Fraud or science?
You decide

PLUS
When it’s good to lose money
Rekindling in vivo skills
Welcome to the Winter Issue of *The Endocrinologist*. Following an Autumn issue with a strong emphasis on education, this issue focuses on research. This is the first Autumn that I can remember as an endocrinologist without the Society’s November meeting. Like many of you, I suspect, I did miss it, although I wasn’t exactly left twiddling my thumbs wondering what to do with the first week of November! The articles in this issue certainly show how busy we endocrinologists are, doing all the things that endocrinologists do.

In this issue we have a major focus on the Society’s Special Interest Groups on page 7. These groups bring together members with common research interests in particular areas of endocrinology, There are four groups already established and two more ‘under construction’.

Julia Buckingham writes about the skills shortage in the area of in vivo research and the steps being taken to address this. In a most timely article the Research Defence Society asks whether there really is a decline in animal rights extremism or whether the focus has simply moved to other countries. Those of us who have faced extremists over the past twenty years will not be in a hurry to dismiss the threat they pose to research, but clearly the political climate has changed sufficiently to allow significant funding of integrative animal physiology and pharmacology and to facilitate the application of the huge advances in molecular understanding achieved over the past decade. Julia’s article gives us good reason to feel positive about the future of science in the UK.

In his usual provocative manner, Gavin Vinson asks us to consider whether scientific writing is actually fraudulent: read his article on page 12 and make your mind up.

Usually an article about finance would be an instant turn-off, but Michael Shepherd and Pat Barter have done an excellent job of explaining how the Society uses its income to support its members and promote the subject of Endocrinology. Do read it: it’s your money they’re spending!

The ‘spotlight’ in this issue is on the Pituitary Foundation. There is a most informative article on page 6 explaining the work of this long-established and very active patient support group, clearly doing a most worthwhile job.

The staff in the Bristol offices all wore pink for breast cancer awareness day last month. Turn to page 4 for pictures of the event. The image of Tom Parkhill in a pink wig is one I can’t somehow shake off. Tom leaves the Society this month for new challenges in Italy. I am sure you will all join me in wishing him well for the future. We’ll miss you Tom.

In this festive season it can be quite a challenge NOT to eat and drink to excess, but well done to Tony Michael for his charity bike ride ‘The Pooley Push’. What a fantastic achievement, and with the bonus of improved health and reduced leptin levels!

And finally to football. You will notice the seasonal photo above, taken at Arsenal’s stadium just a few days ago. If we end December in the same position we started the month then I will be a very happy bunny. Do forgive me for not getting excited about England’s failure to qualify for Euro 2008. Would somebody like to give me a job where I get a £2.5 million payoff if I do it really badly? All offers to the email address below.

I wish you all a Happy and Peaceful Christmas.

JOY HINSON
(j.p.hinson@qmul.ac.uk)
Society staff ‘in the pink’

The staff in Bristol have had an accident with a pink paint pot! Take a look at page 4 for the evidence. Their rosy glow was in aid of a fantastic cause, Breast Cancer Campaign’s ‘Wear It Pink Day’ (www.wearitpink.co.uk). Everyone wore at least one item of pink (some a little more than others!), and donated a minimum of £2. We raised £84.07 for the event.

Thanks to real progress in breast cancer research over the past few decades, there have been significant improvements in diagnosis, treatment and survival. More than 80% of women diagnosed today will be alive in 5 years’ time; 30 years ago this figure was about 52%. Breast Cancer Campaign hopes to raise £3.5m through this event, some £0.5m more than last year.

A huge round of applause is due to all the staff, and a big thank you to those who also brought in the pink cakes!

MEM CONSORTIUM

Thanks to a grant of £1850 from the Society for Endocrinology and Clinical Endocrinology Trust, AMEND (the Association for Multiple Endocrine Neoplasia Disorders) launched its ‘First Steps’ consortium at the Society BES 2007 meeting in Birmingham. This is a professional/patient partnership, which aims to improve the care and management of all MEN patients.

Endocrine consultants, surgeons, geneticists and nurses attended the launch. All expressed their commitment to improvement, but recognised the problems that must be overcome, such as the lack of a national database and statistics. Excellent attendance at a second meeting at the British Association for Endocrine Surgeons conference in September again indicated the enthusiasm that exists for this work. For more information, contact liz.dent@amend.org.uk.

Julia Buckingham

The Society’s General Secretary, Professor Julia Buckingham, has been appointed to the role of Pro-Rector for Education at Imperial College London, with effect from 1 October 2007. She will be responsible for education strategy and quality assurance, student welfare, the Centre for Educational Development, the Departments of Humanities and Music and Arts, and will lead the Graduate Schools. She has relinquished her post as Head of the Division of Neuroscience and Mental Health. We wish her well in her new role.

Extremism in decline?

RDS News reports that there has been a downturn in animal rights extremism. There is currently little activity outside the Oxford area, where the university is building its biomedical research centre.

Based on figures released by the Association of the British Pharmaceutical Industry in July 2007, it appears that improved police responses, together with new government and industry measures, are proving effective, with attacks on institutions at an all-time low.

Findings showed:

- a significant reduction in the total number of protesters
- considerably fewer unadvertised demonstrations
- a noticeable drop in the number of incidents involving abusive or threatening letters
- attempts to blockade phone, fax or email services at a record low
- no personal attacks on researchers or their families

This success has been made possible through police operations such as Operation Achilles. This involved 700 police and support staff, with raids on 29 UK properties, 1 in Belgium and 2 in the Netherlands. To date, 12 people have been charged.

However, the animal rights extremist website Bite Back indicates that this downward trend may be accompanied by sustained activities in other countries. And while the UK downturn is obviously very encouraging, the research community, police, government and public should not become complacent. All efforts must be sustained to combat extremism and to provide a firm basis to rebuild confidence across research and business institutions.
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The simple application of Testogel, once a day, gives him the reliable 24-hour testosterone replacement he needs and keeps his symptoms under control. With Testogel it’s no wonder he’s thriving.

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**Uses:** Testosterone replacement therapy for male hypogonadism when testosterone deficiency confirmed by clinical features and biochemical tests. **Dosage:** One 5g gel sachet daily. Can be adjusted in 2.5g gel steps, to a maximum of 10g gel daily. Once sachet opened, apply immediately onto clean, dry healthy skin over both shoulders, or both arms or abdomen. Do not apply to genital areas. **Children:** Not for use in children.

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L0612049d December 2006.

Information about adverse event reporting in the UK can be found at www.yellowcard.gov.uk. Alternatively, adverse events can be reported to Schering Health Care Ltd. by email: Productssafety@schering.co.uk.
Spotlight on...
The Pituitary Foundation

The Pituitary Foundation was created in 1994, when a group of endocrinologists, the Society for Endocrinology and patients came to realise that there were sizeable numbers of people with pituitary conditions and no organisation to help them. Together, they built The Pituitary Foundation, with charitable status following in September 1996.

In the first 11 years of our existence, a great deal of effort went into establishing our core sources of information and support: a patient helpline, our library of leaflets, the ‘cadre’ of Telephone Buddies, a national network of local support groups, an endocrine nurse helpline, newsletters, a website, and a series of national conferences. Other successful projects have included our carers’ support and early awareness initiatives.

In the last 2 years, the trustees and staff have worked to ensure a steady foundation for the provision of our core services, as well as looking to the future.

A staff and student team at the University of the West of England (UWE) carried out a year-long needs analysis for The Foundation in 2005 (see The Endocrinologist, Spring 2007, issue 83, page 10; the full report is available at www.pituitary.org.uk or from The Pituitary Foundation’s office). The results were not staggering: pituitary patients have anecdotally indicated these concerns to staff and volunteers for years. The analysis, however, confirmed that issues faced by pituitary patients are not just physical. Long diagnoses, bewilderment symptoms, life-long treatments, the rarity (awareness) of the disease and other factors cause isolation, appearance-related concerns and often clinical levels of depression and anxiety.

These results showed The Foundation a clear way forward for augmenting and improving services and support.

In September 2006, we launched a new website (www.pituitary.org.uk) offering easier navigation, quicker news and updates, downloadable leaflets, a section for medical professionals and a patient/carer forum. With more than 570 users from the UK and abroad, the forum has been a success and is a place of appropriate peer support. It is moderated daily and every new user is approved before activation.

Our new logo, launched this summer, is clearer and better reflects the community. We have moved away from ‘PitPat’, terminology that has long been misunderstood. We have begun a series of ‘regional conferences’, less intensive days for patients and family members that still provide excellent speakers and opportunities to network and learn. Details of forthcoming events can be found on our website.

In June, we held our National Pituitary Awareness Week. By popular demand, we focused on issues surrounding emergency hydrocortisone. With alarming frequency, we have heard of patients who have had problems receiving necessary hydrocortisone medication during emergency and non-emergency situations. The pituitary community responded to our call for support by sending campaign letters to medical professionals. We also wrote and placed an advert in the British Journal of General Practice. One extraordinary result of this campaign was a rise in visits to our website from about 35 000 per month to around 56 000 in each of June and July!

Our work continues on this important issue. By the end of 2007, we will publish Hydrocortisone: advice for the pituitary patient, which will be available in print and from the website.

Revision and expansion of our leaflet library will also lead to publication of Diagnosis and treatment: the psychological impact of a pituitary condition (to replace the current leaflet entitled Psychological issues in pituitary disease). We hope to have an accompanying leaflet to address psychosocial issues involved with long-term pituitary conditions. Lastly, we intend to create a new range of leaflets for families and children with pituitary conditions.

In July 2007, to stay in touch with the community and to best meet needs, The Foundation embarked on a patient satisfaction survey with the UWE team. One thousand surveys were mailed, and more than 450 have been returned to date. The report will be made available to the community once we have received it. The results have largely validated the needs analysis and strengthened the assertion that there needs to be more awareness of pituitary conditions and more psychosocial support.

We have a great many plans for the future and will strive to continue providing support and information for a better ‘pituitary journey’.

Helpline: 0845 4500375 (09.00-17.00, Mon-Fri)
Endocrine Nurse Helpline: 0845 4500377 (scheduled times only)
Administration: 0845 4500376
Email: helpline@pituitary.org.uk Web: www.pituitary.org.uk

Science Communication Awards

Rebecca Sowden (University of Strathclyde) and Nicole Steinmetz (John Innes Centre, Norwich) are the winners of the 2007 BSF Science Communication Awards, sponsored by Pfizer.

Rebecca won the £1500 established researcher prize, in recognition of the quality of her extensive science communication activities. Besides her full-time role as research fellow, she takes her passion for science into the classrooms of primary and secondary schools, using innovative and dynamic experiments to inspire school-children.

The £500 prize in the new researcher category was awarded to Nicole for her work in communicating nanobiotechnology. Her recent PhD examined the use of a harmless cowpea plant virus to produce new nanomaterials: exciting research which could have future applications in biosensors and nanoelectronic devices.

For more information see www.bsfc.ac.uk/media/award/winners_sci_comm2007.htm.

For more information see www.bsf.ac.uk/media/award/winners_sci_comm2007.htm.
SIG-nificant news!

Consultation with Society members led to the establishment of special interest groups (or SIGs) in 2004. The four original groups cover bone and mineral, PCOS and metabolic syndrome, pituitary, and steroids. We are delighted that two new SIGs will join them this year, on endocrine disruptors and obesity.

The SIGs aims are three fold. Firstly provide a focus for sub-specialities within endocrinology, to strengthen the discipline and create a framework for different groups to come together in a community and promote interdisciplinary interests within the Society. Secondly organise small meetings for focused groups, either stand-alone gatherings or a day of SIG-related programmes at the annual Society meeting. Thirdly, they increase the profile of endocrinology as a speciality.

Each has its own area within the Society website (see www.endocrinology.org/sig) and a discussion board allows the SIGs to communicate easily with one another (see http://www.bioscientifica.info/sfe/sfemembers/discussion/index.aspx for more details).

Each SIG is headed by at least one convener, who acts as the main liaison point between the Society and other SIG members: The current convenors are Bronwen Evans and Neil Gittoes (bone and mineral), Richard Sharpe (endocrine disruptors), Sadaf Farooqi (obesity), Steve Atkin and Harpal Randeva (PCOS and metabolic syndrome), Rob Fowkes and Jack Ham (pituitary), and Wiebke Arlt and Mike Wallace (steroids).

Starting in this issue, the SIG convenors will provide updates in The Endocrinologist to tell you about the advances of the SIGs and their future directions.

Bone and Mineral SIG

We met during the Society BES meeting 2007 to discuss the NICE Appraisal Consultation Documents, the Orthopaedic 'Blue Book' and Society endorsement, and our remit/role as a SIG. We also agreed to develop a sponsored symposium on bone and mineral for submission to the Society BES meeting 2008. We’ve now completed this, and will seek funding from appropriate pharmaceutical companies.

The SIG has been actively seeking collaborative links with other interested societies, including the Bone Research Society (with whom a joint meeting has been proposed), and the National Osteoporosis Society through their Professional Partners Forum.

Our membership has almost doubled since March 2006, and now stands at 169. We have a working group to deal with the more clinical aspects of osteoporosis and other bone diseases.

Bronwen Evans (Cardiff) has led the group since it started in 2004, with Mark Cooper (Birmingham), Colin Farquharson (Roslin) and Raj Thakker (Oxford) as committee members. Neil Gittoes (Birmingham) recently joined as co-convener, following a flurry of meetings to try to raise the profile of osteoporosis and bone disease generally. Bronwen and Neil have emailed all group members asking for comments in relation to future plans and objectives for the SIG.

The aims of this SIG are:

- to provide a focus for bone and mineral research in order to strengthen the discipline
- to maintain a register of the specific interests of members
- to initiate and manage communication between members
- to organise meetings and symposia
- to increase the profile of endocrinology as a speciality
- to increase the profile of the Society for Endocrinology and encourage new membership

If anyone has any comments or suggestions in relation to this SIG, please contact Bronwen at evansba@cardiff.ac.uk, or Neil at neil.gittoes@uhb.nhs.uk.

Bronwen Evans, Neil Gittoes

Steroid SIG

There is a keen interest in steroid endocrinology within the Society, and almost 200 members have registered with the Steroid SIG since its inception. This interest is also reflected by the impressive number of abstracts on steroid-related topics at the Society BES meeting 2007.

As a SIG, however, we need to develop more momentum to promote interaction, exchange and collaboration in this exciting field. To facilitate this, we plan to circulate a list of all Steroid SIG members, and are gathering members’ specific research interests and techniques by email for this purpose.

To gather your input and help us grow together, we will meet during the Society BES meeting 2008 in Harrogate (time and location will be circulated to SIG members closer to the date). Please come along, armed with ideas to help us review our aims and discuss plans for the future. We can achieve a great deal with your help.

The group’s new co-conveners are Wiebke Arlt (Birmingham) and Mike Wallace (Glasgow), both of whom have a long-standing research interest in steroids, with regard to clinical and biochemical aspects. Wiebke is Professor of Medicine and MRC Senior Clinical Fellow at the University of Birmingham. Her research group focuses on pre-receptor metabolism of sex steroids and she has a major interest in adrenal and gonadal disorders. Mike is a Consultant Clinical Scientist, who heads the Endocrine Laboratory at Glasgow Royal Infirmary.

This SIG’s original aims, soon to be reviewed, are:

- to establish a register of members
- to provide a bulletin board for members
- to offer a forum for collaborations and partnerships
- to generate a united mechanism to source supplies of steroids
- to discuss/meet/organise symposia covering areas of common interest with the other SIGs
- to act as a point of contact for the public to aid the understanding of steroid research and its significance for the human body, including the uses and abuses of steroid hormones.

Wiebke Arlt, Mike Wallace
As Mr Micawber proclaimed ‘Annual income £20, annual expenditure £19 19s 6d, result happiness. Annual income £20, annual expenditure £20 0s 6d, result misery’. For a business to succeed, we know it must generate money. Its success is judged by its level of annual surplus. Surely making a deficit could never be good news?

Well, with apologies to Charles Dickens, sometimes it can be. Of course, like businesses, charities must generate money to fund their activities and reserves (which cover core services in hard times). The Charity Commission requires us to define how big this reserve must be, and to spend any money in excess of that requirement.

Following the stock market crash a few years ago and the purchase of new offices, our reserves fell below the required level. Several successful years of trading from BioScientifica, hosting ECE 2006, and the recovery of the stock market, coupled with strong leadership and innovation from the Bristol office, have resulted in reserves in excess of the requirement.

The excess funds need to be used over the next few years to support the Society’s charitable activities. The only way to achieve this is to spend more than we earn, thus reducing the reserve. So, yes, a deficit can be a very good thing indeed, provided that it is planned. Also, the bigger the deficit, the more we are doing to support endocrinologists and to promote endocrinology!

Strategic review – spend, spend, spend

At the AGM in November 2006, our then Treasurer Anne White reported that surplus reserves had been created and the Officers explained the strategic review that had taken place. This review involved all aspects of the Society, with input sought from the membership, committees and staff, to draw up a plan of increased charitable activity.

The review resulted in several new grants and awards, educational and career development activities, changes to meeting structures, plans for lobbying and professional and career activities, as reported in *The Endocrinologist* Autumn 2006, issue 81, page 9. Some of these new and improved activities commenced during the financial period to 31 July 2007 and many more are planned for the coming years.

Figure 1 shows a comparison of the actual and planned expenditure for the years 2006 to 2009.

In 2006 the main activities were membership support activities, education by way of training courses, a moderate number of travel grants, awards, the annual November meeting and the very successful ECE 2006.

Charitable expenditure more than doubles

2007 saw the start of the transition. The biggest increase in activity related to grants, with a significant increase from £104k to £238k. The level of expenditure on membership support activities increased as new lobbying, prizes and awards and the website redevelopment took place. The spring meeting represents the first of the Society’s new-style meetings, with an increased level of expenditure.

In the financial year to July 2008, grants expenditure will increase to £317k as further new initiatives are introduced. The expenditure on educational activities will increase with the new autumn Clinical Update, an educational weekend for young science researchers and an increased number of Clinical Cases meetings, public events and other public activities. The November meeting will disappear from activities, whilst the new professional and career activities start to take off. The year to July 2009 shows these developments continuing.

The Council and Committees will review all areas of activity regularly, in the light of feedback from members.

The total expenditure on these areas of activity is shown in Figure 2. As you can see, the level of expenditure is planned to increase significantly from £371k to £952k: an increase of more than 2.5-fold.

Don’t panic!

So the Society’s costs will increase and in due course create deficits. But there’s no cause for alarm, as this is the plan. It represents exciting times for the Society, as many aspirations start to come to fruition.

But, you might say, if you keep making deficits you will run out of money. Of course, this is something that is continually under review. The strategic review gave rise to many projects that can easily be scaled up or down as finances permit. The reserve requirement is reviewed each year and will almost certainly increase this year as a result of some of the new activities that the Society would like to maintain. All of these aspects will be monitored and, of
course, BioScientifica and our investments continue to generate more money.

The initial indications are that the first stage of the strategic review, which was thought to be ambitious, may need to be scaled up even further to keep up with the income generated. Part of this relates to the performance of the stock market, which cannot be anticipated when preparing budgets and can be unpredictable.

Figure 3 shows the anticipated level of the reserve requirement, based on the current criteria, and the anticipated level of reserves up to 31 July 2009. As you can see, the current plans start to reduce the surplus reserves with effect from 2008. However, these figures do not allow for future gains or losses on investments.

The Society’s financial management has resulted in exciting opportunities for you to become involved in new activities and to be proud that you are a member of a dynamic and growing Society!

MICHAEL SHEPPARD
PAT BARTER

NOW AVAILABLE

Molecular Pathogenesis and Therapy of Pituitary Disease
Eds K Ho & K Chihara

Leading authorities on the basic science and clinical aspects of pituitary disease discuss its mechanisms, the role of peripheral hormone action and new therapies. Of great use to the endocrine scientist and clinician alike.

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- developmental abnormalities
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- glucocorticoid replacement
- Kallmann’s syndrome
- craniopharyngiomas
- the role of P27 in pituitary tumorigenesis

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Figure 2. Planned total expenditure on charitable activities (2006-2009)

Figure 3. Anticipated reserve requirement and readily usable reserves (1999-2009)
The last two decades have seen an exponential growth in our understanding of molecular and cellular biology. Advances in technology have permitted the sequencing of the human genome, the identification of many disease-related polymorphisms and the ability to create sophisticated mouse models in which the expression of a specific or mutated gene is up- or down-regulated in a time- or tissue-specific manner.

However, we are still a long way from understanding the true biological functions of most of our genes and translating this important knowledge into clinical medicine. There are probably many reasons, but one critical factor has been the progressive loss from our research community of people who can design and perform the *in vivo* experiments needed for us to understand the consequences of gene manipulation in animal models: in other words, our physiologists and pharmacologists.

Surveys carried out by the Physiological Society and the British Pharmacological Society (BPS) in 2003 revealed that most of the scientists who possess *in vivo* skills are due to retire within the next decade, with few obvious replacements. A more recent survey, by the Biosciences Federation in 2007, sponsored by the Association of the British Pharmaceutical Industry and the former Department of Trade and Industry, reached similar conclusions, and stressed the need to train a new generation of young scientists with these skills. Disaster you may think, but there is some light at the end of the tunnel.

A forward-thinking group comprising the BBSRC, MRC, Higher Education Funding Councils, BPS and a consortium of pharmaceutical companies (AstraZeneca, GlaxoSmithKline and Pfizer) recognised the need for action. Rather than trying to pass the buck, they combined resources to form the Integrative Mammalian Biology Fund in order to offer significant capacity-building grants. These grants aim to support a core of UK institutions with expertise in research and training in *in vivo* integrative pharmacology, physiology and toxicology, with a long-term commitment to an exemplary culture of animal welfare.

As a result, they have made four awards of around £3 million over 5 years. The successful centres are Imperial College London, King’s College London, and two consortia of universities: Manchester/Liverpool and Glasgow/Strathclyde. All four centres have now recruited promising young scientists with *in vivo* skills into tenure-track academic positions, and have developed training programmes and other activities to support the endeavour. It may only be just the beginning, but we have a huge amount to thank these funders for.

**JULIA BUCKINGHAM**

## IMPERIAL’S INAUGURAL SYMPOSIUM

We were delighted when Julia Buckingham invited the Society to attend the recent inaugural symposium for the Centre for Integrative Mammalian Physiology and Pharmacology (CIMPP) at Imperial College London.

Highlighting the role of the grant from the Integrative Mammalian Biology Fund, Julia emphasised to the 200-strong audience how it was to be used to provide an academic focus for *in vivo* research across Imperial College.

Young scientists will learn how to perform the physiological and pharmacological studies needed to understand the functions of genes and their products in health and disease, and so identify new drug targets and biomarkers. They will acquire knowledge to help them explore the pharmacodynamic and pharmacokinetic properties of novel drugs, and facilitate the development of safe, effective new medicines and the exploitation of pharmacogenetics. This will be underpinned by the skills necessary for *in vivo* research and working in accordance with the principles of the ‘3Rs’ (replacement, refinement and reduction).

The grant will also provide a forum for the discussion of *in vivo* research, promote the highest standards of animal care and welfare, and advance the public understanding of the importance of *in vivo* studies in medical and veterinary research.

Chief Executive of the Biosciences Federation Richard Dyer welcomed the establishment of the CIMPP, expressing his hope that such initiatives will help bring to a halt the national loss of practical skills. In his plenary lecture, Professor Clive Page stressed the need to integrate tissue culture techniques with *in vivo* work to get a more complete picture of biological systems.

Amongst the presentations that followed, Vicky Robinson from the National Centre for the Replacement, Refinement and Reduction of Animals in Research examined the Centre’s focus and highlighted the awards they make available for relevant research (see www.nc3rs.org.uk).

Retired MRC geneticist, statistician and laboratory animal scientist Michael Festing looked at experimental design in animal studies. Naomi Latham from the University of Oxford emphasised the importance of housing and environmental enrichment for laboratory animals with regard to their welfare, behaviour and brain function.

Superintendent Steve Pearl talked on policing animal rights extremism. He outlined groups’ tactics and the methods used to counter them. For further information, see www.netcu.org.uk.

The closing plenary lecture by Ann Hayes, former head of pharmacology at GlaxoSmithKline, reflected on the importance of *in vivo* animal research in developing safe and effective new medicines and the potential impact of the loss of *in vivo* skills on translational medical science and the pharmaceutical industry.

Judging from the huge success of the day, CIMPP will have a very bright future.

**RACHEL EVANS**
Suggestions for your next presentation

I was pondering over why such a high proportion of the male hairdressers that I have known have been called Des, Les or Sid (and, by the way, the same applies to gardeners). This was whilst Belinda, my first acquaintance with a female barber, was giving me a number three.

Belinda was terribly polite throughout, so I nicknamed her Lady. She replied that most people described her as feisty rather than lady-like, and so I informed her that feisty is a word usually applied to American women. In historical development it is derived from the description of a kind of energetic dog - the feistiness referred to the animal breaking wind. Belinda stated that she didn’t have a dog! I decided not to proceed any further with this conversation.

Belinda finished conventionally by holding a mirror to the back of my head and asking, ‘Is everything to your satisfaction?’ As always, I answered untruthfully, ‘Yes’. After all it is not Belinda’s, Sid’s, Des’s or Les’s fault that the view of my bald pate is aesthetically unappealing, nor that currently, given the survival of only 10 scalp hairs, my haircut costs 50 pence per actual hair severed! In fairness, Belinda did try to improve the cost-benefit ratio in my favour by trimming my eyebrows and scavenging my ears for any signs of undergrowth.

The haircut had been in preparation for a lecture appearance in London. The talk seemed to go well until question time. This was introduced by the chairman, an eminent paediatric endocrinologist, with an insulting remark that both floored me with its savagery yet delighted me with the technique. The chairman told the audience that he would just like to point out that he disagreed entirely with what I had just said.

This of course, provided the audience with a very negative view of the contents of my lecture, yet by completely avoiding any specifics he deprived me of a sensible riposte and I remained silent! Now with the benefit of hindsight, greater experience, and the help of Catherine Tate, I would be inclined to utter, ‘Does this face look bovvered?’ or ‘Whatever...’ Whilst it might not have rescued my standing with the audience, it would have made me feel better!

Having attended numerous symposia and listened to hundreds of lectures, I believe that the overall standard of medical lecturing has improved significantly over the last 10-20 years. There are, however, still irritations of both linguistic style and form offered by many speakers. For instance, there’s the often-heard description, ‘This is a busy slide’; a slide cannot be busy, it is an inanimate object! Also note the use of ‘This is...’, used at the beginning of the phrase to lend distance between the speaker and the behaviour of the slide, to imply somehow that the slide has itself contrived to be busy, rather than resulting from the speaker including too much information!

Another nonsense is provided by the automatic use of the closing remark, ‘Thank you for your attention.’ The whole front row of spectators is asleep and snoring, and two cases of acute sleep apnoea have been induced and stretched out from row two during the presentation. Nonetheless the gratitude is proffered, despite the evidence of their own eyes and ears!

Speakers are also afflicted by a false sense of obsequiousness. Don’t you want to scream by the time the tenth speaker starts by thanking the Programme Organising Committee (POC) for the invitation to speak? An invitation to speak is not a favour bestowed on a plebe by a privileged elite. The POC has been picked to do a job: to arrange the programme and select the speakers. The speakers too have their responsibilities: to give good lectures!

My last and most fervent wish is the return of one or two ‘bigheads’ to the discipline of endocrinology; everyone is too nice! At the end of the brilliant plenary lecture the speaker’s final slide invariably acknowledges all those individuals who made the work possible - all 250 of them. Only the speaker’s mother’s name seems to be missing! Just once, I will settle for once, I want to see the esteemed speaker put up the acknowledgement slide to display an unmistakable picture of themselves, and then hear them say, ‘It was me, all and only me!’

The message of itself will avoid the clumsy spectacle of the speaker leaving the stage atop the shoulders of their many collaborators.
Out of the archives...

Is scientific writing fraudulent?

Professor Sir Alan Parkes, FRS, had a wonderfully unexpected result at the start of his career, when he subjected female mice to X-irradiation. This destroyed the ovarian follicles in young animals, but the granulosa and theca interna persisted, though changed, in mature animals. Despite the loss of germ cells, many of the animals continued to have menstrual cycles, if somewhat abnormally. This serendipitous finding eventually contributed to the view that the theca interna/granulosa is the site of oestrogen synthesis, a subject of controversy at the time. These studies were published in 1927, before the structures of the oestrogens were even known.

But none of that’s the main reason these results were unexpected. In his excellent account of this history, published as his Dale Medal Lecture in 1965 (Journal of Endocrinology 34 xx-xxxii), Professor Parkes makes a totally astounding admission, such as can be made only by those with the confidence conferred by a long and distinguished career. He hadn’t intended to irradiate female mice - he thought they were males! What a stunning result from such an embarrassing mistake! He was able, with appropriate encouragement of course, to change the direction of his research, and thereby launched his exemplary career.

This brings me to a key point: it’s worth considering why he couldn’t do this today. I think it’s because of a naive, and maybe even fraudulent, view of the way science develops, in which we are all complicit.

In a 1963 broadcast on the BBC, and subsequently in The Listener (a publication sadly long defunct), Sir Peter Medawar described the way scientific papers are written as fraudulent. Primarily he attacked the style of writing which purports that experiments are conducted with no expectation of the nature of results to be obtained. Only when all the data have been collected can general conclusions be reached, by the process of induction (entailed by Francis Bacon among others).

But induction as a useful process had been attacked by Karl Popper and others as early as the 1930s, and I believe the Popperian revolution was well established by the time Medawar wrote, so the concept that we must have a hypothesis to test was pretty widely held. Today I think we all read papers in this light.

Nevertheless, perhaps Popper has taken us too far and, in particular, the standard research grant application may be fraudulent for this reason (though it is pretty difficult to analyse as you can’t expect access to the original material).

Let’s consider the ‘hypothesis’. On the first page of any application form, we have to state what questions are being addressed, and why are they important. The hypothesis is implicit here. If we say science is characterised by the testing of hypotheses, then any scientific problem must be hypothesis-driven.

This immediately rules out ‘fishing expeditions’ (although this in essence is what the whole genome project has been about, and what gene arrays and gene knockouts still are about), and it also rules out technology (although modern science is wholly dependent on technological advance, take gene arrays and knockouts again, for just two examples). So by conniving at the view that these activities are ‘unscientific’, the fraud (well deceit anyway) starts here.

So the bulk of the research grant proposal that we now write is about how these questions, which test hypotheses, will be addressed. The format usually adopted here is extraordinary. We say, ‘to test hypothesis X, we will... If the results are A, then perhaps the methods are wrong,’ or words to that effect. So we will use other methods, and continue testing hypothesis X. You’d have to be very careful about saying, ‘If the results are B, we must completely discard hypothesis X, and substitute hypothesis Y.’ Your application could go down if you did, because it’s very easy for a committee to criticise such uncertainty, and to demand further preliminary data.

I would say that both sides are complicit here as well. If you really do know what the answer’s going to be, then the experiment’s not worth doing in the first place. In fact, when actually in the laboratory, most people just aren’t that logical. And, although we might state that an experiment has only two possible outcomes, A and B, many I’ve done have had the outcome C, something I hadn’t even thought of in the first place.

Finally, what happens if the result is not A, or B, or even C, but G or H, which are so powerfully and monumentally significant, you simply have to drop everything, and concentrate on them? Well, I’d say you were extremely lucky. But unlucky too, because you can’t do it.

For the purposes of presenting a smooth coherence in your science to the grant-awarding bodies, you just can’t follow your instincts, because you must complete the set of studies outlined in your proposal. Not only that, but if it got out, the totally unexpected result (though highly significant) may even compromise your reputation as a scientist because you didn’t foresee this possibility in the first place. Someone will quote a paper from 1939 to show it had already been thought of. I exaggerate, of course. But only a little.

Professor Parkes’ result was a classical ‘G’-type, and he followed it up. Can you imagine the letter we would have to write to the Research Council today to justify doing this? ‘Although we said we would examine the effects of X-rays on the male gamete by irradiating male mice, it turns out we mistakenly irradiated female mice, and we’d like to study female reproductive endocrinology instead.’

Obviously, some big advances in science have been made like this. Obviously, it’s different today.

GAVIN VINSON
The Pooley Push

One of our Society members is disappearing!

Between April and September this year, Tony Michael shed 11kg (24lb) in weight - not through faddy diets but by taking more exercise.

Tony, from St George’s in London, hadn’t ridden a bicycle for about 20 years when he bought a new touring cycle and began training for ‘The Pooley Push’. Far from a highly organised event for finely honed athletes, this charity bike ride saw a group of out-of-shape, middle-aged men (some suffering from ‘Cushing’s disease of the omentum’) riding from Bristol to London over 2 days in early September.

The ride was inspired by Phil Pooley, a friend of Tony’s who underwent major surgery and chemotherapy at Bristol’s Southmead Hospital in 2006 to treat extensive throat and tongue cancer. Tony and his companions trained to ride with Phil from Southmead Hospital to Golder’s Hill Park in North London. The journey covered 147 miles along the A4, with some challenging uphill stretches as they crossed the Cotswolds.

Generous support, including donations from BioScientifica, staff in the Bristol office and several Society members, meant that Tony raised £1409. Between them, the team of seven cyclists (plus their support driver) raised over £7500 to be shared between Macmillan Cancer Support and Cancer Research UK. And, of course, the riders also managed to increase their insulin sensitivity and decrease their leptin concentrations.

Inspired by the experience of fund-raising whilst improving their health, Tony and friends have already started planning ‘Le Pooley Push, Deux’: 300 miles from London to Paris next summer! So be prepared for Tony to approach you for sponsorship soon; unless, of course, he disappears completely in the next bout of training.
**Predictors of hyperprolactinaemia remission**

Until recently, life-long treatment with dopamine agonists, either cabergoline (CAB) or bromocryptine, has been thought necessary to prevent recurrent hyperprolactinaemia in patients with prolactinomas.

Colao and colleagues have, however, previously shown that patients with small remnant tumours have higher recurrence rates than those without evident tumours. This suggests that treatment could be withdrawn in patients with normal prolactin levels and negative MRI. The authors have now expanded on their earlier findings, reporting the estimated rate of recurrence at 24-96 months after CAB withdrawal in a large series of patients. They assessed the accuracy of nadir prolactin and maximal tumour diameter in predicting remission following CAB withdrawal.

They found that persistent remission without evidence of tumour regrowth occurred in the majority of patients with non-tumoural hyperprolactinaemia, and in around half of those with macroprolactinoma. The longest remission periods were seen in patients with nadir prolactin levels ≤162 mU/l and maximal tumour diameters ≤3.1 mm before treatment withdrawal, suggesting that patients can be safely withdrawn from treatment if these criteria are met. SE (See the full article in Clinical Endocrinology 67(3) September 2007)

**Glucocorticoid receptor antagonist Org 34850 in corticosterone release**

Considerable evidence indicates involvement of the HPA axis in the pathophysiology of stress-related disorders, including depression and chronic fatigue syndrome. This could be due to changes in the mechanisms by which glucocorticoids, secreted by the adrenal cortex, exert inhibitory negative feedback effects on the axis. Glucocorticoid negative feedback has been divided into three distinct time domains, fast (occurring in seconds or minutes), intermediate (within 2 hours) and delayed (>2 hours).

Spiga and colleagues investigated the effect of the glucocorticoid receptor antagonist Org 34850 on inhibition of corticosterone secretion in response to synthetic glucocorticoid methylprednisolone in rats. They found that acute administration of methylprednisolone rapidly decreased basal corticosterone secretion and this effect was not prevented by acute pretreatment with Org 34850. However, blockade of the glucocorticoid receptor with Org 34850 prevented delayed inhibition by methylprednisolone of corticosterone secretion measured between 4 and 12 hours after methylprednisolone administration.

Their data suggest an involvement of the glucocorticoid receptor in modulating delayed, but not fast, inhibition by methylprednisolone of basal corticosterone secretion. AL (See the full article in Journal of Endocrinology 196(1), January 2008)

**Intramural IG-1 upregulated in BRCA1/2 breast cancer**

BRCA1/2 mutations predispose to early-onset breast and ovarian cancers. The phenotypic expression of mutant alleles is thought to be modified by factors that are also involved in the pathogenesis of sporadic breast cancer. One such protein is IG-1, one of the strongest mitogens for breast cancer cells in vitro.

Hudelist and colleagues compared intratumoural IG-1 and IGF-1 receptor (IGF-1R) protein expression in 57 BRCA1/2 mutation carriers and in 102 matched breast cancer patients. BRCA1 silencing by siRNA was used to investigate the effect of BRCA1 mutations on IGF-1 protein expression. IGF-1 protein expression was detected in tumoural epithelium and surrounding stroma, and was significantly upregulated in tumours of BRCA mutation carriers when compared with matched sporadic tumours. In contrast, IGF-1R protein expression was confined to malignant epithelium and was unchanged in mutation carriers.

siRNA-mediated downregulation of BRCA1 in primary human mammary gland cells triggered upregulation of endogenous intracellular IGF-1 in vitro.

The increased intratumoural IG-1 protein expression in BRCA mutation carriers suggests an involvement of the IGF-1/IGF-1R axis in the biological behaviour of breast cancers in this population, and could define a potential therapeutic target. AL (See the full article in Endocrine-Related Cancer 14(4), December 2007)
Systems of the Body: The Endocrine System


The mark of a truly great lecturer is the ability to translate a complex subject into a simple message. Joy Hinson, Peter Raven and Shern Chew quote Professor John Landon in their preface: ‘Endocrinology is really very simple. You can either have too much of a hormone…or too little.’ I think the editors of this book should be congratulated on achieving a great feat: translating the complex subject of endocrinology into an enjoyable, intelligible read.

The book is written for students and for once this goal has been achieved. So often one sees a heavy tome described as a useful student text, with little attention paid to the audience. Here we have a valuable asset which I am sure any student who buys it will treasure. The book is laid out with an organ-based approach. Each chapter starts with a relevant case history, which is then followed through as the physiology of the system is described.

The chapters are sprinkled with interesting facts highlighted in boxes, and each ends with a series of questions and a self assessment case history. The illustrations and tables are superb. I have only praise for this book, which I will certainly be recommending to all students who pass through my clinic. I suspect I may also be referring to it myself, as a reminder of the more rarely seen areas of endocrinology. In an age where so much information is provided on a screen it is a pleasure to hold in my hand a volume which I found both educational and entertaining.

RICHARD ROSS
Observing what’s missing

Increlex® - the first and only therapy licensed in Europe for severe primary IGF-1 deficiency

Prescribing Information

Increlex® (mecasermin, recombinant DNA-derived human insulin-like growth factor I [IGF-1]) produced in Escherichia coli. Indications: Long-term treatment of growth failure in children and adolescents with severe primary IGF-1 deficiency. Dosage & Administration: Administer via subcutaneous injection. Recommended starting dose is 0.04mg/kg twice daily. If no significant treatment-related adverse events occur for at least one week, dose may be raised in increments of 0.04mg/kg to the maximum dose of 0.12mg/kg twice daily. Administer shortly before or after a meal or snack. Injection sites should be rotated. Not recommended in children under 2 years of age. Contraindications: Hypersensitivity to the active substance or to any excipients, intravenous administration, active or suspected neoplasia. Benzyl alcohol, must not be given to premature babies or neonates, and it may cause toxic and anaphylactoid reactions in infants and children up to 3 years old. Precautions & Warnings: Do not use in patients with closed epiphyses. Thyroid and nutritional deficiencies should be corrected before starting treatment. Avoid high-risk activities within 2–3 hours of dosing. Patients with a history of severe hypoglycaemia should have glucagon available. Doses of insulin and/or other hypoglycaemic agents may need to be reduced. Echocardiogram recommended before starting treatment. Patients should have examinations of the ear, nose and throat periodically, and at the occurrence of clinical symptoms, to rule out potential complications or to initiate appropriate treatment. Fundoscopic examination recommended at the start of, and periodically during the course of treatment, and at the occurrence of clinical symptoms of intracranial hypertension. Monitor patients for slipped capital femoral epiphysis and progression of scoliosis. Patients and parents should be advised to seek prompt medical attention in the event of an allergic reaction. Pregnancy & Lactation: Mecasermin should not be used in pregnancy unless clearly necessary as there are no adequate data. Breastfeeding while taking mecasermin is not recommended. Undesirable effects: Common: hypoglycaemia, hyperglycaemia, headache, fever, injection site pain, injection site bruising, arthralgia, pain in extremity, myalgia, hypertrichosis, nausea, pyrexia, diaphoresis, diarrhoea, dental pain, ear pain, headache, influenza-like symptoms, upper respiratory tract infection, upper respiratory tract infection. Very common: injection site pain, injection site bruising, arthralgia, myalgia, nausea, pyrexia, diaphoresis, diarrhoea, dental pain, ear pain, headache, influenza-like symptoms, upper respiratory tract infection. Overdose: Treatment should be directed at alleviating any hypoglycaemic effects. Oral glucose or food should be consumed. If loss of consciousness occurs, intravenous glucose or parenteral glucagon may be required. Storage: 2ºC–8ºC. Do not freeze. Legal Category: POM. Basic NHS Cost: £384 (40mg/4mL vial). Pack size: 1 vial. Marketing Authorisation Number: EU/1/07/402/001. Marketing Authorisation Holder: Tercica Europe Ltd, Riverside One, Sir John Rogerson’s Quay, Dublin 2, Republic of Ireland. For information contact the local representative of the MAH: Ipsen Ltd, 190 Bath Rd, Slough, Berkshire, SL1 3XE. Tel. 01753 627777. Date of preparation of PI: August 2007. Ref: INC05986. Suspected adverse drug reactions (ADRs) should be reported at www.yellowcard.gov.uk. ADRs should also be reported to the Ipsen UK Medical Information department at medical.information.uk@ipsen.com. Prescribers should consult the Summary of Product Characteristics in relation to other side effects.