suitably appalled. But do most people need to know whether the earth goes round the sun or vice versa? Does the top deck of the Clapham omnibus need to carry that fact in its head?

Of course it matters, but let’s take the cynics’ viewpoint: it only matters if it’s important to me. So, for example, 99% of readers of The Endocrinologist would not have cared about an obscure virus called H5N1 if there wasn’t the chance it might spoil our summer holidays someday soon. To most people, most of the time, most science doesn’t matter; then suddenly, it does (think MMR vaccines, or global warming).

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What makes science matter?

I recently attended a BA (British Association for the Advancement of Science) Science Communication Conference in London. A chap from Belgium told the audience about a famous French edition of ‘Who wants to be a millionaire?’. A contestant was asked what orbits the Earth: (a) the moon, (b) the sun, (c) Mars, or (d) Venus? The poor guy didn’t know, so he took a gamble on asking the audience. You can watch the whole thing at: www.youtube.com/watch?v=IhlERjW0bhw, but I’m still going to spoil it by telling you that 56% of the audience thought that the sun went round the earth.

The contestant took their advice, and returned to well-deserved obscurity, except in science communication circles. For anyone with a science background it’s a 3-minute clip of compelling television. It’s almost classic drama, as the contestant slips towards his fate as inevitably as Oedipus (although part of Oedipus’s problem was that he didn’t listen to the chorus - but I sense I might be on dangerous ground in making Oedipal comparisons).

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TOM PARKHILL
Inspiring future endocrinologists

As postgraduates specialise earlier, endocrinologists must find a way to inspire and engage medical students, and encourage them towards a career in the subject. They must also support interested students who are keen to explore the opportunities.

Despite a standardised curriculum for undergraduate medicine, there is obviously a great difference in students' experiences within and between medical schools. Just as we all know that a good teacher can educate and inspire, we also know the perception of an experience as either positive or negative can be heavily influenced. To encourage medical students to engage in endocrinology, endocrinologists must ensure that the learning experience is positive and that they themselves are inspiring.

So how is endocrinology currently portrayed to, and experienced by, medical students? While not wishing to generalise, endocrinology is often not considered as one of the core subjects, unlike cardiovascular or respiratory medicine, for example. It is often squeezed in amongst the 'stronger players'. The lack of endocrinology 'firms' means that other clinicians frequently deliver the majority of endocrine teaching. This has implications for the quality of teaching, the complexity of cases seen and discussed, and the potential to be inspired to become an endocrinologist of the future.

I was fortunate. I was one of the thirty students in my year attached to the endocrinology 'firm' in a specialised centre for 1 day a week for 6 weeks, in both the out patient department and on the wards, whilst completing my 'abdomen' rotation. Here I saw the endocrinology and its patients that I want to be part of: highly complex and with such variety. For example, I clerked and followed patients with an insulinoma, lithium-induced nephrogenic diabetes insipidus, craniopharyngioma, adolescent Cushing's and Graves' disease.

This experience, combined with my hard work and the opportunities made available to me by my consultant, means I am now involved in research within the department, and have attended conferences to present our work. I have also arranged an 8-week clinical and research elective in endocrinology in Sydney, and confirmed my career choice.

But most of my peers, despite being just a few months from graduation, have only received minimal teaching in endocrinology. This has been largely preclinical rather than clinical, and not delivered by endocrinologists. Many remain unaware of the gaps in their knowledge, and the importance and frequent existence of endocrine disease in many general medical and surgical presentations.

Endocrinology and its teachers (clinicians) must therefore aim to maximise their exposure to the medical student masses, so that those who may eventually choose another specialty have at least received appropriate teaching as an undergraduate, and fundamentally to interest and inspire those who will choose the specialty for themselves and be the endocrinologists of the future.

The Young Endocrinologist's Postgraduate Diploma

The Young Endocrinologist’s Postgraduate Diploma was launched in 2004, and is accredited by the Institute of Biology as one of their recognised training schemes.

Its objectives were always ambitious. Scientists in the Society had voiced concerns about the limited knowledge of endocrinology shown by their PhD students - and more particularly, by other people's PhD students in their viva voce examinations! There was perceived to be well-recognised accredited endocrine training for clinicians, but no comparable pathway for scientists. PhD students working on endocrine projects might be more likely to identify themselves as biochemists or molecular biologists than endocrinologists. The diploma was to address all these issues at a stroke.

To get a diploma, you must accrue ten credits through attending sessions at Society BES meetings, making oral or poster presentations, and assessed essays. Since its launch, 18 Young Endocrinologists have registered - a much lower number than we had hoped for, making it difficult to evaluate the initiative's effectiveness. However, one student has almost completed the diploma, and we are expecting our first award at the next Society BES meeting.

The timing of the diploma’s introduction was problematic, coinciding with the launch of Roberts skills training for PhD students and post-docs. A straw poll at the Society BES 2007 suggested most research group leaders feel PhD students are already under enough pressure to take part in broader training schemes. The requirements for the diploma can be used towards Roberts skills training at some university graduate schools, but others are much more prescriptive about what their students must do, leaving little time for external activities like this.

So where next? To improve uptake, the Society has widened the scheme to include post-doctoral and other categories of researchers, so leading to increased interest. We also plan to introduce an 'away-weekend' so that Young Endocrinologists can network and meet more categories of researchers, so leading to increased interest. We also plan to introduce an 'away-weekend' so that Young Endocrinologists can network and meet more senior Society members. Attendance at this event will be included in a modified points system for the diploma.

The Society is strongly committed to supporting the training and career development of Young Endocrinologists, and sees the diploma as a key tool in this endeavour. However, it is an evolving beast, which must remain flexible enough to respond to the needs of members.

JOY HINSON, COUNCIL EDUCATION REPRESENTATIVE
Three jolly good fellows...

A gateway to academic medicine

Following MRCP in 1996 and a year’s clinical experience as a medical registrar, I decided that a career in academic endocrinology was for me. I was fortunate enough to be awarded a 1-year Wellcome Trust training fellowship and subsequently applied in 1998 to the Society for Endocrinology for their Clinical Endocrinology Trust clinical fellowship scheme.

After an appropriately gruelling interview, I was delighted to hear I had been successful, and worked for the next 3 years in Cardiff, under the expert tutelage of Jack Ham and Maurice Scanlon. My project examined the role of adenosine and its four cell surface receptors in pituitary cell growth regulation and cross-talk between folliculostellate and endocrine cells.

The work culminated with the award of a PhD in 2002 and formed the basis for my progression to lecturer and then senior lecturer in the Centre for Endocrine and Diabetes Sciences. My clinical interests in pituitary and neuroendocrine disease have continued, but my current research activity is focused on endocrine regulation of the metabolic syndrome, particularly in relation to adipogenesis.

The clinical fellowship provided me with an invaluable opportunity to acquire the necessary scientific skills for a career in academic medicine while maintaining relative freedom from clinical duties. I am indebted to the Society for giving me this chance.

ALED REES

A firm foundation to build upon

In 1997 I was lucky enough to be working as an MRC clinical training fellow doing my PhD in Adrian Clark’s molecular endocrinology lab at Barts. I was developing a particular clinical interest in Cushing’s syndrome under the guidance of Mike Besser and Ashley Grossman. At the time Adrian and I were very pleased to have received the Marjorie Robinson Fellowship (now, rather frighteningly, a decade ago).

I was studying the impact of DNA methylation on expression of the POMC gene, with particular reference to ACTH-dependent Cushing’s syndrome. We were able to show that differential methylation had a powerful effect and was especially relevant to tissue-specific expression. Having the Marjorie Robinson Fellowship was immensely helpful in facilitating this work.

In 2000 I took up a senior lecturer and consultant post at the Medical School in Sheffield. Current work in my lab continues to build on work started at Barts. We are further dissecting the effect of glucocorticoids on POMC expression and developing novel ways of inhibiting expression.

The Marjorie Robinson Fellowship has been extremely beneficial to our research work and has allowed me to develop my career. I continue to have fond memories of the time I spent at Barts.

JOHN NEWELL-PRICE

Ability to pursue my own research direction

I was fortunate enough to receive the Marjorie Robinson Fellowship in 2001. I had recently returned from Shlomo Melmed’s lab at UCLA, and was a post-doctoral research fellow on an MRC career development grant working for Neil Gittoes at the University of Birmingham.

The fellowship undoubtedly boosted my career in three ways. It provided consumables funding to pursue my own research direction. Through salary support, it facilitated a tangible degree of autonomy. Finally, it helped in my subsequent successful application for a non-clinical lectureship at Birmingham.

The 2-year tenure of my fellowship was successful in terms of research output, directly leading to papers in Journal of Clinical Endocrinology and Metabolism, FASEB Journal and Endocrinology. It set the tone for research themes which have continued to this day.

I am currently a senior research fellow in the Division of Medical Sciences at the University of Birmingham. I run an expanding research group of clinicians and scientists, which is funded through numerous bodies including the MRC, the British Heart Foundation, Action Medical Research and the Breast Cancer Campaign. We continue to publish in high impact factor journals, with papers this year in Oncogene, Carcinogenesis and Journal of Neuroscience.

Without doubt, the Marjorie Robinson Fellowship came at a critical point in my post-doctoral career, and pushed my research into a direction I have been enjoying ever since.

CHRISTOPHER MCCABE
Undergraduate Essay Prize 2007

Congratulations to medical student Harry Leitch from Cambridge, who won the Society’s first undergraduate prize essay competition with his essay ‘Re-engaging undergraduates with endocrinology: another role for kisspeptin?’ Harry’s essay examines the questions that kisspeptin may help us answer - and importantly those that remain gaps in our knowledge. Limited space means we can only print an edited excerpt of his essay (facing page), but you can read it in full (with references) at www.endocrinology.org/grants/prize_undergraduateessay.html.

The competition aims to address concerns about the loss of endocrinology from science curricula and its presentation simply as a component of other systems. We wanted to raise awareness of the discipline in its own right.

With a prize of £1000, we publicised the competition to every UK medical, dental, veterinary and life science department. Of the 60 essays received from 22 different higher education institutions, 75% were from medical students, 20% from science students and 5% from veterinary students.

Two endocrinologists rated the anonymised essays for topicality, readability and science content. A shortlist of 15 was scored by 6 people and scanned by an online plagiarism detector.

The high standard of entries meant 6 rather than 2 students each won a runners up prize of £250, namely: Olivia Clancy (Manchester), Douglas Fink (UCL), Gabriel Galea (Royal Veterinary College), Tom Havard (Barts and the London), Lim Yun Wong (Birmingham) and Darren Zurawel (Brunel University). We congratulate them all.

See back cover for the 2008 competition and encourage your students to take part.
Kisspeptins are the products of the Kiss1 gene. They are peptides of different lengths with a common C-terminal 10 amino acid sequence, vital for interaction with the receptor GPR54. Its role in reproduction emerged in 2003 with the discovery of a subset of families with idiopathic hypogonadotrophic hypogonadism due to mutations in the Gpr54 gene. A Gpr54 knockout (KO) mouse displayed a compelling phenotype: a failure to enter puberty, and thus infertility. Recently the Kiss1 gene itself was knocked out, and this mouse phenocopied the Gpr54 mutant.

Interestingly, GnRH neurones express GPR54, and Kiss1-expressing neurones co-localise with GnRH neurones in the hypothalamus. Furthermore, both wild type and Kiss1 KO mice show a robust LH response (a surrogate indicator for GnRH release) to exogenous administration of kisspeptin. Indeed kisspeptin has emerged as the most potent stimulator of GnRH release yet identified. So it appears that without intact kisspeptin/GPR54 signalling GnRH release is disrupted, the hypothalamic-pituitary-gonadal (HPG) axis fails to kick into gear and circulating levels of sex hormones are thus negligible, explaining the infertility.

So what triggers puberty? Kiss1 and Gpr54 are expressed throughout postnatal life in the hypothalamus, but reach a maximum level during puberty in the rat. There is also an increase in GnRH neurone sensitivity to kisspeptins during pubertal maturation. Using gramicidin-perforated patch recordings, only 30% of GnRH neurones produce an electrophysiological response to kisspeptin before puberty, compared with 90% in adults, suggesting a developmental increase in kisspeptin/GPR54 signalling.

The KO mice demonstrate that Kiss1 is clearly necessary for puberty and studies suggest it is even sufficient to induce it. Pulsatile i.v. infusion of kisspeptin into juvenile male monkeys produced a pattern of LH release similar to that seen at puberty, whilst chronic central administration to immature female rats caused activation of the HPG axis, demonstrated by advanced vaginal opening, increased uterine weight and increased serum LH and oestrogen. A developmental increase in Kiss1 signalling is clearly an integral part of the mechanism which triggers puberty.

But what causes kisspeptins to increase? For some time, achieving a critical body weight or a suitable nutritional state has been considered important for puberty to occur. Leptin has long been recognised as a possible factor in this link. Obese, leptin-deficient ob/ob mice are infertile, but fertility can be restored by leptin administration. Leptin treatment can also induce precocious puberty in immature female mice. But attempts to find a direct link between leptin and GnRH neurones have proved elusive.

Fasting animals to delay puberty causes a decrease in Kiss1 expression, whilst the administration of kisspeptin can restore vaginal opening and reactivate the HPG axis in the same animals. Streptozotocin-treated mice have served as a model of hypogonadotrophic hypogonadism caused by uncontrolled type 1 diabetes. These mice have decreased hypothalamic expression of Kiss1, and kisspeptin is able to ameliorate both hormonal and physical symptoms, normalising LH and partially restoring testis weights.

Further studies show leptin is a direct input to Kiss1 neurones. ob/ob mice have lower levels of kisspeptin than wild type, and treatment with leptin is able to partially restore kisspeptin levels. Furthermore, 40% of Kiss1 neurones express the leptin receptor. Kiss1 neurones may provide the output signal which influences the HPG axis in response to changes in metabolic state.

So, we have a possible chain of events from the attainment of a nutritional threshold and increased adiposity, through increasing levels of leptin and subsequent activation of Kiss1 neurones, leading to puberty. Although simplistic, this hypothetical chain provides a framework to work within and a model to challenge. For instance, leptin may well signal through alternative pathways to influence reproduction.

Further characterisation of Kiss1 KO and ob/ob mice and other animal models of failed pubertal activation should allow a better characterisation of the hierarchy of signalling involved. Whilst the role of energy status is compelling, it seems likely that there will be other checkpoints ‘gating’ Kiss1 signalling. Perhaps Kiss1 neurones will be the vital integration point of these signals, or perhaps other neurone populations will emerge which rival Kiss1 neurones for influence at the final common output, the GnRH neurone.

HARRY LEITCH
Healthy competition

Richard Dyer,
Chief Executive Officer of the Biosciences Federation, calls for bioscientists to heal the fractures within their discipline.

► Competition is an essential part of the scientific research culture. We aim to do ‘internationally competitive’ research and funding is on a ‘competitive’ basis. In reality, many laboratories seek to be first amongst equals because there are few accolades in being the second to make a discovery.

Frequently this is difficult to achieve, and highly competitive laboratories frequently collaborate in order to be first together. In general we thrive on competition and collaboration: the time to be worried is when nobody is interested in collaborating with you – it suggests that you are uncompetitive and have nothing much to offer.

This competition is a major driver for the success of science but occasionally it is unhelpful. I don’t intend to review the major ‘spats’ in the biosciences, but will remark only that the intense competition seen between two F1 racing drivers in August 2007 did not exactly improve the morale of their team! Inappropriate competition can have a negative effect.

The motor-racing example is relevant because the competition is inside a single team. The drivers have created an ‘internal market’ to be the best. They risk taking their eyes off the ‘external market’ - the real competition provided by other teams. In the biosciences we sometimes behave like Lewis Hamilton and Fernando Alonso!

There are very many organisations active in the biosciences: at least 80 learned societies, about half of which have come together in the Biosciences Federation. But that is not the point. These societies are together whether or not they are part of an umbrella organisation. They are ‘together’ in Team Bioscience. ‘Together’ the Team faces competition for money, students, specialists and infrastructure from the arts, the humanities and other branches of science and engineering. Team Bioscience has created a competitive internal market and has sometimes lost sight of the real competition.

Yes, there is a little hyperbole in the last sentence - but not much! Let us consider some examples. Several learned societies are working to get teaching resources into schools. Over and over again I hear that part of the motivation is to expose young people to the words that describe their society: ‘microbiology’, ‘endocrinology’, ‘physiology’, ‘biochemistry’, ‘ecology’ and probably all the other -ologies!

This is crazy because no single school can take on all these different resources, focused on separate subdisciplines of the biosciences. The internal market means that microbiology is successful if it gets more ‘hits’ than endocrinology. Do we really think that this form of internal competition is helpful? What we really need is more students as a whole thinking of the biosciences as a career. What we really need is a bigger and better qualified pool of young bioscientists. When we achieve these goals, both the microbiologists and the endocrinologists will get more recruits - as will everyone else.

And what do our real competitors do? The Royal Society of Chemistry is also active with young people. They also look to create teaching resources. But these are not focused on ‘analytical chemistry’, ‘synthetic organic chemistry’, or any other subset of the subject of chemistry. Their efforts are exclusively focused on chemistry because first and foremost they want to encourage more young people to become chemists. Their policy is wise.

Where else is there an internal market? Certainly in policy work - and this is partly my fault! Currently it is quite common for the Biosciences Federation to respond to an enquiry and find that several member organisations have produced their own response. I shall work harder to reduce this competition, but I can’t really influence members’ decisions to ‘do their own thing’. I am quite convinced that this is ineffective and a waste of money. Somehow the Federation must increase its catalytic capacity to get a unified voice for the biosciences on the major topics that impact on the future health of our discipline.

More broadly, we must identify areas where Team Bioscience has created an internal market that acts as a detriment to success in the external market. Solutions are possible for the examples above. The Federation was established to help provide these solutions, and I detect that the landscape is changing to allow this more readily than in the past. There is increasing awareness amongst member organisations that a structure for the biosciences that seemed to work in the mid-20th century is no longer appropriate today.

Several weeks ago I was at an open meeting where Sir David King (Chief Scientific Advisor to the Government) asked in his talk if the severely fractured bioscience landscape was ‘fit for purpose’? The answer depends on which purpose you consider. If the purpose is for systematists, ecologists, physiologists or plant pathologists to meet to talk about their work, the answer is a qualified yes. In practical science, societies are successful ‘special interest groups’. The ‘yes’ is qualified because young people don’t always relate strongly to the disciplines around which some societies are built and this may be a future problem. However it is very much harder to answer ‘yes’ if the ‘fit for purpose’ question refers to engagement with local, national and European politicians and opinion formers. These areas need Team Bioscience.

Some competition between learned societies will remain for the foreseeable future: the competition for membership is an obvious example. However, I believe that there is an increased wish for us all to work together whenever appropriate and possible. The wish was rather theoretical 2 years ago. Today I see much more desire for its implementation. I am confident that Team Bioscience will be built. Its shape and final structure are a little uncertain, but I am confident of the outcome because the need is so great.

RICHARD DYER
People recognition is specialty-dependent

Based on surveys, Donald Dossey, a North Carolina behavioural scientist, estimates that between 17 million and 21 million Americans suffer mild to severe anxiety or change their activities because of paraskevidekatriaphobia (which is Greek for ‘fear of Friday the thirteenth’). They perform rituals before leaving the house, call in sick to work, or postpone flights or major purchases, causing businesses to lose $750 million dollars annually.

Thus on Friday 13 April 2007 I was feeling pretty smug. It was 11 o’clock in the evening, I was preparing for bed and the day had passed off incident-free. I should confess, however, that I have a new bedtime ritual. This started about a year ago when I noticed dry skin patches on both cheeks (face). Therefore it is now my custom to use a moisturiser (cream or ointment) on my face each night. I have to do this without my spectacles, as the patches are too close to my eyes to treat if glasses are worn.

I had bought a new moisturiser, and was looking forward to using it for the first time. I spread it liberally on both cheeks, but was immediately surprised. First it had a strange odour, and secondly it seemed to disappear very quickly leaving no trace - most unlike my previous cream. I gave my pampered skin patches a brief rub and noted, to my horror, that they began to shine. I groped for my glasses and read the label on the new moisturiser, which stated ‘neutral shoe polish paste’. I had just anointed my lovely face with shoe polish and now it was beaming back at me in the mirror! How long would I look like this?

We all know identification of individuals is dependent primarily on facial recognition. Andrews and Eubank, writing recently in *Neurolmage*, found a largely size-invariant neural representation in the inferior temporal lobe that could be involved in the recognition of facial identity, and a separate face-selective region in the superior temporal lobe that could be used to detect changeable aspects of faces (such as the boot-shine effect). To be honest, I had never given the subject much thought until Beryl came to see me and challenged all my preconceptions about person recognition and the temporal lobe.

Beryl had thyrotoxicosis and she hung onto the active disease with a tenacity only paralleled by Tony Blair clinging onto high office. She had been a patient of mine for between 5 and 10 years. Essentially, throughout most of this period, she was overtly thyrotoxic but she denied symptoms. Surgery was out of the question, she had just anointed my lovely face with shoe polish and now it was beaming back at me in the mirror! How long would I look like this?

The thyroid gland was rejected and her dosage of anti-thyroid medication would have been a world record, if she had been taking it! Needless to say she was slim, and much of the time, contented.

At her regular clinic visits we rarely talked about thyroid disease anymore, there seemed little point in doing so. We chatted about books, her children and holidays, but still the responsibility for her mismanagement weighed heavily on my shoulders, although on reflection I knew that I had tried very hard to encourage her towards euthyroidism. Beryl was now 52 years old and 2 years past the menopause; it occurred to me that there was now a need (active thyrotoxicosis and post-menopausal) to consider other aspects of her medical management such as skeletal health.

A bone mineral density scan revealed spinal osteoporosis. I began a discussion with her about the available medical treatments for osteoporosis (with which she could be non-compliant). In doing so, I thought it worthwhile to enquire about a family history of osteoporosis. When 5-10 years have elapsed since a full history was taken, it is common for the physician to forget details of the family history, so I asked her if she had any sisters.

‘I have a twin sister,’ she replied.
‘Identical or non-identical?’ I asked.
‘We aren’t sure, but we are both patients of the same gynaecologist, and he told us that on the inside we are identical,’ she stated calmly.

Her answer floored me, and I did well to hold myself together throughout the remainder of the consultation. While I fully understood the raw facts - the constituent ‘inner components’ of the lower reproductive axis of the two sisters are identical, i.e. one vagina, one cervix, two ovaries, etc., the thought that either through vaginal examination or laparoscopy a gynaecologist could tell the difference between identical and non-identical twin sisters seemed extraordinary.

What physical sign was it that proved so telling? Do they have a similar dimple in the left ovary when they smile? Does their cervix light up when they chuckle? How did the gynaecologist know - and are andrologists possessors of the same gift? In other words do andrologists recognise their male patients by their dingle-dangle bits rather than their faces? ‘Oh yes, I know you, 20ml on the right and 16ml on the left.’

Furthermore, is the retention of this type of human identification represented in the same areas of the temporal lobe as facial recognition, or is there a separate site for the recognition of sexual parts, no doubt with tight security for the database?

And what is more, do gynaecologists and andrologists greet their patients with ‘I remember you, I never forget a …?’

‘We are patients of the same gynaecologist, and he said that on the inside we are identical’
Hyperprolactinaemia after withdrawal of cabergoline

The standard treatment for hyperprolactinaemia is to use a dopamine agonist, such as cabergoline (CAB), potentially as a life-long medication. Withdrawal has been reported to result in recurrence of hyperprolactinaemia, but Colao and co-workers have noticed that patients with normalised prolactin and without evident tumours upon withdrawal have lower rates of recurrence. The study observed 221 newly diagnosed patients (173 women, 48 men) with various initial tumour states (non-tumour hyperprolactinaemia, microadenoma and macroadenoma) over a period of tailored CAB treatment and subsequent long-term withdrawal. MRI was used to monitor tumour growth.

Following withdrawal, recurrence of hyperprolactinaemia was identified in 88 patients, without concomitant tumour growth; the mean period of normal prolactin was 65 months. Nadir prolactin levels and maximal tumour diameter immediately prior to withdrawal of \(<162\text{mU/l}\) and \(<3.1\text{mm}\) predicted remission of the effects of GH on the growth of differentiated hepatocytes can re-enter the cell cycle following stimulation by growth factors, cytokines and hormones. There is evidence to suggest that GH is stimulated by growth factors, proCRF, with or without one or two polysaccharide moieties.

A combination of HPLC and two-site immunochemical analysis has led Lovell and colleagues to suggest that phosphocholine is secreted phosphocholinated hormones to the aspartyl side-chain at residue 4 of the mature peptide. In addition, corticotrophin-releasing factor (CRF) expressed by rat placenta is mainly secreted as phosphocholinolized proCRF, with or without one or two polyasparagine moieties.

Placental secretory polypeptides modified by phosphocholine

Placental neurokinin B appears to be post-translationally modified by attachment of phosphocholine to the aspartyl side-chain at residue 4 of the mature peptide. In addition, corticotrophin-releasing factor (CRF) expressed by rat placenta is mainly secreted as phosphocholinolized proCRF, with or without one or two polysaccharide moieties.

Regulation of p27kip1 by miR-221 and miR-222

MicroRNAs (miRs) have emerged as an important class of short endogenous RNAs that act as post-transcriptional regulators of gene expression by base pairing with their target mRNAs. miR-221 and miR-222 are up-regulated in human thyroid papillary carcinomas in comparison with normal thyroid tissue. Bioinformatic analysis suggested that the p27kip1 protein, a key regulator of the cell cycle, was a candidate target for the miR-221/-222 cluster.

Visone and colleagues report that the enforced expression of miR-221 and miR-222 was able to reduce p27kip1 protein levels in thyroid carcinoma and HeLa cells in the absence of significant changes in specific p27kip1 mRNA levels. It is likely that the negative regulation of p27kip1 by miR-221 and miR-222 might also have a role in vivo, as the authors also report an inverse correlation between miR-221 and miR-222 up-regulation and down-regulation of the p27kip1 protein levels in human thyroid papillary carcinomas. Therefore, the data reported here demonstrate that miR-221 and miR-222 are endogenous regulators of p27kip1 protein expression and, thereby, the cell cycle. AE (See the full article in Endocrine-Related Cancer 14(3), September 2007)

hGH stimulates human hepatocyte proliferation in vivo

Rodent studies have shown that differentiated hepatocytes can re-enter the cell cycle following stimulation by growth factors, cytokines and hormones. There is evidence to suggest that GH is involved in liver regeneration, but the effects of GH on the growth of human hepatocytes have not previously been studied in vivo.

Masumoto and colleagues have used a chimaeric mouse to examine the effect of human (h)GH on the proliferation of human hepatocytes in vivo. The hepatocytes were transplanted into albumin enhancer/promoter driven-urokinase plasminogen activator transgenic/severe combined immunodeficiency disease (uPA/SCID) mice.

Treatment of chimaeric mice with hGH increased the repopulation speed and replacement index of transplanted human hepatocytes and up-regulated the expression of GH-related signalling molecules, including hIGF-I. Their research demonstrates, for the first time, that hGH stimulates the proliferation of human hepatocytes in vivo, indicating that the human hepatocyte-chimaeric uPA/SCID mouse is a useful animal model for studying the effects of GH on human hepatocytes. SE (See the full article in Journal of Endocrinology 194(3), September 2007)

HOT TOPICS

The latest and best from the Society’s journals, courtesy of
Sarah Esberger, Andrew Lowe and Simon Launerson

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Problem Solving in Endocrinology and Metabolism


Why do people still write books? In an age of instant internet information, free and utterly up-to-date, it may seem anomalous that print publishing remains a highly successful activity, albeit in fewer and fewer hands and often run by multinational conglomerates. Perhaps there is still a need to hold paper copies, to browse at will, and to keep a body of information, knowledge and reference in a reasonably mobile form.

Admittedly, this does not account for the dogged persistence of the vast multi-author tome. However it may, in part, explain why 'little books', centred on one subject and possibly referred to over and over again, still continue to be published and sold and, one would assume, make a profit. Of course, it is now a matter of simple fact that little of the profit goes to the authors, other than in the rarefied world of the airport blockbuster or children's tales of dungeons and dragons. Still, authors with a mission remain the publishers' best friend.

In this volume, Kennedy and Basu have a simple but worthwhile mission: to teach out-patient endocrinology to practising endocrinologists via a series of introductory patient vignettes. The idea is sound, although I still found the concept a little difficult to separate from a postgraduate exam crammer or a conventional textbook.

Nevertheless, most of endocrinology is well-covered, the advice is fair if sometimes a little bit based on extensive reading rather than clinical practice, and (very important this) the book itself is attractive and well printed and laid out. It is clearly not a source of reference, but is nevertheless an enjoyable browse. With the imminent arrival of written in-course assessments, I suspect it will be popular with our new generation of specialist registrars, assuming that there will be anyone left in hospital medicine by the time the Department of Health has finished its programme of total annihilation.

Just one word of advice for the authors if they go to another edition. If you begin each chapter with a clinical history, it would be much more enjoyable to finish each chapter by taking the reader through the actual diagnosis, any 'catches' on the way, and an appropriate denouement. After all, if you open with an Agatha Christie plot then you would expect Miss Marple to come up with the possibly surprising, but in the light of the evidence, appropriate, suspect.

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