

THE Endocrinologist

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THE NEWSLETTER OF THE SOCIETY FOR ENDOCRINOLOGY

SPECIAL ISSUE

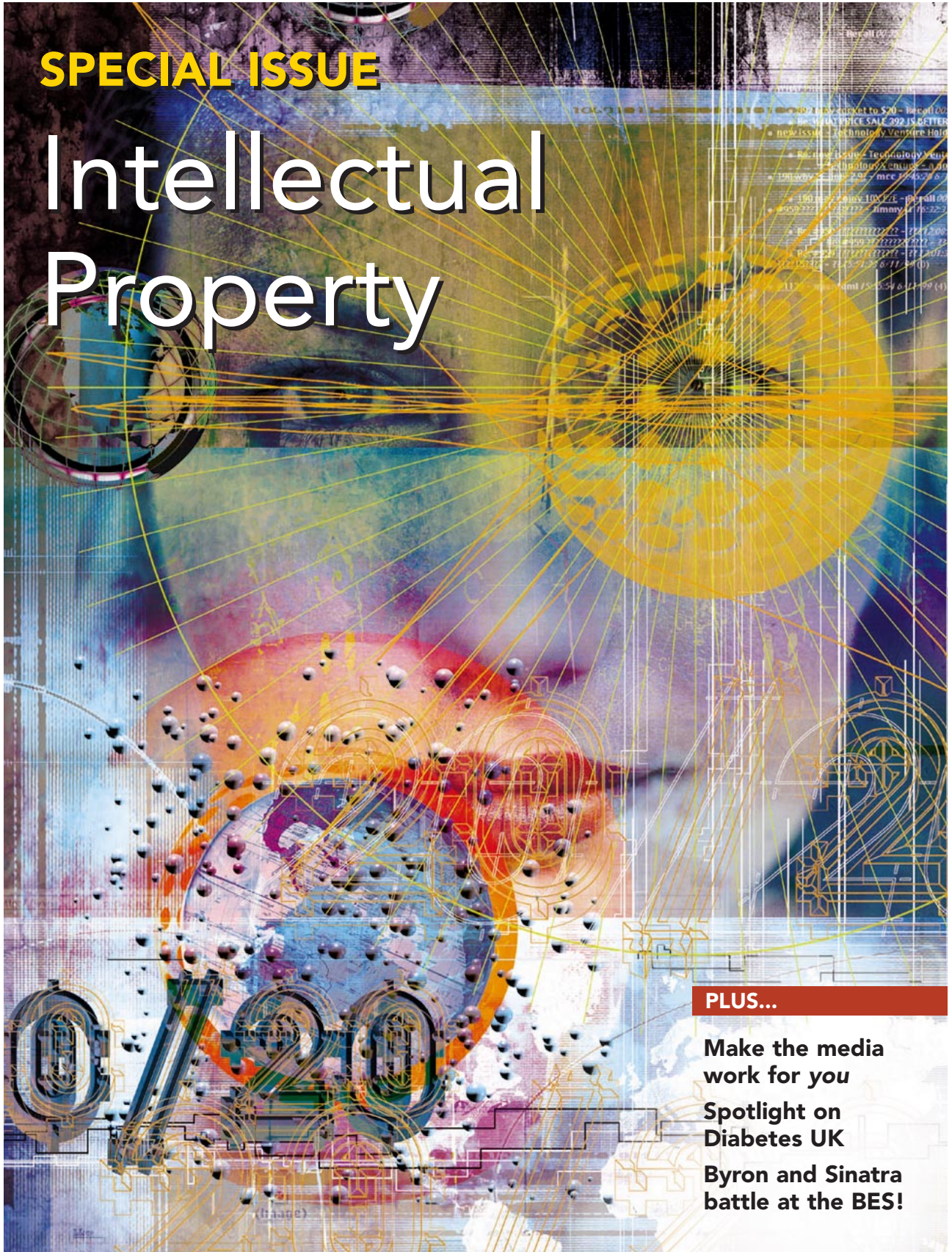
Intellectual Property

PLUS...

Make the media work for you

Spotlight on Diabetes UK

Byron and Sinatra battle at the BES!



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Members: Mono - Half page £100 Full page £150
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Deadline for news items for
the Spring 2002 issue: **4 January 2002**.
Please send contributions to the above address.

Enterprise, entrepreneurship, innovation, spin-out and spin-in are terms that many of us may associate with television series or cricket rather than universities. Business, however, is no longer a dirty word, and those seeking their fortune should turn immediately to pages 13-15. This issue of *The Endocrinologist* concentrates on the subject of intellectual property, and we hope our readers will take this opportunity to make sure they don't miss out on the fruits of their labours!

For inspiration, there is no greater story than that spun by John Kopchick, describing his discovery of the growth hormone antagonist and its subsequent commercialisation. John humbly describes this as 'a combination of unanticipated scientific results, coupled with an interest in football'. If you too decide that you are on the brink of an exciting discovery, then you need the help of Robert Docherty. In his clear and concise article, Robert summarises all you need to know about intellectual property rights and biotechnology. You will be pleased to know that you can't patent the human body or exploit human embryos - but you do need to have discovered something new, which involves an inventive step, and is capable of industrial application. If you are a university academic, you will probably need to consult Alison Ansell before you get to the patent attorney.

Most universities and, more recently, trusts have created technology transfer offices (TTOs), with officers responsible for commercialisation. Alison's article describes the work of the Reading TTO whose successes include the commercialisation of a test to predict pre-eclampsia.

Appropriately, this themed issue on commercialisation also contains details of most of our generous corporate sponsors, starting on page 9.

At the end of the day, it is all about creativity, and who better to be our 'illustrator' than Steve Shalet? Well known for his fillers in the BMJ, Steve has turned his hand to *The Endocrinologist*, and the piece from our own correspondent at the BES provides a vivid recollection of Belfast (page 16): Byron debating with Sinatra, supported by Flight Commander Besser, and Peter Trainer with a wonderful head of spiked hair. Those with a more serious journalistic bent should turn to page 8, where David Hill and Jayne Graham give some vital tips on how to manage the media and capture the local purse. If it is tips you need then this is your issue, from web spinning to hints and grants galore spread through the pages.

RICHARD ROSS
ANN LOGAN

Cancer Guidance

The Society's Clinical Committee has recently provided feedback on the proposals for Head and Neck Cancer Guidance produced by NICE (the National Institute for Clinical Excellence).

Tony Weetman and Jayne Franklyn wrote to the Chairman of the National Cancer Guidance Group on behalf of the Society. Concentrating on thyroid cancer, they drew attention to the existence of a national set of guidelines for the management of the disease. These have been endorsed by a broad spectrum of professional and patient bodies, and are due to be published shortly. The feedback emphasised the need to avoid confusion and achieve consistency between the two sources of guidance which will shortly be available at www.british-thyroid-association.org.

Fellowships

This year's winner of the Society for Endocrinology Basic Science Fellowship is Dr Helen Robson of the Christie Hospital, Manchester. Her project is 'Thyroid hormone and glucocorticoid actions during endochondral bone formation'.

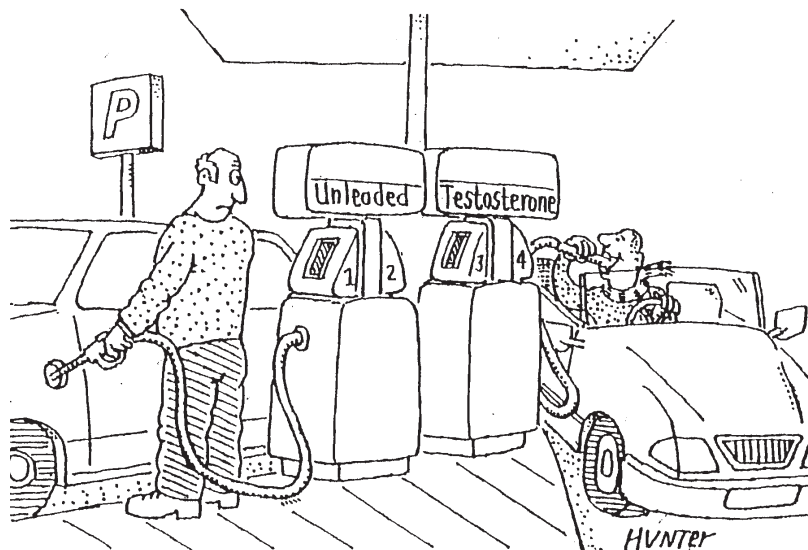
The Marjorie Robinson Fellowship has been awarded to Dr Chris McCabe, who works with Professor Mike Sheppard at the University of Birmingham. Dr McCabe will help investigate 'Pituitary tumour transforming gene mechanisms of signalling and action'.

Members on the move...

S G Ashwell to University of Newcastle upon Tyne; **M Banerjee** to Burnley General Hospital; **R Bland** to Leicester/Warwick Medical School, Coventry; **J Buckingham** to Hammersmith Hospital Campus, London; **M G Castro** to Cedars-Sinai Medical Center, Los Angeles, CA, USA; **A M Devlin** to University of Montréal, Canada; **M Hassan-Ahmed** to Birmingham University; **C Ingram** to University of Newcastle upon Tyne; **S Jones** to South Cleveland Hospital, Middlesbrough; **H Kinoshita** to Hyogo College of Medicine, Japan; **S P C Lee** to Northern General Hospital, Sheffield; **N Lewis-Barned** to North Tyneside Hospital, Tyne & Wear; **B A Lopez** to St Michael's Hospital, Bristol; **C R Parker** to Airedale General Hospital, W Yorkshire; **M Parker** to Imperial College School of Medicine, London; **J Pinkney** to University Hospital Aintree, Liverpool; **D M Smith** to AstraZeneca, Macclesfield; **M R Smith** to St Mary's Hospital, London; **S C Soo** to Luton & Dunstable Hospital NHS Trust, Luton; **A M Stewart** to Victoria Infirmary, Glasgow.

Free Symposium

The British Pharmacological Society Symposium, 'Steroids on the brain: protection, toxicity and sexual dimorphism', is free to Society for Endocrinology members. It will be held in London on 18 December. For further information contact Pamela Dale (Email: pd@bps.ac.uk; Web: www.bps.ac.uk).



Francesca Stewart

We are very sorry to announce the death of Dr Francesca Stewart of the Babraham Institute in Cambridge. Dr Stewart was a member of the Society and of the Editorial Board of *Journal of Molecular Endocrinology*.

May Reed

Regretfully we report the death of Dr May Reed from Brill in Buckinghamshire, a Senior member of the Society.

SOCIETY CALENDAR

3-4 December 2001
192nd Meeting of the Society for Endocrinology
 Royal College of Physicians, London
(see page 5 for more details)

27 February 2002
Clinical Cases Meeting
 Royal Society of Medicine, London

8-11 April 2002
BES 2002
 Harrogate International Centre, Harrogate
(see page 17 for more details)
Abstract deadline 11 December 2001!

8-12 July 2002
Summer School 2002
 University of Reading

9-11 September 2002
Endocrine Nurses Training Course 2002
 The Moller Centre, Cambridge

Clinical Endocrinology submissions online!

Clinical Endocrinology is now a fully electronic journal. A new user-friendly system allows submission of papers, reviewing, editing and manuscript handling online.



The submission process will be simpler: no need for multiple print copies or for hard copies of figures - or for postal delays! Online reviewing will be more efficient; reviewers' data will be stored in a fully automated database and, as a spin-off, it will be easy to identify referees who regularly provide excellent and timely reports. Comments from referees/editors (and authors' responses) will be held online, and the system will handle the submission of revised manuscripts. The time from online submission to publication will be appreciably shorter, and authors will also be able to follow the progress of their paper.

Authors should log onto

<http://cen.manuscriptcentral.com> to submit a

paper. Submission is a step-by-step process and there are full instructions and support online (as well as by email or phone).

There will be a limited transition period during which time hard copy submissions will still be accepted, but we hope that you will all take this opportunity to facilitate rapid publication of your research.

PAT KENDALL-TAYLOR
PAUL STEWART
(EDITORS)

Society staff supported 'Wrong Trousers Day' on 6 July, in aid of UK children's hospitals



The BES Awards



supported by Pharmacia

The BES and Pharmacia are delighted to announce the eighth in a series of awards for clinical and basic science research proposals in the field of endocrine growth factors. The successful proposal will be awarded £10 000. Five travel grants of £500 will also be presented. The winners will be announced at BES 2002.

Application forms are available from:

Helen Gregson, BES,
17/18 The Courtyard, Woodlands,
Bradley Stoke, Bristol BS32 4NQ
(Tel: 01454-642212;
Fax: 01454-642222; Email:
helen.gregson@endocrinology.org)

Deadline 14 January 2002

Post Genomic Partnership for Chemistry and Biology

London, 16 November 2001

Exciting international speakers will address fundamental issues in genomics, with the aim of encouraging interactions between biologists and chemists in this field.

- Genomics and future challenges for chemists *David Bailey (De Novo Pharmaceuticals)*
- Proteomics *Mike Washburn (Syngenta)*
- Use of oligonucleotides *Francois Natt (Novartis)*
- Vision of the future *Matthew Shair (Harvard)*
- Catalytic RNA and its implications *Speaker TBA*
- Closing discussion: The way forward

A small number of posters will be invited.

Further information will be available at www.lifesci.org or from meetings@biochemistry.org

Organised on behalf of the UK Life Sciences Committee and the Royal Society of Chemistry

Society Meeting 2001: The Date for your Diary

The countdown to Christmas has begun - so it must almost be time to take your annual break from the festive panic and attend the Society's Annual Meeting. December 3-4 will see our 192nd meeting, once again at the Royal College of Physicians in London.

This year's symposia are: Receptor antagonists (sponsored by *Journal of Molecular Endocrinology*), The endocrinology of syndrome X, Molecular evolutionary endocrinology, and Maternal and fetal responses to environmental challenges of feto-placental function. There will also be plenary lectures, sessions for nurses and young endocrinologists, posters and oral communications, as well as a debate on the role of endocrinologists in the management of metabolic bone disease.

There are lots of prizes to be won too, with six poster prizes of £100 up for grabs by Young Endocrinologists (three in the clinical category and three for basic science).

The all-important Annual Dinner will take place at The Brewery in Chiswell Street, EC1V, on Monday 3 December. Drinks will be followed by a sit down dinner and plenty of dancing. A few tickets are still available - so hurry to book for this enjoyable evening!

You can register easily for the meeting online at www.endocrinology.org/sfeconference2001/registration.htm. Register in advance until 26 November 2001; after that, forms will be processed at the registration desk at the meeting. Contact Liz Brookes at the Society if you have any queries (01454-642212).

Here are just a few of the highlights that you can look forward to:

For basic scientists...	For clinicians...	For everyone...
<p>What have we learnt from mice that lack hormone receptor genes? <i>B Vennström's European Medal Lecture</i></p> <p>Fat regulates the neuroendocrine system: studies with leptin <i>IJ Clarke's Asia and Oceania Medal Lecture</i></p> <p><i>Symposium on Molecular evolutionary endocrinology</i></p> <p><i>Basic Science Review Lecture: The endocrinology of renal vitamin D metabolism plus 'How to write a good grant' in the Young Endocrinologists Session</i></p>	<p>Recent studies in normal and abnormal growth hormone secretion <i>GM Besser's Jubilee Medal Lecture</i></p> <p><i>Clinical Endocrine Debate: This house believes that endocrinologists should leave the management of metabolic bone disease to other specialists</i></p> <p>A legacy from birth: a focus on Turner's and Kallmann's <i>in the Nurses Session</i></p>	<p>A tale of two enzymes <i>PM Stewart's Society for Endocrinology Medal Lecture</i></p> <p><i>Journal of Molecular Endocrinology Symposium: Receptor antagonists</i></p> <p><i>Symposium on Maternal and fetal responses to environmental challenges of feto-placental function</i></p> <p><i>Symposium on The endocrinology of syndrome X</i></p>



Young Endo Grants

Grants of up to £150 are available to enable young endocrinologist members to attend the Society's meeting on 3-4 December (in addition to the normal annual overseas conference grants). The deadline for applications is **19 November**. See www.endocrinology.org/sfe/grants.htm or contact Chris Davis in the Bristol office.

Basic Science Review Lecturer 2001

Congratulations to Dr Rosemary Bland from the University of Warwick for winning this award with her abstract entitled 'The endocrinology of renal vitamin D metabolism'. She will present her lecture during the Young Endocrinologists session on 3 December at the Society's 192nd Annual Meeting in London.

Congratulations

...to Brian Walker of the University of Edinburgh, who has been awarded a Personal Chair in Endocrinology at the city's Western General Hospital.

Webspinning

Highlighting the best on the Web

DNA.com

www.dna.com

Unless you have been on another planet this year, you will be aware of the completion of the sequencing of the human genome. So what better time for a Web site devoted to DNA news? But DNA.com doesn't just have timely, easy to read articles about DNA. Other useful features include a section on DNA basics for non-scientists. Even better is the Disease Centre, where you can select a disease (such as breast cancer) and be given news, interviews with leading experts, disease references and lots more. The forum allows those interested in diseases to discuss them online - the discussions were both interesting and robust.

SERVICES: N, L, O (interesting forums);

STRONG POINTS: News, forum;

WEAK POINTS: Needs more high end content; RATING: Very good.

Women in Biology

pingu.salk.edu/~forsburg/bio.html

Women in Biology is an excellent site, with lots of information on career development and professional issues for women biologists. Although originating in the USA, it is also relevant to Europe. Learn about the history of women in biology, professional organisations, affirmative action issues, and prominent women scientists of today and yesterday. Read about balancing family and science. Features include career advice and job listings, and the collection of links to well-written articles is impressive. It is hard to imagine covering the topic better than this.

SERVICES: L; STRONG POINTS: Superb coverage of topic; WEAK POINTS: None; RATING: Excellent.

Nuclear Receptor Resource

nrr.georgetown.edu/nrr/nrr.html

A really great idea online! Several laboratories working on nuclear receptors have brought together their individual databases to form the Nuclear Receptor Resource. There's a 'Who's who?' in steroid receptor research, steroid structures, a graphics library, links to publications, and research funding and meeting announcements. Individual components of the resource include sections on glucocorticoid receptors, vitamin D receptors, thyroid hormone receptors, steroid receptor associated proteins, androgen receptor mutations, and peroxisome proliferators, with mineralocorticoid receptors and androgen receptors coming soon. This site has a lot to offer and is already packed with useful and interesting information. SERVICES: L, D, O (funding info); STRONG POINTS: Great idea; WEAK POINTS: Some inactive links; RATING: Very good.

KEY

Services provided at Web sites:

- T Tools - Analytical computing tools
- D Data - Searchable or downloadable database information
- G Goods - FTP delivery of useful items (e.g. full package, bug fix or demo software)
- L Links - Useful links to other sites
- N News - News of interest
- S Support - Feedback in response to users' enquiries
- O Others - e.g. Innovative use of Web tools, appearance, editorial point of view

Ratings: Excellent, Very Good, Good
Nothing below good will be reported here.

Thanks to Kevin Ahern and *Genetic Engineering News*. Don't forget to visit the Society for Endocrinology on the Web: www.endocrinology.org; tell us about your favourite Web site: melissa.westwood@man.ac.uk

Project Lifesign

The Lifesign project aims to provide a video resource for teaching and learning in higher education in the UK. It specifically targets the needs of first year life science students, and will provide streamed video on demand via the Internet.

Some video material is already available online (take a look at www.lifesign.ac.uk), along with a more detailed account of the project. Alternatively, you can visit video.mdc.port.ac.uk for more examples prepared by the Media Development Centre at Portsmouth University.

If you have any video that may be suitable for the project, please contact john.mahoney@port.ac.uk, who is gathering appropriate material. Thank you in anticipation of your help.

(The Lifesign project is a Government Joint Information Systems Committee project being undertaken by the University of Portsmouth.)

Eli Lilly HypoCCS 2002 Award

Nominations are invited for this \$20 000 award, given in recognition of clinical and/or basic scientific achievements in the field of hypothalamic-pituitary diseases and their impact on peripheral receptive tissues or organs.

For further information regarding nominations, please contact Pierre C Sizonenko, Chairman, Award Jury, Division of Paediatric Endocrinology and Diabetology, Department of Paediatrics, HUG, 1211 Geneva 14, Switzerland (Fax: +41-22-3471734; Email: pierre.c.sizonenko@hin.ch). The deadline for nominations is **15 November**.



Spotlight on Diabetes UK

Until recently known as the British Diabetic Association, Diabetes UK has the largest membership of any UK patient health charity, with almost 200 000 members. It is one of the largest charities in the UK, and has a voluntary annual income of about £17m. Chief Executive Paul Streets tells us more about the charity's work.

Diabetes UK focuses on influencing diabetes services and research. Around £4.5m annually funds research, split almost evenly between basic and clinical work. We are unique as a patient organisation in having more than 6000 professional members in diabetes and endocrinology. Our vital support services for people with diabetes include an extensive range of publications, a helpline (which receives over 45 000 calls pa), conferences, and over 400 groups across the UK run by and for local people.

We relaunched and renamed the organisation last year to enhance our ability to raise awareness of diabetes. As part of this, we completely updated our Web site (www.diabetes.org.uk), which provides valuable information for people with diabetes and healthcare professionals. It has dedicated sections for professionals and information on our research funding, including the ability to complete online research applications.

Professional members receive benefits including regular updates on diabetes, access to our Information Science Service, preferential rates for our Annual Professional Conference and reduced rate subscriptions to *Diabetic Medicine*, our professional journal.

Our Annual Professional Conference had more than 2000 delegates in 2001. It includes parallel tracks ranging from basic science to health services research. Our professional membership structure also reflects this, with sections for basic and clinical science (chaired by Professor Simon Howell), specialist care (Professor Rudy Bilous), primary care (Dr Peter Tasker), and education and care (Dr David Cavan).

As an authoritative body, representative of all those involved in diabetes, we are well-placed to influence diabetes provision. This is reflected in our role in the forthcoming Diabetes National Service Framework, our role in the wider NHS through the Modernisation Board and associated groups, and our links with the Royal College of Physicians (RCP). The Specialist Care Section works with the Society for Endocrinology in representing the speciality at the RCP and the Joint Committee on Higher Medical Training. With the continuing focus on patient involvement in the NHS and a fresh commitment to diabetes from government, I believe that the opportunities we are presented with have never been greater.

If you are interested in becoming a professional member of Diabetes UK, or would like further information, please contact Sue Curnow, Healthcare Professional Relations Manager (020-74622603 or sue.curnow@diabetes.org.uk).

PAUL STREETS

Living with Addison's Disease: an Owner's Manual

This manual is written for individuals with adrenal failure, both primary and secondary, to help them manage their steroid therapy. It addresses a range of practical issues, including major illness, strenuous exercise, overseas travel and being the parent of a child with adrenal insufficiency. It also explains the basis of cortisol and aldosterone replacement and identifies

the common symptoms of over- and under-replacement.

Written by two Addisonians, Sarah Baker and Katherine White, in collaboration with Professor John Wass, this manual would be a useful resource for all endocrinology outpatient clinics and any GPs responsible for patients on steroid therapy. The 24-page booklet is available from the UK Addison's Disease Self-Help Group, and can be obtained by contacting Katherine White, 97 Leith Mansions, Grantully Road, London W9 1LJ (Email: kgwhite@netcomuk.co.uk).

Thyroid on the Web

Take a look at the new British Thyroid Association Web site (www.british-thyroid-association.org). The Association would welcome your comments and suggestions.

Neuroendocrine name change

The British Neuroendocrine Group changed its name to the British Society for Neuroendocrinology (BSN) on 1 May 2001. See www.neuroendo.org.uk for further details.

Clinical Endocrinology Trust Grants

Ten awards of £1000 for undergraduate medical students are available from the Clinical Endocrinology Trust. The awards will enable students to undertake a project of up to 3 months' duration on any aspect of endocrinology.

The project will usually take place in the UK under the guidance of a supervisor, and the money provided will be expected to cover laboratory and other expenses. A 500 word report must be submitted to the Trustees on completion, and the project may be submitted to a future BES meeting. The Trustees will award a further £1000 for the best report.

Applications should include an outline of the project (on one sheet of A4 paper), a sponsoring letter from the prospective supervisor, a CV and estimated expenses. They should be sent to Julie Cragg at the Society for Endocrinology's Bristol office by **31 March 2002**.

Congratulations to Helen Turner, who has been awarded a Clinical Endocrinology Trust grant for Young Endocrinologists. Helen will use the £800 to cover flight, accommodation and living expenses while visiting Professor Melmed's laboratory in Los Angeles.

Capturing Column Inches or why you need the newsmakers...

Many scientists are reluctant to develop relationships with the media. Dissemination of information may be core to the scientific process, but the prospect of badly managed publicity is a strong deterrent! Mutually beneficial collaborations between scientist and journalist can, however, be an invaluable asset in advancing your research. Read on for some tips in working with the media to your advantage...

Why initiate a story?

If you benefit from your institution's charitable foundation, then the local media can tell the community that their money is making a difference. People like to hear about successes - and while donations from the public remain an essential resource, you can strengthen that resource by maintaining a high profile. Courting public opinion can reap dividends as governments seek priorities for the shrinking funds at their disposal. Effective media communication also portrays you as an opinion maker in the community. This will not be lost on your local politicians, who may be more receptive when you next lobby for an increased budget!

Initiating a media relationship

For media coverage to build confidence in you and your science, journalists must have confidence in you as a source of quality information.

Like you, journalists are looking for factual information that is relevant to the lives of their audiences. Remember, the general public is not science literate; only 5% can fully understand a science story. And while they may be fascinated, retention of scientific information is relatively short. One of the biggest problems is that science stories often seem irrelevant to people's everyday lives.

You can help the journalist provide that impact. You can provide key facts, statistics and conclusions beforehand. Your paper may say that X interacts with Y to fire the insulin receptor, but you will need to spell it out as a new strategy to reduce the complications of diabetes for it to attract interest. Remember that most technical terms will be translated into simple explanations for general understanding. If you want those explanations to be accurate, you should provide them yourself and not leave it up to the media.

Interview technique

Before an interview, you can ask for the questions you will be asked. That way, you can prepare what you want to say, and provide only the information you want conveyed. For radio or television, identify two or three key messages that communicate your point of view. Develop the phrases in your mind and then practise them out loud. Think of one sentence that can be used to wrap up an interview or stress your most important point. Be brief. If your statement is too long, severe editing could damage your message. Brevity also reduces the possibility of misinterpretation.

Good visuals can make a big difference to the prominence your item is given. If appropriate, providing access to a patient or family (with prior permission) will be very appealing to the media, and will usually result in a positive story.

Choose clothes that give you the most confidence. When you feel confident, you project a confident image. Body language is also important. Project confidence, be courteous, maintain eye contact and try to be conversational on camera. Remember that viewers will judge you by your appearance before they hear your message.

Building the relationship

After an initial interview, always take time to introduce other topics in the pipeline, or give the journalist a quick tour of the facility. Meeting other scientists often generates spin-off stories. Your aim should be to get to know a number of journalists well. Once they know that your stories will be of quality, your success rate will be high, and they will turn to you for comment on other relevant items.

Most news organisations won't allow you to see the story before it is

published or aired, or give you approval rights. If you are concerned, you could call the reporter and ask, in a way that doesn't question their ability, if they would like to clarify any information. Once the article has been printed or broadcast, it's too late to do it over again.

What makes a good story?

The implications of a new publication, the award of a new grant or contract, or the release of clinical trial findings can all be newsworthy, but there's much more. How about your impressions on major endocrine management advances, your visiting speaker from New Zealand, the implications of the first robotic DNA chip facility in town, the career training environment for students in your institution? All of these have recently generated well-received publicity for our own institute. There is, however, a danger in 'over-glamourising'. Scientists must be careful when talking about things that could seriously affect people's lives. False hope about possible medical breakthroughs can be devastating to seriously ill patients and their families.

Is it worth it?

Assessing the return on time spent dealing with the media can be complicated, and sometimes anecdotal. Our own hospital foundation has an example of a sizeable estate being bequeathed to our institute for research, with no identifiable contact history, except an awareness of our work through the local media.

A tangible deliverable is the contribution to advocacy. When the Canadian Institutes of Health Research was recently formed from the old MRC, with a doubling of budget and the promise of much more, the key driver cited by politicians was the massive campaign for public awareness of the benefits of health research. Public opinion is a potent force in democracy, and science and scientists can make compelling news.

DAVID HILL
JAYNE GRAHAM

David Hill is the Scientific Director of the Lawson Health Research Institute. Jayne Graham has worked as a television journalist and is presently a communications consultant with St Joseph's Health Care. Both are based in London, Ontario, Canada.

We are pleased to highlight the activities of some of our corporate members in this special section. Companies wishing to join the Society should contact Julie Cragg in the Bristol office (julie.cragg@endocrinology.org).

Abbott Laboratories Ltd

For more than a century, Abbott Laboratories has been working to advance healthcare for people around the world. Founded by a young Chicago physician, Dr Wallace Calvin Abbott, in 1888, Abbott Laboratories has evolved into a diversified healthcare company that discovers, develops, manufactures and markets innovative products and services that span the continuum of care - from prevention and diagnosis to treatment and cure. With headquarters in north suburban Chicago, Abbott helps people around the world in more than 130 countries.

Building leadership and combining strengths in the areas of pharmaceuticals, nutrition, hospital products and diagnostics has enabled Abbott to provide total, integrated solutions across the healthcare spectrum, for some of the world's most prevalent medical conditions, including AIDS, cancer and diabetes.

Over 70 000 employees worldwide have devoted their careers to advancing the practice of healthcare. Over 2500 people in the UK are employed by Abbott.

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AstraZeneca

AstraZeneca is one of the world's leading pharmaceutical companies, with a powerful range of products designed to fight disease in important areas of medical need. With corporate headquarters in London, UK, and research and development headquarters in Sweden, it carries out research in Sweden, Britain, the USA, Canada, France and India, sells in over 100 countries, manufactures in 19 countries and employs some 50 000 people worldwide.

Backed by its strong research base and extensive manufacturing and commercial skills, the company aims to maintain a flow of innovative products that meet patient needs worldwide. AstraZeneca is a world leader in antihormonal drugs for the treatment of sex hormone-responsive, benign and malignant diseases. It markets Nolvadex, Zoladex, Casodex and Arimidex. The company has a novel pure antioestrogen selective oestrogen receptor down regulator, Faslodex, and an EGF receptor tyrosine kinase inhibitor, Iressa, in late development.



AstraZeneca
Mereside, Alderley Park
Macclesfield, Cheshire SK10 4TG
Web: www.astrazeneca.com

Endocrine Pharmaceuticals Ltd

Endocrine Pharmaceuticals is a hormone drug discovery venture based at Harwell near Oxford, UK. It is virtual in configuration, with about a dozen scientists working on contract at different locations.

The company specialises in the hormonal causes of tissue mass disorders such as benign prostatic hyperplasia, prostate and breast cancer, endometriosis and polycystic ovary syndrome. The company's corporate venture partner, AEA Technology plc, and the leading venture capital company 3i are major shareholders.

Endocrine's main research focus is 'micrin', a naturally occurring hormonal controller of tissue mass. Patent applications have been filed, and early-stage pharmaceutical industry or biotech partnerships are sought.

The company's chief executive is Dr John Hart, who directs the work at Harwell as well as at the Babraham Institute in Cambridge, the University of Sheffield and at centres in Australia. The goal is to elucidate the controls on internal organ size, for therapeutic benefit.

Endocrine Pharmaceuticals Limited

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Email: john.hart@aeat.co.uk
Web: www.endopharm.co.uk

BioScientifica Ltd

BioScientifica is the trading subsidiary of the Society for Endocrinology, and all the company's profits are returned to the Society. Our staff have unrivalled experience in organising conferences, as well as in all forms of learned publishing (including electronic media). Our daily contact with both the pharmaceutical industry and prominent clinicians and scientists worldwide gives us a unique edge in working with these communities.

Conferences

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Ferring Pharmaceuticals Ltd

Ferring is a multinational, global, research and development-based pharmaceutical company, and a world leader in the development and production of peptide medicines for the treatment of a variety of illnesses. Ferring is active in a number of important therapeutic areas (listed here with the corresponding main products): endocrinology (Zomacton and Testoderm), urology (Desmopressin), reproductive medicine (Menogon), obstetrics (Propress) and gastroenterology (Pentasa). Other new products are in development or awaiting approval.

The company's UK headquarters are in Langley, Berkshire, where there are both marketing and clinical functions. Around 70 people are currently employed in the UK. Ferring works closely with the Society for Endocrinology and the Pituitary Foundation to identify how best to support both healthcare professionals and patients in this area.

FERRING

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GlaxoSmithKline

GlaxoSmithKline, one of the world's leading research-based pharmaceutical and healthcare companies, is committed to improving the quality of human life by enabling people to do more, feel better and live longer.

Last year we invested £2.5 billion in researching and developing innovative medicines. Our pipeline of promising compounds in the early stages of research offers great hope for better medicines against diseases such as cancer, obesity, diabetes and heart disease. The company's main therapeutic areas of interest include: anti-infectives, cardiovascular medicine, HIV, hospital and critical care, the central nervous system, viral infections, respiration, OTC medicines, vaccines, oral care, dermatology, nutritional drinks, oncology, and bacterial infections.

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Ipsen Ltd

Ipsen Ltd is the UK trading subsidiary of a European pharmaceutical group, founded in 1929 by Dr Henri Beaufour. The Beaufour Ipsen Group has a history of successful discovery, with a continued commitment to research and development in a variety of therapeutic areas. These include endocrinology, oncology, neurobiology, gastroenterology and haematology. The product portfolio comprises nearly 30 products and includes several that are leaders in their therapeutic class.

The ability to combine the therapeutic potential of peptides with sophisticated controlled-release delivery systems has been a major contributor to the company's growth and success in recent years. Beaufour Ipsen is the only company in the world to supply two different slow-release peptide formulations, including Somatuline® LA, the first long-acting formulation of a somatostatin analogue.

Ipsen is committed to research into the role of somatostatin analogues and identifying/developing receptor subtype-specific compounds for possible application in a variety of conditions, including acromegaly and type II diabetes. A number of new analogues with enhanced potency and greater selectivity are currently being investigated, as are novel drug delivery systems. The group is also engaged in the search for non-peptide agents that will act as antagonists at neuropeptide receptor sites, and for therapies that will overcome tumour resistance to hormone suppression.

Ipsen is pleased to support the work of both the Society for Endocrinology and the Pituitary Foundation. In addition, the company offers a range of educational

services to both healthcare professionals and patients alike, under its Pivotal Care programme. This includes the Nurse Advisor Service, which aims to support healthcare professionals in the care of acromegaly patients in the community.

Contact the Somatuline team on 0800-3892284 or by e-mail at pivotal.care@ipsen.co.uk



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Novartis Pharmaceuticals UK Ltd

Novartis is a global leader in the discovery, development, manufacture and marketing of innovative medicine.

The company brings together two centuries of expertise and knowledge in life sciences, including healthcare, through the heritage of both Ciba and Sandoz. With headquarters in Basel, Switzerland, Novartis employs around 82 000 people, and operates in over 100 countries around the world. In the UK, Novartis is one of the largest suppliers of medicines to the NHS, and is committed to improving health and well-being through innovative healthcare solutions.

We have a broad range of products, supported by one of the most promising sets of potential new products currently in development in the pharmaceutical industry. In the UK alone, Novartis spends around £1 million a week on research into new and better treatments. £100 million is currently being invested in a world-class centre for respiratory research and in manufacturing facilities in West Sussex, as well as in research centres in London and Cambridge.

The main therapeutic areas in which the company has interests are endocrinology, oncology, cardiovascular disease, the central nervous system, transplantation, dermatology, hormone replacement therapy and rheumatology. Within endocrinology, Novartis offers a range of products including Sandostatin®, Sandostatin® LAR®, Parlodel® and Norprolac®, and is committed to further research in this area.

The Novartis endocrinology team is proud of its links with the Society for Endocrinology and is pleased to offer support where it can. The team can be contacted on 01276-698561.

"Researching tomorrow's future today..."



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Randox Laboratories Ltd

Randox Laboratories is an independent privately owned company, founded in 1982. Since then, Randox has become the leading British manufacturer of clinical chemistry environmental diagnostic kits and quality control sera.

Randox products are used in hospital and veterinary laboratories around the world.

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Novo Nordisk Ltd

Novo Nordisk is a focused healthcare company, and the world leader in diabetes care. The company manufactures and markets pharmaceutical products and services that make a significant difference to patients, the medical profession and society. With headquarters in Denmark, Novo Nordisk employs approximately 14 000 people in 68 countries, and markets its products in 179 countries. Novo Nordisk has a leading position within the clinical areas of coagulation disorders, growth disorders and hormone replacement therapy, and is committed to developing new and innovative products to meet the needs of patients and society.

Novo Nordisk Ltd is the UK affiliate of Novo Nordisk A/S.



Novo Nordisk

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Pharmacia

Pharmacia is one of the UK's leading companies in endocrinology. Our extensive product range includes treatments for growth hormone deficiency, erectile dysfunction and hyperprolactinaemia.

To help overcome the special problems associated with these disease areas, we have pioneered the introduction of many devices and services to support the clinician and patient. These include:

- A range of injection devices and presentations designed to aid compliance.
- A network of specialist endocrine nurses offering patient training at home.
- Extensive support for clinical and patient services.
- A full range of therapy-related accessories and disposables.

Support also extends to hospital physicians, in the form of diagnostic back up and surveillance programmes.

Pharmacia is proud to be a corporate member of the Society for Endocrinology and to continue its support of research into endocrine disorders.

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Serono Pharmaceuticals Ltd

Serono is Europe's largest biotechnology company and the third largest in the world. The company has a high profile in the field of metabolic endocrinology, as well as being market leader in reproductive endocrinology and in the treatment of multiple sclerosis.

Serono's interest in biotechnology and the use of DNA technology to produce molecules with therapeutic potential dates back to the early 1980s. This technique opened the door to an array of applications in the medical field. It became possible to produce much purer molecules than before, in guaranteed quantities, without relying on raw materials. The manufacturing process is consistent and easier to control than extraction and purification processes, but requires massive investments in sophisticated technology to achieve it.

Serono's goal is to provide innovative, superior and patient-friendly therapies. In reproductive endocrinology, Serono is the only company that can offer a complete recombinant product portfolio, from pituitary down-regulation and ovarian stimulation through to early pregnancy. In metabolic endocrinology, Serono is committed to expanding Saizen® (hGH) indications, whilst at the same time improving and widening the variety of delivery mechanisms and the patient-focused services provided.

This innovative approach, supported by a strong research pipeline, will enable Serono to extend its leadership position and continue to offer efficacious, safe and patient-friendly treatment solutions.

Serono

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Mini Mice, Football and Dirty Shorts

In the first of three articles in this special issue on intellectual property, John Kopchick relates a tale of drug discovery...

What a wonderful molecule! Its ability to cause a decrease in fat but an increase in bone and muscle amazed me. While this might seem rather ordinary to a physiologist, as a molecular biologist, I was hooked! And so, in the early 1980s, I started on my path to try and define the molecular mechanisms of growth hormone (GH) action. I am still on this journey of discovery!

The mid-1980s saw us testing the idea of different molecular 'domains', responsible for GH's various activities, using altered molecules known as 'GH analogues'. We performed classical *in vitro* receptor binding studies, as structural changes were widely believed to alter a peptide hormone's interactions with its receptor. However, I thought that a cell-based or *in vivo* reporter system would generate additional information - and so transgenic mice came into play. GH transgenic mice possess and express extra copies of GH genes, and are larger than their normal, non-transgenic siblings.

Alongside GH receptor (GHR) binding studies, conducted using molecules with amino acid substitutions or deletions, we generated transgenic mice expressing the mutated DNA that encoded the GH analogues. We expected that as the *in vitro* binding of the GH analogues to the GHR decreased, there would be a corresponding loss of growth enhancement in the transgenic mice. This was, indeed, the case for many of the GH analogues.

GH contains four α -helices. The third has amphipathic characteristics (i.e. the charged (hydrophilic) and non-polar (hydrophobic) amino acids are separate). However, there is one hydrophilic amino acid amid the hydrophobic residues, and one hydrophobic amino acid and a glycine residue in the hydrophilic area. When we changed these three amino acids to make a 'perfect' amphipathic α -helix, we anticipated an increased potency of GH - a molecule that would bind GHR with higher affinity than native GH, and which would generate 'really big mice'.

However, we found that this 'perfect' GH analogue bound to GHR with the same characteristics as normal GH, and therefore was no more potent than native GH. Our conviction that this perfect third α -helix should possess an altered activity fortunately drove us to generate transgenic mice that expressed this GH analogue. To our surprise, we obtained a small mouse instead of the anticipated giant! We proceeded to show that this molecule was acting as a classic antagonist. This was the first description of a large protein antagonist, and certainly the first GH antagonist.

Changing the three amino acids one at a time showed that only the glycine at position 120 in human GH was important for the activity. Changing this to any amino acid other than alanine resulted in a GH molecule that inhibited growth. Thus one amino acid change out of 191 converted GH from a growth promoter to a growth suppressor or a GH antagonist.

My years in the pharmaceutical industry had 'drilled' into my subconscious that anything that inhibited a physiological process *in vivo* could be of potential value. Long hours in clinical libraries revealed three potential uses for a GH antagonist: acromegaly, diabetic end-organ damage, and certain cancers. Disappointingly, pharmaceutical companies proved unresponsive to a proposal describing our discovery.

Physical exercise provided great relief for my frustration. One of the Ohio University football coaches, the late Joe Dean, would routinely ask what I was doing in the lab. It was as we were straining on a weight lifting machine that I told him about



the lack of interest in our potential drug. He relayed to me that one of his former students and football players, Richard Hawkins, knew 'something about drugs'. Rick was founder and CEO of a drug development company called Pharmaco, Inc. Joe scribbled Rick's phone number on a piece of scrap paper and told me I should give him a call. It was by lucky chance that my wife subsequently rescued the very 'clean' piece of paper from our washing machine...

Some days later, while writing an NIH proposal and day dreaming, I decided to call Rick. After an enjoyable conversation, he asked me to send my proposal. Rick subsequently read the proposal during a bout of insomnia, and recounts that he 'could not sleep the remainder of the night.' He was incredibly excited about the GH antagonist and its potential uses, especially for acromegaly. Now, at least, there were two of us!

Together with Rick's friend, John Scarlett, we formed a company, later called Sensus. Here, a small but extremely dedicated and competent group of individuals should be commended for the development of the GH antagonist, along with the many clinicians who performed the clinical trials for acromegalic individuals. The data show that the GH antagonist was efficacious in around 90% of these patients. The FDA is currently reviewing the data. Pharmacia Corp will market the drug, now called Somavert (pegvisomant for injection), if and when it is approved. Hopefully, it will also be tested for other indications, including cancer and diabetic end-organ damage.

So a combination of unanticipated scientific results, coupled with my interest in football, have resulted in a new drug that will benefit many individuals. I would like to acknowledge everyone who has contributed to the discovery and development of GH antagonists, in particular Wen Chen, Nick Okada, Tim Coleman, Joe Dean, Rick Hawkins, John Scarlett, Lawrence and Milton Goll, and Ohio University. This story is dedicated to the memory of Joe Dean.

JOHN J KOPCHICK
GOLL-OHIO PROFESSOR OF MOLECULAR
BIOLOGY, OHIO UNIVERSITY

J J Kopchick is also Head of the Growth, Obesity, and Diabetes Group, Edison Biotechnology Institute, and Professor, Biomedical Sciences Department, College of Osteopathic Medicine, Ohio University.

Patently Obvious?

Hours spent locked away in a hot lab. The perfect paper, handcrafted and accepted by a leading journal. The glory of presenting your work to the world at a major conference... Your work is indisputably valuable. But how can you put a price on it? How can you protect it from those set to exploit the fruits of your labours? Rob Docherty explains.

Patent protection for biotechnological inventions is rapidly evolving, and recent changes in the law have done much to clarify this area. To secure protection, inventions must be new, involve an inventive step and be capable of industrial application. 'New' means that the invention has not been put in the public domain prior to filing a patent application. It can be said to have an 'inventive step' if it is not an obvious, logical development of the 'state-of-the-art'. 'Industrially applicable' is relevant if it can be made and used in any type of industry.

A patent is a legal right, granted by the state to an inventor for an invention. It provides a monopoly of 20 years from the date of filing the patent application. A patent is therefore a negative right. It does not confer on the owner the right to exploit his invention, but enables him to prevent others from doing so.

Patents include 'claims', which define the technical features of an invention. The claims must define the matter for which patent protection is sought. They must be clear, concise and supported by the patent description. Claim categories are basically of two types: claims to a physical entity (product claims), and claims to an activity (method or use claims).

Biotechnology product claims can be of several types. Imagine 'compound X'.

- If it was synthesised by standard chemistry and the process by which compound X was synthesised was fully disclosed in the patent application, then it would be possible, in principle, to secure a *per se* claim to compound X covering all uses of the compound. This would typically take the form of: 'A compound of the formula (compound X structure)'.
- If, when the patent application was filed, the structure of compound X

was known but its therapeutic effect was not known, then it would be possible to secure a claim to compound X as a therapeutic compound. This category of claim is referred to as a first medical use claim, and would typically take the form of: 'Compound X for use as a pharmaceutical'. Note that this claim does not specify any particular disease.

- If, when the application was filed, compound X was already known to have a therapeutic effect on osteoarthritis, but its activity with respect to acromegaly was not known, then it may still be possible to secure patent protection for this new medical indication. This is referred to as a second medical use claim, and would typically take the form of: 'The use of compound X for the manufacture of a medicament for the treatment of acromegaly'. This type of product claim is limited by its purpose of use, and so is a claim of narrow scope when compared with the *per se* product claim or first medical use claim mentioned above.

A method claim relating to the process by which compound X was made is also possible. In addition, if compound X was a naturally occurring substance, isolated from a natural source, then a claim to the method of isolation would also be possible. However, method claims do not extend to methods of treatment or diagnosis, which cannot be patented for either humans or animals in Europe. This is to protect medical practitioners from infringing patents, which would inevitably result if the doctor or veterinary surgeon were to use a patented product in a surgical or other procedure.

The situation is different in the USA, where methods of treatment claims are allowable, but the second medical use claims described above are not recognised. An inventor wishing to obtain patent protection for compound X would simply file different sets of claims for Europe and the USA.

Recent debate in Europe has resulted in Directive 98/44, which clarifies many of the issues surrounding the patentability of biotechnology inventions. It was implemented by many EU member states in July 2000, and the European Patent Office has treated all European patent applications in accordance with it since September 1999.

The Directive excludes the following from patent protection: the human body at various stages of development, partial gene sequences of unknown function (e.g. expressed sequence tags), modification of the germ-line identity of humans, modification of the genetic identity of animals likely to cause

suffering without benefit to mankind, and the industrial exploitation of human embryos.

Patent protection can be sought for: genes and partial gene sequences of known function where the industrial application is disclosed, transgenic plants and animals (subject to the provision that the transgenesis does not cause undue suffering to the animal), and isolated, substantially pure, naturally occurring molecules.

So, if 'compound X' were to act via a cell surface receptor then, in principle, it may be possible to secure patent protection for a screening method using the receptor to identify ligands which activate or inhibit signal transduction. In addition, compounds identified by the screening method may be protectable.

The patentability of biotechnological inventions in Europe is endorsed by these well-debated revisions of the law. Applicants for such patents should now proceed with confidence in the credibility of patents secured in this area.

ROB DOCHERTY
HARRISON GODDARD FOOTE, LEEDS

"To secure protection, inventions must be new, involve an inventive step and be capable of industrial application"

Transferring Technology - Reaping Rewards

The University of Reading, like the rest of the Higher Education sector, is being encouraged by government to demonstrate a positive impact on the regional and national economy. Such encouragement has led universities to address the commercialisation of academic expertise more seriously. Commercialisation is seen as a way of attracting and retaining the best staff and supporting a university's core mission.

Licensing technology and creating spin-off companies leads to technology transfer from the universities to wider society. As well as financial benefits to the universities, there is an expectation, both political and from society at large, that such ventures will generate local employment. Pressure also comes from within, as university staff see the success of colleagues elsewhere, and wish to commercially exploit the fruits of their own research.

There are two basic routes to take an invention into commercialisation: the relatively new process of forming a spin-off company, and the more traditional process of licensing the technology to an existing company.

In UK universities, the term 'technology transfer' is most commonly used to cover the protection and commercialisation of intellectual property (IP). A Technology Transfer Office (TTO) will assist staff in moving their innovative technologies into commercial use in public and private enterprises. Technology transfer staff identify research projects appropriate for exploitation, obtain patents, find licensees for patents, assist with drawing up business plans, and work with external management experts and financiers.

The TTO makes links with key businesses and business support agencies. Its staff facilitate introductions and meetings, and build relationships to ensure that the university is a preferred customer. They provide support throughout the set-up process.

As the scale of the commercialisation of research increases, greater technology transfer expertise will be required. Evidence from the USA suggests that only the largest UK research universities will be able to undertake cost-effective commercialisation programmes on their own. Others are being encouraged to work together, and the University of Reading has recently submitted collaborative bids with four other universities for University Challenge Funding and the Science Enterprise Challenge - two funding sources designed to encourage the technology transfer process.

Over the last 10 years, commercial exploitation from the University of Reading has been mainly via licensing. With a commercial partner, the sale of Middle Eastern geological reports to oil companies has been a particular success. This deal has secured significant royalties for the individual researchers and for the University. However, recently there has been greatly increased interest in company start-ups, resulting in three new spin-off companies.

Of greatest relevance to endocrinologists is PeriNatal Diagnostics Ltd (PND). This is a joint venture between the University, Professor Phil Lowry and ImmunoDiagnostic Systems Ltd (IDS). The Molecular Endocrinology Group, led by Professor Lowry, believe that they have identified the key factor causing pre-eclampsia. This is a placental neuropeptide, neurokinin B, which they believe helps to regulate blood flow to the placenta. In pre-eclampsia, the placenta may not be efficiently embedded into the uterus, causing the fetus to send a strong signal (neurokinin B) to the mother. At abnormally high levels, this peptide may have adverse effects on the mother's body, causing changes in blood flow to other organs and affecting platelets.

To date, there has been no widely accepted predictive test or therapeutic intervention to prevent or delay pre-eclampsia, which affects 1 in 10 pregnancies in the UK. Clinical trials will be carried out to develop a rapid diagnostic test for neurokinin B, with the aim of providing a simple blood test for routine use at antenatal checks. Early detection may one day help prevent patients from developing the life-threatening symptoms of pre-eclampsia.

PND will be a specialised science-based company, founded to research fundamental causes of disorders of pregnancy, to identify biomolecular bases of disease, and to develop, manufacture and market *in vitro* medical test devices and processes. In its early stages, PND will be a virtual company with research facilities and personnel within the School of Animal and Microbial Sciences at the University, and product development, manufacture and marketing taking place from IDS's laboratories.

Another venture has emerged from the University's NERC Centre for Global Atmospheric Modelling. Weather Informatics Ltd has been formed to exploit a major new business opportunity arising from: (a) seasonal weather forecasting (a revolution in technology, allowing weather predictions over a 6-month period), and (b) rapid growth of the weather derivatives industry (which helps businesses manage their weather-related risks). The University's exploitation company has an equity share, in return for transferring the ownership of the IP to the company, and for support provided through the business planning and start-up phases.

The final example is Salgen Systems Ltd, whose core business is to redesign algorithms relating to video compression and motion compensation. It will produce software and hardware (chips), and licence the new architectures to existing manufacturers in the mobile phone, video, digital TV and film industries. Prototype development funding was obtained in the form of a SMART award, and the University's exploitation company contributed funds to this and to assist in developing the business plan, and is providing space in the Science & Technology Centre. The Director of our technology transfer operation is a Board Director, on behalf of the University, and the University is providing Company Secretary services.

As you can see from these case studies, turning your research into a commercial activity could be a real possibility. If you think your work has the potential - go and visit your technology transfer staff today!

ALISON ANSELL
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Debating Dynamite!

Steve Shalet dissects the controversies and personalities on display at the BES debate.

Several days and nights of work and play can take their toll at a BES meeting! On the last morning, thoughts of home impinge, and there may be a slight feeling of jadedness - one might be forgiven for thinking that this is not the optimum time for a speaker to take part in a debate...

This year's debate dispelled any such thoughts, however. Discussion of the relationship between acromegaly and colon cancer did not seem to suffer from its late positioning in the programme. If anything, it meant the speakers were well 'warmed up'. Their personalities, with contributions from the floor, produced a very colourful, passionately felt discussion, with a number of memorable one-liners and exquisite cameo performances.

First, let us get the argument out of the way. Acromegaly, a growth hormone (GH) excess state caused by a GH-secreting pituitary adenoma, is associated with reduced life expectancy. Excess deaths are predominantly due to vascular disease, but there is evidence of an increased number of deaths from malignant disease (most commonly colonic cancer). The two British endocrine groups that have contributed to this field recently are St Bartholomew's and Manchester (in a collaborative study with Newcastle). Both groups believe that there is an increased risk of colon

cancer in acromegaly, the difference being that the Barts group believe that the risk is greatly increased (8- to 18-fold), whilst the Manchester group have observed a more modest increase (2-fold).

From these varying conclusions arise differences in recommendations for screening within the acromegalic population. The Barts group recommend a colonoscopy screening programme at a younger age and with greater frequency than in the normal population. However, the Manchester group believe that the excess risk is sufficiently modest not to justify a programme any different from that offered to the normal population.

Now to the main participants: the three speakers and the chairman.

The first speaker was Paul Jenkins, representing the Barts view. In looks this is a man with a striking face with high cheekbones, deep brown eyes, and dangerous sideburns, who also happens to be a snappy dresser. He speaks with a passion and, given his looks, brings a Byronesque quality to his argument. His passion is such that he could read the football results and make them sound interesting.

The second was Andrew Renehan. Now there are in essence three types of speaker: a minority for whom the ordeal is so great they require tranquillisers for several weeks beforehand; the majority, who neither like nor hate it, but simply accept it and cope; and then the final group, again a minority, who simply love the whole experience. Andrew Renehan is one of these last - you can tell simply by looking at his eyes. He walks to the podium, grasps both sides, leans forward in a conspiratorial fashion and begins. This could be President Lincoln and the Gettysburg address, or Frank Sinatra about to sing 'My Way'.

So, no lack of confidence or self-esteem exhibited by the first two speakers.

The third speaker was Wendy Atkin, an epidemiologist from St

Mark's Hospital in London. Her task was the most difficult; not only did she have to follow Byron and Sinatra, but she is a non-endocrinologist who had to remain calm despite their passionate exhortations. She had to review the factual database that each had used to develop his own case, and at no time could she appear to favour one side more than the other!

Within 5 minutes the audience realised this speaker had backbone when she told them that, as far as the completeness of the colonoscopy procedure was concerned, 'surgeons often tell lies!' She found limitations in the normative data used by both previous speakers and, given these conclusions, found it difficult to recommend a major change in the way acromegalics are screened compared with the normal population.

After the three talks, the audience was encouraged to participate in the fun. It was noticeable that Professor Michael Besser needed little encouragement to join in the bun-fight. Seemingly attired in a flight commander's bomber jacket from the Second World War, the only thing missing as he made his frequent sorties into battle was the theme tune from 'The Dam Busters' (a really alert BES Committee would have made that available).

Mid-battle, 'Ol' Blue Eyes' Renehan suddenly leapt to his feet and complained that he felt 'hot in his pants'. Thankfully it was just over a comment that Wendy Atkin had made, so we were saved the switch from Sinatra to Tom Jones, and an Irish rendition of 'Sex Bomb'!

Chair of the debate was Dr Peter Trainer - providing another interesting twist. After all, he had spent 13 years training at Barts, and then moved to Manchester where he now works. An emotional and trichological pull in both directions. Well, he does have a wonderful head of spiked hair (worth 3 inches) - each spike the same length and lying at exactly 90° to the horizontal. And not a spike wavered from start to finish - his ability to remain neutral was commendable! As he concluded the proceedings, I knew I had just witnessed one of the best BES debates that I have attended, and I enjoyed myself, too.

STEPHEN M SHALET

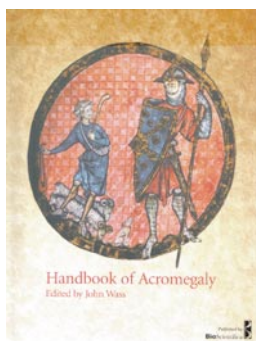


Handbook of Acromegaly

Ed J Wass, BioScientifica Ltd, 2001, 97 pp, Pbk, £24.95/\$49.95, ISBN 1901978117

In 1994, John Wass edited a Society for Endocrinology publication entitled 'Treating Acromegaly', to coincide with the 100th anniversary of the first surgical procedure to treat the underlying pituitary tumour. Seven years later, he has provided an excellent update in this BioScientifica publication 'Handbook of Acromegaly'.

Reading the two books side-by-side emphasises the impressive advances that have occurred in this field. First, we now have clearer definitions of what we should aim to achieve with our treatment regimens, and John Wass himself summarises these data. Secondly, in terms of treatment regimens, surgery remains the mainstay of therapy. The Fahlbusch group from Erlangen summarise their own optimal surgical results, together with those from other international centres. Radiotherapy always causes controversy in European versus North American centres, but Jenkins and Plowman illustrate the efficacy and long-term safety of external beam pituitary radiotherapy when used appropriately in a centre of excellence. Finally, the last decade has seen the introduction of highly effective medical therapies for the treatment of patients with acromegaly, and van der Lely and Lamberts draw on their significant personal experience to discuss the therapeutic efficacy and safety of dopamine agonists, somatostatin analogue preparations and the novel GH receptor antagonist, pegvisomant. As a result, almost every patient with acromegaly should now achieve John Wass's criteria of 'cure'.



Interspersed with these updates are beautifully illustrated chapters on the history of acromegaly and clinical aspects of the disease. In summing up, Wass, Melmed, Lamberts and Turner highlight what might emerge in the next 7 years, surrounding the aetiology and management of this fascinating disease.

The production quality is to be commended, and BioScientifica have clearly done a highly professional job. John Wass suggests that this handbook will appeal to physicians involved in the care of patients with acromegaly. Of this I am certain, but I would also recommend this handbook to others interested in acromegaly, including endocrine nurses as well as patients themselves.

PAUL M STEWART

To order 'Handbook of Acromegaly' contact:

BioScientifica Ltd
c/o Portland Press, Commerce Way,
Colchester CO2 8HP
Email: sales@portlandpress.com

BES 2002

21ST JOINT MEETING OF THE

British Endocrine Societies

Harrogate International Centre and Majestic Hotel, Harrogate, UK

8-11 April 2002

Abstract deadline: 11 December 2001

Further details available from the Bristol office

Plenary lecturers: PM Stewart (Birmingham, UK), JRG Challis (Toronto, Canada), GP Chrousos (Bethesda, USA), R Di Lauro (Naples, Italy), DT Baird (Edinburgh, UK)

Symposia

- Hormonal control of female reproduction
- Recent advances in biological rhythms
- Vascular risk in diabetes - genetic and environmental interactions
- Differentiated thyroid cancer
- Metalloproteinases and their inhibitors: regulators of endocrine activity
- Cell based therapies for treating neuroendocrine disease
- Parturition and fetal stress - hormonal strategies for ensuring life after birth

As well as

- Clinical Management and Molecular Endocrinology Workshops
- Young Endocrinologists and Nurses Sessions
- Oral Communications, Posters and Debate
- The ever-popular 'What would the Expert do?' sessions

The following awards will be made at BES 2002

The BES Awards, supported by Pharmacia: for clinical and basic science research proposals in the field of endocrine growth factors. The successful proposal will receive £10 000; five travel grants of £500 will also be awarded. Application forms are available from the Bristol office (deadline: 14 January 2002).

Michael White Memorial Prize: a £500 prize for the best communication from a young endocrinologist in the field of endocrine neoplasia (with the kind support of the Michael White Memorial Fund).

Novartis Awards: two prizes of £1000 for the best submissions by young endocrinologists (kindly offered by Novartis Pharmaceuticals UK Ltd).



Summer School 2001



York, UK, 9-13 July

July saw the second Summer School, the Society's premier training event. The aim was to move from basic endocrine concepts through to clinical application in four component courses, and to satisfy the needs of PhD students, SpRs, basic scientists and young endocrinologists. York proved to be a very popular venue, and we had the advantage of being close to the old city, the Minster and good restaurants.

The week started with the Young Endocrinologists Introductory Day, organised by Rob Fowkes from London. Lectures and group discussions provided a well-received introduction to pituitary, adrenal and thyroid gland problems. Tuesday's Molecular Endocrinology Workshop was organised by John Newell Price from Sheffield. The stimulating programme covered molecular genetics, from screening for mutations to the functional analysis of genes. It was excellent to have so many people attending - a clear increase in numbers since last year.

The Advanced Endocrine Course on Wednesday and Thursday was attended by twice as many delegates as last year. The programme was organised by Tony Weetman, Dean of Sheffield Medical School. The 2 days were marked by a very high level of discussion between the speakers and the audience. There were lectures on a wide variety of topics from the pituitary to the thyroid, and everyone came away having learnt a great deal. Dinner on Wednesday evening at the beautiful medieval St William's College was a great success!

The week ended with the Clinical Practice Day organised on behalf of the Clinical Committee by Peter Selby from Manchester. Very interesting cases were presented on the themes of 'Calcium-related problems including hypocalcaemia' and 'Hypercalcaemia'. The debate, 'Most patients with primary hyperparathyroidism should have surgery', was vigorously contested by two endocrine surgeons and two endocrinologists, carefully presided over by John Monson. The motion was defeated by 75 votes to 21.

This event is now becoming an essential part of training for both PhD students and SpRs, and provides an excellent refresher for the more established endocrinologist. Next year's Summer School will be at a more southerly venue - the University of Reading. We look forward to seeing you there.

RICHARD ROSS
ANN LLOYD

And some feedback from the delegates at this year's Summer School...

I attended the Advanced Endocrine Course and the Clinical Practice Day, and can honestly say that these were among the best educational events I have attended. All the lectures were focused, clinically relevant and useful. Discussion was encouraged, and no question was dismissed as too trivial. The programme looked excellent beforehand, and I was not disappointed. I look forward to next year!

M DRUCE

As a junior doctor intending to specialise in diabetes and endocrinology, I was especially keen to learn about molecular biology, in order

to keep abreast of developments. Although I can't say I understood everything in the Molecular Endocrinology Workshop, I can now differentiate between proteomics, genomics, transcriptomics, laser microdissection and some other 'jargon'! I really enjoyed the week - it was not only a forum for learning but also for meeting people and sharing experience.

P CHOUDHARY

I enjoyed the lectures, especially those on thyroid disease in pregnancy, and on acromegaly and its complications. The lecture on endocrine complications in the children of cancer-survivors was the best of all - both interesting and well-presented. I must not forget to mention York itself, a beautiful historical city, where most

of the stones have been used and re-used for more than 2000 years, by different civilisations. If you listen carefully, you might really be able to hear the past!

M GHEORGHIU

The most interesting sessions were those on Cushing's syndrome, mineralocorticoid hypertension and growth hormone antagonists. Other highlights included the interactive pituitary imaging presentation and the clinical debate on surgical management of hyperparathyroidism. I was impressed by the enthusiastic and good-natured response from the audience as a whole. It was an extremely valuable experience; I hope I will be able to attend again in the future.

D M BARTON

Without much background in basic science, I would have found an introductory session useful at the start of the Molecular Endocrinology Workshop. However, the talks by Dr White and Professor Trembath were very interesting and understandable. All the sessions in the Advanced Endocrine Course were well-presented. Dr Evanson's discussion on pituitary imaging was especially helpful, and I learnt a lot from the question and answer sessions. The highlight of the Clinical Practice Day was the debate, with clear and entertaining arguments. I think the Summer School was a great success.

PEAK MANN MAH

All the talks in the Advanced Endocrine Course were very informative, engaging and well-delivered. I particularly enjoyed Dr Newell Price's excellent overview of Cushing's syndrome, which also explained less common aspects. Friday's clinical debate was perhaps the most entertaining session - though the humour was not at the expense of the content, and I learnt much from the event. It was a thoroughly enjoyable, useful and interesting week.

P CHAGGAR

Hot Topics

An update on the latest endocrine research from Carolyn Cowey.

Conditional transgenesis

Conditional transgenic technologies allow great flexibility for exploring gene function in health and disease, enabling expression to be temporo-spatially controlled. Ryding and colleagues from the University of Edinburgh have reviewed the theory, applications and limitations of these technologies. Unlike conventional knockout strategies, which affect every cell in the animal, conditional technologies switch a particular gene 'on' or 'off' in response to a specific stimulus.



For example, attempts to create a conventional transgenic model to determine whether leukaemia was reversed by removal of the oncogene BCR-ABL were unsuccessful. This was due to the lethality of BCR-ABL during development. Conditional transgenics enabled the expression of this toxic transgene to be delayed until adulthood. The authors believe that these technologies will 'revolutionise our understanding of physiology and disease', and will supplement, rather than replace, conventional transgenesis.

(See the full article in *Journal of Endocrinology* 171(1), October 2001)

Pregnancy blocks mammary autocrine pathway

The mechanism by which pregnancy inhibits mammary tumour development in humans and mice is unclear. Sivaraman and colleagues from Baylor College, Texas, have demonstrated that, contrary to existing

hypotheses, the switch from paracrine to autocrine regulation of steroid receptor-positive cells is not necessarily responsible for the growth of mammary cancer. The researchers found an age-dependent increase in oestrogen receptor-positive (ER+) proliferating cells, which indicates that the autocrine pathway is already present in the mammary gland, and that these cells could give rise to tumours upon carcinogenic challenge. Rats exposed to the levels of oestrogen/progesterone found in pregnancy had the ability to block the autocrine steroid receptor regulation of ER+ cell proliferation in response to carcinogenic stimuli. The authors suggest that this may be one means by which pregnancy can help protect against breast cancer. Studying the molecular pathways involved could help develop strategies for the prevention of breast cancer. (See the full article in *Journal of Endocrinology* 171(1), October 2001)

β_3 AR in diabetes

An early onset of diabetes, along with obesity and lower levels of insulin secretion, is associated with a polymorphism of the human β_3 -adrenergic receptor (β_3 AR). Perfetti *et al.* have found that human pancreatic islet β -cells are a major site for the expression of β_3 AR, and that its activation affects glucose-dependent insulin secretion. Individuals homozygous for the Arg64 variant of β_3 AR secreted less insulin in response to an i.v. glucose tolerance test, indicating that Arg64 compromises the insulin secretory activity of β -cells. The authors hypothesise that a resistance to the action of insulin (in adipose cells in particular), or abnormal glucose-sensing activity and a consequent insulin-secreting defect in the islet β -cells, may be

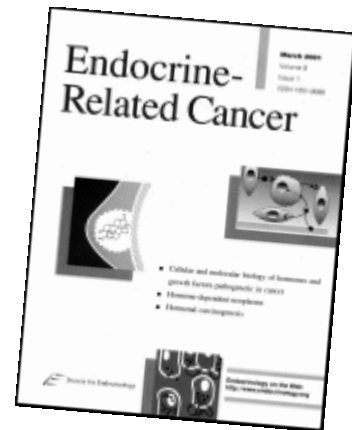


responsible for the increased risk of type 2 diabetes in humans carrying the β_3 AR polymorphism.

(See the full article in *Journal of Molecular Endocrinology* 27(2), October 2001)

Managing breast cancer

Breast cancer management is evolving away from surgery towards minimally invasive techniques. Singletary, from



the University of Texas, has reviewed the treatment options now available to patients and those at risk. Non-invasive techniques serve as effective diagnostic tools, and are preferable to excisional biopsies because, amongst other reasons, the suspect lesion could be benign. Breast conservation therapy, consisting of a lumpectomy and post-operative radiation treatment, is available to patients with early stage breast cancer. The patient can enjoy an improved self-image and faster recovery, though life-long checks are needed in case of locoregional recurrence. Women undergoing a mastectomy can now receive immediate breast reconstruction. Excellent cosmetic results can be achieved by using skin from another part of the patient's body. The reconstruction option is also available to women genetically predisposed to breast cancer, for whom a prophylactic mastectomy is an option. Those wishing to avoid this aggressive surgery can undergo intensive screening combined with chemoprevention, which could reduce their risk of future breast cancers by almost 50%. Singletary believes that the aim and possibility of achieving individualised systemic treatment will feed the drive for less invasive surgical approaches. (See the full article in *Endocrine-Related Cancer* 8(4), December 2001)

192nd Meeting of the Society for Endocrinology

London, UK, 3-4 December 2001.
Contact: Society for Endocrinology, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

Multidisciplinary Conference on Pituitary Disorders

Rancho Mirage, CA, USA, 6-9 December 2001.
Contact: Sue Otero (Tel: +1-914-4938392; Email: rnr@pituitary.org; Web: <http://www.pituitary.org>).

Techniques and Applications of Molecular Biology: a Course for Medical Practitioners

Warwick, UK, 10-13 December 2001.
Contact: Dr Charlotte Moonan, Department of Biological Sciences, University of Warwick, Coventry CV4 7AL, UK (Tel: +44-24-76523540; Fax: +44-24-76523701; Email: charlotte.moonan@warwick.ac.uk).

2nd International Huaxia Congress of Endocrinology

Hong Kong, China, 14-17 December 2001.
Contact: Ms Veronica Cheng, c/o PC Tours & Travel, B128, The Royal Garden Hotel, 69 Mody Road, Tsimshatsui East, Kowloon, Hong Kong, China (Tel: +852-2369-9052-4; Fax: +852-2723-9044; Email: pc@pctourshk.com; Web: <http://www.endocrine-hk.org/huaxia2001>).

Joint Meeting of the Biochemical Society with the Physiological Society:

Glycogenomics: the Impact of Genomics and Informatics in Glycobiology
 York, UK, 17-19 December 2001.
Contact: Meetings Office, Biochemical Society, 59 Portland Place, London W1B 1QW, UK (Tel: +44-20-75805530; Fax: +44-20-76377626; Web: <http://www.biochemistry.org/meetings/>).

8th World Congress on Endometriosis

San Diego, CA, USA, 24-27 February 2002.
Contact: ASRM, 1209 Montgomery Highway, Birmingham, AL 35216-2809, USA (Tel: +1-205-9785000; Fax: +1-205-9785018; Email: asrm@asrm.org).

Society for Endocrinology Clinical Cases Meeting

London, UK, 27 February 2002.
Contact: Society for Endocrinology, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

5th International Symposium on Clinical Advances in Osteoporosis

Honolulu, HI, USA, 6-9 March 2002.
Contact: Registrar, National Osteoporosis Foundation, 1232 22nd Street NW, Washington, DC 20037, USA (Tel: +1-202-2232226; Fax: +1-202-2232237; Email: ISO@nof.org; Web: <http://www.nof.org>).

British Society of Paediatric and Adolescent Gynaecology

Leeds, UK, 11 March 2002.
Contact: R Stanhope, Institute of Child Health and Great Ormond Street Hospital for Children NHS Trust, University College London, 30 Guilford Street, London WC1N 1EH, UK (Fax: +44-20-78138496; Email: r.stanhope@ich.ucl.ac.uk).

BES 2002: 21st Joint Meeting of the British Endocrine Societies

Harrogate, UK, 8-11 April 2002.
Contact: British Endocrine Societies, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

International Meeting on Neuro-Psycho Endocrinology

Rome, Italy, 19-20 April 2002.
Contact: MA Satta, Istituto di Endocrinologia,

Poliniclinico A Gemelli, Largo A Gemelli 8, I-00168

Rome, Italy (Fax: +39-0630-12253; Email: md1964@mlclink.it).

IOF World Congress on Osteoporosis

Lisbon, Portugal, 10-14 May 2002.
Contact: IOF Secretariat, 71 Cours Albert Thomas, F-69003 Lyon, France (Tel: +33-4-72914177; Fax: +33-4-72369052; Email: info@iofyon.org; Web: <http://www.osteofound.org>).

15th International Symposium of the Journal of Steroid Biochemistry and Molecular Biology on Recent Advances in Steroid Biochemistry and Molecular Biology

Munich, Germany, 17-20 May 2002.
Contact: Prof JR Pasqualini, Steroid Hormone Research Unit, Institut de Puériculture, 26 Boulevard Brune, F-75014 Paris, France (Tel: +33-1-45399109; Fax: +33-1-45426121; Email: jorge.pasqualini@wanadoo.fr).

45eme Journées Internationales d'Endocrinologie Clinique: a Decade of Advances in Thyroidology

Paris, France, 23-24 May 2002.
Contact: Dr G Copinschi, Laboratory of Experimental Medicine, Brussels Free University, CP 618, 808 Route de Lennik, B-1070 Brussels, Belgium (Fax: +32-2-5556239; Email: klotz@ulb.ac.be).

29th European Symposium on Calcified Tissues

Zagreb, Croatia, 25-29 May 2002.
Contact: Tel: +44-1453-549929; Fax: +44-1453-548919; Email: admin@ectsoc.org; Web: <http://www.ectsoc.org>

International Course on Laboratory Animal Science

Utrecht, The Netherlands, 27 May-7 June 2002.
Contact: Professor LFM van Zutphen or Mr Stephan van Meulebrouck, Department of Laboratory Animal Science, Faculty of Veterinary Medicine, PO Box 80.166, 3508 TD Utrecht, The Netherlands (Tel: +31-30-2532033; Fax: +31-30-2537997; Email: pdk@las.vet.uu.nl).

4th International Symposium on Hormone and Veterinary Drug Residue Analysis

Antwerp, Belgium, 4-7 June 2002.
Contact: Prof C Van Peteghem, Faculty of Pharmaceutical Sciences, University of Ghent, Harelbekestraat 72, B-9000 Ghent, Belgium (Tel: +32-9-2648134; Fax: +32-9-2648199; Email: carlos.vanpeteghem@rug.ac.be; Web: <http://allserv.rug.ac.be/~cvpetegh>).

ENDO 2002: 84th Annual Meeting

San Francisco, CA, USA, 19-22 June 2002.
Contact: Beverly Glover, Administrative Assistant, Meetings, The Endocrine Society, 4350 East West Highway, Suite 500, Bethesda, MD 20814-4410, USA (Tel: +1-301-9410220; Fax: +1-301-9410259; Email: bglover@endo-society.org; Web: <http://www.endo-society.org>).

Society for Endocrinology Summer School

Reading, UK, 8-12 July 2002.
Contact: Society for Endocrinology, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

6th International Symposium on the Neurobiology and Neuroendocrinology of Aging

Bregenz, Austria, 21-26 July 2002.
Contact: Richard Falvo or Andrzej Bartke, Department of Physiology, LS II, Rm 245, Southern Illinois University, School of Medicine, Carbondale, IL 62901-6512, USA (Fax: +1-618-4531517; Email: abartke@siumed.edu or rfalvo@siumed.edu; Web: <http://www.neurobiology-and-neuroendocrinology-of-aging.org/>).

21st Conference of European Comparative Endocrinologists

Bonn, Germany, 26-31 August 2002.
Contact: 21st CECE, c/o Institute of Zoophysiology, Endericher Allee 11-13, D-53115 Bonn, Germany (Fax: +49-228-732496; Email: esce2002@uni-bonn.de; Web: <http://www.esce2002.uni-bonn.de>).

5th International Congress of Neuroendocrinology

Bristol, UK, 31 August-4 September 2002.
Contact: BioScientifica Ltd, 16 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: icn2002@endocrinology.org; Web: <http://www.bioscientifica.com/icn2002.htm>).

28th Meeting of the European Thyroid Association

Göteborg, Sweden, 8-11 September 2002.
Contact: Dr Ernst Nystrom (Email: euro-thyroid-assoc@cf.ac.uk).

Society for Endocrinology Endocrine Nurses Training Course

Cambridge, UK, 9-11 September 2002.
Contact: Society for Endocrinology, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

10th Meeting of the European Neuroendocrine Association

Munich, Germany, 12-14 September 2002.
Contact: Professor AB Grossman, Department of Endocrinology, St Bartholomew's Hospital, London EC1A 7BE, UK (Email: secretary@eneassoc.de; Web: <http://www.enea2002.de>).

Joint Scientific Meeting of the Royal College of Obstetricians and Gynaecologists and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Sydney, NSW, Australia, 2-4 October 2002.
Contact: Best for Women Conference Secretariat, GPO Box 2609, Sydney, NSW 2001, Australia (Tel: +61-2-92411478; Fax: +61-2-92513552; E-mail: obgy@icmsaust.com.au; Web: <http://www.bestforwomen.conf.au>).

Clinical Endocrinology Update: 2002

Portland, OR, USA, 6-9 October 2002.
Contact: Beverly Glover, Administrative Assistant, Meetings, The Endocrine Society, 4350 East West Highway, Suite 500, Bethesda, MD 20814-4410, USA (Tel: +1-301-9410220; Fax: +1-301-9410259; Email: bglover@endo-society.org; Web: <http://www.endo-society.org>).

58th Annual Meeting of the American Society for Reproductive Medicine (ASRM 2002)

Seattle, WA, USA, 12-17 October 2002.
Contact: ASRM, 1209 Montgomery Highway, Birmingham, AL 35216-2809, USA (Tel: +1-205-9785000; Fax: +1-205-9785018; Email: asrm@asrm.org).

193rd Meeting of the Society for Endocrinology

London, UK, 4-6 November 2002.
Contact: Society for Endocrinology, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org; Web: <http://www.endocrinology.org>).

BES 2003: 22nd Joint Meeting of the British Endocrine Societies

Glasgow, UK, 24-27 March 2003.
Contact: British Endocrine Societies, 17/18 The Courtyard, Woodlands, Bradley Stoke, Bristol BS32 4NQ, UK (Tel: +44-1454-642200; Fax: +44-1454-642222; Email: info@endocrinology.org).