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# The Endocrinology · Issue 81

SPECIAL ISSUE:

Paediatric endocrinology

SOCIETY FOR ENDOCRINOLOGY



1946 2006



Editing The Endocrinologist is fun. You get to work with the Society's friendly, efficient staff, to read Hotspur's column before anyone else and to commission articles from whatever source you please. To assist in the preparation of the editorial, proofs of the issue's content are provided by the desk editor. Much of the content is already familiar, although inevitably there are usually also surprises.

The proofs this time contained an unpleasant surprise - the obituary for Saad Al'Damluji (page 6). I first met Saad as an SHO at Bart's when he was a research fellow. I was instantly struck by the rigour of his thinking and his whole approach to medical research. He possessed a unique intensity which made Mike Besser look laid back, and was a model for any aspiring clinical scientist. There was, however, a more disconcertingly frivolous side to Saad. I shall always remember him interrogating a group of us over dinner about our research plans, before challenging us to race the six flights of stairs to his room to end the evening with a fine malt! Endocrinology and clinical science have lost an exceptionally determined researcher.

On a positive note, Sue Thorn outlines the Society's strategic plan on page 9, explaining how the Society will support its members and advance the cause of endocrinology on the bigger stage. One challenge is how to maintain the Society's relevance to the whole spectrum of individuals engaged in clinical and academic endocrinology, so ensuring that the trend towards more specialist groups is not at the Society's expense. We must make certain, for example, that the 'Boneheads' appreciate the value of involvement in the Society, and that attendance at the BES meeting is indispensable.

Paediatrics is another example of a group with successful national and international societies, but which is nevertheless integral to the Society, and to which the Society must continue to demonstrate its relevance. This special issue on paediatric endocrinology has a wide variety of interesting and topical contributions from this field. Pages 10-14 span molecular diagnostics, congenital hyperinsulinism, intersex management, infant marketing, and the transition from paediatric to adult care.

Let's look forward to an exciting future for our Society, as it continues to embrace all its constituent interests.

PETER TRAINER



Cancer

# **Endocrine-Related** Cancer

You can now make your papers free to all, immediately upon publication, in Endocrine-Related Cancer online.

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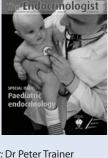
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If you prefer not to pay this fee, only subscribers will have access to your article for the first 12 months. Review

articles will continue to be freely available upon publication without any charge.

Endocrine-Related Cancer (impact factor 4.905) is a not-for-profit journal of the Society for Endocrinology. Find it online at http://erc.endocrinology-journals.org, and the Society's other journals at www.endocrinology-journals.org.

Full details of this free access option are at http://erc.endocrinology-journals.org/preview\_misc/Free\_Access\_Announcement.dtl.



Editor: Dr Peter Trainer Associate Editor: Dr Joy Hinson Co-ordination: Jolene Guy Sub-editing: Caroline Brewser Design: Martin Harris

Society for Endocrinology 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK Fax: 01454-642222

Email: info@endocrinology.org Web: www.endocrinologv.org

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### 2006 Advertising Rates

Advertise your event in The Endocrinologist! Members: Mono - Half page £110 Mono - Full page £170 Others: Mono - Half page £325 Mono - Full page £500 Colour - Full page £1300

Deadline for news items for the Winter 2006 issue: 1 November 2006. Please send contributions to the above address.

# Calling all consultants! 2007 Clinical Excellence Awards

▶ Following the success of the Society's scheme to support nominations for the 2006 Clinical Excellence Awards, we are pleased to offer our services again for 2007.

The awards seek to reward those who make the biggest contribution to delivering and improving healthcare, either through clinical service or through teaching and research in academic medicine. Further details are available at the Advisory Committee on Clinical Excellence Awards (ACCEA) web site (www.advisorybodies.doh.gov.uk/accea/index.htm).

Our support is available to consultants (including honorary consultants) who have been in post for more than one year. We can only support a limited number of applications, so contact Rachel Evans at the Bristol office (rachel.evans@endocrinology.org) as soon as possible if you want to take part in the scheme. You must complete all applications for Society support by

A panel of existing Society Gold and Platinum award holders will objectively rank all applications, write citations for the successful candidates and forward these to the ACCEA. The citation will reflect the following areas:

- bdelivering a high quality service
- be developing a high quality service
- managing a high quality service
- research, education and training

Meanwhile, we eagerly await the results of the ten applications we supported for the 2006 awards.

## MEDIA/EXTERNAL RELATIONS ADVISORY GROUP

► The Society is interested in forming a Media/External Relations Advisory Group, and seeks support from members who are keen to promote endocrinology to the public and the media. The group would work with the External Relations team in the Bristol office, with the aim of raising the profiles of both endocrinology and the Society.

Composed of five or six endocrinologists with an interest in public communication, the group would:

- > meet with the External Relations team and agree targets, standard procedures and structures
- > approve all press releases
- provide a technical resource for the External Relations team
- ≥ advise the External Relations team of upcoming events/research
- where appropriate, represent the Society to the public and press, and work with the External Relations team to develop a public and media communications strategy.

We anticipate that the group would largely communicate electronically, and perhaps meet at major Society events such as the forthcoming November meeting and the annual

If you are interested in helping to promote and publicise endocrinology, please contact Jo Thurston on 01454-642230 or jo.thurston@endocrinology.org.

### E-voting coming soon!

SOCIETA

The Society will shortly be conducting an electronic ballot amongst Ordinary Members to elect three new members of Council. You will be able to cast your vote by email until 30 October. If you are an Ordinary Member and have not been invited via email to vote online, it means that either we do not have your email address or your email bounced. In this case, please send your correct email address to christine.davis@endocrinology.org.

6-7 November 2006 197th Meeting of the **Society for Endocrinology** Kensington Town Hall, London

21 February 2007 **Clinical Cases Meeting** Royal Society of Medicine, London

5-8 March 2007 **Society for Endocrinology BES 2007 Meeting** ICC, Birmingham

### CHANGE TO NHS PHOTOCOPY LICENCE

The central photocopying licence that permitted NHS staff in England to photocopy copyrighted publications is no longer in place. To ensure that documents are copied legally all trusts must now take out a licence with the Copyright Licensing Agency. Please check with the Chief Executive of your Trust that there is a licence in place

### Impressive impact factors

► The Society's position at the forefront of endocrine publishing has been highlighted yet again by new journal impact factors.

Clinical Endocrinology now boasts a factor of 3.412, its highest in at least 15 years, while Endocrine-Related Cancer has climbed to an impressive 4.905. Journal of Endocrinology remains strong at 3.059. Journal of Molecular Endocrinology's fall to 2.474 resulted from the publication of more articles in the second year covered by the impact factor, which meant they had less time to be cited. You can read the 'Hot topics' from the most current journal issues on page 16.

### Job adverts at November meeting

The Society is setting up a bulletin board at this year's meeting to advertise job vacancies. If you have any positions available in your department, please send details in A4 size poster format to julie.cragg@endocrinology.org no later than 23 October.





# Meet your **Programme Secretary**

▶ I was surprised and delighted to be approached about becoming the Society's Programme Secretary. This is an exciting time for the Society, as we move to a



new meetings schedule, ride the wave of new advances in both basic and clinical science, and engage with the changing demands for medical education.

I see my main aim as catalysing a successful annual meeting and to bring out the very best in cutting-edge endocrine research and practice from the UK, Europe and beyond. Many sub-specialist societies and international groupings compete for our attention, but maintaining a vibrant

endocrine community in the UK is fundamentally supported by having a successful conference.

To achieve this, we have a whole day meeting to plan the programme, where we discuss and prioritise suggestions from the Society's Science and Clinical Committees. As members, you should engage with us to get the event you want, either in response to the call for suggestions, through the newly established Special Interest Groups, or through me. If you feel your 'pet area' has been overlooked, contact me with a formal programme suggestion or informally with topic ideas by 20 November.

As well as driving development of the programme, I am a member of the Society's Council and an Officer of the Society, and I liaise with the Bristol office staff regarding all aspects of the meeting. I present progress reports to Council and an annual report at the Society's AGM.

Much effort is expended behind the scenes to ensure the efficient running of your Society. The interplay between the members who suggest strategy and the Bristol office staff who develop it into policy is very interesting.

To conclude, I am here to serve you. Where I get it wrong please let me know - and feedback is equally welcome when we get it right!

DAVID RAY

# INTERDEPARTMENTAL PEER REVIEW

All hard-pressed clinical endocrinologists should make use of the Society's interdepartmental peer review scheme, which aims to improve services for endocrine patients and give much needed support to endocrinologists.

Dr John Bevan from Aberdeen Royal Infirmary is co-ordinating visits by reviewers to major UK teaching hospitals, and involving associated district general hospitals. Ideally, all UK endocrine centres will become involved in due course. The scheme facilitates an exchange of ideas, highlights areas of need and provides useful information for clinical governance (for full information see www.endocrinology.org/sfe/endocrinologist/end07016.pdf).

Having now successfully piloted three centres in Sheffield/Chesterfield, Hull/York and Oxford/Reading, we now propose setting up visits to at least ten more UK centres in the next 12 months. Please let us know if you would like a visit from the peer review team: we don't want to leave you out!

So, if your endocrine service needs more support, you need extra staff in your unit, you have had difficulty convincing managers to resource clinical endocrinology, or if you would benefit from an external assessment of clinical governance and service delivery, or want to compare your endocrine service with others, then register your interest in the scheme, or contact Dr Bevan, by emailing ann.lloyd@endocrinology.org.

### **Clinical Committee Chair**

We welcome Dr Peter Trainer to the role of Clinical Committee Chair with effect from 1 December. Our grateful thanks are due to Professor Michael Sheppard, the outgoing Chair, for all his hard work on this Committee over the last four years. We welcome him to the position of Treasurer, which he will take up at the November AGM.

### Members on the move...

**P** Amin to Derby Royal Infirmary; **J** Fagin to Memorial Sloan-Kettering Cancer Center, New York, USA; **J** George to York District Hospital; **C** Jones to Glasgow Royal Infirmary; **E** Karteris to Brunel University, Uxbridge.

# Society medallists

- ▶ We are delighted to announce the following medallists, who have been approved by Council following their recommendation by the Awards Committee. Each will give their plenary lecture at the Society for Endocrinology BES Meeting in the year shown.
- Society Medal 2007
  Professor Brian Walker (Edinburgh)
- European Medal 2007
  Professor Anna Maria Colao
  (Naples)
- Asia & Oceania Medal 2007 Professor Ken-ichiro Morohashi (Okazaki)
- Society Medal 2008
  Professor Hilary Critchley
  (Edinburgh)
- ➢ European Medal 2008 Professor Niels Skakkebaek (Copenhagen)
- Asia & Oceania Medal 2008
  Professor Ken Ho (Sydney)
- ▶ Dale Medal 2008 Professor Alan McNeilly (Edinburgh)
- ▶ Transatlantic Medal 2008 Professor Ron Rosenfeld (Palo Alto)

### **Congratulations**

We are pleased to announce that Dr Mehul Dattani has been promoted to Professor at University College London.

### Travel grant reminder

If you wish to attend an overseas endocrine conference or the Society for Endocrinology BES Meeting, don't forget these annual deadline dates for travel grant applications: 15 April, 15 August, 15 December.

All members earning less than £50 000 pa are eligible to apply for a grant.

### **PEER REVIEW AUDIT**

The Society's peer review procedure has recently been audited by the Association of Medical Research Charities (AMRC). Their panel, made up of representatives from the AMRC's Scientific Advisory Committee and **Executive Council and from member** charities, found that the Society was adhering to the Association's principles. They recognised that implementing and maintaining a rigorous process of peer review is a demanding task for medical research charities and congratulated the Society on its achievement.

### **BUCHANAN MEDAL OF** THE ROYAL SOCIETY

We are delighted to announce that Professor Iain MacIntyre FRS, a Senior Member of the Society for Endocrinology, has been awarded the prestigious Buchanan Medal of the Royal Society. The award was for 'his many contributions to his field, ranging from the fundamental discoveries on the cellular origin and biochemical mode of the action of calcitonin to its application in clinical practice. The Buchanan Medal is given biennially in recognition of distinguished contributions to the medical sciences.

### **New web site**

The Society's web site is being redesigned. The new pages should be up and running by the end of the year. Watch this space for further details.

## **Committee News**

#### **Awards**

The Committee has conducted a ballot to determine the next round of Society medallists; see page 4 for details.

#### Clinical

August saw the release of a new Society position statement on the use of somatostatin analogues and a GH receptor antagonist in patients with acromegaly. It aims to help purchasing authorities and healthcare professionals assess the benefits of medical treatment of acromegaly, and to encourage a rational nationwide approach to funding and drug use. See www.endocrinology.org/sfe/ soc\_position.htm for full details. A brand new clinical training event to replace Summer School will be launched in autumn 2007. Planning is well underway and further details will be available very soon. The interdepartmental peer review scheme is now available to a wider audience. Please see page 4 for more details, including how to apply for a visit.

### Nurse

The Committee has been heavily involved in planning nurse sessions at the Society's BES 2007 and 2008 meetings, as well as the scientific programme for the 2007 nurse training course in Glasgow. The nurse poster session will be repeated at future Society BES meetings, following its success at ECE 2006. We thank the Clinical Endocrinology Trust for funding several travel grants for the 2006 nurse training course.

A total of 200 abstracts has been received for the November meeting, an increase of 24 from 2005. Abstract submission is now closed. All young endocrinologists whose abstracts are accepted will receive a free ticket to the black tie dinner and dance on Monday 6 November at the Copthorne for the Society for Endocrinology BES 2007 meeting has now been distributed to all Society members. See www.endocrinology.org/SFE/ confs.htm for details of both meetings.

#### Science

The Committee has been developing suggestions for the Society for Endocrinology BES 2008 meeting. These will be finalised at the next meeting in December. The Society, via the Education Working Group, has submitted an application to the Institute of Biology for accreditation of the Society's postgraduate diploma in endocrinology. An update will follow shortly.

### **Young Endocrinologists**

This steering group normally corresponds by email, but met formally in early February. Alison Mostyn's term of office as Chair finished in May and we are pleased to announce that Kim Jonas from the Royal Veterinary College in London has taken on this role. We thank Alison for her expertise over the past few years and for her time and commitment in establishing the group and arranging sessions at conferences.

### **Programme**

Tara Hotel. The preliminary programme

## The Parliamentary Monitor

The Parliamentary Monitor is the primary monthly read for MPs and peers regarding policy reviews, news and debate. With an exclusive readership amongst the highest decision makers in the private and public sectors, and covering parliamentary and government issues in depth, it provides a perspective on regional, national and international matters.

The Society's General Secretary, Professor Julia Buckingham, has recently had an article published in this important and influential journal, entitled 'UK Science: A Scientist's Perspective'. To read a copy of Professor Buckingham's article please contact Rachel Evans at rachel.evans@endocrinology.org.

#### WITH REGRET

We are sorry to announce the death of Professor Richard Bayliss (London). An obituary will follow.



The latest from each of the Society's committees.



### Barbara Mawer

▶ Babs Mawer was born in Blackburn in 1936. She studied as an undergraduate at the Biochemistry Department at Edinburgh University, and in 1961 received a Doctorate in Philosophy for research on 'the metabolism of cholesterol in the animal body'. From 1958 to 1963, she was assistant lecturer in biochemistry at Edinburgh.

After a short career break to care for her children, she began work with Professor Stanbury at Manchester Royal Infirmary in 1967, investigating vitamin D metabolism and metabolic bone disease. In 1974 she became a Senior Research Fellow, later North West Regional Health Authority Senior Research Fellow, and in 1993 was made Reader in Medicine. She was appointed to a personal chair as Professor of Bone and Mineral Metabolism in the Department of Medicine in 1995, and retired in 2001.

Babs' career in medical research was extremely successful. She made a positive contribution to all her published work and also to many papers that did not bear her name. She collaborated with colleagues around the globe, and her quiet, unassuming but firm demeanour will be sadly missed.

A keen gardener, her green fingers enriched all who knew her both within and outside academia. She took an active interest in local politics and was a successful councillor. Her interest in education led her to serve as a school governor for many years. As well as an eclectic interest in music and the arts, she was a great lover of cats.

She had three daughters with her first husband, and is survived by her devoted second husband, Dr Clifford Taylor.

MICHAEL DAVIES

### Saad Al-Damluji

Saad Al-Damluji qualified from the Middlesex Hospital in 1977. He received his MRCP in 1980 and, after working as an SHO at the Hammersmith and Brompton Hospitals, was appointed registrar to St Charles' Hospital. He then obtained an MRC Training Fellowship under Professor Michael Besser at St Bartholomew's Hospital in 1983, and an MD in 1989.

He was appointed Honorary Consultant Endocrinologist to the Royal Free Hospital, and Senior Lecturer at the Royal Free and University College Medical School in 1995, having been recruited from the National Institutes of Health (NIH) in Maryland, where he had been a Visiting Scientist since 1989.

Saad had an incisive intellect and extraordinary work ethos and level of commitment, working largely alone, and for over 15 hours a day for six days per week, with virtually no holidays. He set the highest standards, and expected the same of others. He was meticulous, and his laboratory books are a model of how scientific research should be documented.

Saad was initially interested in the neuroendocrinology of human ACTH secretion. His compelling studies on the alpha 1 adrenoceptor system in regulation of CRH secretion led to his MD. However, during his stint at the NIH, he discovered a tricyclic antidepressant-sensitive

post-synaptic monoaminergic transporter in GT1 cells, and pursued this research when he returned to the UK. Latterly, he tested the effects of newly synthesised compounds on his GT1 cells with a view to generating novel compounds with potential antidepressant activity.

He will be missed as a colleague and teacher; more than 70 students attended his funeral. His patients adored him, and his untimely death has deprived the medical school of its most devoted and talented teacher. He leaves a wife Georgina, and two sons, Hassan and Salem.

PIERRE BOULOUX

### Wilfrid Butt

▶ Wilfrid Butt graduated in 1944 from the University of London. He subsequently worked as an MRC research fellow for Arthur Carleton Crooke, a specialist in the pituitary/adrenal axis, at the London Hospital. Crooke moved to the United Birmingham Hospitals in 1948 to work on the pituitary/ovarian/uterine axis. He invited Wilf to join him the following year, so founding the Department of Clinical Endocrinology.

Wilf set up a service section to measure adrenal and gonadal steroid hormones in urine and embarked on a programme of purifying gonadotrophic activity from post-menopausal urine. Bioassay was the definitive and only way of measuring activity. At that time there was still no agreement as to whether FSH and LH were different hormones.

Initially the international community viewed their work sceptically, but in 1953 the 'G' (gonadotrophin) Club formed, and Carl and Wilf were soon recognised as leading figures. Wilf gained access to the National Pituitary Collection in the late 1950s, and led the production of human pituitary gonadotrophins for therapeutic use. The department also gained a worldwide reputation in the diagnosis and treatment of female infertility.

The 1960s saw development of radioimmunoassays and research involving ovarian tissue and cell culture. The aim was to develop IVF, but they failed to gain ethical committee support for their proposals.

Wilf was appointed Special Professor in Clinical Endocrinology at Nottingham University in 1968 and Honorary Professor of Endocrinology at the University of Birmingham in 1976. He was a Consultant to the International Atomic Energy Agency and the WHO. He received the Wellcome Prize for Clinical Chemistry in 1978 and the Society for Endocrinology's Silver Plate in 1989. He was a Society Committee member from 1978 to 1981.

Wilf succeeded Crooke as director of the department in 1970 and, with gynaecologists and physician endocrinologists, kept it at the forefront of reproductive endocrinology for two more decades. In collaboration with the NIBSC, he produced International Standards for FSH, LH, TSH and prolactin. He worked with the NHS and WHO to distribute antibodies and antigens to measure these hormones, thus the benefits of his work were felt by laboratories worldwide.

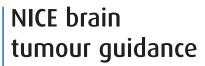
He is survived by his wife Patricia, his two children, Susan and John, and seven grandchildren.

SÉ LYNCH

## European drug database

▶ The British Medical Journal recently reported the creation of a comprehensive drug database by the European Medicines Agency (EMEA). Known as Eudrapharm, this should provide European doctors and their patients with instant access to information about any drug on the market.

Eudrapharm's aim is to increase the transparency of the drug industry in the wake of the European Union's new drug legislation, which came into effect in October 2005. This requires national regulatory bodies to make public the details of all drug licensing applications. EMEA has also developed EudraVigilance, a tool which allows drug companies to report adverse reactions to their national regulator online. The free database is expected to be up and running in an early form later this year. (See BMJ 2006 332 874.)



NICE (the National Institute for Health and Clinical Excellence) has recently released guidance aimed at improving outcomes for people with brain and other central nervous system tumours. It recommends the healthcare professionals who should be involved in treatment, and where that treatment should be performed. See www.nice.org.uk/page.aspx?o=csgbrai ncns for further details.



# Changes at **Physiological Society**

▶ Dr Michael Collis has been elected as the Physiological Society's new Chief Executive, with Professor Ole Petersen as their new President. Both took up their posts during the summer.

Michael Collis is an established scientist with a long-standing interest in physiology and broad experience of academia and industry. He has held senior research management positions at Wyeth, ICI and Pfizer.

Ole Petersen is currently George Holt Professor of Physiology and MRC Professor at the University of Liverpool and is Vice-President of the Royal Society, Secretary General of the International Union of Physiological Sciences and Chair of the European Editorial Committee of Physiological Reviews.

### PHOTO COMPETITION

▶ ImageBank is an online collection of almost 5000 bioscience images, provided by the Centre for Bioscience. Downloading and use of the images for learning and teaching is free and copyright cleared.

ImageBank is currently running a photographic competition with the theme 'Bioscience in action'. Submitted images may be of laboratory or fieldwork or they may show methods or processes used for collection of data. The first prize is £500 and all images entered for the competition will be considered for inclusion in ImageBank.

The competition is open to anyone with an interest in bioscience. You can find further details about the competition and an entry form on the ImageBank web site at www.bioscience.heacademy.ac.uk/imagebank.

# 'MEASURE UP' WITH DIABETES

Members should be aware of Diabetes UK's new campaign. Entitled 'Measure Up', the aim is to highlight the use of people's waist measurements as a risk factor for type 2 diabetes, as a means of promoting early diagnosis of this disease. It is anticipated that this will lead to an increase in requests for diabetes testing. Posters and information sheets are also available. For further details see www.diabetes.org.uk/measureup, which includes information for healthcare professionals as well as the general public.

# Response to Cooksey Review

The Biosciences Federation has published its response to the Cooksey Review of UK Health Research. It can be viewed on the Federation's web site at www.bsf.ac.uk/science\_policy.htm. The Society is grateful to all its members who contributed to this consultation.

### **MPs' support** needed

The Research Defence Society (RDS) is encouraging its members and supporters to ask their MPs to sign Early Day Motion (EDM) 1850. This EDM acknowledges the medical benefits of animal research and supports the new research laboratory at Oxford University. Please contact your MP to request they sign the EDM, and send all correspondence you receive from your MP to the RDS office at asussmilch@rds-net.org.uk

You can check the EDM database at http://edmi.parliament.uk. This has the full text of the EDM and shows whether your MP has already signed it.



# **Endocrinology in Edinburgh:** what Princes divided, the Queen's unites



Queen's Medical Research Institute, Edinburgh

▶ In the 1760s, the loch to the north of Edinburgh Castle was little more than a sewage pit for the medieval Old Town. It was filled to create Princes Gardens and Princes Street, paving the way to the celebrated Georgian New Town.

A century later, between 1868 and 1879, the Royal Infirmary moved into its grand Victorian buildings in Lauriston Place, a mile south of Princes Street, while Craigleith Hospital (later the Western General Hospital) opened its doors a couple of miles to the north. The rivalry which developed between these two teaching hospitals became known as 'the Princes Street divide'. So it came to pass that if ever you met a colleague from Edinburgh and asked if they knew your friend there, you would most likely be told 'no, they must work on the other side of town'. Here too lies the explanation for the surprisingly warm greetings exchanged at BES meetings between delegates from Edinburgh: they had not seen each other since the previous spring.

The 'Princes Street divide' has been eroding for decades, but a watershed occurred with the recent opening of the Queen's Medical Research Institute (QMRI). This £50 million state-of-the-art facility stands in the new Little France campus (opened in 2002), next door to the new Medical School, new Royal Infirmary, and the developing 100-acre biomedical research park.

# Open Access and repositories

The RCUK has issued a position statement on access to research funded by the eight member councils, which is available at www.rcuk.ac.uk/access/2006statement.pdf

It includes a requirement to respect copyright and licensing agreements. The eight member councils will develop their own specific policies. For all awards made from 1 October 2006, a copy of every paper must be deposited on PubMed Central, with open access provided no later than six months after publication.

QMRI is home to around 600 researchers in centres for reproductive biology, inflammation research and cardiovascular science. Of the many disciplines brought together in the Institute, none has more to celebrate than endocrinology. QMRI has brought under one roof more than 150 endocrinologists from at least three different locations around the city, including the Endocrinology Unit of the Western General Hospital, the Molecular Physiology Group at George Square, the MRC Human Reproductive Sciences Unit and the University Centre for Reproductive Biology. This powerful research engine is now adjacent to internationally recognised clinical services in reproductive and adult endocrinology and diabetes.

So, is it working? The diversity in QMRI is exciting and refreshing: specialists in every class of hormone; physiologists working in fruit flies, zebrafish, rodents, humans; pathologists exploring common diseases from conception to old age; core technologists supporting novel imaging, mass spectrometry, chemistry, bioinformatics, pathology. This is indeed a recipe fit for a king, and all his immediate relatives!

To learn more, visit www.mvm.ed.ac.uk/littlefrance.

\*\*BRIAN WALKER\*\*

SOCIETY FOR ENDOCRINOLOGY



# 197th Meeting of the Society for Endocrinology

Celebrating the Society's Diamond Jubilee

PLEASE NOTE NEW VENUE:
Kensington Town Hall, London

6 - 7 November 2006

Contact: Shirine Borbor Tel: 01454–642210 Email: conferences@endocrinology.org

Email: conferences@endocrinology.org
Web: www.endocrinology.org





# Taking the Society to new heights

# - the 2006 strategic review

- You will have seen in the last issue (page 6) that the Society has restated its strategic objectives and identified several new areas of focus for the next few years, in light of its current excellent financial situation. The main new areas are:
- attracting and retaining good young scientists, doctors and nurses in endocrinology
- lobbying and influencing government, universities, the NHS and others
- enhancing public and patient information. We have also identified areas where we want endocrinology to be more prominent, namely obesity, bone and mineral metabolism, diabetes, and veterinary endocrinology.

Council and the committees have been working on plans for implementing these objectives. We now have an implementation plan that comprises almost 40 different elements; this will keep us all busy for the foreseeable future!

There is too much detail to include in this short summary, so a fuller report will follow. However, here is advance information about the new activities that are likely to affect you in the next year.

#### **Grants**

A whole new series of grants will be made available, intended to be flexible enough to assist members in meeting a wide range of needs, with a special focus on assisting younger members to gain a foothold in research.

- A new small grant programme: this can include sums from £1000 to £10 000 and can cover any requirements, such as top-ups, start-up or link grants etc.
- An increase in conference grants to £128 000 per year (jointly with the Clinical Endocrinology Trust).
- Support of up to £2000 per grant for lab visits of 3-6 months.

In the longer term, we are looking at summer studentships, industrial placements and other grants.

### Other career development activities

A number of new initiatives are being introduced to raise the profiles of endocrinology and the Society to young scientists and doctors, and to reward excellence.

- Society for Endocrinology sponsored lectures will enable you to apply for a Society grant to bring a guest speaker to your centre to participate in a department seminar.
- Society for Endocrinology sponsored poster sessions will allow members to apply for Society support for regional poster sessions. The Society will provide sponsorship and publicity to members, as well as up to two poster prizes per session, with £100 and a certificate for each winner.
- endocrinologists presenting posters and oral communications at the annual meeting. Up to two prizes of £200 will be available in each of the 12 poster categories.

- > Senior participants in meetings, including medallists, will be asked to take a more active role in interacting with younger researchers, for instance viewing posters and chairing sessions.
- scientists, primarily through the Biosciences Federation.
- The Society will take a lead in SpR training, liaising with the Postgraduate Medical Education and Training Board, the Royal College of Physicians (RCP) and Diabetes UK/Association of British Clinical Diabetologists to ensure the Society is the key national provider of curriculumbased SpR training, through the vehicle of the new Clinical Update series, starting in November 2007.

In the longer term, we are also looking at mentoring, career development roadshows and regional clinical cases meetings.

#### Lobbying and influencing

Here, we are primarily considering working in collaboration with other societies to meet objectives such as improving career structures for scientists, achieving more co-ordinated clinical training in endocrinology and diabetes, and addressing issues to do with animal studies.

- ▶ The Society has committed £20 000 per year for three years to the Biosciences Federation, which is now led by Richard Dyer, whom many of you will know from his years as the CEO at Babraham. The Federation has the full support of many of the key life sciences societies, and needs to be adequately funded if it is to achieve its objectives, which dovetail with many of ours.
- ▶ We will participate more actively in the Biosciences Federation's Animal Science Group and its Education Committee.
- ▶ We will be more active in lobbying government and others on a range of issues, from attracting young people into the biosciences to the RAE, again mainly through the Biosciences Federation.
- ▶ We will evaluate how the Society can most effectively use its resources to promote best practice in patient care and to increase its clinical lobbying presence.
- ▶ We will encourage members to participate in the Biology4All initiative, which facilitates bioscience academics giving talks to schoolchildren (see www.biology4all.com).
- ▶ We will be more active in working in liaison with other organisations, such as the Biosciences Federation, other endocrine societies, the RCP, the Parliamentary and Science Committee etc.

#### **Education**

All of the activities listed above are linked to education, but there are some additional specific initiatives. Dr Joy Hinson is taking the lead in this area.

▶ We are redesigning the Society's web site, and will give it a greater focus on educational materials, with

continued on page 10



discusses the potential of this powerful new tool in paediatric medicine.

### PAEDIATRIC SPECIAL ISSUE

# Molecular diagnostics in paediatric endocrinology



 Genetic defects have now been identified in several genes that encode hormones, hormone receptors or proteins involved downstream of the hormone signalling pathway. This has improved our understanding of many conditions ranging from short stature, obesity and early or delayed puberty to rare conditions such as pseudohypoparathyroidism and primary pigmented nodular adrenal dysplasia.

The link between disease and genetic defects, coupled with high-throughput genomics and proteomics, has also facilitated a rapid advance in drug development that will benefit mankind in general. Identification of a genetic defect may also be valuable in reaching an early diagnosis, particularly if it helps to solve difficult differential diagnosis problems or if it leads to effective therapeutic options that ameliorate or prevent further disease.

However, contrary to general expectations, it has become clear that the genotype-phenotype correlation is so variable that it is frequently difficult to predict the future course of the condition. There are, however, some notable exceptions where molecular diagnostics can be a very powerful tool in improving clinical management.

In multiple endocrine neoplasia (MEN) type 2, medullary thyroid carcinoma (MTC) may occur in association with phaeochromocytoma or hyperparathyroidism (MEN2A), or occur more aggressively at an earlier age in combination with other physical features like a marfanoid habitus, mucocutaneous neuromas and intestinal ganglioneuromatosis (MEN2B).

MTC may also occur by itself as an autosomal dominant condition. Germline mutations in this MEN2 were identified in 1993 in exons 10 and 11 of the RET proto-oncogene. The penetrance of the mutation in exon 10 (cysteine 634) for developing all the manifestations of the disease is greater than 90%. Molecular biology now enables us to to easily distinguish between sporadic and hereditary MTC and allows early identification of children who are bound to develop MTC in later life. For these patients, prophylactic thyroidectomy is recommended before the age of five years.

Maturity onset diabetes of the young (MODY) is another group of conditions where identification of the genetic abnormalities has led to an improved understanding of the clinical course of the underlying conditions that give rise to MODY. Furthermore, it has also led to the development of more effective management regimens.

Whilst MODY is due to beta cell dysfunction, defects have now been identified in five genes. Mutations in the glucokinase gene lead to stable hyperglycaemia, complications are unusual and treatment is rarely needed. Patients with mutations in genes encoding the transcription factors hepatocyte nuclear factor (HNF)-1a, HNF-4a, HNF-1b and insulin promoter factor 1 have a common progressive beta cell failure resulting in increasing hyperglycaemia and treatment requirements. These patients are at risk of developing microvascular complications. In addition, they show a pharmacogenetic effect with a specific sensitivity to sulphonylureas.

Molecular diagnosis may not necessarily be straightforward. In congenital adrenal hyperplasia due to a defect in CYP21, molecular genetic analysis may not be essential for the diagnosis but may allow confirmation of the basis of the defect, help genetic counselling, and help in establishing the diagnosis in uncertain cases. Ten mutations account for 90-95% of the affected alleles, but molecular genetic analysis is complicated by multiple copies of the genes and the possibility of multiple mutations on one allele. DNA samples from both parents are necessary to segregate alleles. In some cases, the clinical features may not correlate with the genetic mutation.

In summary, molecular diagnostics are beginning to have an impact on the clinical practice of paediatric endocrinology. In the long term, they will pay useful dividends, but like other facets of clinical practice, such as routine biochemical assays, molecular diagnostics need to be underpinned by a strong evidence base, should be performed in clinical NHS laboratories with rigorous quality assurance standards, and should be supported by high standards of genetic counselling.

ROYAL HOSPITAL FOR SICK CHILDREN, GLASGOW

### Taking the Society to new heights - the 2006 strategic review continued from page 9

searchable resources, which we will build up over time.

▶ We will be launching an undergraduate essay prize. Details will be announced during the autumn.

### **Public and patient information**

Most of this is somewhat longer-term, but plans include:

- A public web site
- successfully at BES 2004 in Brighton and at last year's November meeting. We aim to run up to three a year.

Development of an interactive display on the endocrine system that can be used nationally and also locally at science fairs and open days.

This is a huge undertaking and it is likely to take us some time to implement it all, not least because we will need to recruit new employees and freelances. If you know of anyone who is looking for freelance, part-time or full-time work, do let us know in confidence (email brenda.parsons@ endocrinology.org) and we will contact you if we have anything that may be suitable.

**SUE THORN** 

### PAEDIATRIC SPECIAL ISSUE

# Northern Congenital Hyperinsulinism Service



Catherine Hall outlines developments in the management of congenital hyperinsulinism,

including a new

dedicated service

in the north

of England.

Congenital hyperinsulinism is a condition associated with unregulated insulin secretion from pancreatic beta cells. It results in severe hypoglycaemia, which, if inadequately controlled, leads to seizures and permanent brain damage.

Formerly termed nesidioblastosis, the condition was treated with high concentrations of intravenous dextrose. diazoxide and chlorthiazide, which act on ion channels to decrease insulin secretion. If these were unsuccessful, near-total pancreatectomy was performed, rendering the babies diabetic.

Knowledge of the molecular genetics and electrophysiology of ion channel-regulated insulin exocytosis has recently improved. This has led to radical changes in the investigation and medical and surgical management of babies with congenital hyperinsulinism.

It is now known that the abnormalities in beta cell function can be focal, diffuse or mixed. Identification of a focal lesion is crucial, because its removal is curative and avoids the lifelong morbidity of diabetes.

Until recently, identification of these foci involved catheterisation of pancreatic vessels and sampling of insulin concentrations, during which time the baby was hypoglycaemic for up to several hours. However, PET-CT scanning with an F-DOPA label (taken up by DOPA decarboxylase in the beta cells) has revolutionised this area. It generates beautifully clear images of focal and diffuse disease both non-invasively and under euglycaemic conditions. Such images allow the surgeon to accurately localise the lesion, and laparoscopic surgery for this condition is being pioneered in some centres.

Babies with congenital hyperinsulinism require expert multidisciplinary care. This involves early, accurate biochemical diagnosis, genetic analysis, insertion of a surgical long line to secure euglycaemia, gastrostomy feeding, drug therapy, endocrinology, pathology, radiology and surgical expertise. A robust database is fundamental to facilitating long-term follow-up of cognitive development and audit of medical and surgical outcomes.

Earlier this year, the Department of Health commissioned the Royal Manchester Children's Hospital and the Royal Liverpool Children's Hospital, Alder Hey, as the National Specialist Commissioning Advisory Group (NSCAG) centre for congenital hyperinsulinism in the north of the country (Great Ormond Street was previously the only UK centre). We have adopted the acronym NORCHI: the Northern Centre for Congenital Hyperinsulinism.

The designation of the service has been enthusiastically embraced by both trusts. It has enabled the appointments of a consultant paediatric endocrinologist, a specialist nurse and a trust fellow to work across both sites. The appointment of a secretary

with responsibility for NORCHI has greatly helped the establishment of the service and communication between members of the multi-disciplinary team. Obtaining funding for dietetic, pharmacist, clinical psychologist and nursing support, high dependency unit and intensive care unit beds, and theatre and radiology time has been essential in establishing the infrastructure of the multi-disciplinary team.

In the first six months my objectives have been: (a) to identify all members of the team in both trusts (40 people); (b) to establish an email circulation list; (c) to develop clinical protocols and operational procedures for the service; (d) to hold a meeting for all team members; and (e) to visit the hyperinsulinism centre at Great Ormond Street to ensure that our clinical services are equivalent.

While I have achieved this, two important matters are outstanding: establishing a robust web-based database and gaining access to a PET-CT scanner with an F-DOPA

I have been working with an IT consultant who has expertise in developing databases for other NSCAGfunded services to provide a web-based database for NORCHI. The funding for this (about £10 000) is not in the budget, but as it is essential for audit, research and development, I remain optimistic that money will be identified!

However, the matter of the PET-CT scanner is more problematic. There is no PET-CT scanner in either Children's Hospital, although there will be in the new Manchester Children's Hospital scheduled for 2009. Paediatric access to a PET-CT scanner may be possible elsewhere in the city, but will require considerable planning. Furthermore, F-DOPA is apparently rarer than gold dust! I have recruited the help of a consultant colleague in nuclear medicine at the Manchester Royal Infirmary to try and resolve these issues.

The designation of NORCHI is an exciting opportunity to develop an excellent clinical service. It will also strengthen links between our centres and Great Ormond Street, and encourage collaboration with Andrew Hattersley's team in Exeter on the genetics of hyperinsulinism and with Mark Dunne's group in Manchester on pancreatic physiology. This will facilitate a significant British contribution to international research and development in congenital hyperinsulinism.

CATHERINE M HALL ROYAL MANCHESTER CHILDREN'S HOSPITAL



A new consensus
statement
should mean a
breakthrough in
the management
of infants born
with ambiguous
genitalia, as leuan

Hughes relates.

### PAEDIATRIC SPECIAL ISSUE

# Intersex management: an enlightened approach



▶ The clinical disorder that probably distinguishes the skills of a paediatric endocrinologist most from that of an adult endocrinologist is ambiguous genitalia of the newborn. That sex assignment may not be instantaneously possible at birth based on obvious physical signs is, fortunately, not a common problem.

Nevertheless, it is estimated that abnormalities of the genitalia severe enough to warrant investigation occur in 1 in 4500 births, and result in enormous distress for the parents. After all, the first question asked in the delivery room is 'ls it a girl or a boy?' Imagine having to vacillate on that answer, never mind later having to explain to relatives and friends that the doctors do not yet know the sex of the baby.

The terms 'ambiguous genitalia' and 'intersex' have generally been used interchangeably by health professionals to define an abnormality of the external genitalia which is at variance with the sex expected based on the nature of the sex chromosomes and gonads. However, families who have a child with this problem have long voiced their concerns about terms such as intersex and, indeed, regard them as pejorative. Furthermore, a groundswell of opinion developed amongst health professionals and patient advocacy groups that it was time to look critically at how these children were being managed.

It seems fashionable to set up a consensus meeting to address contentious issues relating to the management of medical disorders, and endocrinology has not been slow in joining the bandwagon. Thus, the European Society for Paediatric Endocrinology and the Lawson Wilkins Pediatric Endocrine Society joined forces to arrange a meeting of 50 experts worldwide who could opine with authority on subjects ranging from genetics, steroid biochemistry and brain programming by sex steroids to the more practical issues of medical and surgical treatment, psychological counselling and outcome measures. Two representatives of patient advocacy groups were also full participants. The consensus statement has now been published (Hughes *et al.* 2006 *Archives of Disease in Childhood* 91 554-563).

In essence, the consensus process has achieved a breakthrough in a number of areas which should lead in due course to improved management of infants born with ambiguous genitalia. First, it has recommended that some time-honoured but now discredited nomenclature be discarded and replaced with more enlightened terms, which also aim to be descriptive and aetiologically based.

Out goes 'intersex' to be replaced with the acronym DSD (disorder of sex development). Some patient advocates preferred 'variation of sex development' but the resulting acronym VSD is too engrained in the cardiac psyche. The definition agreed for DSD is a congenital condition in which development of chromosomal, gonadal or anatomical sex is atypical. This is an all-embracing definition which incorporates cloacal exstrophy or vanishing testis syndrome, for example, just as well as typical ambiguous genitalia due

to congenital adrenal hyperplasia (CAH). It excludes disorders of puberty by virtue of the congenital stipulation.

Also consigned to oblivion are the terms 'hermaphroditism' and 'pseudohermaphroditism' (prefaced male or female). Endocrinologists seem to love such terms: witness pseudohypoaldosteronism, pseudohyperparathyroidism or even pseudopseudohyperparathyroidism. No wonder we and our patients get confused!

The consensus proposes a revised nomenclature which takes account of the karyotype. For example, a newborm female with CAH is no longer described as a female pseudohermaphrodite; she has 46,XX DSD. Similarly, a male who is under-masculinised due to partial androgen insensitivity syndrome is classified under the umbrella of 46,XY DSD. The true hermaphrodite becomes ovotesticular DSD, which can be prefaced with 46,XX (the most frequent karyotype), 46,XY or 46,XX/46,XY. It is possible to classify DSDs in three general categories using this format and the published consensus contains one such proposal.

The consensus process achieved more than just dismantling traditional terminology. The experts recognised that there has been considerable dialogue in some quarters about whether a third sex should be designated for some DSDs. Nevertheless, it was the firm opinion that all individuals with DSD should receive a gender assignment. Progress was made in agreeing the nature of any surgery to the genitalia and its timing, what should be expected of a diagnostic evaluation, that management should be undertaken in a multidisciplinary manner and that each member of the team should be capable of speaking to and supporting the family. This emphasises that management of DSD is not for the faint-hearted and should generally be undertaken in tertiary specialist centres. How that is put into practice will vary by country.

Evidence-based data were used to revise the gonadal malignancy risk in DSDs quoted in standard texts, which will have importance for management of DSD in young adulthood. It was recognised that outcome data are lacking, particularly for individuals with XY DSD. This should be addressed by centres pooling their experiences, a movement which is already underway in specialist centres in Europe.

The consensus statement is more of a discussion document than a definitive declaration of the only way to manage DSD. It is the beginning of a process aimed at improving the life-long care we should be able to provide for individuals with DSD and their families. It also provides a mechanism by which healthcare teams involved in management of DSD can reflect on the care currently available in local centres, to determine if the expected standards are being met.

IEUAN HUGHES ADDENBROOKE'S HOSPITAL, CAMBRIDGE

### PAEDIATRIC SPECIAL ISSUE

## Big marketing, little kids

In 2002, a joint expert consultation conducted by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) concluded that the marketing of fast food and energy-dense, micronutrient-poor foods and beverages is a probable causal factor in obesity and weight gain. In 2003, the UK Food Standards Agency (FSA) conducted a systematic review of the topic and concurred that advertising does affect food choices and influence dietary habits.

Against this view, and with no surprise, an industrysponsored report stated that there was 'no evidence to show a direct causal relationship between food advertising and obesity levels', bringing disagreement about the effect of marketing on children's diet and health.

Commercial advertising exists in order to stimulate the consumption of goods and services. Its influence on people's behaviour is unquestionable. When a food product is advertised, not only is its brand name promoted, but a change in food habits is proposed. There is persuasion in the sense of adopting a new diet. Food producers look to win consumer loyalty starting in childhood, because it is during the first years of life that one develops food preferences within their own context of socialisation. There is a deliberate intent to attract the consumer for the rest of their life in a publicity strategy known as 'from birth to death'.

Advertising campaigns targeting children can be very effective. Technological resources and appealing strategies are used to attract the young consumer, associating the product with a healthy and happier life. Very often the protagonists are slim people that generate, either directly or subliminally, an association between the use of the product and an attractive appearance. Several techniques are used to sell to the infant and youth population. Most of them involve the manipulation of young people's need for acceptance, love, assurance or identity, their desire for empowerment or independence, or their aspiration to be or act like older people. Advertisements directed towards children are often carefully prepared by professional specialists in psychology and infant marketing.

Various marketing techniques are widely used by companies to promote food to children: TV or internet marketing and sales promotion, in-school marketing, sponsorship and product placement. Of these strategies, TV advertising is the most powerful and popular means of promotion, and consequently has been the subject of more debate, especially with the new era of digital TV. Most studies suggest that children watch almost three hours of television per day; more than half of children aged 2-18 years have a TV in their bedroom. Virtually all children watch TV before their first exposure to formal education. In the USA, by the time children finish the first



Valéria Guimarães asks whether endocrine organisations can change the

picture for

childhood obesity.

grade, they will have spent the equivalent of three school years in front of the TV set.

It's widely recognised that television is also effective in promoting foods and drinks that have little or no nutritional value. According to the FAO 'part of the consistencies and strong relations between the habit of watching TV and child obesity may be the consequence of the publicity of foods that they are exposed to'. In this way, this type of publicity is particularly perverse because it disseminates an ideal standard of beauty based on slimness, whilst encouraging the consumption of products that may contribute to obesity.

Children are unable to distinguish marketing from regular TV programmes. According to specialists, exposure to only 30 seconds of a food commercial can influence the choice that a child will make in its eating patterns. In front of a TV, children can learn misleading concepts about a healthy diet and nutrition, as most of the food advertised has a high level of fat, oil, sugar and salt.

With that in mind, it is time to address some questions. Is TV educating our children? Are government and medical communities responding to this specific and vulnerable population with regard to the prevention of obesity? Can we go beyond science?

The Brazilian experience suggests so. Since 2004, the Brazilian Endocrine Society and the Brazilian Society for the Study of Obesity have operated the Healthy School Project to educate children and parents at school level. But, perhaps more importantly than that, the societies actively work together with the federal government to develop different levels of intervention that will reinforce the WHO strategy on diet, physical activity and health. At the National Congress, they are helping to create federal laws that will regulate food product sales in schools and also regulatory acts targeting TV advertising and marketing to children. In the judiciary, their support of lawsuits filed against advertising and promotion to children were crucial in two recent cases against major global fast-food providers.

Education and information are crucial, particularly in the prevention and treatment of obesity. However, this is not enough, and action is needed at a regulatory level to tackle the factors underpinning childhood obesity. As highlighted through the Brazilian experience, scientific societies can play a role. With concerted international frameworks now in place for endocrinology through the new European Society of Endocrinology, the very active International Committee of the US Endocrine Society and the International Society of Endocrinology, this is certainly an achievable aim.

> VALÉRIA GUIMARÃES INTERNATIONAL SOCIETY OF ENDOCRINOLOGY



Helena Gleeson
examines the
effectiveness of
the process of
transition from

paediatric to

adult care for

adolescents with endocrine disease.

### PAEDIATRIC SPECIAL ISSUE

# Beyond final height: transition in endocrinology



Adolescence is a period of psychological, social and physical change. In addition, adolescents who have a chronic illness are transferred from paediatric to adult services, a process popularly called 'transition'. A recent audit by the British Society for Paediatric Endocrinology and Diabetes (BSPED) of transitional care in paediatric endocrinology found transition services in 66% of all centres and 90% of tertiary centres. The need for improved systems of transition has been emphasised by surveys of young people and their care givers. Evidence that they are beneficial is, however, lacking.

The transition process should provide adequate time and support to address the changing psychological and social needs of the adolescent. The aim should be to reduce the effect of poor compliance and attendance at clinic and for the patient to achieve autonomy in making healthcare decisions.

In endocrinology, education is an essential part of the transition process as the focus of healthcare changes. The focus of paediatric endocrine care is growth and puberty, while in adulthood general well-being and reproductive, bone and cardiovascular health are of primary importance. Once growth and puberty are completed, patients with childhood endocrine disorders (for instance, survivors of childhood cancer, Turner syndrome and congenital adrenal hyperplasia) require long-term specialist endocrine follow-up in adulthood.

More recently the physical issues for adolescents with severe growth hormone deficiency (GHD) have been studied. Comparisons of childhood-onset GHD patients who have received paediatric GH therapy compared with age-matched adult-onset GHD patients demonstrate a deficit in muscle and bone. This deficit has been attributed to failure to achieve adult levels of somatic development. The majority of studies demonstrate that continued GH therapy in GHD after final height enhances muscle and bone mass accrual. Consequently, consensus among paediatric and adult endocrinologists is that GH therapy should be continued in adolescents with persistent severe GHD through the transition period.

During my training in adult endocrinology in the North West Deanery I developed an interest in the endocrine disorders of childhood that persist into adulthood. After discussions with paediatric and adult endocrinologists, I accepted a fellowship in paediatric endocrinology at the Children's Hospital at Westmead, New South Wales, Australia. By working within a paediatric endocrine service I have gained a better understanding of the psychological challenges facing the adolescent patient, and the role of the adult endocrinologist in the transition period.

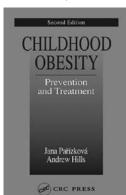
The increased interest in the transition period in endocrinology will hopefully result in the development of improved services which bridge the gap between paediatric and adult care and enable young people with an endocrine disorder to fulfil their adult potential. The closer liaison between paediatric and adult departments will provide educational, training and research opportunities which will ensure the future of good health and endocrine care for patients in transition.

HELENA GLEESON THE CHILDREN'S HOSPITAL AT WESTMEAD, AUSTRALIA



# Childhood Obesity: Prevention and Treatment

J Parizkova & A Hills, CRC Press, 2005, edn 2, 544 pp, £56.99, ISBN 0849322537



'Oh no,' I hear you cry, 'not yet another book on obesity!' The global epidemic of obesity appears to be matched only by the global epidemic of books on obesity! These range from quick-fix books like the ironically named 'Conquering Childhood Obesity for Dummies' to more weighty academic tomes. This publication certainly falls into the latter group.

Given that much of the morbidity of adult obesity arises in childhood, this book has chosen to look at a broad range of topics related to the prevention and management of

childhood obesity, and specifically at factors which predispose individuals to obesity.

The book is split into two roughly equal sections: one on the main characteristics of childhood obesity and the other on treatment and management principles. The background data are well set out in a logical sequence and are comprehensive. I found the section on practical programmes for weight management particularly useful.

The authors are to be commended for including a good mix of basic science and clinical and epidemiological studies. At over 520 pages crammed with text and figures, including almost 75 pages of references (many from the last few years), this updated version represents very good value for money compared with many of its rivals. Inevitably in a field that is moving so rapidly, some of the most recent publications are not included. For example, the Obesity Consensus Working Group publication from March 2005 appeared too late to be included in this edition.

Although this is not necessarily a manual for management of obesity in childhood, it represents a good value, comprehensive reference textbook.

JEREMY KIRK

### LOSS OF EXAMINATION STATUS

Hotspur recalls a memorable encounter with a patient who thrived on ill-health...

Lennie was a teacher. Knowingly or otherwise, he certainly taught me a lot. It was my first medical firm attachment as a clinical student. Lennie wasn't the first patient for whom I was responsible, but he was the most memorable.

He had a multitude of diagnoses, some of which I had barely heard of and others not at all: large multinodular goitre, mixed mitral stenosis and reflux, bronchiectasis, hereditary elliptocytosis, glaucoma and an old facial nerve palsy. He rattled these off as one would a supermarket shopping list. Even if possessed, diagnostic skills were not required for Lennie's pathologies. His pride in the number and variety of the conditions, and the obvious awe on the face of the students that came to his bedside and hung on every word, meant that diagnoses were blurted out instantly rather than revealed painfully slowly by a student historian.

He was in hospital on this occasion for a review of his current medical status. He of course was a regular, as he volunteered his body on every conceivable occasion that student exams were held.

By nature, he was a cheerful, optimistic man, who was happiest discussing his medical conditions and how their complexity and interaction had perplexed some god-like consultant or other over many years. After a couple of weeks, it transpired that decisions had been taken for Lennie to undergo mitral valve surgery and a thyroidectomy. He seemed calm about the impending

operations, so I was all the more surprised when he returned distraught and tearful to the medical ward several days after the second operation. He denied that he was in any pain or that there was anything wrong with his children or beloved grandchildren. Furthermore his favourite team, West Ham, had won their last couple of matches. I pushed him a little harder as to the cause of his distress, and he blurted it out in little bursts.

'I'm finished, it's all over.'

'Don't be silly, Lennie, you are fine and will live many years yet.'

'I am not worried about how long I have to live.' 'Then what troubles you?'

'They have stripped me of my physical signs! They will never use me again for student finals - no goitre, no mitral valve murmurs. I'm finished.'

I fought hard and emphasised that he still had the bronchiectasis and the facial nerve palsy up his sleeve (so to speak), but I was in trouble trying to sell the physical signs associated with hereditary elliptocytosis. In truth he was probably right, he never had the same cachet again as the star patient at the student exams.

It was then I realised that operative morbidity could have a wider meaning and that some patients invest a greater commitment to a hospital than many doctors.

As for Lennie, he died nine months later, cause of death unknown - but I knew.

'HOTSPLIR'

### Scientist at the Seat of Power

### Zuckerman: Scientist extraordinary

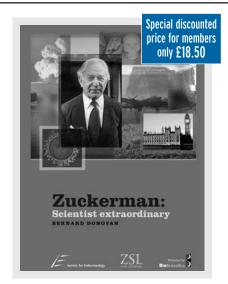
#### By Bernard Donovan

An enthralling biography of an immensely influential scientist.

Solly Zuckerman was an authority in anthropological research, anatomy, animal behaviour and the physiology of sexual cycles, an expert advisor to government on blast injury and explosive damage in WW2 and advisor to successive governments.

Prosector at the Zoological Society of London, Professor of Anatomy at Birmingham University, Scientific Advisor to the Royal Air Force and Chief Scientific Advisor to HM Government, Solly Zuckerman associated with the best in artistic, social and military fields, and was friendly with George Gershwin, A J Ayer and Lord Mountbatten.

This book asks, "Did he use or abuse his power? Should he have done more to encourage the input of scientific advances in British industry? Was he frustrated by an unreceptive establishment? How could he deny a fundamental scientific concept - the portal vessel theory?"



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### **New model for** gonadotroph gene expression

Genes do not operate uniformly over time, but vary in response to their environment and the developmental stage of the organism. In this paper, Naik and colleagues report the generation of a novel mouse model that allows temporal regulation of gonadotroph-specific genetic alterations.

They achieved this by generating a system for tetracycline-controlled expression of Cre recombinase in mice, using the unique CreTeR vector. The gonadotroph-specific bovine  $\alpha$ subunit promoter fragment cloned into this vector meant that it would express Cre recombinase exclusively in pituitary gonadotrophs. They demonstrated both the control of Cre recombinase and its specificity to gonadotroph tissues. This model will allow the analysis of gene function in particular cell types at specific points in time. RF

(See the full article in Journal of Molecular Endocrinology 37(1), August 2006)

### **Gastrin receptor** scintigraphy

Overexpression of receptors by certain cancer cell lines can be used to detect metastases. Radiopeptide scintigraphy involves the detection of these receptors by specific binding of radiolabelled peptides. The somatostatin analogue 111In-DTPA-[D-Phe<sup>1</sup>]-octreotide forms the basis of somatostatin receptor scintigraphy (SRS), which has proved invaluable in the scintigraphic diagnosis of many tumour types, and gastroenteropancreatic neuroendocrine tumours in particular.

However, the sensitivity and accuracy of SRS in some tumour types, particularly medullary thyroid carcinomas (MTCs), are limited. A new molecular target for scintigraphic diagnosis of MTCs has been sought in cholecystokinin-B receptor-binding gastrin analogues, leading to gastrin receptor scintigraphy (GRS).

Gotthardt and colleagues compared GRS with SRS in a group of 60 patients with neuroendocrine

# HOT **TOPICS**

Recent highlights from the Society's journals, summarised by Richard Foulsham, Andy Lowe, Vicki Norton and Helen Jaques.

tumours. They conclude that GRS may provide additional diagnostic information in patients where SRS returns a low tumour uptake or where uptake is negative or equivocal. GRS should not replace SRS, but may represent a highly useful additional imaging technique in some neuroendocrine tumour patients. AL (See the full article in Endocrine-Related Cancer 13(4), December 2006)

### PTTG and recurrence of pituitary adenomas

Pituitary adenomas are capable of aggressive growth and local tissue invasion, both of which have been associated with abnormalities in genes coding for the regulation of cell cycling. The oestrogen-regulated oncogene pttg encodes the protein PTTG. Its expression is cell-cycledependent and PTTG levels are known to be high in pituitary adenomas compared with other tissues. This points to a possible role for hyperactive pttg in pituitary adenoma cell proliferation, a theory that Filippella and colleagues attempt to support in this study.

They demonstrate an association between PTTG expression and the invasiveness and recurrence of pituitary adenomas. Expression of PTTG, which promotes tumourigenesis in the cell nucleus, correlates well with Ki-67 antigen expression - a previously validated measure of the aggressive and invasive potential of tumours. Both these measures provide a cut-off point that distinguishes potentially recurrent from non-recurrent growths. Used as a clinical tool, this can allow patients with potentially recurrent pituitary adenomas to receive the

close clinical and radiological followup they require.

In this study, the authors provide evidence that potential pituitary growth can be predicted using immunostaining of PTTG in the cell nucleus, while the cut-off value they calculate can be used in predicting likelihood of adenoma recurrence. VN (See the full article in Clinical Endocrinology 65(4), October 2006)

### Arachidonic acid and steroid hormone synthesis

Steroidogenic acute regulatory (StAR) protein facilitates steroid hormone biosynthesis and is controlled in Leydig cells by luteinising hormone (LH). This stimulates both the cAMP-protein kinase A (cAMP-PKA) intracellular signalling pathway and arachidonic acid (AA) release. Three AA metabolising pathways have been implicated in transducing LH signals to the nucleus. One increases StAR expression and another inhibits it, while the role of the third, the epoxygenase pathway, has been investigated by Wang and colleagues in this study.

Stimulation with a cAMP analogue increased AA release and its metabolism in MA-10 mouse Leydig cells, while downstream metabolites stimulated progesterone production. StAR protein levels and gene transcription increased in cells incubated with epoxygenasegenerated AA metabolites, indicating that this pathway acts to increase steroidogenesis by affecting StAR gene expression. However, inhibiting the activity of PKA prevented these effects, suggesting that the cAMP-PKA phosphorylation pathway is also essential

The authors concluded that both the cAMP-PKA phosphorylation and AA signalling pathways are necessary to produce maximal steroidogenesis. Both positive and negative StAR regulation signals are produced by AA metabolites, and it is the balance of these three enzyme activities that regulates the sensitivity of Leydig cells in response to trophic hormone stimulation. HJ (See the full article in Journal of Endocrinology 190(3), September

2006)