

# The Endocrinologist

THE NEWSLETTER OF THE SOCIETY FOR ENDOCRINOLOGY • ISSUE 75

SPRING 2005

**1905-2005**



## Hormones at 100

INCLUDING...

**A brief history  
of hormones**

**Ernest Starling  
- a biography**

**Ten hot  
hormones**



"These chemical messengers ... or hormones (from [the greek word] = I excite or arouse), as we may call them, have to be carried from the organ where they are produced to the organs which they affect, by means of the blood stream, and the continually recurring physiological needs of the organism must determine their repeated production and circulation through the body."

► This is a quote from Starling's Croonian lecture given at the Royal College of Surgeons in 1905 and published in the *Lancet*. It is the first use of the word "hormone" and obviously carried some weight because the word immediately took its place in the scientific literature. But where did the word endocrinology come from and could Starling (a physiologist) have ever foreseen the consequences of endocrinology? That chemical messengers would not only be carried in the blood stream but act locally, act back on their source and even act within the cell from which it was produced? Hence endocrinology has had to embrace the terms 'paracrine', 'autocrine' and 'intracrine'.

Naturally the British Endocrine Societies is celebrating this centennial in a big way and details can be found on page 6. John Henderson also gives us a pocket version on the life and achievements of Ernest Starling (*page 11*) but for anyone who is interested in the history of endocrinology and the life of a scientist living in the Victorian/Edwardian period I can really recommend his book. (John works down the corridor from me and I have been privy to pre-publication viewing!).

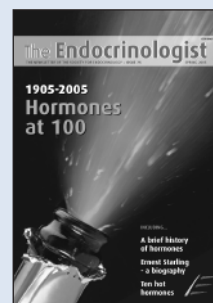
Again, in celebration, the *Endocrinologist* has been doing its bit. We have asked members of the Society to write about some new aspects of endocrinology or some new hormones (*pages 8-10*). These are just some snapshots of such a fast growing field of science. We have also celebrated by giving your newsletter a 'new look' and hope members approve (replies on a post-card).

Hotspur gives us a lesson in life and live interviews (*page 13*) whilst Juliet Need gives us days in the life of a conference organizer. There is news of a new support group, AMEND, the Association of Multiple Endocrine Neoplasia Disorders (*page 7*). Though still in its infancy, it has received tremendous support from medical professionals and is reaching out to patients with these disorders.

As it is the first issue of 2005 and we are celebrating the centenary of the word hormone, I shall end on another quote by Starling given at a Linacre lecture in Cambridge in 1915 "In Physiology, as in all other sciences, no discovery is useless, no curiosity misplaced or too ambitious, and we may be certain that every advance achieved in the quest of pure knowledge will sooner or later play its part in the service of man".

So with your new discoveries and your quest for knowledge we look forward to seeing you in Harrogate between 4-6th April (*details on page 4*) for the 24th joint meeting of the British Endocrine Societies.

SAFFRON WHITEHEAD



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#### 2005 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 Summer  
2005 issue: **1st April 2005**. Please send  
contributions to the above address.

# Travel grants: Are you now eligible?

► Society travel grants are now available to any member who earns less than £50 000 pa (excluding London weighting). You can apply for grants to attend one overseas endocrine conference per year, the BES and November meetings, and the Molecular Endocrinology Workshop at the Summer School. Note that trainees should seek funding from their deaneries in the first instance.

Grant applications are considered on 15 April, 15 August and 15 December each year. You could receive up to £500, depending upon the number of applicants. For full details and an application form see [www.endocrinology.org/sfe/grants.htm](http://www.endocrinology.org/sfe/grants.htm).

## Calling medical undergraduates!

Awards of £1000 from the Clinical Endocrinology Trust are available to undergraduate medical students to fund a project of up to 3 months' duration on any aspect of endocrinology. The grants are expected to cover laboratory and other expenses. Research will normally take place in the UK under the guidance of a supervisor. A 500-word report must be submitted to the Trustees upon completion, and an abstract may be submitted to a future BES meeting. A further £1000 will be awarded for the best report.

See [www.endocrinology.org/sfe/grants.htm](http://www.endocrinology.org/sfe/grants.htm) for further details of how to apply. The deadline is 30 April 2005.

## COMMITTEE NEWS

### THE LATEST FROM EACH OF THE SOCIETY'S COMMITTEES

► The following members have been elected to the Society's committees, after the recent call for nominations. We thank all retiring committee members for their valuable time and expertise during their terms of office.

#### AWARDS

Steve Hillier (Edinburgh)  
Richard Ross (Sheffield)  
Diana Wood (Cambridge)

#### CLINICAL

John Bevan (Aberdeen; re-elected)  
Helen Buckler (Manchester)  
Stephen Hunter (Belfast)  
Karen Mullan (Belfast; SpR)  
Andy Toogood (Birmingham)  
David Woods (Newcastle; SpR)

#### SCIENCE

Eleanor Davies (Glasgow)  
Rob Fowkes (London)

## Members on the move...

► **L Noon** to University College London; **P Saravanan** to Royal Devon and Exeter Hospital, Exeter.

## £50 book token

► We are pleased to announce the winner of the 2004 £50 book token for recruiting the most new members is Professor Julian Davis from Manchester

## With regret

► We are sorry to announce the death in November of Sir John Vane, Honorary Member of the Society. We hope to be able to publish an obituary in the next issue.

### SOCIETY CALENDAR

4-6 April 2005  
**24th Joint Meeting of the British Endocrine Societies**  
Harrogate International Centre, Harrogate, UK  
(see advert on page 4)

5 July 2005  
**Society for Endocrinology Molecular Endocrinology Workshop at Summer School**  
St Aidan's College, Durham, UK  
(see advert on page 11)

6-7 July 2005  
**Society for Endocrinology Advanced Endocrine Course at Summer School**  
St Aidan's College, Durham, UK  
(see advert on page 11)

8 July 2005  
**Society for Endocrinology Clinical Practice Day at Summer School**  
St Aidan's College, Durham, UK  
(see advert on page 11)

30 August-1 September 2005  
**Society for Endocrinology Endocrine Nurse Training Course**  
John Macintyre Centre, Edinburgh, UK

7-9 November 2005  
**196th Meeting of the Society for Endocrinology**  
Royal College of Physicians, London, UK

Now available!



## Pituitary Function through the Ages

This is the eighth volume in the HypoCCS symposia series on clinical and basic aspects of pituitary diseases.

The human endocrine system undergoes major changes through life and these occur in parallel with the aging process. Aspects of the endocrinology of growth and development are addressed including subjects such as circadian rhythms and the effect of chemotherapy in childhood. The use of hormone interventions in adult life is covered with, amongst others, chapters on DHEA, middle age spread and thyroid hormone replacement. Mechanisms in the aging process are addressed with chapters on hormone replacement therapy in women and the interaction of growth hormone and the risk of cancer.

Eds R Ross and EM Erfurth

ISBN 1 901978 23 0, 267pp, hardback, £44.95/\$89.95, Volume 8, HypoCCS Series

You can order this book, as well as previous titles in the series, via: [www.bioscientifica.com](http://www.bioscientifica.com)

Published by  
**BioScientifica**

# BES 2005



24TH JOINT MEETING OF THE

# British Endocrine Societies

4-6 April 2005

HARROGATE INTERNATIONAL CENTRE

Register Now! [www.endocrinology.org/sfe/BES2005](http://www.endocrinology.org/sfe/BES2005)

### Plenary lectures

CR Kahn  
J Sandahl Christiansen  
J Franklyn  
K Korach  
T Visser

### Clinical management workshops

Endocrine sequelae of childhood cancer  
Endocrine manipulations in the transsexual  
HRT in women - who should get what  
Diagnosis and management of steroid deficiency

### Symposia

Endocrine complications of systemic disorders  
Hyperinsulinism-induced hypoglycaemia  
Cardiovascular endocrinology  
Endocrinology of the kidney  
Novel approaches for defining oestrogen action  
Hypothalamic-pituitary-adrenal axis and inflammation  
Intracellular transport of steroids  
Regulation of ovarian folliculogenesis  
Thyroid disease in pregnancy and childhood

### Not forgetting

Oral communications  
Molecular endocrinology workshop  
Clinical cases  
Poster presentations  
and an exciting social programme!

For further information contact  
BES, 22 Apex Court, Woodlands,  
Bradley Stoke, Bristol BS32 4JT, UK  
(Tel: 01454-642200; Fax: 01454-642222;  
Email: [info@endocrinology.org](mailto:info@endocrinology.org);  
Web: [www.endocrinology.org/sfe/confs.htm](http://www.endocrinology.org/sfe/confs.htm))





# Meet your officers



► **John Wass takes on the role of Chairman.** He is Head of the Endocrine Department at the Oxford Centre for Diabetes, Endocrinology and Metabolism, and Professor of Endocrinology at Oxford University. His work centres around the treatment of pituitary tumours, in particular acromegaly and the study of growth and growth factors. His research interests also include the genetics of osteoporosis and autoimmune thyroid disease, and the development of new pharmacological therapies for pituitary tumours. Before moving to Oxford in 1995, John was a consultant at St Bartholomew's and Professor of Clinical Endocrinology at the University of London. He was the President of the European Federation of Endocrine Societies from 2001 to 2003 and is UK Representative for the International Society of Endocrinology. He has previously been the Society's General Secretary and Chairman of the Clinical Committee, Editor of *Clinical Endocrinology*, President of the Endocrine Section of the Royal Society of Medicine, and also helped found The Pituitary Foundation. He edited the *Oxford Textbook of Endocrinology* (2002) as well as the BioScientifica publication *Handbook of Acromegaly*. As Chairman, he hopes to widen and enlarge the membership of the Society for Endocrinology, as well as to increase its influence academically and politically around the Starling centenary and the 60th anniversary of the Society.



► **Anne White, the Society's Treasurer,** is Professor of Endocrine Sciences at the University of Manchester, and has just been appointed as Dean for Postgraduate Education in the Faculty of Medical and Human Sciences. With Julian Davis, Anne established the Endocrine Sciences Research Group at the University of Manchester. More recently, she held a 2-year Royal Society Industry Fellowship at AstraZeneca, investigating the role of POMC in obesity. Her current research interests include processing of POMC and ACTH, molecular mechanisms of glucocorticoid signalling, and regulation of IGFs in tissue remodelling. Anne has previously served on the Society's Science Committee and as Chair of the BES Programme Organising Committee, as well as being Deputy Chairman of the UK Council for Graduate Education. She is currently a member of the MRC Career Development and Training Board. Anne took on the roles of Treasurer of the Society and Company Secretary of BioScientifica Ltd in December 2001. As Treasurer, she is also Chairman of the Finance Committee and sits on the Awards, BES Liaison, BES Programme Organising and Publications Committees.



► **Julia Buckingham becomes General Secretary.** She is the Professor of Pharmacology and Head of the Division of Neuroscience and Mental Health at Imperial College London. Her research interests centre on the control of hypothalamo-pituitary-adrenocortical activity and the mechanisms of glucocorticoid action. Julia is currently President of the British Pharmacological Society, Editor-in-Chief of *Journal of Neuroendocrinology* and a member of several other editorial boards, including that of *Journal of Endocrinology*. She also has a deep interest in undergraduate and postgraduate education and is delighted that Imperial runs a BSc in endocrinology. A long-standing committee member of the Society for Endocrinology, she was previously Treasurer and since 2001 has been Chairman of the Society's trading company, BioScientifica Ltd. As General Secretary, Julia will chair the Publications Committee and serve on the BES Liaison Committee.



► **David Ray takes over as Programme Secretary.** He is a Senior Lecturer in the Endocrine Sciences Research Group, University of Manchester, where he has held the position of Honorary Consultant in Endocrinology since March 2000. He is interested in the molecular mechanisms of glucocorticoid action and how glucocorticoid sensitivity is altered in chronic inflammatory disease and other stress conditions. His numerous publications on this subject include several review articles. As well as being a member of the Society for Endocrinology, he is a fellow of the Royal College of Physicians and a member of the Association of Physicians of Great Britain and Northern Ireland. He was the programme convenor for the Society's Advanced Endocrine Course in 2003.

Take this opportunity to get to know the new and the more familiar faces among the Society's team of officers. Be sure to contact them via the Society website with your ideas and suggestions!



## RESEARCH AWARD 2005 – £10 000

Research must be directly related to thyroid disorders or the basic understanding of thyroid function.

Up to £10 000 is being offered to enable medical researchers to supplement existing projects or to pump-prime new research ideas. Funds will be awarded for consumables, running costs and equipment.

Further information and application forms are available from Betty Nevens, BTF, PO Box 97, Clifford, Wetherby LS23 6XD, UK (Tel: 0113 2924600)

Closing date for applications: 31 August 2005

# 100 YEARS OF HORMONES!



► 2005 sees the centenary of 'hormones' - it was in 1905 that Ernest Starling first used the term, while lecturing at the Royal College of Physicians in London. This anniversary has provided the Society with the perfect opportunity to raise the profile of endocrinology, both to benefit its members and to reach out to a wider audience.

Enclosed with this issue you will find the first in a series of posters that celebrate the centenary year. Please display it for all to see on your departmental notice board, in your lab, on a corridor wall or on a common room door - anywhere to attract attention. Limited copies, perhaps to inspire you at your desk, are available free via the centenary web site, [www.100yearsofhormones.org](http://www.100yearsofhormones.org). You will also notice the special '100 years of hormones' logo on all our correspondence and literature throughout 2005.

The posters will also draw attention to the special Starling Reviews that will appear throughout 2005 in *Journal of Endocrinology*. High-profile international endocrinologists will remember the past, review the present and look to the future of research, understanding and application relating to more than 20 endocrine subjects. Like all review articles, they will be freely available to all on the web. Articles already published or in press include:

**Ernest Henry Starling and 'Hormones': An historical commentary** *John Henderson*  
**Hypothalamic hormones a.k.a. Hypothalamic releasing factors** *Roger Guillemin*  
**Appetite control** *Steve Bloom*

**Hormone driven mechanisms in the central nervous system facilitate the analysis of mammalian behaviours** *Donald Pfaff*

**Role of RIP140 co-repressor in ovulation and adipose biology** *Malcolm Parker*

**Postmenopausal hormone therapy: from monkey glands to transdermal patches** *Susan R Davis*

**Gene therapy for pituitary disease** *Eun-Jig Lee & Larry Jameson*

**The new biology of aldosterone** *John Connell*

**11 $\beta$ -Hydroxysteroid dehydrogenase and the pre-receptor regulation of corticosteroid hormone action** *Nicole Draper & Paul M Stewart*

Don't forget to look out for a special commemorative issue of *The Endocrinologist*, to appear later in the year. It's your newsletter, so all ideas and suggestions for articles are welcome, to complement the features we're already compiling.

Starling's first reference to a hormone was during a Croonian lecture at the Royal College of Physicians. We are celebrating the centenary together with the College, by supporting their annual history lecture in July, which will trace progress in endocrinology over the past 100 years. The Society's 2005 November meeting at the College will include special centenary lectures, and you can

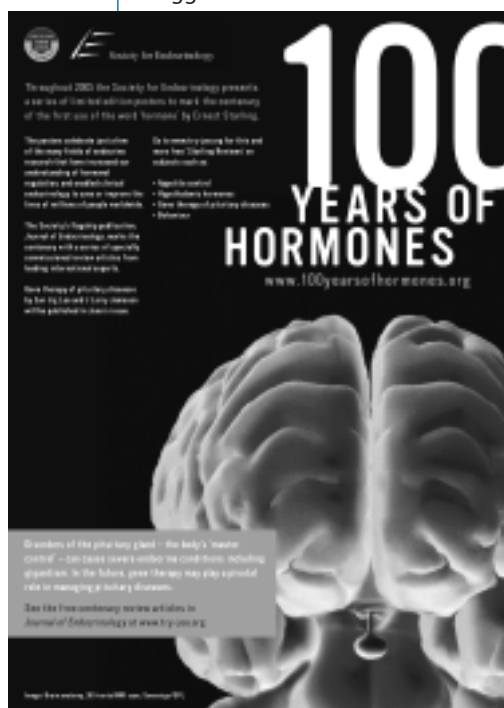
also look forward to a session with Vivienne Parry, the well known science journalist and author of *Truth about Hormones*, a popular science book on endocrinology to be published in March.

To raise the wider profile of endocrinology, the Society is commissioning a variety of features in the print media, and is already discussing possible documentaries on endocrine issues and disorders with interested television production companies. Following the success of the public science session at BES 2004, this year's meeting will again take the opportunity to involve a wider audience in endocrine issues.

Importantly, the Society has also secured the front cover and a two-page article in the summer issue of *Science in Parliament* magazine. This quarterly publication is delivered to all MPs and peers, and such a feature could be a great lobbying tool. We have freedom to choose the subject of the article, so please let us know of any endocrine issues you would like addressed.

You can keep track of all the centenary projects on the web at [www.100yearsofhormones.org](http://www.100yearsofhormones.org), which will also provide links to the reviews in *Journal of Endocrinology* and to the media features that we have commissioned. The pages will be updated throughout the year, so bookmark the site now! We'll also keep you up to date via this newsletter and the Society's monthly email alert (sign up via the web if you're not already a subscriber; just follow the links from the home page).

If you have any suggestions for the centenary year we'd love to hear from you, just drop an email to [jane.shepley@endocrinology.org](mailto:jane.shepley@endocrinology.org).



## Spotlight on...

## AMEND

► **AMEND (the Association for Multiple Endocrine Neoplasia Disorders) is like a second family: a slightly extended family at around 75 members, but small for a patient support group. Members support each other regarding every aspect of living with multiple endocrine neoplasia (MEN) types 1 and 2.**

As a new support group, we are all still very much learning together. Our aim is to help patients make informed decisions and to understand their conditions better. In the future, we hope to champion new treatments, therapies and policy. We currently contact our members by telephone, email and quarterly newsletter to pass on what we learn from specialists and relevant conferences.

Mother and daughter Liz Dent and Emily Sole were given their diagnosis of MEN1 in 1999, and were encouraged by Liz's endocrinologist to begin a group to contact others. My mother, Janet French, and I contacted them after seeing a short notice about the then 'MEN Society' in the British Thyroid Foundation Newsletter in 2001. As the very first MEN2 patients to present ourselves, we decided we could help AMEND by supporting others with MEN2.

Liz and Emily have each said goodbye to both their parathyroids and pancreases. My mother and I bade adieu to our thyroids, parathyroids and adrenal glands. As you can imagine, between us we have a wealth of experience at the other end of the surgeon's scalpel! With a local retired businessman as our 'corporate hat' and a wonderful team of medical advisors, we feel confident that we can continue to support MEN patients for many years to come, and help AMEND grow into an increasingly useful tool for patients and medical professionals alike.

My own personal interest in AMEND began in February 2000, when I was voluntarily admitted to a private psychiatric hospital for treatment of postnatal depression. I had given up arguing with my GP that my migraine attacks, palpitations, shaking and constant vomiting had nothing to do with the birth of my child 9 months earlier - I was by then just suicidal. Of course, it transpired that childbirth had contributed in a way to my symptoms, though obviously not to the condition itself. My blood pressure was off the wall and I didn't need the BP cuff to tell when it was climbing. A consultant physician verging on retirement tested my catecholamine levels after monitoring my spiking blood pressure for 24 hours, and his face was a picture when, after more than 20 years of testing psychiatric patients, he had finally caught a large and very active phaeochromocytoma!

A bilateral adrenalectomy and thyroidectomy later, my mother and small son also tested positive for MEN2a. After what I had been through, the responsibility of having a child with this condition was terrifying and strangely lonely. Even with other family members affected, there is often a desire to speak to people more removed from your own circle. However, my tumultuous

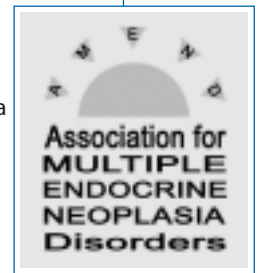
experience had taught me not only that I am physically and mentally much stronger than I had ever imagined, but also that knowledge is power.

I sought more and more information about MEN2a in children, as well as finding a family in the USA who had been in a similar situation. What I learnt meant that my decision to admit my son for a thyroidectomy at 3½ years old was well informed and therefore easier to make. As word of our existence spreads, more and more of the patients who contact AMEND are asking for that same level of information in order to make similar decisions.

AMEND is addressing this need by producing patient information books for patients and medical professionals who want to know more about the conditions. As a MEN2a (c634) patient myself, I began writing what I envisaged as a leaflet on MEN1, with a view to 'translating' complicated medical research publications into a patient-friendly format, and to improve my understanding of the 'other side' of AMEND's work. Clearly I had misjudged the enormity of what I had started! With fantastic help from our medical advisory team, the leaflets have evolved into booklets. They are currently available for MEN1, MEN2a, MEN2b and familial medullary thyroid cancer, and one on genetics and genetic counselling will hopefully be available in the future.

If you have a patient with MEN or just an interest in the condition, contact us to obtain leaflets and posters for your clinic, patient information booklets and membership application packs. Come and talk to us if you see our stand at any event, and learn more about MEN from the patients' point of view. For your patients, it could be just what the doctor ordered.

JO GREY, MEN2 REPRESENTATIVE, AMEND [www.amend.org.uk](http://www.amend.org.uk)



## Freedom of information

**The Universities UK Academic Licence Holders' Freedom of Information Network is a new initiative with three main aims:**

- to share information about universities' preparation for freedom of information requests regarding animal research;
- to share details of the types and numbers of requests and the universities' responses; and
- to act as a forum to assist with or discuss issues that arise.

To join the network or for further information, contact [davina.blake@universitiesUK.ac.uk](mailto:davina.blake@universitiesUK.ac.uk).

### Pituitary publicity

*We suggest you follow the example of Peter Lees, pituitary-specific neurosurgeon at Southampton General Hospital. Peter is publicising the Pituitary Foundation by including its web address at the end of letters to GPs and on blanket email messages. The Foundation's address is [www.pituitary.org.uk](http://www.pituitary.org.uk), and the Society is keen for other members to follow suit.*



# Ten hot hormones

100 years after hormones became 'hot', which are currently near boiling point? Here are some suggestions for an endocrine top ten.

## 1 Growth factors, pregnancy and fetal growth

▶ IGFs-I and -II were first discovered almost 50 years ago, but only in the last decade have their roles as critical regulators of fetal growth been established. Clinical studies and a series of transgenic animals have demonstrated *in utero* growth restriction associated with reduced levels of IGF-I or -II. Recent data from tissue-specific knock-out mice suggest that, for IGF-II at least, the regulation of placental development is key to this effect. Specific IGF-binding proteins (IGFBPs) are central in the regulation of IGF activity. It was through studying the predominant IGFBPs in the maternal circulation during pregnancy (IGFBPs-1 and -3) that their post-translational modification was first shown to be important in controlling IGF bioavailability. A wealth of evidence now implicates altered IGFBP expression/concentration, structure and biochemical properties in conditions leading to disordered fetal growth. Perhaps these discoveries will allow the development of novel therapeutic strategies to normalise fetal growth in compromised pregnancies over the next decade.

MELISSA WESTWOOD

## 2 Annexed for glucocorticoids

▶ The annexins are a well-conserved superfamily of structurally related Ca<sup>2+</sup>- and phospholipid-binding proteins. Annexin 1 is a 37kDa protein that is induced by glucocorticoids and mediates glucocorticoid action in the host defence and neuroendocrine systems. It is implicated in glucocorticoid regulation of cell growth, signal transduction and arachidonic acid release, leukocyte migration, acute inflammation, pain, fever and pituitary function. The regulatory actions of glucocorticoids on pituitary hormone secretion are complex and include modulation of the expression of genes that encode the hormones, and more immediate effects on the processes of hormone release. Annexin 1 mediates the early glucocorticoid actions on the secretion of ACTH and other pituitary hormones. Further observations implicating annexin 1 in cellular differentiation, cell signalling and vesicle trafficking convey a picture of annexin 1 as a multi-functional protein with both extra- and intracellular roles.

HELEN CHRISTIAN

## 3 Milking the course of angiogenesis

▶ Angiogenesis, the outgrowth of new blood vessels from existing ones, is regulated by the interplay of pro- and anti-angiogenic molecules. Research over the last decade has outlined the importance of hormones and local autocrine/paracrine factors in the regulation of vascular function under physiological and pathological conditions. Prolactin, primarily a pituitary hormone that exists in several molecular isoforms, can reach target tissues through the circulation and is produced locally in various tissues and cell types, including endothelial cells. The full length 23kDa form of prolactin can stimulate the angiogenic process under specific developmental states, whereas its 16kDa cleaved counterpart is a potent inhibitor of angiogenesis. These effects are mediated via different receptors and potentially divergent signalling pathways. As such, prolactin represents a model system in which opposing biological effects reside within the same molecule. The development of specific receptor antagonists and the availability of recombinant hormones may offer the potential to implement novel therapeutic strategies in the treatment of various diseases related to angiogenesis, such as cancer, rheumatoid arthritis and pathologies of the reproductive tract.

HENRY N JABBOUR

## 4 A gut full of hormones

▶ Secretin and gastrin, discovered in 1902 and 1904 respectively, were the first 'hormones'. From this early start, gastrointestinal hormones are still making the running. The identification of the gastric hormone ghrelin in 1999 showed that it bound a receptor that mediated GH release following the administration of an experimental enkephalin analogue. While ghrelin does indeed release GH, its main physiological role is the powerful stimulation of appetite ('the hunger hormone'). It is very effective at awakening appetite in renal failure patients and cancer patients, and an antagonist is a major therapeutic target in obesity. Preproglucagon is the source of several bowel hormones, including glucagon-like peptide-1, which enhances insulin release and is undergoing trials as a novel therapeutic agent for diabetes. Oxyntomodulin, another product of preproglucagon, is effective in man at reducing both appetite and weight, while the gut hormone peptide YY also reduces appetite, and a nasal preparation is entering human trials.

STEVE BLOOM

1889

Removal of a dog's pancreas by Von Mering and Minkowski found to produce symptoms similar to human diabetes mellitus

72-year-old French physician Brown-Sequard reports increased virility after injecting himself with extracts (using water!) from bull testes

1855

Thomas Addison describes the syndrome associated with deterioration of the human adrenal cortex (Addison's disease)

1849

Berthold shows that castrated cockerels lack male characteristics, an effect reversed by reinstating the testes

1835

Graves publishes his account of exophthalmic goitre

1895

Posterior pituitary gland extract found to raise blood pressure by Oliver and Schaefer.

1902

Bayliss and Starling show that a substance from the small intestine triggers the flow of pancreatic juice, by humoral rather than nervous stimulation

1905

Starling introduces the word 'hormone'

1912

Schaefer names 'insulin'



## From mass extraction to discovery on a pin head...

The first hypothalamic hormone, thyrotrophin-releasing hormone (TRH), was identified in 1969 by mass processing of animal tissue. Between 1964 and 1967 Roger Guilleman's lab processed more than 50 tons of fresh frozen sheep hypothalami, while Andrew Schally and his team processed one million pig hypothalami. The isolation work was laborious, but the race between two rival scientists culminated in the simultaneous identification of ovine and porcine TRH. But times have changed, and the identification of ghrelin exactly 30 years later was a very different story. This back-to-front affair first saw the identification of a novel receptor in the hypothalamus and pituitary gland, following stimulation of growth hormone release by synthetic drugs. Then using an 'orphan receptor strategy' ghrelin was eventually isolated - not from the hypothalamus, where it is produced in low concentrations, but from the stomach. With the marriage of sophisticated proteomics and genomics, novel hormones can now be identified with just a few micrograms of starting material.

SAFFRON WHITEHEAD

## 5 All sorts of strange encounters

The term apparent mineralocorticoid excess (AME) was coined by Ulick and New in 1979 to describe a syndrome of hypertension, refractory hypokalaemia, a suppressed renin-angiotensin-aldosterone axis and a raised urinary ratio of 11 $\beta$ -hydroxy to 11-oxo metabolites of cortisol, resulting from a failure to convert cortisol to cortisone. The acquired form of AME results from excessive consumption of liquorice or liquorice-containing products, including Pontefract cakes, ouzo and Pernod. Glycyrrhetic acid, the active component of liquorice, is a potent inhibitor of 11 $\beta$ -hydroxysteroid dehydrogenase type 2. This enzyme is present in aldosterone-selective tissues (including the renal distal tubule) and its autocrine action converts cortisol to cortisone. Its inhibition allows cortisol to gain access to the non-specific mineralocorticoid receptor, resulting in renal sodium retention, potassium loss and AME. Liquorice is popular and widely available. It can, however, have potentially life-threatening consequences. A detailed dietary enquiry is essential in any patient presenting with hypertension and hypokalaemia.

TOM BARBER AND JOHN CHAPMAN

## 6 New growth factors for follicles

Bone morphogenetic proteins (BMPs) constitute a large subgroup of the transforming growth factor- $\alpha$  superfamily. They were initially isolated from bone due to their ability to induce ectopic bone and cartilage formation. However, it is now clear that BMPs have diverse roles in controlling cell proliferation, apoptosis, differentiation and morphogenesis in a range of tissues. To the excitement of many reproductive biologists, a hitherto unknown BMP system in the mammalian ovary emerged in the late 1990s, complete with multiple ligands, receptors and extracellular binding proteins. Since then ovarian BMPs have been implicated in various aspects of follicle function, including primordial follicle recruitment, oocyte-granulosa cell interaction, granulosa and theca cell proliferation and steroidogenesis. 'Knockout' mouse studies have shown that oocyte-derived BMP-15 and the related GDF-9 molecule are obligatory for early follicle development. Furthermore, point mutations in the BMP-15 and BMP type IB receptor genes account for aberrations in folliculogenesis and ovulation observed in certain hyperprolific sheep breeds.

PHIL KNIGHT

## 7 A fatty tale for diabetes and CAD

Synthesised in adipocytes and circulating in the bloodstream, adiponectin is a polypeptide of about 30kDa which binds to adiponectin receptors 1 and 2. It has an inverse association with obesity and insulin resistance. In non-humans, plasma adiponectin levels increase after weight reduction, when insulin sensitivity improves, but fall before the development of obesity and insulin resistance. Mice that overexpress adiponectin have improved insulin sensitivity and serum non-esterified fatty acids (NEFAs). In contrast, adiponectin 'knockout' mice develop insulin resistance and increased serum NEFAs, without a significant difference in body weight compared with wild type mice. In humans, high adiponectin concentrations are associated with a reduced risk of type 2 diabetes mellitus, and plasma adiponectin levels are decreased in patients with coronary artery disease. These data suggest that adiponectin is a novel target for the development of drugs to treat diabetes and cardiovascular disease.

WALJIT S DHILLO

1921

Nobel prize received by Otto Loewi for showing that nerves release chemical messengers, specifically acetylcholine and norepinephrine, that control cellular activity

1922

Islets of Langerhans shown to control carbohydrate metabolism by Banting and Best

1923

Pancreatic glucagon discovered by Murlin and co-workers.

1936

Kendall, Mason, Myers and Allers isolate cortisone

1938

Dodd and colleagues describe the first synthetic oestrogen

1949-1950

Samuel Seidlin is the first to cure thyroid carcinoma which had metastasised to the skull with radioactive iodine

1953

Sanger receives Nobel prize for describing the amino acid sequence of insulin

du Vigneaud becomes the first to synthesise peptide hormones (oxytocin and vasopressin), also synthesising vasotocin before it was actually discovered

1955

Pituitary function found to be controlled by 'humoral' factors by Geoffrey Harris



## More growth factors

► Growth factors are big business for endocrinologists, and the number identified continues to increase rapidly. The epidermal growth factor (EGF) family is now so large that it has to be divided into two classes and then subdivided according to the receptors bound. The first class includes EGF, amphiregulin, transforming growth factor- $\alpha$ , betacellulin and epiregulin, while the neuregulins make up the second class. Amphiregulin was first isolated in 1988 from the medium of MCF-7 breast cancer cells. It inhibits growth in several human carcinoma cell lines but stimulates the proliferation of fibroblasts and keratinocytes. It may be involved in lung morphogenesis (high levels of transcripts are found in newborn lung), whilst other studies have shown that amphiregulin and epiregulin are induced in the ovary by the preovulatory LH surge. New studies show that amphiregulin is an immediate response gene for parathyroid hormone action in bone. Where next for the ever-expanding growth factor families?

SAFFRON WHITEHEAD



## Fizz(ing) in fat

► Resistin (or Fizz3) is a 12.5kDa protein, synthesised in adipocytes and belonging to the cysteine-rich C-terminal domain or 'Fizz' protein family. Administration of resistin causes glucose intolerance and insulin resistance in mice. Mice lacking resistin have lower fasting blood glucose levels and improved glucose tolerance. Circulating resistin levels are higher in obese rodents, suggesting it may provide a link between obesity and diabetes mellitus type 2. Human resistin shares only 64% homology with the mouse protein, and the role of resistin in human obesity and insulin resistance is controversial. Human adipocytes express the protein at very low levels,

and circulating resistin concentrations do not predict insulin resistance in humans. The Fizz protein family is implicated in the regulation of inflammatory processes. Resistin is strongly expressed in human macrophages, and levels correlate positively with specific inflammatory markers. So while data suggest a role for resistin in glucose homeostasis in rodents, a similar role in humans remains to be determined, and a further family member may be as yet unidentified. Alternatively, resistin may play a role in the chronic inflammatory reactions associated with obesity.

CAROLINE SMALL

## 10 The sexiness of kisspeptin

► Discovered only recently, the neuropeptide kisspeptin is vital in controlling the reproductive system. Both kisspeptin and GPR54, the G-protein-coupled receptor it activates, are expressed in the placenta and the hypothalamus. Loss-of-function mutations of GPR54 cause infertility in mice and humans. During the third trimester of human pregnancy, circulating kisspeptin levels rise to 7000-fold higher than basal. Central or peripheral kisspeptin administration stimulates gonadotrophin release by activating hypothalamic gonadotrophin-releasing hormone neurones. Hypothalamic kisspeptin and GPR54 expression change through the oestrous cycle and are increased by gonadectomy in male and female rats, suggesting dynamic changes in the kisspeptin system in response to the sex hormone environment. These exciting new findings linking kisspeptin to the hypothalamic-pituitary-gonadal axis provide an illuminating insight into the control of reproductive function. Further work is now required to explore kisspeptin's physiological role.

KEVIN G MURPHY AND WALJIT S DHILLO

1959

Gerald Aurbach isolates parathyroid hormone

1960

Autonomic nervous system's role in hormone metabolism described by Walter Cannon

1962

Earl Sutherland describes cyclic AMP

1971-1975

Hughes, Kosterlitz and colleagues identify pentapeptides from the brain as having potent opiate agonist activity

1977

Rosalyn Yalow receives the Nobel prize for development of the radioimmunoassay

1978

Louise Joy Brown, the first test tube baby, is born

1986

Rita Levi-Montalcini and Stanley Cohen receive the Nobel prize for discovering nerve growth factor and epidermal growth factor

The end of the 'race to Stockholm': Roger Guillemin and Andrew Schally receive the Nobel prize for describing the structures of TSH and GnRH in sheep and pigs respectively. Guillemin's team were also first to report the structure of somatostatin

# The first 'endocrinologist'

*We take a look at the man behind hormones, and celebrate the dawn of British - and international - endocrinology.*

▶ Ernest Starling was born in 1866, and became a key figure in the flowering of British physiology that began around 1885. If a single cause for this flowering can be suggested, it is William Sharpey, who was made Professor of Anatomy and Physiology at University College London in 1836. He inspired a generation of physiologists, including John Burdon Sanderson, Michael Foster and Edward Schäfer, each of whom succeeded Sharpey at UCL, before moving elsewhere. Ernest Starling replaced Schäfer in 1899, and stayed at UCL until his death in 1927.

Starling's research covered an extraordinarily wide range of subjects, in a way that would not be possible today. With William Bayliss (who married Starling's beautiful sister Gertrude), he investigated the electrical activity of the heart. They produced the second ever recording of the human ECG. In the late 1890s, Starling investigated the formation of lymph, and showed that plasma osmotic pressure balanced hydrostatic pressure in the capillary ('Starling's principle').

With Bayliss he discovered secretin (1902), and in 1905 he rather casually introduced the word 'hormone' into the language. His heart-lung preparation led to his 'law of the heart' (1913-1914). After the Great War he published - notably - on the kidney (with Verney), and - not so notably - on insulin and the control of blood pressure.

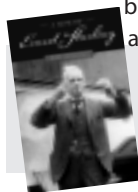
But he was much more than a gifted scientist. He wrote iconoclastically on the English educational system, on Germany and German science, on medical education, on the Government and the Great War (a particularly scathing attack) and the organisation of London University.

He canvassed fruitlessly for the merging of London's medical schools in 1909 (this campaign brought him a good deal of unpopularity). It was not until 1980 that the



Flowers Report reduced the number of schools from twelve to five, as Starling had proposed! He was the driving force behind the new preclinical school for UCL, and his Institute of Physiology (1909) was built with £16 000 largely raised by his talented wife Florence. His outspoken views on the Government probably prevented him from being awarded a knighthood, and his admiration for Germany was instrumental in his not receiving a Nobel Prize.

Having spent some years on a biography of this physiological lion, I feel that 2005, the centenary of his term 'hormone', seems an appropriate time for its publication. I hope that I have conveyed in the book something of the Victorian/Edwardian flavour of his world, a world that was bursting at the seams. We shall not see his like again.



*A Life of Ernest Starling by John Henderson is to be published in early 2005 by Oxford University Press.*

2005  
**SUMMER  
SCHOOL**

**5-8 July 2005**

ST AIDAN'S COLLEGE, DURHAM

Grants are available for younger Society members to attend the workshop. See [www.endocrinology.org/sfe/grants.htm](http://www.endocrinology.org/sfe/grants.htm) for further details.

Deadline for grant applications: **15 April 2005**

**5 July**

Molecular Endocrinology  
Workshop

**6-7 July**

Advanced Endocrine  
Course

**8 July**

Clinical Practice Day





# HOW TO RUN A conference

Ever thought  
about

organising  
your own

conference?

Well, here's a

quick do-it-  
yourself guide.

On second

thoughts,

maybe you'd

prefer the

Society did

it for you!

► **Conferences - exciting opportunities to spend time catching up with the latest research, networking with fellow endocrinologists, and maybe relaxing with old friends... These events are clearly central to communication between clinicians and scientists alike. But how do you put together a successful conference that has its finger on the pulse of endocrinology and gets the delegates buzzing? Not a simple question: every meeting, and every client, is different. It all adds welcome variety to our work as the Society's conference organisers, but it can be tough on shoe leather and nerves.**

Relaxing certainly isn't on the agenda of many conference organisers, at least not until the journey home. The arrangements for any conference can get underway up to 3 years in advance, when an outline of the structure and size of a meeting allows us to locate the ideal venue. With meetings like the BES which move around the country, we also know which area of the UK we aim to visit next. Booking ahead means we get what we want.

Planning the meeting begins with the endocrinology, as you might hope. The BES programme organising committee meet three times during the year. For the BES meeting, suggestions made by the constituent groups supply the final symposia, debate titles and clinical management workshop themes. We then approach key researchers in that field to discuss the structure and topics further. Speakers are invited - and replacement speakers if necessary.



*Happy to help: members of the conference team caught in a rare, stationary moment*

Meanwhile, the conference organiser visits the venue to consider the logistics. This includes selecting appropriate social venues, and meeting suppliers and hoteliers to ensure they are offering us the best rates for what we need.

Once the venue, speakers, session chairs and venues for social events are confirmed, the preliminary programme can be compiled, and then printed and

published on the web. It includes the registration, accommodation and abstract submission forms. Its availability up to 8 months before the meeting is the result of our careful forward planning, and is vital for publicity.

The preliminary programmes are our best form of advertising, as they include all the information a delegate needs to register. They are mailed out straightaway, to ensure all our members are notified. We also advertise the meeting on relevant web sites to reach people who aren't members of the Society, and to give plenty of notice of the deadline for abstracts.

Sponsorship is important to a meeting's success. Once the preliminary programme is available, we can discuss

this with our corporate members. As well as taking exhibition space, our sponsors' generosity also supports the social events, programme books and delegates' wallets. We are very grateful for their commitment. We contact a wider range of potential supporters once our corporate members have confirmed their requirements.

Abstracts come streaming in right up to the deadline, and have to be categorised and despatched to our team of expert markers. Marks are logged on a database and sent to a moderator. Authors have to be notified of their abstract's outcome. Those that have been accepted will be included as oral communications or posters in the meeting's abstract book, along with abstracts from invited speakers. Plenary lecturers are also asked to submit their biographies for publication. The abstracts for Society and BES meetings appear in the BioScientifica publication *Endocrine Abstracts*, which is also published on the web.

The final programme is printed up to 3 months before the meeting. This includes a huge amount of detail, such as room names, oral communication titles, poster numbers and sponsor details. Again, this is mailed out to all our members before the meeting, along with the abstract book.

Meanwhile the delegate registrations come in thick and fast, usually rather thicker and faster in the week before the meeting (you know who you are!), and confirmation letters weigh down the postman who collects them at the end of each day. Speakers, chairs and Society officers also need to register for the meeting, and we make sure that the accommodation requirements of overseas speakers are met.

For the 2 weeks before the start of a conference like the BES meeting, the office becomes our second home. We are here from dawn until the cleaner arrives in the evening to wash the stack of coffee cups! We pack enough stationery to fill a small office, as well as certificates, spare programmes, laptops, delegate badges, cheques for plenary lecturers, medals, abstract marking sheets, files and so on. All this is squeezed into someone's car. Luckily we arrange for the delegates' wallets to be couriered and stuffed with goodies on our behalf.

At last we're at the venue. The day before the meeting involves supervising the exhibition contractors and arranging the exhibition area, setting up the registration desk, nursing our aching feet and wondering what we've forgotten.

The registration rush is always 10 minutes before the start of the first lecture on day one of the conference! We all help out, and for the rest of the meeting one of us can always be found at the registration desk. We make sure that speakers hand in their presentations, that the catering is in the right place at the right time, and that the audio-visual equipment is running smoothly in each room.

So there we are - your own 'how to' guide to create the perfect conference. Aren't you just glad that we're here to do it for you?

*JULIET NEED*

**Juliet Need is an overworked conference assistant for the Society! If you would like the Society to help with any event you are organising, contact [conferences@endocrinology.org](mailto:conferences@endocrinology.org).**



# An interview with life

► **Intrigued by the peculiarity of your colleagues? It seems to me that the best way to learn more about them is certainly not to interview them, but to sit alongside them on an interview panel. I have sat on numerous committees interviewing candidates for specialist registrar posts. I always come away learning much more about my consultant colleagues than about the candidates. In fact, the candidates make most things very apparent in their CVs, while the strange views of my fellow interviewers often only come to the surface on these occasions.**

The undue weight placed on the interview also alarms me. After all, what do we expect to learn in a 10- to 15-minute interview that follows a fairly predictable pattern? Clearly a psychopath on the rampage should declare his or her hand within 15 minutes, but what else? No, I prefer to judge a man or woman by their deeds not their words - and this from someone who loves words.

For instance, Ted, one of my much younger consultant colleagues in the

city, regularly asked what I felt was a dangerous and potentially unreasonable question, 'What is the worst thing that has happened to you so far in life and how did you deal with it?'

The candidates were young people, but the possibility still existed that they had faced one or several of life's big hits. What if their mother had committed suicide, their father abused them, or, whilst in their care, their younger brother drowned or their younger sister was killed in an RTA? Should Ted have been exploring this serious tragedy and what business was it of his to know how they dealt with it?

Did he for a moment believe that the answer could in any way indicate how that individual would respond to stress when on emergency duty - the postulated rationale for asking the question. Was there an evidence-base for such a view? I wanted to say to him, 'Don't go there!', but lacked the nerve.

Fortunately the two candidates facing this question proffered benign, relatively untraumatised life experiences in reply. For one, it was

the MRCP exam, and for the other, it was a teenage memory of adjusting to a new life in the UK having moved here with her family from Cyprus.

Anyway, after a period of some months, I sat on another interview panel with Ted. I was pleasantly surprised to hear him ask, 'How do you like to spend your leisure time?'

I had no idea how his conversion had come about. Had some senior figure taken him aside and had a quiet word? The answer became clear 6 months later, when we were having a drink together

after a local postgraduate meeting. He mentioned that he and his wife had lost their first child to a cot death 8 months earlier - between the dates of the two interviews. It was then that I realised the identity of the senior figure that had spoken to him - life.

*CLEARLY A PSYCHOPATH  
ON THE RAMPAGE  
SHOULD DECLARE HIS  
OR HER HAND WITHIN  
15 MINUTES*

'HOTSPUR'

## 8th European Congress of Endocrinology

incorporating the **BES**

**1-5 April 2006**

**Scottish Exhibition and Conference Centre, Glasgow, UK**

Programme Organising Committee Chairs: Pierre Bouloux & Josef Köhrle

Further information will be available at [www.ece2006.com](http://www.ece2006.com) in due course, or by email from [conferences@endocrinology.org](mailto:conferences@endocrinology.org)



[www.ece2006.com](http://www.ece2006.com)



## GH, IGF-I and growth plate regulation

► Linear bone growth occurs by replacement of cartilage with bone by chondrocytes in the growth plate of long bones. Cruickshank and colleagues have investigated the roles of GH, IGF-I and apoptosis in regulating the age-related and spatial growth characteristics of chondrocytes cultured from 2-, 4- and 7-week-old rats. Careful *in situ* hybridisation studies of the GH and IGF-I receptor mRNA expression patterns revealed the effects of exposure to GH and IGF-I. Apoptosis was investigated by TUNEL assay and histomorphology.

The results point to possible temporal control of proliferation and apoptosis in the regulation of growth plate development by a co-ordinate GH-IGF-I axis. Interestingly, their data also reveal that apoptosis not only removes terminal hypertrophic cells, but may co-ordinate the spatial configuration of the growth plate. This study certainly provides a novel perspective on endochondral development that is sure to stimulate new research. **GL**  
(See the full article in *Journal of Endocrinology* 184(3), March 2005)

## Endocrinology of behaviour

► Hormones can both facilitate and repress animal and human behavioural responses, and one hormone may sometimes have multiple behavioural effects. The effect of a hormone can depend on a variety of factors, including the person's genetic and developmental history and the specific receptor isoform available in a given neurone.

# HOT TOPICS

The latest in endocrine research from the Society's journals, brought to you by Gawain Lagnado, Jolene Guy, Richard Foulsham and Mona Munonyara.

In the continuation of the Starling reviews, Pfaff outlines the principles of the hormone/behaviour relationship and discusses how endocrine tools can explain the primary sexual behaviour of female quadrupeds (lordosis). This has revealed that the gene for oestrogen receptor- $\alpha$  is required for an entire chain of behaviour that is essential for reproduction, from courtship through to maternal activity. Ultimately, all sociosexual activity is the result of stimulation of brain and behaviour. As hormonal effects on behaviour are becoming better understood, the author speculates that future studies will reveal how the effects of hormones in the brain can alter entire sets of behavioural responses in animals. **JG**  
(See the full article in *Journal of Endocrinology* 184(3), March 2005)

## Insulin action in adipose

► Tri-iodothyronine ( $T_3$ ) plays a physiological role in calorogenesis. Its production is catalysed by two enzymes, type I and type II 5'deiodinase (D1 and D2). D2 activity increases in response to  $T_3$ , cold and norepinephrine in brown adipose tissue.

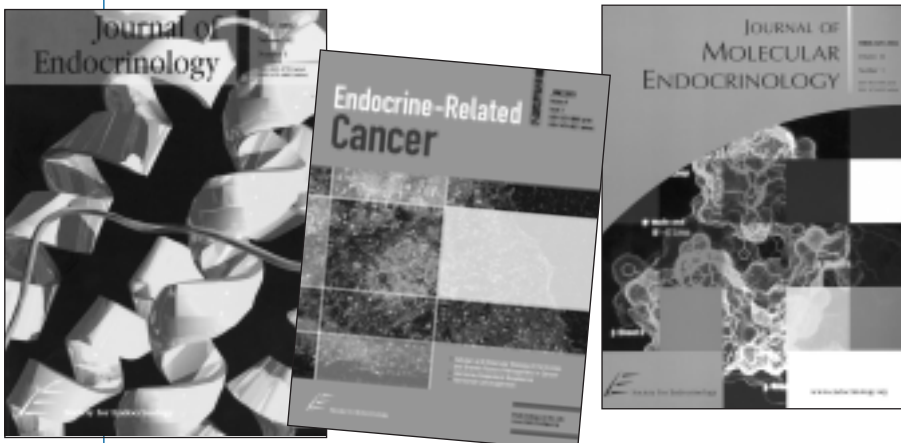
Martinez-de Mena and Obregón have studied the regulation by insulin of adrenergically induced D2 and mRNA activity. They found that insulin alone does not increase D2 activity, that insulin-depleted cells show a reduction in the induced D2 activity and also that ERK $^{1/2}$  MAPK activity, stimulated by insulin, serum and norepinephrine, is an absolute requirement for the adrenergic stimulation of D2 and mRNA. PI3K is stimulated by insulin and serum and norepinephrine increases the effect of insulin. The action of insulin on D2 seems to be via modulation of the transcriptional induction mediated by norepinephrine. **RF**  
(See the full article in *Journal of Molecular Endocrinology* 34(1), February 2005)

## Breast cancer vaccines

► Therapeutic resistance to standard breast cancer treatments highlights the need for new approaches to disease management. In this review, Emens and colleagues discuss the development of breast cancer vaccines that manipulate the immune response to recognise and eradicate tumour cells.

Vaccines offer potential advantages over standard therapies, such as low toxicity and greater specificity. This therapeutic strategy is limited by the variation of tumour cell antigens, and by established immune tolerance. Because of this, vaccines used as a single therapeutic intervention are unlikely to have a significant impact on disease outcome. However, breast cancer vaccines combined with traditional therapy can facilitate the antitumour response, increasing clinical efficacy. The authors emphasise the need for careful pharmacodynamic analysis of breast cancer vaccines and chemotherapy in clinically relevant models, rather than simply adding them to a treatment regimen considered to be the standard of care.

The identification of key breast cancer antigens and pathways that regulate resistance and the immune response will advance the development of effective immunotherapies for breast cancer. **MM**  
(See the full article in *Endocrine-Related Cancer* 12(1), March 2005)



### 5th European Congress on Clinical and Economic Aspects of Osteoporosis and Osteoarthritis

Rome, Italy, 16-19 March 2005. *Contact:* YP Communication, Boulevard G Kleyer 108, 4000 Liège, Belgium (Tel: +32-4-2541225; Fax: +32-4-2541290; Email: yolande@piettecommunication.com).

### 9th Pan Arab Conference on Diabetes

Cairo, Egypt, 22-25 March 2005. *Contact:* Pan Arab Conference on Diabetes, 19 Nasouh Street, Zeitoun, Cairo 11321, Egypt (Tel: +20-2-2131868; Fax: +20-2-2723693; Email: info@arab-diabetes.com; Web: www.arab-diabetes.com).

### 35th Congress of the International Union of Physiological Sciences

San Diego, CA, USA, 31 March-5 April 2005. *Contact:* IUPS 2005, American Physiological Society, 9650 Rockville Pike, Bethesda, MD 20814-3991, USA (Tel: +1-301-6347160; Fax: +1-301-6347241; Email: iups2005@the-aps.org; Web: www.iups2005.org).

### Fertility 2005 (4th Joint Meeting of BAS, BFS and SRF)

Warwick, UK, 2-6 April 2005. *Contact:* Debbie Walker, World Event Management, Summit House, Woodland Park, Cleckheaton BD19 6BW, UK (Tel: +44-1274-854100; Fax: +44-1274-854110; Email: fertility2005@world-events.com; Web: www.jointukfertility.co.uk).

### BES 2005: 24th Joint Meeting of the British Endocrine Societies

Harrogate, UK, 4-6 April 2005. *Contact:* British Endocrine Societies, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: www.endocrinology.org/sfe/conf.htm).

### 4th Congress of the Mediterranean Society for Reproductive Medicine (MSRM)

Cote d'Azur, France, 7-9 April 2005. *Contact:* Ashraf Samir, PO Box 125, Ibrahimieh, Alexandria 21321, Egypt (Tel: +20-3-3595043; Fax: +20-3-3595044; Email: drashraf@aast.edu).

### Do Corticosteroids Damage the Brain? Symposium in Honour of Professor Joe Herbert

Cambridge, UK, 7 April 2005. *Contact:* Michael Hastings, MRC Laboratory of Molecular Biology, Hills Road, Cambridge CB2 2QH, UK (Tel: +44-1223-402307/402411; Fax: +44-1223-402310; Email: mha@mrc-lmb.cam.ac.uk; Web: www.anat.cam.ac.uk/jhsymposium).

### 1st International Congress on 'Prediabetes' and the Metabolic Syndrome: Epidemiology, Management and Prevention of Diabetes and Cardiovascular Disease

Berlin, Germany, 13-16 April 2005. *Contact:* Kenes International (Tel: +41-22-9080488; Fax: +41-22-7322850; Email: prediabetes@kenes.com; Web: www.kenes.com/prediabetes).

### ATA 2005: Horizons in Thyroidology

Baltimore, MD, USA, 15-17 April 2005. *Contact:* American Thyroid Association, 6066 Leesburg Pike, Suite 650, Falls Church, VA 22041, USA (Tel: +1-703-9988890; Fax: +1-703-9988893; Email: admin@thyroid.org; Web: www.thyroid.org).

### Diabetes UK Annual Professional Conference 2005

Glasgow, UK, 20-22 April 2005. *Contact:* Conference Team (Tel: +44-20-74241156; Email: conferences@diabetes.org.uk).

### 16th IFCC-FESCC European Congress of Clinical Chemistry and Laboratory Medicine

Glasgow, UK, 8-12 May 2005. *Contact:* EuroMedLab Glasgow 2005 (Tel/Fax: +44-141-4341500; Email: euromedlab2005@meetingmakers.co.uk; Web: www.glasgow2005.org).

### 48ème Journées Internationales d'Endocrinologie Clinique

Paris, France, 19-20 May 2005. *Contact:* G Copinschi, Laboratoire Experimentale, Brussels Free University, CP 618, 808 Route de Lennik, B-1070 Brussels, Belgium (Email: klotz@ulb.ac.be; Web: www.endocrinol.net).

### 6th Puberty Conference

Evian, France, 26-28 May 2005. *Contact:* Catherine Hellstedt, Congrex Sweden AB, Karlavägen 108, PO Box 5619, SE-114 86 Stockholm, Sweden (Tel: +46-8-4596637; Fax: +46-8-6619125; Email: catherine.hellstedt@congrex.se; Web: www.congrex.com/puberty2005).

### 1st Educational EUGOGO Course on Graves' Orbitopathy

Thessaloniki, Greece, 26-27 May 2005. *Contact:* Gerassimos Krassas (Tel: +30-2310-479633; Fax: +30-2310-282476; Email: krassas@the.forthnet.gr; Web: www.ghsociety.com/index\_eugogo.html).

### ECO 2005: 14th European Congress on Obesity

Athens, Greece, 1-4 June 2005. *Contact:* Triaina Tours and Congress SA, Atchley House, 15 Messogion Ave, 115 26 Athens, Greece (Tel: +30-210-7499315; Fax: +30-210-7705752; Email: congress@triaenatours.gr; Web: www.eco2005.gr/index.html).

### Gonadal and Non-Gonadal Actions of LH/hCG

Turku, Finland, 3-4 June 2005. *Contact:* Nafis Rahman, Department of Physiology, University of Turku, Kiinamyllykatu 10, FIN-20520 Turku, Finland (Tel: +358-2-3337577; Fax: +358-2-2502610; Email: lh-congress2005@utu.fi; Web: www.lh-congress2005.utu.fi).

### ENDO 2005

San Diego, CA, USA, 4-7 June 2005. *Contact:* The Endocrine Society, 8401 Connecticut Avenue, Suite 900, Chevy Chase, MD 20815-5817, USA (Tel: +1-301-9410200; Fax: +1-301-9410259; Email: endostaff@endo-society.org; Web: www.endo-society.org/scimeetings).

### 2nd Joint Meeting of the European Calcified Tissue Society and the International Bone and Mineral Society

Geneva, Switzerland, 25-29 June 2005. *Contact:* European Calcified Tissue Society, PO Box 337, Patchway, Bristol BS32 4ZR, UK (Tel: +44-1454-610255; Fax: +44-1454-610255; Email: admin@ectsoc.org; Web: www.ectsoc.org).

### Bone and Tooth Society Annual Meeting

Birmingham, UK, 4-5 July 2005. *Contact:* Janet Crompton, The Old White Hart, North Nibley, Dursley GL11 6DS, UK (Tel: +44-1453-549929; Fax: +44-1453-548919; Email: janet@janet-crompton.com; Web: www.batsoc.org.uk).

### Society for Endocrinology Molecular Endocrinology Workshop at Summer School 2005

Durham, UK, 5 July 2005. *Contact:* Ann Lloyd, Society for Endocrinology, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: ann.lloyd@endocrinology.org).

### Advances in the Molecular Pharmacology and Therapeutics of Bone Disease

Oxford, UK, 6-7 July 2005. *Contact:* Janet Crompton, The Old White Hart, North Nibley, Dursley GL11 6DS, UK (Tel: +44-1453-549929; Fax: +44-1453-548919; Email: janet@janet-crompton.com; Web: www.paget.org.uk).

### Society for Endocrinology Advanced Endocrine Course at Summer School 2005

Durham, UK, 6-7 July 2005. *Contact:* Ann Lloyd, Society for Endocrinology, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: ann.lloyd@endocrinology.org).

### International Symposium on Paget's Disease

Oxford, UK, 8-9 July 2005. *Contact:* Janet Crompton, The Old White Hart, North Nibley, Dursley GL11 6DS, UK (Tel: +44-1453-549929; Fax: +44-1453-548919; Email: janet@janet-crompton.com; Web: www.paget.org.uk).

### Society for Endocrinology Clinical Practice Day at Summer School 2005

Durham, UK, 8 July 2005. *Contact:* Ann Lloyd, Society for Endocrinology, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: ann.lloyd@endocrinology.org).

### 2nd Biochemical Society Annual Meeting: BioScience2005 - from Genes to Systems

Glasgow, UK, 17-21 July 2005. *Contact:* Erica Hammond, BioScience2005, Commerce Way, Colchester CO2 8HP, UK (Tel: +44-1206-796351; Fax: +44-1206-799331; Email: info@bioscience2005.org; Web: www.bioscience2005.org).

### Society for Endocrinology Endocrine Nurse Training Course

Edinburgh, UK, 30 August-1 September 2005. *Contact:* Society for Endocrinology, 22 Apex Court, Woodlands, Bradley Stoke, Bristol BS32 4JT, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: anne.lloyd@endocrinology.org).

### 7th European Congress of Endocrinology

Göteborg, Sweden, 3-7 September 2005. *Contact:* Congrex Göteborg AB ref ECE 2005, PO Box 5078, SE-402 22 Göteborg, Sweden (Tel: +46-31-7086000; Fax: +46-31-7086025; Email: ece2005@gbg.congrex.se; Web: www.ece2005.com).

### 7th Joint ESPE/LWPES Meeting

Lyon, France, 21-24 September 2005. *Contact:* Congrex Sweden AB, Attn: ESPE 2005, PO Box 5619, 114 86 Stockholm, Sweden (Tel: +46-8-4596600; Fax: +46-8-6619125; Web: www.congrex.se/espe2005).

### 61st Annual Meeting of the American Society for Reproductive Medicine (ASRM 2005)

Montréal, Canada, 15-21 October 2005. *Contact:* ASRM, 1209 Montgomery Highway, Birmingham, AL 35216-2809, USA (Tel: +1-205-9785000; Fax: +1-205-9785018; Email: asrm@asrm.org).

### 11th World Congress on the Menopause

Buenos Aires, Argentina, 18-22 October 2005. *Contact:* Ana Juan Congressos, Sarmiento 1562 4ºF, C1042ABD Buenos Aires, Argentina (Tel: +54-11-43811777; Fax: +54-11-43826703; Email: info@menopause2005.org; Web: www.menopause2005.org).



# CHANGING THE FACE OF FEMALE HIRSUTISM



**THE ONLY TOPICAL PRESCRIPTION MEDICINE TO SLOW  
THE GROWTH OF EXCESSIVE FACIAL HAIR IN WOMEN**

#### Vaniqa 11.5% Cream Prescribing Information

**Presentation:** Cream containing 11.5% w/w eflornithine (as monohydrate chloride). Also contains cetostearyl alcohol, macrogol 20 cetostearyl ether, dimeticone, glyceryl stearate, macrogol 100 stearate, methyl parahydroxybenzoate (E218), mineral oil, phenoxyethanol, propyl parahydroxybenzoate (E216), purified water and stearyl alcohol.  
**Indication:** Treatment of facial hirsutism in women. **Dosage and Administration:** Apply a thin layer of the cream to clean and dry affected areas of face and under chin twice daily, at least eight hours apart. Rub in thoroughly. For maximal efficacy, the treated area should not be cleansed within four hours of application. Cosmetics (including sunscreens) can be applied over the treated areas, but no sooner than five minutes after application. Improvement in the condition may be noticed within eight weeks of starting treatment. Continued treatment may result in further improvement and is necessary to maintain beneficial effects. The condition may return to pre-treatment levels within eight weeks following discontinuation of treatment. Use should be discontinued if no beneficial effects are noticed within four months of commencing therapy. Patients may need to continue to use a hair removal method (e.g. shaving or plucking) in conjunction with Vaniqa. In that case, the cream should be applied no sooner than five minutes after shaving or use of other hair

removal methods, as increased stinging or burning may otherwise occur. **Elderly:** (> 65 years) no dosage adjustment is necessary. **Children and Adolescents:** (< 12 years) safety and efficacy of Vaniqa have not been established. **Hepatic/renal impairment:** the safety and efficacy of Vaniqa in women with hepatic or renal impairment have not been established. **Pregnancy and Lactation:** Pregnant or breast-feeding women should not use Vaniqa. **Contra-indications:** Hypersensitivity to eflornithine or to any of the excipients. **Special Warnings and Precautions:** Excessive hair growth may be as a result of serious underlying disorders (e.g. polycystic ovary syndrome, androgen secreting neoplasm) or certain medications (e.g. cyclosporin, glucocorticoids, minoxidil, phenobarbitone, phenytoin, combined oestrogen-androgen hormone replacement therapy). These factors should be considered in the overall medical treatment of patients who might be prescribed Vaniqa. Contact with eyes or mucous membranes (e.g. nose or mouth) should be avoided. Transient stinging or burning may occur when the cream is applied to abraded or broken skin. If skin irritation or intolerance develops, the frequency of application should be reduced temporarily to once a day. If irritation continues, treatment should be discontinued and the physician consulted. It is recommended that hands are washed following use. **Undesirable Effects:** The mostly skin related adverse reactions reported were

primarily mild in intensity and resolved without discontinuation of Vaniqa or initiation of medical treatment. Most events were reported at similar rates between Vaniqa and vehicle. \* denotes when higher levels in Vaniqa treated patients were reported: Very common (> 10%); acne. Common (> 1% to < 10%); pseudofolliculitis barbae, alopecia, stinging skin\*, burning skin\*, dry skin, pruritus, erythema\*, tingling skin\*, irritated skin, rash\*, folliculitis. Uncommon (> 0.1% to < 1%): ingrown hair, oedema face, dermatitis, oedema mouth, papular rash, bleeding skin, herpes simplex, eczema, cheilitis, furunculosis, contact dermatitis, hair disorder, hypopigmentation, flushing skin, lip numbness, skin soreness. Rare (> 0.01% to < 0.1%): rosacea, seborrhoeic dermatitis, skin neoplasm, maculopapular rash, skin cysts, vesiculobullous rash, skin disorder, hirsutism, skin tightness. **Legal Category:** POM. **Price:** 1 x 30g tube £26.04. **Marketing Authorisation Holder:** Shire Pharmaceutical Contracts Ltd., Hampshire International Business Park, Chineham, Basingstoke, Hampshire RG24 8EP, UK. **Marketing Authorisation Number:** EU/1/01/173/002. **Date of Preparation:** July 2004. **Further Information is Available from:** Shire Pharmaceuticals Ltd., Hampshire International Business Park, Chineham, Basingstoke, Hampshire RG24 8EP. Code: 039/0086 Date of item: November 2004

New

# VANIQA<sup>®</sup>

EFLORNITHINE 11.5% CREAM

**Shire**