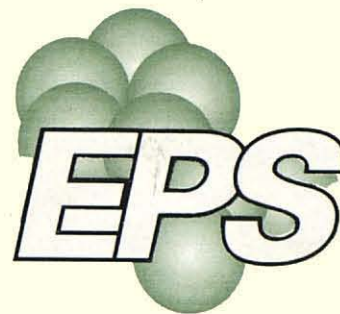

THE EUROPEAN PEPTIDE SOCIETY NEWSLETTER



Issue Number 15, 1 December 1996

EPS - 24



The Chairman at the rostrum

For many centuries, Scotland had twice as many universities as its vastly more populous neighbour to the south. The University of Edinburgh was one of these centres of learning: it has a tradition in science and medicine going back several hundred years. At the present time, Edinburgh is undoubtedly the focal point of British peptide science. The University of Edinburgh was therefore the obvious location and its Professor Robert Ramage FRS the obvious Chairman for EPS-24, the second in the series to be held in the UK (the first was EPS-5, Oxford 1962, chaired by Dr GT Young, who was present this time too).

Some nine hundred representatives of around thirty countries attended the Symposium, which was held at Edinburgh 8-13 September 1996. Although Bob Ramage presided overall, the administrative aspects were smoothly coordinated by Dr John Gibson of the Royal Society of Chemistry. The scientific proceedings were staged in the vast and imposing McEwan Hall, where a couple of hundred more could have been let in without upsetting the Fire Brigade or creating a feeling of untoward familiarity. The posters and exhibition by contrast were a little short of space in the Appleton Tower, and a number of posters had of uncomfortable necessity to be declined. Most delegates stayed in the University's Pollock Halls, in the shadow of Arthur's Seat.

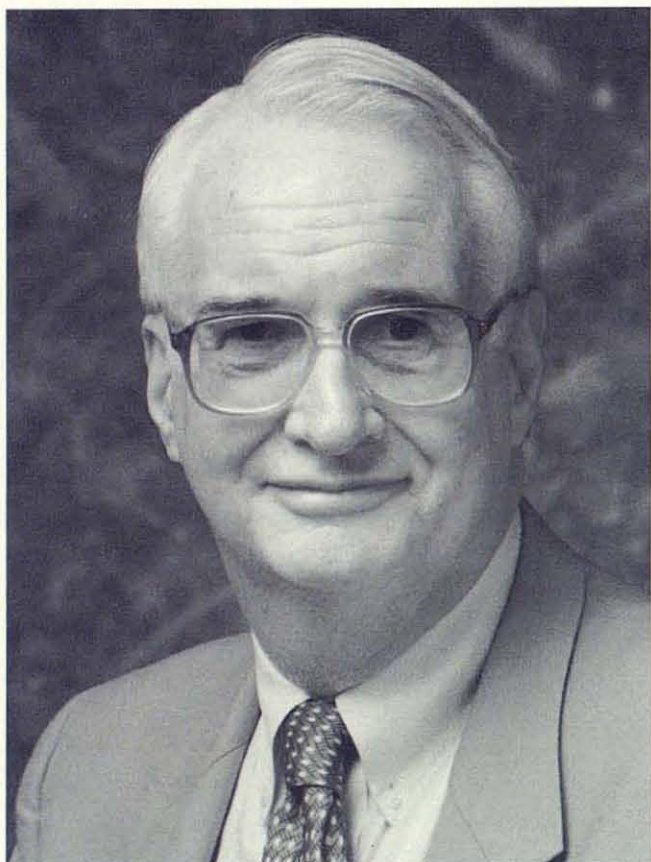
The principal business of the opening ceremony was, after introductory speeches by the Chairman of the Symposium and the Chairman of the Society (Professor Dietrich Brandenburg), the presentation of the Leonidas Zervas Award (Professor Morten Meldal) and Josef Rudinger Lectureship (Professor Ralph Hirschmann). It was felt that the sponsors of these prestigious awards should have a higher profile than hitherto, so the presentations were made by Mr P Grogg (Bachem, Switzerland) and Dr J-L Junien (Ferring, Sweden) respectively. The citations which were read were as follows.

Josef Rudinger Lectureship

This year the Council has decided to honour Professor Ralph Hirschmann, University of Pennsylvania, with the Rudinger Lecture Award. Professor Hirschmann receives the Award on the basis of his lifetime contributions (both in industry and academia), to peptide chemistry and biochemistry, and the adaptation of peptide structures to the needs of pharmaceutical industry. He was involved in the first total synthesis of the enzyme ribonuclease (1970) and in 1994 published the first peptide bond synthesis catalysed by a catalytic antibody (abzyme). The field of peptidomimetics benefits greatly from his continuing contributions.

Leonidas Zervas Award

The Council this year has awarded the Zervas prize to Professor Morten Meldal, Carlsberg Laboratory, Denmark, for his significant contributions to the area of technical development of solid phase synthetic protocols, and for his outstanding contributions to the development of methodology for the synthesis of glycopeptides.



Ralph Hirschmann,
Josef Rudinger Lecturer



Morten Meldal,
Leonidas Zervas Award Winner

On the Tuesday evening there was a grand reception by the City of Edinburgh authorities, in the Royal Museum of Scotland, at which the delegates were welcomed by the Deputy Convenor of the City Council and the Principal of the University of Edinburgh: Dietrich Brandenburg made an eloquent and elegant reply.

There was no officially organised job fair, but one happened in effect spontaneously, so that a corner of the exhibition forum became a place for job notices - over twenty - to appear. The traditional soccer match took place on the Thursday evening. It took the combined talent and energy of the Rest of the World (coach-player Lajos Balásperi) to defeat Scotland (coach Maurice Manning) by 5 goals to 3. It was an excellent and hard-fought contest. Scotland (who were a man short) came back from a 3-1 deficit late in the second half to tie the score, but Drs Nefzi and Rapp both scored decisively in the last five minutes.

The two Friday morning scientific sessions were Bachem Silver Jubilee Sessions (see below under Company Notes), and were chaired by the Chairman and Secretary of the Society respectively.

A poster competition was organised by the Committee of the UK Protein and Peptide Science Group. Posters 12, 68, 96, 134, 175, 300 and 391 were judged the best. Three of these (posters 12, 175 and 300) earned a year's subscription to the *Journal of Peptide Science* (sponsored by Bachem) and the others a £100 prize provided by the Group.



Caryn Reynolds and Martin Röthlisberger of Wiley, publishers of the Journal of Peptide Science, with Conrad Schneider, the Editor



The Bachem stand at EPS-24

The week, which was pleasantly warm and sunny, offered a programme of consistently interesting peptide science punctuated with various diversions and opportunities for sight-seeing: it culminated in a banquet at Murrayfield, the home of Scottish rugby football.

The Proceedings will be edited by Professors Epton and Ramage and published at the earliest possible date by Mayflower.

Contributed by the Editor

EPS-25 BUDAPEST 1998

EPS-25 will be held in Budapest 30 August-4 September 1998, under the chairmanship of Dr Sándor Bajusz, who writes as follows:



**Sándor Bajusz,
Chairman, EPS-25**

“Budapest, the capital of Hungary, is situated in the heart of the country. It is among the most beautiful cities of Europe and is famous for its history and architectural grandeur. Budapest is a lively city of more than 2 million inhabitants and it forms a near circle on both banks of the Danube. Buda, on the right bank, is hilly and wooded, while Pest, on the left bank, lies on the plain. The Symposium will be organised in a Congress Centre, located next to the City Park, with the Museum of Fine Arts, and close to the Heroes’ Square where the Military Monument commemorates the Conquest of the Carpathian basin by the Hungarians 1100 years ago. The Congress Centre provides all necessary facilities and is well connected by public transportation.

The 25th EPS will provide an opportunity for participants of different backgrounds from basic to industrial and biomedical peptide research to meet and discuss the latest developments of peptide science. It will cover topics from new synthetic procedures, discovery of peptides with novel biological properties, and methodology for their structural characterization to the new aspects of peptidomimetics, peptide-diagnostics and therapeutics. Special efforts are being made to help younger peptide scientists to attend the Symposium in large numbers.

Besides stimulating discussions and exchange of scientific ideas, I hope that you will enjoy the wonderful settings of Budapest, its Renaissance, Turkish, Baroque, neo-Classic and Art Nouveau buildings. We welcome our fellow scientists to experience the Hungarian cuisine and to meet the passionate and hospitable citizens.”

Professor Ferenc Hudecz is Secretary of the Organising Committee. Enquiries should be addressed to him - for his contact details see the Calendar below.

COMPANY NEWS

The Bachem group, a Sponsor and major Benefactor of the Society, celebrates the 25th anniversary of its foundation this year. It was started in Switzerland (the name derives from *Basel chemistry*) by Mr P Grogg in 1971 and has grown in the meantime to employ over three hundred people worldwide in its various subsidiaries. For many years Bachem California and Bachem Switzerland were separate, but the latter acquired the former early in 1996, and the entire group is now under the chairmanship of Mr Grogg.



Albert Loffet

Dr Albert Loffet, a well-known member of the Society (he was Chairman of EPS-14 at Wépion in Belgium, 1976, and was the first Secretary of the Society) has just been appointed Director of Marketing and Sales of Senn Chemicals International, based at Gentilly, France.

Compiled by the Editor

PEPTIDE INFORMATION



Shumpei Sakakibara

Most members will be aware of *Peptide Information* - Newsletter number 2 carried a review by Ernest Giralt - although probably not as many use it as could do so with advantage. It is an information retrieval journal which is published semi-monthly (hard copy and diskette versions are available) by the Protein Research Foundation of Osaka, under the leadership of Shumpei Sakakibara. About a thousand journals, of which approximately 120 are designated as key journals, are routinely examined. For details of scope etc. see <http://prfsun2.prf.or.jp/e-pi.htm> Some useful-sounding new services which are accessible via <http://www.prf.or.jp/> have recently been introduced. In particular, the accumulated contents since volume 5 (1979) now form the basis of a formidable and continuously growing database - PRF/LITDB - which can be freely used by *Peptide Information* subscribers.

Compiled by the Editor from information provided by Masaharu Ioyama of the Protein Research Foundation

THE SOCIETY AND ITS MEMBERSHIP

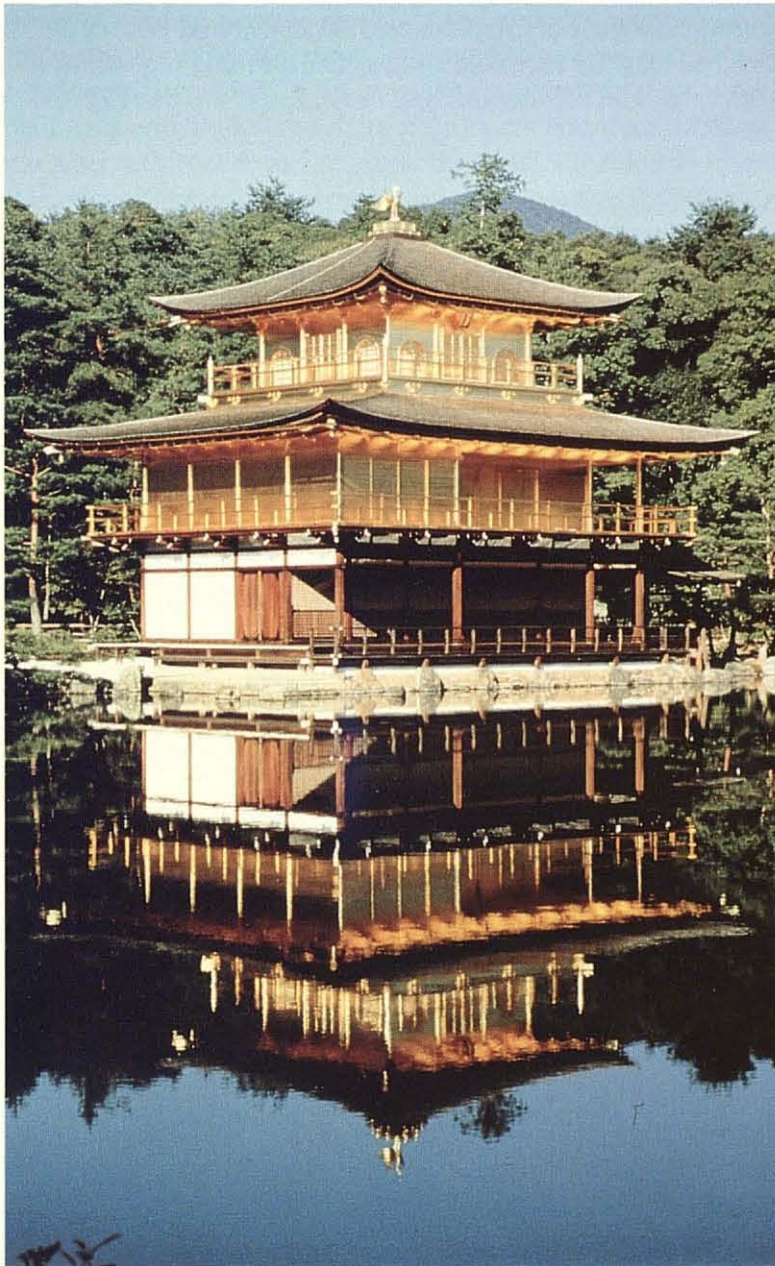
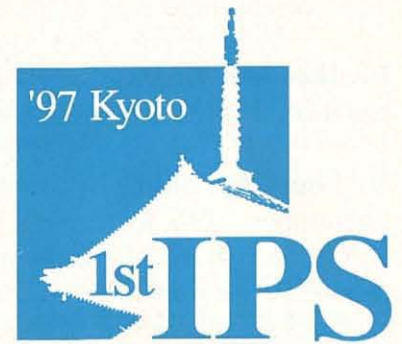
There were in June 1996 1118 registered members drawn from 35 countries for whom the Secretary had an address which was believed to be valid, but every Newsletter circulation produces quite a lot of returns by the postal authorities because of undeliverability. Members who move are urged to advise the Secretary or Newsletter Editor. The Society is also keen to ensure that as many qualified people as possible take advantage of membership, which is still free. A leaflet explaining the nature and aims of the Society, with an application form, has been prepared. It is circulated to all members with this Newsletter: they are asked to encourage appropriate colleagues to join. The text of the leaflet and the application form are also available at: <http://www.swan.ac.uk/chemistry/eps/index.html>

SPA PEPTIDOMIMETICS REMINDER

Members are reminded that the 2nd Spa Peptidomimetics Symposium, which is under the auspices of the Society, will be held in April/May 1997: for details see the Calendar below.

1st INTERNATIONAL PEPTIDE SYMPOSIUM KYOTO 1997

There have been many peptide symposia of an international character during the last twenty years, but the one which will take place in Kyoto from 30 November to 5 December 1997 will be fundamentally different. It will be under the joint auspices of the American, Australian, European and Japanese Peptide Societies. The Symposium President will be Professor Yasutsugu Shimonishi, and the Programme Committee will comprise, in addition to him, four distinguished peptide scientists from each of the three major societies, as well as the Chairman of the Australian Peptide Society.



The Kinkakuji Temple, Kyoto

Kyoto was the imperial capital of Japan for over a thousand years. Enfolded by scenic hills to the north, west and east, which the founding Emperor Kammu described as a natural fortress, the city reigned from 794 to 1868 as the cultural and artistic centre of the nation - a position it still claims today - as well as its political nucleus. More than 1,600 Buddhist temples and 270 Shinto shrines attest to its importance as a religious focal point, while the Imperial Palace and Imperial Villas, set in the legendary gardens, are reminiscent of the aesthetic splendour of the city's once-pivotal role. But Kyoto, originally called Heiankyo - Capital of Peace, is also a city of today. The seventh largest city in Japan, with a population of 1.5 million, it has kept pace with the modern world. Industry thrives, and some of the most prestigious universities in the country are situated in it, forming a major educational enclave.

The planning for IPS-1 is well advanced, and Professor Shimonishi has already distributed his first circular widely (for his contact details see the Calendar below). If the elegant artwork of that circular is anything to go by, the whole Symposium will be very stylish indeed.

Compiled by the Editor from material provided by Professors Shimonishi and Kiso



***Yasutsugu Shimonishi
Chairman of IPS-1***

OBITUARY NOTICES

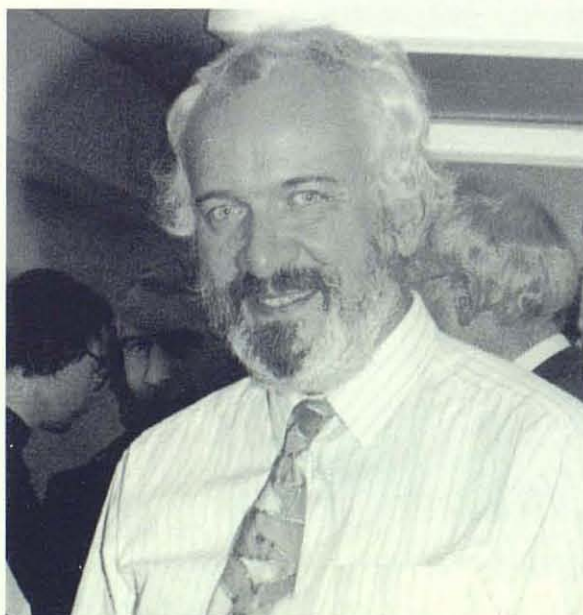
The Society notes with regret three deaths.

Professor K Brunfeldt. Professor Brunfeldt, who was Chairman of EPS-16 (Helsingør, Denmark, 1980) has died. It is hoped that a fuller notice will appear in the next Newsletter.

Dr Louis A Cohen. Dr Cohen, of the NIH, Bethesda, Maryland, died in an Edinburgh hospital on 12 September 1996, following a heart attack, aged 70: he had been attending EPS-24 with his wife. A Boston native, he was a 1949 *summa cum laude* organic chemistry graduate of Northeastern University, and he received a *summa cum laude* doctorate in organic and biological chemistry from Massachusetts Institute of Technology. He taught biochemistry at Yale University medical school before moving to the Washington area and NIH in 1954. At the time of this death, he was Chief of the Biochemical Mechanisms section in the Bio-organic Chemistry Laboratory of NIH's National Institute of Diabetes and Digestive and Kidney Diseases. A member of the Senior Executive Service, he was the recipient of four Outstanding Government Service awards. His recent work concerned, *inter alia*, histidine analogues and derivatives: see the EPS-24 abstracts, P54.

Professor Walter R Paukovits. Professor Paukovits, Head of the Laboratory of Growth Regulation, Institute for Tumour Biology-Cancer Research, University of Vienna, died suddenly on 27 April 1996. He was in his 56th year. He was distinguished for his work on stem cell growth regulation, and was the first to isolate and characterise the stem cell growth inhibitor HP-5, GlpGluAspCysLys. This was a key discovery: see M-H Moser and WR Paukovits, "Haemo-protection against cytostatic drugs by stem cell inhibitor", *Trends in Pharmacol. Sci.*, 1991, **12**, 304-309, and OD Laerum and WR Paukovits, "Biological and chemical properties of the hemoregulatory peptide and possibilities for clinical applications", *Pharmac. Ther.*, 1989, **44**, 335-349, and literature there cited. The disulphide dimer of HP-5, on the other hand, stimulates haemopoiesis, and its analogues (for recent work see PK Bhatnagar et al., *J. Medicin. Chem.*, 1996, **39**, 3814-3819) have potential as aids to post-chemotherapy recovery.

Compiled by the Editor



Walter Paukovits

1996 CHINESE PEPTIDE SYMPOSIUM

Chengdu, the capital of Sichuan, the nation's most populous province, was the venue of the 1996 International Chinese Peptide Symposium, which was held from 21 to 25 July. The city was once an ancient capital during China's Period of Three Kingdoms and is thronged with splendid memorials to its past. Nearby mountains are home to the Chinese panda which still roam free. The conference was the fourth biennial Symposium in an on-going series; the first three were held in Shanghai, Hangzhou and Beijing respectively. It was well attended by more than 160 delegates, 56 of whom were from more than 10 foreign countries.

Under the excellent co-chairmanship of Professors Yunhua Ye and Xiaojie Xu, both of Peking University's Department of Chemistry, and their supporting committee members, a comprehensive scientific programme of ten oral and two poster sessions was organized and held over three days. The subjects covered the key areas of current peptide research and included synthetic methods, molecular diversity and libraries, peptide immunology, bioactive peptides, and challenging problems in peptides. Each of the oral sessions had at least two keynote speakers who were well supported by local contributions which were particularly focused on synthesis and analysis of natural products and their analogues. In addition, there were a number of reports of exciting new reactions for protection and activation in chemical peptide synthesis. The quality of several of these local presentations was particularly impressive and it was clear to the many visitors that Chinese peptide research is continuing to progress rapidly, due, in significant part, to these conferences providing opportunities for exchange of information and collaboration. Following the final session, the Cathay Award, supported by the H. H. Liu Education Foundation, was made jointly to Professor James Tam of Vanderbilt University and Professor Jiecheng Xu of the Shanghai Institute of Organic Chemistry for their outstanding contributions and service to Chinese peptide research. Four young Chinese peptide chemists also received the Zhonghe Award in recognition of their promise. The Proceedings will be published by ESCOM.



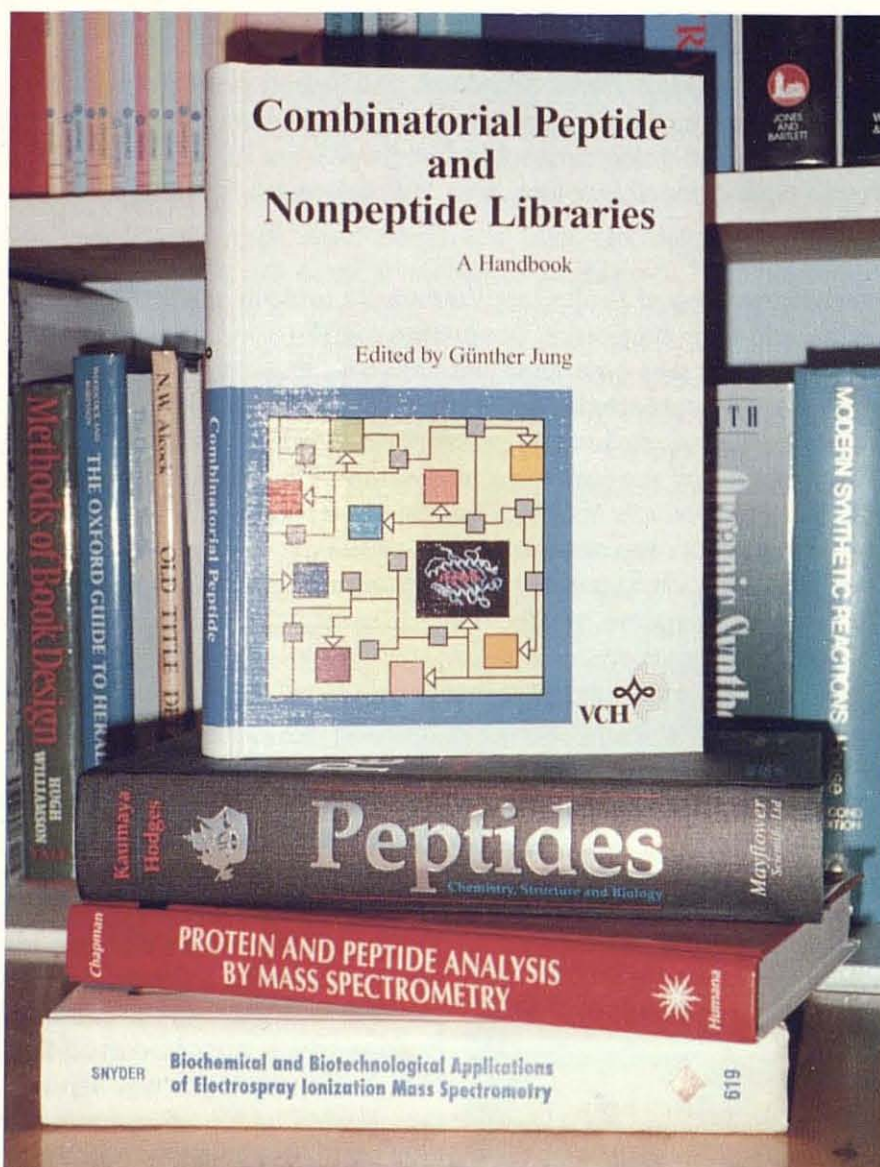
**Professors Yunhua Ye and Xu,
co-Chairs of CPS-96**

One of the many highlights of the week was the bus journey through interesting and attractive market towns, villages and countryside to the southern city of Leshan. This was followed by a boat ride on the junction of three rivers to see the 70 metre tall Great Buddha which is stone-carved into the side of Lingyun Hill. A Chinese lunch was served at a restaurant on the hill after which opportunities were available to explore the Buddha on foot. However, the very hot and humid weather had many visitors heading for the cool shade afforded by the nearby fascinating ancient temples. Delegates who chose to remain in Chengdu were able to visit the panda zoo or shop at the many markets around the town.

The warm hospitality and generosity of the Chinese hosts were in ample abundance throughout the conference week. This, together with the excellent local food (including some ferociously chilli-hot Sichuan cooking!) and accommodation, made for a most enjoyable time for all. The conference concluded with a superb traditional Chinese banquet during which numerous toasts were made to the organizers and to the success of future international Chinese Peptide Symposia. The next will be held in July 1998 at Lanzhou under the direction of Professor Xiaoyu Hu. Details will be given in future Newsletters.

Contributed by John D Wade and Morten Meldal

BOOK REVIEWS



Pravin TP Kaumaya and RS Hodges (Editors), *Peptides. Chemistry, Structure and Biology*. Proceedings of the 14th American Peptide Symposium, 1995. Mayflower, 1996. ISBN 0-9527011-0-3.

This 2kg volume constitutes just part of the proceedings of the 14th American Symposium. The editors had the most difficult and unenviable task of selecting for inclusion only about half of the papers presented at the meeting (which had all passed the abstract refereeing process for acceptance). This was doubtless an economic necessity in terms of publishing cost, but is also a pity as the printed proceedings of major international symposia provide an important up-to-date information source for the very many unable to attend. It seems that soon editors will be facing the cost of two-volume proceedings if international meetings continue to increase in popularity and size.

So how does one review in a few short paragraphs a volume totalling over a 1000 closely filled pages? The lengthy preface sets out the essential facts, and tells us, *inter alia*, that the 14th Symposium attracted 1418 delegates, and that "the scientific programme contained an unprecedented number of lecture presentations (106), comprising an (unpublished) keynote address by Dan Koshland, the 10th Alan Pierce Award Lecture by John Stewart, 77 plenary lectures, 13 mini-symposium lectures and 16 workshop lectures". Additionally, there were an impressive 670 poster communications. In the main meeting, synthetic methods with 144 communications constituted the principal individual subject discussed; other topics covered were: peptide inhibitors/receptors (80), vaccines and immunology (73), conformational analysis (59), hormones and neuropeptides (56), *de novo* design (55), biologically active peptides (57), mimetics (36), glyco/lipo/phosphopeptides (34), libraries (32), peptide/protein interactions (31), delivery/pharmaceuticals (20), nmr

(19), and signal transduction (17). Some of these subjects were further enlarged in separate mini-symposia and workshops.

From these 762 scientific communications, 379 articles were selected for publication. Their listed titles alone span nearly 40 pages. The Alan Pierce lecture by John Stewart is unique in covering ten pages; the rest are mostly a short two or three pages long. John Stewart was contemporary with Bruce Merrifield at the Rockefeller University and was early exposed to and contributed substantially to the newly developing solid phase method. In his opening lecture he records that the first two solid phase synthesisers were constructed in the basement workshop of his home (sounds familiar to the reviewer). One of these has been awarded the accolade of inclusion in the Smithsonian collection in Washington. Following Merrifield's successful synthesis of bradykinin (which put the solid phase method firmly and permanently on the map), Stewart was able to apply the method to bradykinin analogues with equal success and an eight-fold increase in productivity over his earlier solution synthesis. His interest in biologically active peptides persisted throughout the forty year span surveyed in the lecture, and he returns later to more recent studies on bradykinin receptors and antagonists, and to studies on angiotensin, substance P, luteinizing hormone, and ACTH.

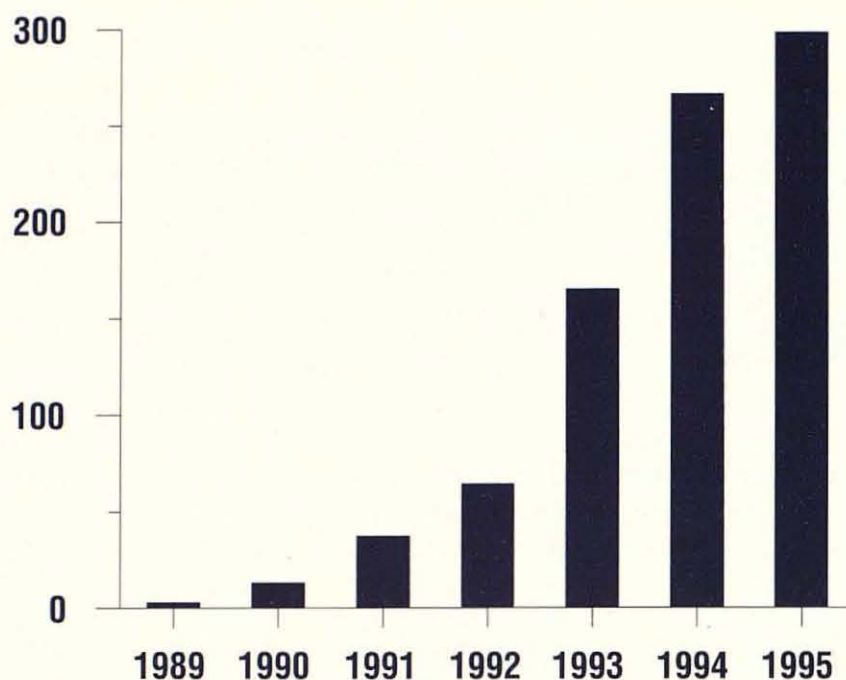
It would be nice for the reviewer to say that from the remaining 378 scientific articles in the Proceedings, one or two or three are clearly of outstanding importance and constitute truly substantial advances in peptide science. Probably this is so, but the sheer mass of data presented makes their recognition difficult. The synthetic methods sections (which were appropriately dedicated to the 80th birthday of Miklos Bodanszky) include a number of potentially useful technical developments likely to influence solid phase synthesis in the future, but more interesting perhaps is the steady progress towards the synthesis and purification of larger, protein-like molecules and, in step with this, the *de novo* design of molecules with believedly specific secondary and tertiary structures. Several papers describe experiments on the legation of free (unprotected) peptide fragments, and others mention use of backbone protection in increasing the efficiency of stepwise chain elongation. Synthetic models for α -helical, β -sheet, and β -turn structures are described, and helical bundles continue to attract attention. It seems that the stage may soon be set for rational design and synthesis of protein-like polypeptides with novel and useful biological activities - a target for the millenium.

The volume has been excellently published by Roger Epton's publishing house in a binding which should withstand the heavy passing around the Proceedings deserve. It is reassuring to see that Mayflower have also been appointed publishers for EPS-24.

Contributed by R C Sheppard

G Jung (Editor), *Peptide and Nonpeptide Combinatorial Libraries. A Handbook*, VCH, 1996.
ISBN 3-527-29380-9.

In the early days of SPPS, there was much carping from conservative quarters about the uselessness of peptides of questionable homogeneity. It is therefore richly ironic that combinatorial synthesis, the result of inverted thinking with a touch of genius about it, has become such an active and successful area. There was a brief induction period after the birth of the idea in the early eighties, and then there was a surge of publications on the subject. Furthermore, the approach has been adopted for the mass screening of potential pharmaceuticals of many types, not just peptides. Already there have been numerous conferences devoted to combinatorial synthesis, there are specialised journals, and several books on the subject have appeared or are promised. The review by Gordon Lowe (*Chem. Soc. Reviews*, 1995, 309-317) is a particularly useful introductory account. One of the journals, *Molecular Diversity*, is on the Internet for subscribers, and its home page (<http://vesta.pd.com/>) is an excellent starting point for freely accessible information about relevant patents, jobs, symposia, people, companies and an exhaustive bibliography (M. Lebl, *Dynamic database of papers published in the field of molecular diversity*), which had reached publication number 1244 by 6/8/1996.



Molecular diversity publications per annum

Günther Jung has now edited - and made substantial personal contributions to - the first major book focused (but not too narrowly) on combinatorial peptide science. The VCH *Book of the Month* for July 1996, it is addressed to both newcomers and experts: in the nature of the subject, practically all the literature reviewed is recent, and citations run up to mid-1995. Coverage ranges from natural peptide libraries through relevant organic chemistry, multiple parallel peptide synthesis, the strategy and tactics of peptide library generation, to analysis and screening techniques. Most members of the EPS will want to have access to a copy of this handsome book, and many will want to get personal copies and place their orders for the second edition, which - so Professor Jung tells us in his preface - is already being prepared.

Contributed by the Editor

Molecular Medicine Today. Monthly, vol 1 (9 issues) 1995.

MMT, as it likes to call itself, is a magazine from the Elsevier Trends stable. It is now in its second calendar year: the reviewer has the first six issues of 1996 and the 1995 index before him. It comprises topical reviews in molecular medicine (mostly by leading researchers, but some by journalists), literature highlights, book reviews and editorial material, a conference calendar, etc. Anyone using the 1995 index will need a little patience to tease out all of interest - there is no entry for *peptides*, although there is in fact quite a lot of peptide-relevant material to be found under other headings, e.g. under *antigenic peptides* and *vaccines*, *peptide* as well as under specific peptide names. But this is not a journal of record which is likely to be retrospectively searched: its value has more to do with current awareness and the provision of background and perspective. Timely reviews of particular interest in the last six months dealt with "reverse immunogenetics" (to identify malaria parasite antigenic peptides as a step towards vaccine development); xenotransplantation: autoimmunity; crossing the blood-brain barrier; gene therapy; and so on). The material is presented in an interesting and colourful way, and each review is accompanied by a brief glossary of specialist terms to ensure wide accessibility. Items on how to get the most out of the Web appear often - a very useful feature. A monthly dip into the current issue would be a stimulating diversion for most peptide scientists. The institutional subscription works out at around a US dollar a page, but even at that price it would probably be cost-effective.

Contributed by the Editor

JR Chapman (Editor), *Protein and Peptide Analysis by Mass Spectrometry*. Methods in Molecular Biology, vol. 61. Humana Press, 1996. ISBN 0-89603-345-7.

The Editor of this multi-author book states its primary objective as the presentation of "authoritative up-to-date and practical accounts of the use of mass spectrometry in the analysis of peptides and proteins." He has achieved this objective. The 21 chapters cover the whole range of techniques, with enough detail about the physical and technical background to satisfy and enable the critical user without swamping him or her; all illustrated with a wide range of cutting-edge applications. After an historical introduction (P Roepstorff), there is a chapter by the Editor himself on "Ionization Methods and Instrumentation", which is a particularly useful terse introductory account. The book closes with a valuable series of appendices (acronyms, mass and abundance values, fragmentation patterns etc.), also by the Editor. In between, the chapters on "The Identification of Electrophoretically Separated Proteins by Peptide Mass Fingerprinting" (JS Cottrell & CW Sutton), "Noncovalent Interactions Observed Using Electrospray Ionization" (BL Schwartz, DC Gale & RD Smith), "Protein Secondary Structure Investigated by Electrospray Ionization" (CV Robinson) and "Disulphide Bond Location in Proteins" (Y Sun, MD Bauer, TW Keough and MP Lacey) struck the reviewer as of particular significance. But this selectivity is arbitrary and invidious: there is no lightweight material or padding in this important and timely book.

Contributed by the Editor

AP Snyder (Editor), *Biochemical and Biotechnological Applications of Electrospray Ionization Mass Spectrometry*. ACS Symposium no. 619. ACS, 1996. ISBN 0-8412-3378-0.

ESI-MS, in which ions for mass spectrometric analysis are derived from the droplets of a fine spray, was first demonstrated twenty-five years ago. But the technique has only been developed and applied to biomolecules recently. At the present time, the annual number of publications is increasing exponentially. The experimental procedure is about as mild as could be conceived, and is applicable to oligopeptides, whole proteins and even complex glycoproteins. Exactly how the ions are produced is still a somewhat controversial issue, but this does not affect the value of the method. Little or no fragmentation takes place to complicate things. Not only discrete molecules, but also non-covalent assemblies, can be investigated. There is no doubt that ESI-MS (which can also be coupled directly to chromatographic instrumentation) is a technical advance of enormous importance for peptide and protein science. For a recent review, see M Przybylski and MO Glocker, *Angewandte. Chemie Internat. Edition in English* 1996, **35**, 806-826.

The present volume was developed from a symposium sponsored by the Division of Analytical Chemistry at the 209th National Meeting of the American Chemical Society, which was held in California during April 1995. It comprises 26 refereed and revised contributions covering technical aspects (including the question of ion formation - "desorption versus desertion"); linked ESI-MS chromatography setups; and applications to a great variety of bio-polymers and -oligomers. Of particular interest to us here perhaps is the chapter by C Fenselau and M Kelly, on "Complications in the Determination of Molecular Weights of Proteins and Peptides using Electrospray Ionization Mass Spectrometry". This is a useful volume, which anyone using bio-ESI-MS ought to peruse.

Contributed by the Editor

NEW PUBLICATION NOTICES

Information has been received on the following new books, journals, conference proceedings etc. which may be of interest to members. Notices will be repeated in a future issue if it is necessary to correct them or desirable to provide fuller information. Suggestions for future entries in this section should be sent to the Editor, who will welcome them: full data should be provided, including the ISBN or ISSN. Listing here does not preclude a subsequent review in the Newsletter.

ANNUAL REPORTS IN
COMBINATORIAL CHEMISTRY AND
MOLECULAR DIVERSITY
Ed. WH Moos, MR Pavia, AD Ellington
and BK Kay.
300pp approx., volume 1 due January
1997. ESCOM.
ISBN 90-72199-23-5.

CONTEMPORARY ENZYME KINETICS
AND MECHANISM
2nd. Edition.
Ed. DL Purich.
xvii + 541pp, 1996. Academic Press.
ISBN 0-12-568052-X.

BIOCHEMICAL AND
BIOTECHNOLOGICAL APPLICATIONS
OF ELECTROSPRAY IONIZATION
MASS SPECTROMETRY
For bibliographic details and a review, see
above.

IMMUNOLOGICAL RECOGNITION OF
PEPTIDES IN MEDICINE AND
BIOLOGY
ND Zegers, WJA Boersma
and E Claassen.
320pp, 1995. CRC Press.
ISBN 0-8493-8967-4.

INNOVATION & PERSPECTIVES IN
SOLID PHASE SYNTHESIS 1994
Proceedings of the 3rd International
Symposium.
Mayflower Worldwide.
ISBN 0-9527011-1-1.

MASS SPECTROMETRY FOR
BIOTECHNOLOGY
G Siuzdak.
xvi + 161pp, 1996. Academic Press.
ISBN 0-12-647471-0.

METABOLISM OF BRAIN PEPTIDES
G O'Cuinn.
272pp, 1995. CRC Press.
ISBN 0-8493-7665-3.

MOLECULAR DIVERSITY AND
COMBINATORIAL CHEMISTRY:
LIBRARIES AND DRUG DISCOVERY
Ed. IM Chaiken and KD Janda.
336pp, 1996. ACS.
ISBN 0-8412-3450-7.

NEUROPEPTIDES IN THE
SPINAL CORD
F Nyberg, SH Sharma and
Z Wiesenfeld-Hallin.
440pp, 1995. Elsevier.
ISBN 0-444-81719-0.

PEPTIDE-BASED DRUG DESIGN:
CONTROLLING TRANSPORT AND
METABOLISM
MD Taylor and G Amidon.
586pp, 1995. ACS.
ISBN 0-8412-3058-7.

PEPTIDES, BIOLOGY AND
CHEMISTRY
Proceedings of the 1996 Chinese Peptide
Symposium.
Ed. Xiaojie Xu et al.
300pp approx., due April 1997.
ESCOM.
ISBN 90-72199-22-7.

PEPTIDES: CHEMISTRY, STRUCTURE
AND BIOLOGY
Proceedings of the 14th American
Peptide Symposium.
For bibliographic details and a review, see
above.

PHARMACOLOGY OF
OPIOID PEPTIDES
LF Tseng.
524pp, 1995. Harwood Academic.
ISBN 3-7186-5632-9.

PREPARATIVE GEL
CHROMATOGRAPHY ON SEPHADEX
LH-20
H Henke.
617pp, 1995. Hüthig GmbH,
Heidelberg.
ISBN 3-7785-2428-3.

PROTEIN ENGINEERING AND DESIGN
Ed. PR Carey.
xiv + 361pp, 1996. Academic Press.
ISBN 0-12-159640-0.

PROTEINS LABFAX
Ed. NC Price.
xxv + 318pp, 1996.
Bios Scientific Publishers
(Academic Press).
ISBN 0-12-564-710-7.

SPECTROSCOPIC METHODS FOR
DETERMINING PROTEIN STRUCTURE
IN SOLUTION
Ed. HA Havel.
xii + 250pp, 1996. VCH.
ISBN 1-56081-091-2.

THE PROTEIN PROTOCOLS
HANDBOOK
Ed. JM Walker.
xviii + 809pp, 1996. Humana Press.
ISBN 0-896-0338-4 (hardcover) and
0-896-0339-2 (comb-bound).

CALENDAR OF RELEVANT MEETINGS

Information has been collected about the following meetings which are directly relevant to the interests of members. **Meetings which are under the auspices of the Society have their titles printed in green.** Organisers are asked to send corrections and updates to the Editor. It would be helpful if similar information on all relevant meetings could be sent in as a matter of routine, at the earliest possible moment.

2nd WINTER CONFERENCE ON
MEDICINAL AND BIOORGANIC
CHEMISTRY
26-31 January 1997, Steamboat
Springs, Colorado.
*Rose Barbre, Parke-Davis
Pharmaceutical Research, 2800
Plymouth Road, Ann Arbor, MI 48105,
USA [Fax: +1 313 996 5165].*

BIOMOLECULAR DESIGN, FORM
AND FUNCTION
1-5 February 1997, Fort Lauderdale,
Florida.
*The 1997 Miami Nature Biotechnology
Winter Symposium, PO Box 016129
(M823), Miami, FL 33101-6129. USA
[Fax: +1 305 324 5665; e-mail:
mbws@mednet.med.miami.edu]*

EXPLOITING MOLECULAR
DIVERSITY: SOLID-PHASE
SYNTHESIS
3-5 & 6-7 February 1997, Colorado,
California.
*Cambridge Healthtech Institute, 1037
Chestnut Street, Newton Upper Falls,
MA 02164, USA.*

2nd JOINT MEETING OF THE ENC AND WNC: NEUROPEPTIDES IN SENSORY AND BRAIN SYSTEMS
8-11 February 1997, Kitzbühel, Austria.
Professor Dr A Saria, Neurochemical Unit, Department of Psychiatry, University Hospital Innsbruck, Anichstr. 35, A-6020 Innsbruck, Austria [Fax: +43 512 504 3716].

STRUCTURE-FUNCTION ANALYSIS OF HAEMOPOIETIC REGULATORS
February 1997, Helsinki. A 15-day practical training course.
RP Revoltella [Fax: +39 50 576661].

4th FORUM: PEPTIDES & PROTEINS
9-14 March 1997, Montpellier, France.
Under the auspices of the Groupe Français des Peptides et Protéines.
Professor Jean Martinez, CNRS-URA 1845, Faculté de Pharmacie, 15 Avenue Charles Flahault, 34060 Montpellier, France.

16th JOINT MEETING OF BRITISH ENDOCRINE SOCIETIES
7-10 April 1997, Harrogate, UK.
Julie Cragg, Society for Endocrinology, 17/18 The Courtyard, Woodlands, Almondsbury, Bristol, BS12 4NQ [Tel +44 1454 619036, Fax +44 1454 616071].

2nd EUROPEAN SYMPOSIUM OF THE PROTEIN SOCIETY
Tentatively 12-16 April 1997, Cambridge, UK.
Robin Roth, Protein Society Symposium Management Office, 9650 Rockville Pike, Bethesda, Maryland 20814-3998, USA.

GALANIN: BASIC RESEARCH DISCOVERIES AND THERAPEUTIC IMPLICATIONS
17-19 April 1997, New York City. A New York Academy of Sciences Conference.
Science and Technology Meetings, New York Academy of Sciences, 2 East 63rd Street, New York, NY 10021, USA [Fax +212 838 5640].

2nd SYMPOSIUM ON THE DESIGN, SYNTHESIS AND STRUCTURE OF PEPTIDOMIMETICS
27 April-1 May 1997, Spa, Belgium. The number of participants will be limited to 150.
Professor G Van Binst, Symposium Bruges 97, Bruyère Abbée 17, B-1390 Grez-Doiceau, Belgium [Fax +32 10 844050].

79th ANNUAL MEETING OF THE ENDOCRINE SOCIETY
11-14 June 1997, Minneapolis, Minnesota.
Cathy Huck, Director of Meetings, The Endocrine Society, 4350 East West Highway, Suite 500, Bethesda, MD 20814-4410, USA [Fax +1 301 9410259].

15th AMERICAN PEPTIDE SYMPOSIUM
15-20 June 1997, Nashville, Tennessee.
Professor James P Tam, Dept. of Microbiology & Immunology, School of Medicine, Vanderbilt University, Nashville, Tennessee 37232, USA [Fax +1 615 343 1467].

6th INTERNATIONAL CONFERENCE: PERSPECTIVES ON PROTEIN ENGINEERING
28 June-2 July 1997, Norwich, UK.
POPE6 Secretariat, BIODIGM, 64 Langdale Grove, Bingham, Notts, NG13 8SS, UK [Fax +44 1949 831886].

11th ANNUAL SYMPOSIUM OF THE PROTEIN SOCIETY
12-16 July 1997, Boston, Massachusetts.
Robin Roth, Protein Society Symposium Management Office, 9650 Rockville Pike, Bethesda, Maryland 20814-3998, USA.

ADVANCED METHODS FOR PROTEIN ANALYSIS
A FEBS Advanced Course: practicals and lectures.
14-18 July 1997, Hatfield, UK.
Professor JM Walker, Division of Biosciences, University of Hertfordshire, Hatfield, Herts, AL10 9AB, UK.

1997 WORLD CONGRESS OF NEUROHYPOPHYSIAL HORMONES
8-12 August 1997, Montreal, Quebec, Canada.
WCNH Secretariat, Conference Office, McGill University, 550 Sherbrooke Street West, West Tower, Suite 490, Montreal, Quebec, Canada H3A 1B9

5th INTERNATIONAL CONGRESS ON AMINO ACIDS
25-29 August 1997, Chalkidiki, Greece.
Dr M Liakopoulou-Kyriakides, Aristotle University of Thessaloniki, Department of Chemical Engineering, 540 06 Thessaloniki, Greece.

5th INTERNATIONAL SYMPOSIUM ON SOLID PHASE SYNTHESIS AND COMBINATORIAL LIBRARIES
2-6 September 1997, Imperial College, London.
Professor Roger Epton, c/o 5th SPS Secretariat, PO Box 13, Kingswinford, West Midlands, DY6 0HQ, UK [Fax +44 1384 294463].

2nd INTERNATIONAL CONFERENCE ON INSECTS: CHEMICAL, PHYSIOLOGICAL AND ENVIRONMENTAL ASPECTS
14-18 September 1997, Ladek-Zdrój, Poland.
Over half of the programme will be devoted to insect neuropeptides and insectotoxic peptides.
Professor Danuta Konopińska, Faculty of Chemistry, University of Wrocław, ul.F.Joliot-Curie 14, 50-383 Wrocław, Poland [Fax +48 71 222348].

INTERNATIONAL SYMPOSIUM ON ANGIOTENSIN II
28 September-1 October 1997, London.
Secretariat, Hampton Medical Conferences Ltd, Hofer House, 185 Uxbridge Road, Hampton, Middlesex, TW12 1BN, UK [Fax +44 181 7830292].

188th MEETING OF THE SOCIETY FOR ENDOCRINOLOGY WITH THE ENDOCRINE SECTION OF THE ROYAL SOCIETY OF MEDICINE
Tentatively November 1997, London.
Julie Cragg, Society for Endocrinology, 17/18 The Courtyard, Woodlands, Almondsbury, Bristol, BS12 4NQ [Tel +44 1454 619036, Fax +44 1454 616071].

1st INTERNATIONAL PEPTIDE SYMPOSIUM
30 November-5 December 1997, Kyoto, Japan.
Language: English.
Professor Y Shimonishi, Institute for Protein Research, Osaka University, 3-2, Yamadaoka, Suita, Osaka 565, Japan [Fax +81 6 8798603; e-mail simonishi@protein.osaka-u.ac.jp].

12th INTERNATIONAL SYMPOSIUM ON REGULATORY PEPTIDES
Tentatively 1998, Michigan, USA.

MOLECULAR ASPECTS OF CYTOKINE-RECEPTOR INTERACTION AND SIGNAL TRANSDUCTION
February 1998, Paris. A 15-day practical training course.
RP Revoltella [Fax +39 50 576661].

LORNE CONFERENCE ON PROTEIN STRUCTURE AND FUNCTION
A "co-joint" meeting with the Protein Society.
8-13 February 1998, Lorne, Australia.
Dr RJ Simpson, Ludwig Institute for Cancer Research, PO Royal Melbourne Hospital, Victoria 3050, Australia [Fax +61 3 9340 1928].

17th JOINT MEETING OF BRITISH ENDOCRINE SOCIETIES
23-29 March 1998, Edinburgh, UK.
Julie Cragg, Society for Endocrinology, 17/18 The Courtyard, Woodlands, Almondsbury, Bristol, BS12 4NQ [Tel +44 1454 619036, Fax +44 1454 616071].

80th ANNUAL MEETING OF THE ENDOCRINE SOCIETY
24-27 June 1998, New Orleans.
Cathy Huck, Director of Meetings, The Endocrine Society, 4350 East West Highway, Suite 500, Bethesda, MD 20814-4410, USA [Fax +1 301 9410259].

CHINESE PEPTIDE SYMPOSIUM
Probably July 1998, Lanzhou.
Details will be published in due course.

12th ANNUAL SYMPOSIUM OF THE PROTEIN SOCIETY
25-29 July 1998, San Diego, California.
Robin Roth, Protein Society Symposium Management Office, 9650 Rockville Pike, Bethesda, Maryland 20814-3998, USA.

25th EUROPEAN PEPTIDE SYMPOSIUM
30 August-4 September 1998, Budapest.
The Chairman will be Dr Sándor Bajusz, but requests for information etc., should be addressed to: *Professor Dr Ferenc Hudecz, Res. Group of Peptide Chemistry, Eötvös Lóránd University, PO Box 32, Budapest 112, H-1518 Hungary. [Tel +36 1 209 0555; Fax +36 1 209 0602; e-mail fhudecz@ludens.elte.hu].*

15th INTERNATIONAL SYMPOSIUM ON MEDICINAL CHEMISTRY
6-10 September 1998, Edinburgh.
Dr John F Gibson, XVth International Symposium on Medicinal Chemistry, The Royal Society of Chemistry, Burlington House, London W1V 0BN, UK.

3rd AUSTRALIAN PEPTIDE CONFERENCE
Probably October 1998, Orpheus Island, Queensland.
Details will be published in due course.

GRS '98
3-7 September 1998, San Francisco.
Information from the *Secretary of the Growth Hormone Research Society: Dr Jens Sandhal Christiansen, Medical Department M, Aarhus Kommunehospital, DK-8000, Aarhus C, Denmark.*

16th AMERICAN PEPTIDE SYMPOSIUM
Mid-1999, Minneapolis, Minnesota.
Professors G Barany and G Fields will be co-chairs.
Details will be published in due course.

18th JOINT MEETING OF BRITISH ENDOCRINE SOCIETIES
12-15 April 1999, Bournemouth, UK.
Julie Cragg, Society for Endocrinology, 17/18 The Courtyard, Woodlands, Almondsbury, Bristol, BS12 4NQ [Tel +44 1454 619036; Fax +44 1454 616071].

13th ANNUAL SYMPOSIUM OF THE PROTEIN SOCIETY
24-28 July, 1999, Boston, Massachusetts.
Robin Roth, Protein Society Symposium Management Office, 9650 Rockville Pike, Bethesda, Maryland 20814-3998, USA.

19th JOINT MEETING OF BRITISH ENDOCRINE SOCIETIES
26-29 March 2000, Warwick, UK.
Julie Cragg, Society for Endocrinology, 17/18 The Courtyard, Woodlands, Almondsbury, Bristol, BS12 4NQ [Tel +44 1454 619036; Fax +44 1454 616071].

GRS '2000
7-9 September 2000, Gothenburg, Sweden.
Information from the *Secretary of the Growth Hormone Research Society: Dr Jens Sandhal Christiansen, Medical Department M, Aarhus Kommunehospital, DK-8000, Aarhus C, Denmark.*

ICE 2000
11th International Congress of Endocrinology.
30 October-3 November 2000, Sydney.
Professor John Eisman, The Garvan Institute of Medical Research, St Vincent's Hospital, 384 Victoria Street, Darlinghurst Sydney, NSW 2010, Australia.

17th AMERICAN PEPTIDE SYMPOSIUM
2001, San Diego, California.
Details will be published in due course.

Compiled by the Editor

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