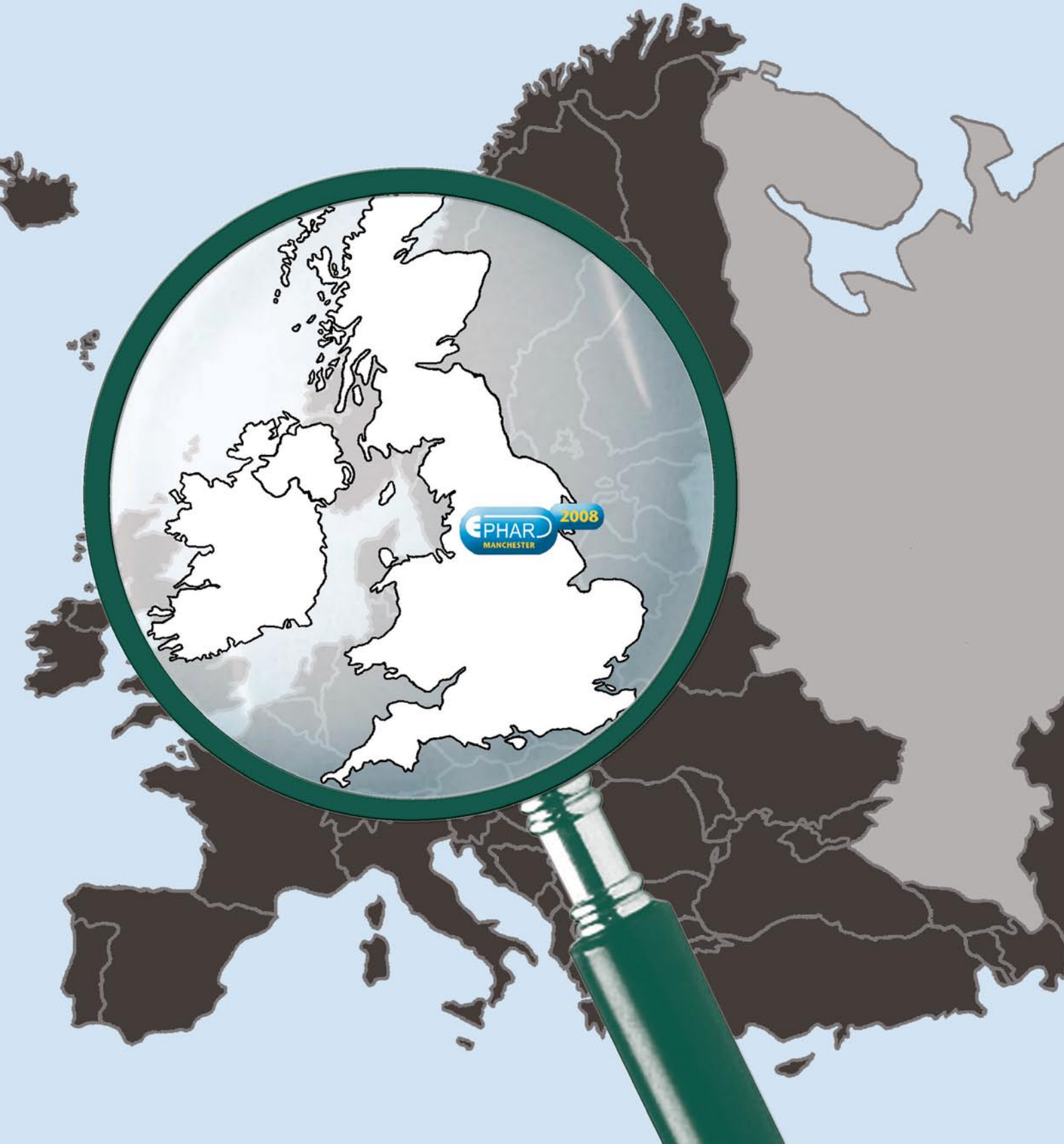
ISSN No: 1757-8175

PHARMACOLOGY MATTERS

The Newsletter of the British Pharmacological Society

Volume 1 Issue1



PHARMACOLOGY MATTERS

We welcome contributions from our readers, all suggestions should be e-mailed to the Managing Editor: hom@bps.ac.uk

Front Cover Image: Angela Gonzalez

British Pharmacological Society is a company limited by guarantee, registered in England with No. 2877400, Registered Charity no. 1030623.

Contents:

Welcome to the following, who have been elected to the Society since the publication of the last issue

Members

Kathryn Bagot
Deborah Baines
Malcolm Begg
Andrew Chaytor
Danijela Markovic
Simon McArthur
Andrew Medhurst
Nimesh Patel
Devi Rani Sagar
Amarnath Talasila
Lan Zhao

Associate Members

Ahmad Kamal
Amazigom Okafor

The winner of the April Crossword was Professor T Stone.

Congratulations to Professor V. Craig Jordan, OBE, PhD, DSc at Fox Chase Cancer Center who has received an Honorary Fellowship of the Royal Society of Medicine and has been elected to Honorary Membership of the Royal Pharmaceutical Society of Great Britain. Professor Jordan is also the 38th recipient of the highest award from the American Society of Clinical Oncology, the David A. Karnofsky Award. This clinical award recognizes Dr. Jordan's contributions to science with the drugs tamoxifen and raloxifene.

Diploma in Advanced Pharmacology

Request to all members (especially clinical members) for dissertation tutors for the BPS Diploma in Advanced Pharmacology. Please contact Karen Schlaegel (ks@bps.ac.uk) if you would be able to supervise (by e-mail) a dissertation (6000-7000 words).

Welcome to the first Pharmacology Matters!

The BPS will be hosting the EPHAR 2008 Congress in Manchester next month, to honour this auspicious event the first issue of Pharmacology Matters has a distinctly European 'flavour.' This issue includes amongst others an interview with a Spanish BPS Diploma student and an article detailing how pharmacologists are 'created' in several countries across the continent. We hope you enjoy the new look newsletter and welcome your comments, which could find their way into 'Letters to the Editor', see page 21!

BPS Membership open to EPHAR delegates

Join over 2000 British Pharmacological Society (BPS) members worldwide and receive a host of benefits including free online access to all BPS publications, free BPS meeting registration, access to education courses and funding opportunities. For further information head over to the BPS stand in the exhibition hall at EPHAR or email info@bps.ac.uk

BPS Deadlines

EPHAR 2008, 13-17 July
Manchester, UK
Online registration closes: 7 July 2008

Serotonin Club EPHAR 2008, 17-20 July
Keble college Oxford, UK
Satellite Meeting
Online registration closes: 7 July 2008

6th James Black, 16-17 August
New Pain Concepts and Future Treatments
Online registration closes: 18 July 2008

BPS Focused Meeting, 1-2 October
Lysophospholipid receptors, role in health and disease.
Abstract deadline: 7 August 2008
Online registration closes: 10 September 2008

All Meeting details can be found on the BPS website: www.bps.ac.uk

EPHAR 2008 Message from the President

Arthur Weston was elected President of EPHAR in July 2006. He holds the Leech Chair of Pharmacology (named after Manchester's first Professor of Pharmacology, Daniel Leech) in the University of Manchester and for the 8 years from 2000 - 2007 he was a Trustee of the British Pharmacological Society and the Society's Honorary Treasurer. A fluent German speaker, Arthur is a former holder of Alexander von Humboldt Fellowships in the Universities of Marburg and Heidelberg. He is well-known for his work on the pharmacology of K^+ channels and their role in endothelial-myocyte signalling in blood vessels. In 2001, Arthur was elected a Fellow of the UK's Academy of Medical Sciences and a Fellow of the British Pharmacological Society in 2004. He is currently one of the Senior Editors of the British Journal of Pharmacology.

EPHAR, or to give it its full title, The Federation of European Pharmacological Societies, was established some two decades ago to advance research and education in Pharmacology and to promote co-operation between national and regional Pharmacological Societies in Europe and surrounding countries. Since its inception, the biggest change in its membership has been the inclusion of the emerging pharmacological societies from Eastern Europe and it is a particular pleasure that so many members of these societies will be present at EPHAR's quadrennial meeting in Manchester between 13 -17 July, 2008. For the first time, this will be held in parallel with the Summer meeting of the British Pharmacological Society (BPS) whose members, together with those of the German Pharmacological Society, constitute the largest membership groups within EPHAR.

One of EPHAR's basic objectives is the arranging and sponsoring of instructional courses and training programmes and it is a particular pleasure that EPHAR 2008 in Manchester will be followed by a 2-day Cardiovascular Workshop at which special bursaries were made available through the generosity of the BPS for attendees from Eastern Europe. The Workshop, with hands-on experimental sessions, was organised by my Manchester colleague, Professor Alison Gurney; it has been over-subscribed and promises to be a great success.

Still wearing its training-programme hat, EPHAR is also sponsoring an International Summer School of Neuroscience between July 19 - 25 in Italy. Organised by the Department of Experimental and Clinical Pharmacology, University of Catania in Sicily, five EPHAR Fellowships of €1,000 each will be available to help young pharmacologists from all over Europe to attend.

EPHAR has no Secretariat and its 'Headquarters' is a virtual entity that travels around Europe with its current President. As the present holder of that office, I have found this to be a limiting factor and I am currently exploring ways in which EPHAR could obtain professional assistance with its day-to-day administration. As European countries come ever closer together, it is vital that a strong and unified pharmacological voice is heard within the corridors of Brussels. It is my view that professional back-up is the only way that this will be successfully effected.

Such things are for the near future; my immediate pre-occupation is with EPHAR 2008. Manchester University's new Conference centre is now ready (the paint is still wet!) and it is with great pleasure that I acknowledge the role and financial support of the BPS in organising this meeting. On behalf of EPHAR, I formally thank my colleagues on the EPHAR Executive Committee for their support and especially Professor Mandy Maclean (Meetings Vice-President of the BPS) and all the BPS's professional staff without whose help EPHAR 2008 would not be taking place.

For further information, go to www.ephar2008.org

Arthur Weston
EPHAR President

View from Angel Gate

Welcome to the first themed issue of *Pharmacology Matters* – I hope that you will like the new format and extended content and would welcome your comments on future editions. A huge vote of thanks is due to the Editorial Board and staff for their work on this new publication, particularly Hazel O'Mullan for her sustained cheerfulness and persistence in tracking down suitable copy and Angela Gonzalez for her creative graphic design ideas.

The staff at Angel Gate have been busily preparing for the forthcoming EPHAR meeting in Manchester in July. In addition to this landmark event, BPS has provided support to the EACPT meeting in Edinburgh next year, and sponsorship of three major symposia at the WorldPharma Congress in Copenhagen 2010. Combining this with an excellent programme of national scientific meetings in the next two years has presented BPS with some excellent opportunities to showcase British pharmacology to an international audience over an extended time.

As part of the ongoing strategy to raise the profile of BPS internationally, readers of the Society's electronic bulletin will be aware that for the first time the BPS had a joint stand with BJP and BJCP at the Experimental Biology meeting in San Diego in April to promote BPS and its products and services to a wider audience. The meeting coincided with ASPET's centenary and this enabled the BPS to make a formal presentation to congratulate ASPET during their General Meeting and Awards ceremony. Following the success of this exhibition we also have a similar stand at the CPT 2008 meeting in Quebec City in July, staffed by Kevin Kearns.

Closer to home there has been a whole series of initiatives designed to promote the clinical pharmacology section. A very successful meeting was held jointly with the Royal College of Physicians on Rational Prescribing in May and it is hoped that this will be the first of a series of similar meetings on related topics.

For the first time, BPS is sponsoring a session at the Cheltenham Science Festival on the 4 June entitled *NHS Funding: NICE or nasty*. It is hoped that this will help to raise public awareness of the Society and problems surrounding the issue of NHS funding more generally.

The BPS Diploma in Advanced Pharmacology continues to grow from strength to strength and considerable interest was displayed by delegates at the RCP/BPS meeting mentioned above in some of the forthcoming Diploma workshops, including those on *Pharmacokinetics*, *Early Phase Trials of New Drugs* and *Hypertension*.

We continue to work closely with other sister societies and are delighted to confirm that Dr Judith Hall will be the representative of the BPS and Physiological Society (Joint sponsors) on the Biosciences Federation steering group to develop a website in conjunction with the Nuffield Curriculum Council, supporting the teaching of practical biology in schools and ensuring that Biomedical sciences remain high on the agenda.

In March Council continued its tradition of holding a pre meeting dinner with representatives of another society with whom BPS would like to develop closer links. The March meeting provided an invaluable forum for discussions with Dr Bill Dawson and Dr Jane Lawrence of the Royal Pharmaceutical Society of Great Britain which we hope to extend to a more formal collaboration.

A key objective for the BPS this year is renegotiating the contracts for our two journals and addressing the challenges presented by open-access publishing. We have been fortunate to secure the services of a very able consultant, Dr Mark Ware to assist with the process and we hope to be in a position to announce an outcome to the negotiations later in the year. Anna Muir, the BJP Journal Manager has also been working closely with the Biosciences Federation in developing a cross-society response to the problems of open access. The BSF Journals Committee have been working with Sally Morris of Morris Associates and they expect to publish the results of the 3 surveys relating to open access in the next month.

There have been some staff changes within Angel Gate. We said farewell to Marie Lusty and Yessra Nawaz and welcomed Karen Schlaegel as Executive Assistant to the office in March. Her support has quickly proved invaluable and I am very grateful to her and other members of the Angel Gate team, particularly Kevin Kearns for their sterling service in what have been times of considerable change. Finally, another key area on which I have been concentrating my energies is to make BPS more

externally focused, including the redevelopment of the website and greater use of electronic communication tools.

I hope that members will have found the new-look email alerts of use and will also have enjoyed the podcasts from recent meetings, which are now available, thanks to Professor Donald Singer's efforts on the BPS website in audio, word, and slide formats.

An ad hoc working party of the Executive committee has been formed to look at how the BPS website will develop in the future and I would welcome thoughts from any members on the type of enhanced web-based services they would like to see BPS provide.

Kate Baillie
Chief Executive

Younger Members News

EPHAR-Manchester July 2008

We are all looking forward to an exciting programme of events at EPHAR in July and hope this meeting will provide our younger members with an opportunity to meet pharmacologists from all around Europe. To encourage the networking of all our young European Pharmacologists we have organised a more informal event on Monday 14th July. This will be a relatively relaxed event consisting of a short talk from Professor Corder on the 'Pharmacology of Wine', followed by a wine tasting quiz enabling everyone the chance to participate in some tasting activities. We hope a team type event will provoke some interesting discussions and can't wait to hear who really knows what's what in the wine world! Tickets are £5 for younger members and can be purchased from the BPS office prior to the meeting. The ticket price will also include a buffet style dinner and disco, so please remember your dancing shoes! This event will be held at Pure Nightclub at 20.30 and directions will be provided upon registration. For further information please see pg 23.

Forward Thinking and Our New Ideas

After a successful meeting in April we have been continuing to think about new ways to increase the membership of our younger members and particularly strategies to attract and involve undergraduates at our various BPS meetings. Of course this involves providing students with opportunities to participate as well as providing them with resources that will help them to maintain a continued enthusiasm towards Pharmacology. One idea that may be possible is to sponsor Pharmacology related talks at various University Pharmacological Societies throughout the country. Through our attendance at such events it would enable us to be in contact with undergraduate students hopefully encouraging enthusiastic individuals to become involved with the society as well as giving them an opportunity to hear talks from well renowned scientists on interesting and relevant subjects.

Winter BPS-Brighton 2008

Due to the success of our previous symposiums we have also been discussing the feasibility of organizing a small symposium at the winter meeting. We hope that this would provide an opportunity for young pharmacologists, including undergraduates (having completed a year in industry or a specific laboratory project within their university) and PhD students, to present their work to other younger members. From previous experience we feel this would provide these individuals with the chance to participate and discuss their work in a meeting environment and thereby become actively involved in the BPS meetings. We were also discussing the idea of having a separate section of the poster session dedicated to undergraduates and early PhD students. This would aim to encourage their participation, providing a more relaxed environment to discuss their research. We hope to finalize our ideas for the winter BPS in the next couple of months.

In the meantime we look forward to welcoming new members and look forward to seeing you at EPHAR.

Stephanie Francis
Younger Members Editor

Pharmacology Education and Training in Europe

On the occasion of EPHAR holding its conference in the UK, it was felt useful to compare the approaches to education and training in pharmacology in Europe. Pharmacology teachers, representing a range of Continental European countries and the UK, were asked to describe the general approaches in their countries.

United Kingdom

Pharmacology training retains a high profile within many of the leading universities in the UK. Several institutions continue to offer undergraduate BSc or MPharmacol programmes that take the majority of their students straight from school at age 18. The early years of these programmes cover a range of the basic biomedical sciences (physiology, biochemistry, cell biology etc), but increasingly focus on pharmacology in later years. Students may complete a BSc in pharmacology in 3 years, or may extend this to 4 years by undertaking an 'extra-mural' year of research in the pharmaceutical industry or a research institute (this year is generally compulsory in the MPharmacol). The extra-mural year is normally taken between the second and final year of the degree programme.

Increasingly, universities are offering more generalised BSc programmes such as 'Biomedical Science'. These are extremely popular with the students, especially those who have not yet decided on a specialization or those who are considering graduate entry into medicine. Since most of these programmes include modules in pharmacology, they provide an excellent opportunity to attract even more students into the discipline. In many cases, students bitten by the 'pharmacology bug' can easily transfer into a Pharmacology BSc, or can tailor their biomedical science programme to specialize in pharmacology.

Training opportunities also exist at Masters level. A number of MSc programmes may be considered as 'conversion' courses and are taken by students who have graduated in a related biomedical (or other) science but, having seen the light, now wish to become qualified in pharmacology. Other MSc programmes are more focused, and allow pharmacology graduates to concentrate on, and improve their skills in, specific areas such as drug discovery and clinical pharmacology. At postgraduate level, of course, there are many opportunities for BSc or MSc graduates to undertake research training on a PhD programme. An alternative training programme, particularly popular amongst young pharmacologists working in industry is the BPS Diploma in Advanced Pharmacology (see www.bps.ac.uk).

A major concern surrounding the teaching of pharmacology in the UK has been the perceived demise of '*in vivo*' training – otherwise known as 'integrative pharmacology'. Over recent years, this concern has been addressed by a number of initiatives. At undergraduate level, the British Pharmacological Society (BPS) provides resources to universities to mount modules in this area, and in conjunction with the Physiological Society funds three summer courses in integrative pharmacology that are available for students throughout the UK. In addition, four centres nationwide have been established to promote training and research in integrative biomedicine (including pharmacology). These centres are supported by collaboration among the national research councils, university funding bodies, learned societies (including the BPS), and the pharmaceutical industry. Such concerted effort provides a clear indication of the widespread desire to maintain a strong training pipeline in the biomedical sciences, and allows a general degree of optimism that pharmacology training will remain prominent in the UK for the foreseeable future.

Germany

In Germany, pharmacology is a compulsory major in the studies of medicine, veterinary medicine and pharmacy. In some universities, pharmacology is additionally offered as an elective minor subject for students in natural sciences, for example biologists, biochemists or chemists. Students of all these disciplines have lessons in General and Systematic Pharmacology and Toxicology. Medical students have additional training in pharmacotherapy / clinical pharmacology. Several aspects of Clinical Pharmacology are also taught to pharmaceutical students who major in clinical pharmacology. After graduation, specialization is offered to physicians in pharmacology and toxicology or clinical pharmacology by the medical association. Veterinarians can also specialise in pharmacology and toxicology. These programmes all contain a five year training period in certified institutions and a final oral examination by the board. For graduates of other disciplines, the German Society of Experimental and Clinical Pharmacology and Toxicology offers similar specialization programmes in pharmacology or toxicology. In Germany, universities can award postdoctoral graduates with an additional degree, the postdoctoral lecturer qualification, which is called "Habilitation". For

physicians and veterinarians the medical specialization is mandatory for the application for this degree. If the successful candidate can provide additional proof of her/his experience in teaching, she/he is granted the right to teach a certain subject, e.g. pharmacology and toxicology. In general, the postdoctoral lecturer qualification is a prerequisite of the application for a professorship, but the faculties are entitled to recognise equivalent professional experience as well.

Hungary
In Hungary there is no special training to "produce pharmacologists", modern pharmacology is inherently interdisciplinary. It builds on the strengths of physiology, biochemistry, immunology, cell biology and molecular biology to explore and understand drug actions and forges relationships into clinical medicine. As quite different demands are placed on the pharmacologists raised by academic research laboratories, pharma/biotech companies, and healthcare, a person with specialist knowledge of pharmacology may come from different areas of education, such as medicine, pharmacy, biology, or chemistry training in Hungary. For example, in Medical Faculties of Hungarian universities, basic and clinical pharmacology is taught in the 6th-8th semesters mostly by professors with a medical background. In the Pharmacy Faculties, different subjects related to pharmacology are taught throughout the entire course of education. BSc and MSc students enrolled in other education programs, e.g. Biology, Biochemistry, Bio-engineering, Chemistry, Biophysics, etc., may join academic research groups working in any field of pharmacology in the scope of the nationwide programme called the "students scientific circle".

After receiving a qualification such as MD, or MSc in pharmacy, biology, chemistry, etc, pharmacology education can be continued in PhD programs led by academic research groups specializing in pharmacology research at the age of about 23. Furthermore, MD's can specialize in clinical pharmacology, however, first a "classical" medical specialization (e.g. internal medicine, pediatrics, surgery, etc) is necessary to enter the clinical pharmacology specialization programs organized by the Departments of Pharmacology and Pharmacotherapy at the Medical Faculties of the different Hungarian Universities. Therefore, a specialization in Clinical Pharmacology can be completed, at the earliest by MDs who are,in their early thirties. Finally pharmacologists can also receive a practical education within pharma/biotech companies

The above description emphasizes that entirely different educational approaches may lead to the creation of pharmacologists" in the 21st century.

Greece
Pharmacology is taught at university level in Schools of Medicine, Dentistry, Pharmacy, Veterinary Medicine and Nursing as part of the respective curricula. There is no undergraduate academic program leading to a College degree in Pharmacology (BSc degrees in other basic science disciplines such as biochemistry & biotechnology, molecular biology & genetics are available). Students interested in pursuing training in Pharmacology have to enrol in a master's or a doctoral programme. These programs have a 2 and 4 year minimum duration, respectively and accept applicants with a degree in chemistry, pharmacy, biology, medicine, or related disciplines. Graduate students typically take 1 or 2 years of classes and usually towards the end of their first year, begin working on a research project. Most university graduate programs require at least one publication for the completion of a PhD. Once the MSc or the PhD curriculum requirements have been met, the student defends his/her work and is awarded a degree. In most cases, a PhD or a MSc candidate doing his/her thesis in a pharmacology lab will receive a degree in pharmacy or medicine (depending on whether the lab belongs to the School of Pharmacy or Medicine), not a degree in pharmacology. Three years ago an effort to establish the first inter-university, inter-departmental MSc/PhD program in pharmacology was initiated, but it has not yet come to fruition. There are no official records, but my estimation is that about 5 PhD degrees are earned each year by candidates doing their dissertations in pharmacology labs.

Greece has a total of about 50 pharmacology faculty members. These are divided among the 10 laboratories that belong to 7 different universities that are active in pharmacological research and teaching in the country. Only two of the laboratories have more than 10 faculty members, with the average lab having 3-4 members. It is for this reason that they are called laboratories rather than departments.

Italy
In Italy, there are two main tracks to becoming a pharmacologist : 1) a three-year PhD programme in Pharmacology and 2) a five-year School of Specialization in Pharmacology (either pre-clinical or clinical). Thus, specific training in pharmacology starts quite late, as applicants should be post-graduates (university degrees in biology and pharmacy last 5 years, and in Medicine 6 years in Italy). Students, however, can start their training earlier, if they choose to prepare what is known as a "University Thesis". Preparing such an experimental thesis for obtaining a university degree requires approximately one year (though this may vary in different Universities) of experimental work in a Department of Pharmacology. Admission to the postgraduate university tracks for specializing in Pharmacology is based on a candidate's merit and results in selection exams. The university degrees that allow admission to both pharmacology racks are biological science, pharmacy, chemistry and pharmaceutical technology, biotechnology, and medicine and surgery. In Italy, only physicians are allowed to enter the School of Specialization in Clinical or Medical Pharmacology.

Austria
Traditionally, in Austria pharmacology has been the domain of medical doctors. For a long time, it has been sufficient to hold an assistant's position in a University Department of Pharmacology and sooner or later qualify for "Habilitation"; which proves one's ability to pursue autonomous research and teaching in order to obtain the title of "Dozent". About 25 years ago, the Austrian Medical Chamber introduced training specialities, "Facharzt", for the non-clinical subjects in analogy to the established ones in the clinical, patient-oriented fields.

Graz University
Dr. M Gossler

The present guidelines for specialization in "pharmacology and toxicology" were decreed by the Austrian Federal Ministry for Health and Women in 2006 (www.aphar.at/pdfs/aerzte-ausbildungsordnung-2006.pdf). An MD has to hold a position as a university assistant in a department officially recognized as a training site. Recognition requires at least one full professor, who him/herself is a Facharzt in pharmacology and toxicology, and, in addition, one Facharzt per trainee. The periods that have to be spent in various fields are as follows: 4 years pharmacology and toxicology, 6 months internal medicine, 1 year up to four specialties (at least 3 months each) chosen from a list published in the decree, and 6 months one or two optional subjects (at least 3 months each). The topics that have to be taught are listed in detail in a decree of the Austrian Medical Chamber (www.aerztekammer.at/service/KEF_RZ_VO/33_Anlage_PharmakologieundToxikologie.pdf) and their teaching has to be confirmed by official certification. The training is completed with an examination organized by the Austrian Medical Chamber together with the Austrian Pharmacological Society.

Of course, people with a science degree can still pursue a career in pharmacology. However, it is at the discretion of the head of department to grant them Habilitation in the whole field of pharmacology and toxicology or just in a subfield, such as neuropharmacology or biochemical pharmacology.

Since the decree of 2006, Clinical Pharmacology can only be chosen as an "additive subject" after specialization in internal medicine. This requires 18 months of training in a recognized training site in clinical pharmacology (at present only at the Medical University of Vienna) and 18 months in a department of pharmacology.
(The topics are detailed in
www.aerztekammer.at/service/KEF_RZ_VO/KEF_RZ_VO_Kundmachung.pdf)

Concluding remarks

All countries include pharmacology in professional courses such as medicine. Also, all countries have opportunities for specialized training in pharmacology. In the Continental European countries it is at PhD or other post-graduate level, while in the UK it is possible to start to specialize at the undergraduate level. There seems to be flexibility in all countries in that an interest in pharmacology can develop fairly late in someone's career and they can move into the subject. Initiatives such as the BPS Diploma in Advanced Pharmacology can make this move easier by providing a recognised, structured programme of pharmacology teaching (see www.bps.ac.uk) for those who wish to expand and refresh their pharmacological knowledge. People with a pharmacological education can go into a wide variety of careers, including the pharmaceutical industry, academia and the professions. The data from the UK is that first employment of first degree graduates and post-graduates is very diverse (www.bps.ac.uk/site/cms/contentCategoryView.asp?category=243). It would be interesting to know the pattern of employment of pharmacological specialists in Continental Europe.

BPS thanks the following contributors for their descriptions of Pharmacology Education and Training in their respective countries and to Michael Hollingsworth, University of Manchester, UK for providing an overview.

United Kingdom: Alan Gibson, King's College London, UK
Germany: Thomas Wieland, University of Heidelberg, Germany
Italy: Alessandro Mugelli and Renato Corradetti, University of Florence, Italy
Greece: Andreas Papapetropoulos, University of Patras, Greece
Austria: Ulrike Holzer-Petshe, Medical University of Graz, Austria
Hungary: Klara Gyires and Susanna Fürst, Semmelweis University, Budapest, Hungary; and Péter Ferdinandy, University of Szeged, and CEO, Pharmahungary Group, Szeged, Hungary

Jude Hall
BPS Education and Training Manager

BSF update on Revision of EU Directive 86/609

The European Commission is currently reviewing Directive 86/609/EEC, which sets out the laws, regulations and administrative provisions for the protection of animals used for experimental and other scientific purposes across Europe. The revision is expected to focus strongly on improvements in animal welfare and the promotion of alternative techniques. It will aim to specifically address conditions for animal use in new research methods post-dating the original Directive (eg transgenic animals, xenotransplantation and cloning research), and to limit experiments on non-human primates.

The Biosciences Federation, primarily through its Animal Sciences Group and its International Liaison Committee, is heavily involved in the revision of this Directive as it may have significant implications for research practices in both the public and private sectors in the UK. It is likely that bans on currently permitted uses of animals will be seriously considered, as well as restrictions on the re-use of animals, which could significantly increase the numbers of experimental animals used and hinder progress in biomedical research. In addition, substantial changes in the detail and overall burden of regulatory requirements, such as the implementation of compulsory cost-benefit analyses of experiments could result in animal research moving outside the EU where less stringent regulations are in place. The adverse impact on both animal welfare and the competitiveness of the European bioscience sector would be severe.

For further information on BSF activities and the progress of the revised directive contact C Wallace-bsf@physoc.org

Caroline Wallace
Policy Coordinator
Biosciences Federation

The EU-Innovative Medicines Initiative

The European Pharmaceutical Industry, and in particular its UK component, have been very successful at discovering and developing new drugs. However, there is an ever present danger that Pharmaceutical Companies will transfer these activities to the USA or to the Far East if the UK and Europe does not remain internationally competitive in its research and development capabilities. In fact, there is a recent example of this geographical shift as GSK are opening a new R&D facility in China to focus on R&D into neurodegenerative disorders such as Parkinson's disease, multiple sclerosis and Alzheimer's. In the USA, the FDA has acted to stimulate and facilitate the national effort to modernize the sciences that underpin the discovery and development of new drugs through its Critical Path Initiative (www.fda.gov/oc/initiatives/criticalpath/initiative.html). The Innovative Medicines Initiative (IMI) can be regarded as Europe's response to the US initiative and to the danger that the EU may lose its pharmaceutical and biopharmaceutical R&D capabilities.

The IMI is a pan-European public and private sector collaboration which will involve both large and small biopharmaceutical and healthcare companies, regulators, academia and patients. The aim is to support the faster discovery and development of better medicines and to enhance European competitiveness in this area. IMI funding will be concentrated on particular bottlenecks in the drug discovery and development process, such as the pre-clinical prediction of safety and efficacy.

The initiative is certainly well-funded with 1 billion euro from the Framework 7 programme and an equivalent "in kind" contribution from industry over a 5 year period. Up to 26 pharmaceutical and biopharmaceutical companies have expressed an interest in being involved and providing collaborative projects, facilities, reagents and support from their staff. Although the research projects in the IMI will involve academic and industrial collaboration, the research must be pre-competitive, to allow widespread dissemination and exploitation of the results. The initiative is just getting underway now, having been adopted by the European parliament at the end of 2007. Funds should be available for new projects from 2008-2013 with support for ongoing projects continuing until 2017.

There are five main disease areas that are the initial therapeutic focus for IMI projects. These are cancer, brain disorders, inflammatory disease, metabolic diseases and infectious diseases. Other disease areas may be added during the next 5 years, particularly recently emerging diseases. The research supported by the IMI will focus on projects which increase the chances of discovery and developing new drugs for these diseases, rather than basic research into their causes. Consequently, pre-clinical pharmacology and toxicology models that can accurately predict drug efficacy and safety in man will be high priorities. In a similar vein, the identification and validation of biomarkers that predict efficacy and safety in early clinical studies will also be a key objective as will the recruitment of patient groups for clinical trials and the assessment of benefit to risk ratio for new medicines.

To participate in IMI as an academic pharmacologist you will need to form a consortium with a minimum of 2 separate non-industrial organisations and a minimum of 2 industrial organisations. The consortium must be able to carry out all the proposed work itself (i.e. no-subcontracting out of parts of the project). Considering that many EU funding schemes require participation from more than one EU country, one wonders if this also applies to IMI. There is apparently no requirement to include more than one EU country in the consortia, but I cannot help suspecting that adopting a multi-country approach may be favoured by the funders. Groups eligible for direct IMI funding include academia, SMEs (small and medium sized enterprises), patient organisations and "not for profit" legal entities. European Pharmaceutical companies cannot get direct funding, but are expected to participate and make "in kind" contributions. The funding model is according to EU state aid rules: funding for 75% of research activities and 100% of management activities with indirect costs set at a max of 20% of direct.

The call process for applications for IMI grants is rather unusual and is strongly directed by industry. The first stage is that research topics that are approved by the IMI Governing Board (which includes participants from industry and national representatives from the commission) and this will trigger the formation of an industry research directors group of 5-10 companies who define the objectives of the project for the call. The call definition will include a title, a project description, key deliverables, the industry participants and their role, the duration of the project, what industry will contribute and what is required from the public consortium. Following publication of the call,

public consortia will be invited to submit expressions of interest which will comprise: the composition of the consortium, the science behind the project, knowledge management aspects, training and education aspects and a budget plan. This expression of interest (probably only 6-10 pages long) will then be peer reviewed and the successful applicants will be required to submit a full project proposal. The full project proposal will be written jointly by the public and the industrial members of the consortium. If you get through to the full proposal stage then the chances of funding are high, in the region of 90%. Although at the time of writing this article, the calls have not been released they are likely to include:

- Improving the predictive strength of pre-clinical safety tests
- Identifying translational safety biomarkers ("omics" that are predictive, quantitative and translate between animals and man for specific safety issues)
- Developing predictive animal models for the potential of biopharmaceuticals and monoclonals to be immunogenic in man
- The development of tests that predict the likelihood of non-genotoxic oncogenicity for a compound, so that lifetime animal studies can be superseded
- The development of in silico expert systems for predicting toxicity. This will involving sharing of toxicity databases between companies and academic groups
- Developing new approaches and standardized reporting procedures for the monitoring of benefit/risk ratio of new medicines
- Identification of biomarkers for pancreatic islet cell function and effects on micro and macro-vascular function
- The development of surrogate markers of vascular clinical endpoints (e.g. intra-vascular ultrasound)
- Pain research, including animal models of pain, translatable biomarkers, robust clinical models and identification of a homogeneous clinical group
- Psychiatric disorders research, including predictive animal models, biomarkers and dose selection technologies)
- Neurodegenerative Disorders research, including predictive animal models that mimic all components of Alzheimer's disease and biomarkers of clinical efficacy
- A focused call in 2008 to prepare a severe asthma patient cohort, calls in 2009 on animal models of severe asthma and clinical outcome measures
- A 2008 call on patient reported outcomes in COPD and a 2009 call on animal models of the disease
- The establishment of a European medicines research academy hub, which will co-ordinate centres of excellence in training
- A Safety sciences training programme at masters level involving a network of training centres
- An integrated medicines development training programme involving week to month long courses on the drug development process
- A pharmacovigilance training programme including both short courses, masters and PhDs

As I indicated above, these are likely call topics. By the time this article is published, you should be able to view the actual first calls for proposals on the IMI website. The deadline for expressions of interest in these calls is currently set for July 2008, which doesn't give much time for academic/public consortia to form and prepare the documents! This deadline may well get pushed back. The MRC have put aside £50K to support the formation of consortia, and interested academic groups would do well to utilise these funds to organise themselves and to plan their responses to the IMI calls. Full project proposals will be expected by Nov with signing of agreements in Dec 2008 for funding in 2009, however there may also be some slippage in these dates. If you miss the 2008 calls a second series are scheduled for Feb 2009.

General Information and calls: imi.europa.eu/index_en.html
National contact point and can provide advice on preparing applications (Clare Horton): www.fp7uk.co.uk/
Funds to support formation of consortia: Joe.mcnamara@headoffice.mrc.ac.uk

Mike Collis
Industrial Liaison Officer

This year's meetings kicked off in March with a focused meeting on 'High Throughput Pharmacology' at the University of Hertfordshire. I wasn't able to make the meeting but (thanks to Richard!) you can find a report on this meeting on pg 13.

At the time of writing, the staff at Angel Gate are gearing up big style for EPHAR 2008 (13-17 July). By the time you read this we hope you will have all registered for what promises to be a dynamic meeting with an excellent programme. If you haven't registered yet, don't delay, check out the EPHAR 2008 website: www.ephar2008.org, see what you'll be missing and reconsider!!

There will be four plenary lectures. On the Monday, Professor Pierluigi Nicotera will deliver the EPHAR 2008 lecture on 'Understanding Molecular Mechanisms and Cell Injury and Death: a Way to Improve Drug Safety and Design'. The Tuesday will see Professor Frans P. Nijkamp delivering the MSD lecture entitled 'New Therapeutic Targets for Asthma and COPD'. Sir Michael Berridge will give the EPHAR Presidents lecture on the Wednesday, 'Calcium Signalling in Health and Disease' and the AstraZeneca Lecture will be delivered on the Thursday by Professor Thomas Pogge, Yale University on 'Advanced Medicines: Must We Exclude the Global Poor?'

There will be 20 symposia of interest to all our 'Scientific Interest Groups'. So far we have 18 oral communication sessions and the poster sessions will cover 20 SIG topics over the four days. Late breaking 'hot topic' sessions will also be included into the programme. All for a registration fee of £175 (full) or £90 (student)!

The BPS is heavily sponsoring this meeting and you couldn't find better value for money for such a diverse and dynamic general meeting. For all you senior members out there, this is one you simply cannot afford your younger researchers to miss. There will be great opportunities for networking and they can also attend the 'Young Pharmacologists Wine Tasting Quiz', details on pg **23,** a further opportunity for them to network with each other outside of the meeting. This will include a talk from Roger Corder on the 'Pharmacology of Wine', wine tasting quiz, buffet and disco. The Congress Dinner is at Old Trafford, home of Manchester United Football Club on the Wednesday night.

We will also be holding the first of our workshops on the 18-19 July which will be on 'Methods in Cardiovascular Pharmacology'. For those of you who could benefit from some elevated serotonin levels after EPHAR, The Serotonin Club Satellite Meeting will be held in Oxford on the 17-18 July.

On 16-17 August we hold the 6th James Black Conference on 'New Pain Concepts and Future Treatments'. This is being organised by Prof. Praveen Anand (Imperial College, UK) & Dr Roger Whiting (Roxro Pharma, USA). For those of you who know Roger, needless to say we had to hold the meeting somewhere with ready access to a golf club! Where better than St Andrews – the home of golf!! The conference will be held at The Gateway, University of St. Andrews and Roger has bagged play at the new 'Castle Course' for all you golf enthusiasts!

Science is given priority of course (forgive the pun!) with cutting edge research on pain mechanisms in relation to novel analgesics being discussed. Since many promising results for preclinical candidates are not replicated in human studies, a major objective will be to discuss the source of these discrepancies, and identify strategies for successful translation to the clinic. The focus will be on new pain therapies in the clinical phase of development, and new classes. I have to admit to having a vested interest in this meeting. Just diagnosed with a bulging disc which is compressing my nerves and giving me a great deal of radial nerve pain, I am now fully aware of how poor the drugs are for the treatment of neuropathic pain. Yes, before it's said for me, I am now a real pain in the neck! Not only will I be taking notes at the conference but you'll find me offering myself up for clinical trials!

The next meeting on the agenda is on 1–2 October and is a focused meeting on phospholipid receptors and their role in health and disease. This will be held at Novartis Horsham Research Centre. It will cover 'molecular pharmacology of phospholipids', 'phospholipids and cellular activation', 'metabolism of phospholipids' and 'phospholipids in disease'. For those of you with interests in this growing field, this is one you can't afford to miss!

And so that will take us up to our Winter meeting in Brighton (December 15-18). We have a very exciting line up of symposia on: 'Pattern recognition receptors as therapeutic targets for disease',

'Regulators of gene expression as new therapeutic targets', 'Disposition, pharmacology and safety of biopharmaceuticals', 'Receptor structure/function studies and drug design', 'Obesity', 'Pharmacogenomics: from drug development to clinical application', 'Molecular pharmacology of Cys-loop receptors' , 'Mending a broken heart: promises and pitfalls of stem cell therapy' and 'Cytokines, depression and 5-HT'. We will also have a very active programme for young pharmacologists including a TiPs 'Young Pharmacologist of the Year' competition and a Tocris review lecture for young pharmacologists. We really do need your continued support and attendance at our general meetings if we are to maintain them in their current format. We have taken on board many of your reservations about Brighton as a venue and, although we are committed to this venue for the next two meetings, we will ensure that the membership is consulted further about the venue and timing of our future winter general meetings. Meantime, though, please support this years meeting which I can promise you will deliver a cutting edge gold standard programme. Add the dates of this years meeting to your diary now and we look forward to seeing you all there!

Finally don't forget to check out the podcasts we have recorded at our meetings, available to dowload from the BPS website. These include conversations with Prof Rod Flower, Dr Ben Goldacre, Dr Stephen Alexander, Dr Richard Eglen, Prof Humphrey Rang and Dr Martin Stoëter. Not to be missed!

Mandy MacLean
Vice-President Meetings

Details of all BPS meetings discussed can be found at www.bps.ac.uk

High throughput pharmacology-to be, or not to be?

This focused meeting High Throughput Pharmacology was held on March 17-18 , 2008 at the University of Hertfordshire, Hatfield. It was a follow up meeting to the first, highly successful, meeting on the subject and was specifically aimed at developing some of the issues highlighted at this first meeting. As in 2006, the meeting was organized by Steven Charlton (Novartis), Steve Hill (University of Nottingham) and myself. Although the numbers were somewhat lighter this year at 114 (which may have reflected tightening budgets within several drug discovery organizations), the audience interest was high at both the talks and the poster sessions. Vendors were also well represented and the meeting was sponsored at the Gold level by PerkinElmer Bio-discovery.

The first day covered the 'usual suspects' in drug discovery, in that excellent talks reviewed cellular assays for ion channels, GPCRs, and kinases. The ion channel session comprised three presentations by speakers from Wyeth (J. Dunlop), Novartis (M. Gosling) and GSK (T. Dale), who described lead discovery at this large, but important, target class by discussing a variety of cell-based screening methods employed. GPCR screening was also discussed in depth, not just from the point of view of reviewing the mode of action analysis via fundamental pharmacologic principles (C. Langmead, GSK), but also in terms of screening for allosteric modulators (A. Gilchrist, Caden). Virally encoded constitutively active GPCRs, and how to characterize them, was also reviewed in depth by R. Leurs (Vrije Universiteit, Amsterdam). Kinases were covered in great detail, both from the point of view of fundamental kinetic analysis (R.Leatherbarrow, Imperial College) but also from the aspect of detecting novel inhibitors acting at the ATP binding site (D. Fabbrio, Novartis).

The second day commenced with a talk by D. Gray (GSK) on the area of nuclear hormone receptors, as well as the use of high content screening using confocal imaging instrumentation to assess the mode of action of siRNAs by M. Stöter (Max Planck Institute). The latter half of the second day then moved away from discrete drug discovery target classes, but addressed the issues of using immortalized cells in HTS (G. Zaman, Organon), and contrasted these with the growing use of primary cells (S. Harding, Imperial College; E Johnson, Merck) and stem cells (J. Haynes, Monash University) in drug discovery, in general, and screening, in particular.

Collectively, the meeting illustrated well the evolving trends in the use of cell based assays for high throughput pharmacology. In particular, the utility of cellular assays to detect novel compounds was exemplified in many talks. However, the growing concern as to the ability of the cell phenotype to modulate compound pharmacology was highlighted. This facet, plus the emerging potential of stem cells as more physiological systems with which to undertake drug discovery, more than suggests that a third meeting in this series would find plenty of novel information to divulge. All that I need to do now is to persuade my co-organizers that third time's a charm!

Richard M. Eglen
PerkinElmer Bio-discovery

Profile: Diploma in Advanced Pharmacology Spanish Candidate

Ivan Rodriquez

Ivan studied for his Bachelor in Biochemistry at the University of Salamanca, Spain. In the same University he also studied for his PhD, (Summa Cum Lauda, *"Doctor Europeus Mention"*) in the Department of Biochemistry and Molecular Biology under the supervision of Dr. Raquel Rodriguez. His research was concerned the study of opioid and cannabinoid receptors in the zebrafish (*Danio rerio*) with the aim of using a new model (the zebrafish) to better understand the opioid and cannabinoid systems. He then worked in the Department of Pharmacology at the University of Bristol as a post-doc with Professor Graeme Henderson and Dr. Eamonn Kelly continuing his work on the opioid system and the molecular mechanisms of addiction. He is now back in Spain, currently working for a Spanish Biotechnological Company (ZF Biolabs) specializing in the use of the zebrafish as an animal model for biomedical and toxicological research.

How did you find out about the BPS Diploma in Advanced Pharmacology?

When I arrived at Bristol, as my background is based in molecular biology and biochemistry, and my role in the lab was to perform molecular pharmacology research, I was recommended by my supervisors to study the BPS Diploma to gain that lack of knowledge in advanced pharmacology.

What made you decide to apply for the Diploma?

I understood that this Diploma would be very beneficial for me to better understand my research, to improve my writing and communication skills and also would be very good in case I would decide to apply for a job in the pharmaceutical industry in the future.

Can you describe the Diploma programme to those who may not be aware of it?

The programme includes attending workshops, where you can gain deep pharmacological knowledge, from classical pharmacological concepts (dose-response curves, pharmacological receptor theory,…) to drug development and safety pharmacology, statistics, molecular biology,…Also you must write a dissertation about a topic chosen from a list given by the BPS Diploma Committee (with a specialized tutor) and finally present posters and talks at BPS meetings.

You have attended several workshops; can you describe a typical workshop?

The day before there is a dinner that, at least for me, is very useful and enjoyable to make contact with the rest of the students (that could have very different backgrounds), the organizers and BPS people. In a relaxed environment, you can talk, ask and make more easy the next working day. The following day, you have the workshop with lecturers, very useful interactive discussion sessions and computer assisted learning.

Do you think the hands-on approach adopted by the Diploma has advantages over other teaching methods such as distance learning?

I think that the best advantage of being together is the possibility of get in touch with other students, organizers and pharmaceutical industry workers, all of them coming from different backgrounds (industry, academia, …) and learn, talk, discuss and open your mind.

How is the Diploma assessed?

Candidates need to submit an e-mailed portfolio with evidence of completing nine components to the Diploma Committee including; workshop reflective reports for each workshop (minimum 3 core; up to 3 specialist) attended; published abstracts from each of the two (one oral; one poster) BPS communications; and the dissertation (6,000-7,000 words).

What do you feel is the best part of the Diploma?

All the knowledge and training you gain from getting in touch with very good and competitive scientists from different environments.

Who do you think would benefit the most from enrolling on the Diploma programme?

I think people like me; I mean somebody that come from other disciplines (molecular biology in my case). I have been introduced in the pharmacology field and have only had previous contact with the academic environment. Hence, I am learning and knowing many new concepts and experience from the pharmacology field and also from the Industry.

Where do you see yourself in 5 years time and what are your long-term career aims. Do you think the Diploma will help you achieve these aims?

All my life I have been working and studying in order to be a scientist. Because of this I decided to leave my country and go to England to be better prepared and gain knowledge about molecular neuroscience that is my main interest. All the knowledge that I am learning not only about pharmacology but also in presentation, communication and writing skills is invaluable in my career to achieve my aims.

To find out more about the DAP, please contact jmh@bps.ac.uk

Interview by Jude Hall
BPS Education and Training Manager

Learning To Apply Receptor Theory to Drug Discovery

On March 19th and following on from the BPS High Throughput Screening focused meeting at the University of Hertfordshire, Steven Charlton, Mark Dowling and Chris Langmead ran a very successful specialist workshop for the BPS Diploma in Advanced Pharmacology entitled *Applying Receptor Theory to Drug Discovery* (ARTDD).

The workshop was aimed predominantly at individuals working in an *in vitro* receptor pharmacology environment who routinely deal with binding and functional data. The workshop built on knowledge gained at the diploma's General and Applied Receptor Theory (GART) workshop, and attendance at the GART workshop was a pre-requisite for registering for the ARTDD workshop. Twenty diploma candidates, perhaps not surprisingly all from industry, took up the challenge of furthering their knowledge and the application of advanced receptor theory.

Through a series of stimulating presentations and informal interactive sessions using Graphpad/ Prism and excel, state-of-the-art approaches to experimental design, data analysis and mechanism of action studies were clearly explained and demonstrated. General principles of drug-receptor interaction were revised followed by presentations and interactive sessions on: binding assay design and potential artefacts; ligand depletion in miniaturised assays; issues associated with functional assays (including the Operational model); data fitting to competitive and non-competitive models and allosterism and practical approaches to identify mechanism of action.

For each workshop attended as part of the diploma programme, candidates complete an assessed reflective account. This particular workshop gave real opportunity for application of knowledge gained from the day into real-life situations that may arise in the lab.

The account included sections on: reviewing a piece of a candidate's own work relevant to the workshop; reviewing three different simulated radioligand binding scenarios, commenting on factors which could influence observed affinity of the radioligand and providing guidance on future experimental set-ups; and a series of testing multiple choice questions.

BPS is very grateful to the organisers for preparing and delivering such a stimulating and, in the words of one attendee, the best workshop yet!

The GART workshop will re-run in December 2008; the ARTDD workshop will be repeated in the future. The next diploma workshops are Statistics (June 11th 2008); Pharmacokinetics (July 11th 2008) and Molecular Biology Techniques in Pharmacology (Sept 2nd 2008).

For further information on the BPS Diploma in Advanced Pharmacology or workshops (which are open to non-diploma candidates if places are available), please contact jmh@bps.ac.uk.

Jude Hall
BPS Education and Training Manager

UKRC for Women in SET's Annual Conference

The UK Resource Centre for Women in science, engineering and technology (UKRC) was established in 2004. Its remit is to deliver the Government's strategy for women in Science, Engineering and Technology (SET). On March 12th, UKRC held its fourth annual conference entitled, *Raising the Profile of Women in the SET Professions within the Media-Creating New Partnerships.*

The conference was chaired by Kirsty Wark (Presenter, Newsnight) and attracted over 200 delegates from academia, research charities, industry and the media. The aim of the conference was to raise discussion on the role and responsibility of the mass media in portraying positive representations of women in science, engineering and technology.

The morning began with a ministerial address from Rt.Hon Ian Pearson, MP (Minister of State for Science and Innovation) who pledged to continue Government support of science, technology, engineering and maths (STEM), including promoting opportunities for women. There followed the following presentations:

- **Sue Nelson** (BBC Radio 4); The Media Challenge-Writers and Producers in Focus
- **Jenny Kitzinger** (Cardiff University); Representation of Women in the Media (UKRC commissioned research findings)
- **Elizabeth Whitelegg** (Open University); (In)visible Witnesses (UKRC commissioned research findings).
- **Maggie Philbin** (TV presenter and broadcaster); In the Eyes of the Media (a personal account of what it is like to be a women talking about science in the media).
- **Maggie Aderin** (Science Innovation Ltd); Women Scientists working with the Media (personal experiences).
- **Vivienne Parry** (Journalist); What the newspapers have to say (a counter argument to the perceived poor portrayal of women in SET)

The afternoon consisted of workshops where delegates split into four groups in order to address key issues. The issues were chosen in order to identify ways in which partnerships between women in SET, SET organizations and the media could be forged.

The workshop topics were:

- Journalists: Friend or foe to women scientists?
- Press officers: key gatekeepers in the promotion of women in SET with the media
- (In)visible witness-creating positive images of science, technology, engineering and maths on UK children's TV
- The potential of UK TV drama

The main outcomes of discussion and conclusions from this conference can be found at the UKRC website (www.ukrc4setwomen.org/html/news-and-events/ukrc-conferences/2008-conference/0). They will form the basis of a report to Government on how women in SET can be portrayed in a more positive way by the mass media.

Some of the discussion points of interest to BPS members, especially those who are keen to interact with the media, include:

- Press releases generally only take the lead author's name (assumed, but not always the main author)
- In all cases when looking for a spokesperson, media will aim to get the highest ranking scientist they can irrespective of gender
- Women are less willing than their male colleagues to put themselves forward in the public eye
- Radio is actively looking for women voices
- Use your Press Officers!
- Scientists need to be media-trained and after training, need refresher courses.

BPS has worked with UKRC over the last 2 years setting up and managing a mentoring scheme to help women in science achieve their goals, and UKRC is continuing to support the scheme in 2008.

To find out more about the BPS mentoring scheme or Women in Pharmacology (WIP) in general, go to the link in Educational resources on the BPS website (www.bps.ac.uk) or contact Karen Schlaegel at ks@bps.ac.uk. If you would like to comment on this topic, or on the role and responsibility learned societies such as BPS have on issues relating to the media, contact Anna Muir-aam@bps.ac.uk

Useful websites

- www.ukrc4setwomen.org; UKRC for women in SET and the mentoring good practice guide
- smc@smc.org; Science Media Centre (0207 670 2980)
- www.getsetwomen.org.uk; Database developed to increase the visibility of women in SET (female spokespeople; case studies; speakers)
- See also, pA2 article on gender imbalance in BPS membership www.pA2online.org

Jude Hall
BPS Education and Training Manager

WIP Women in Pharmacology

To address the gender gap identified in its membership the BPS, with the UK Resource Centre for Women in SET, has established a mentoring scheme for women in pharmacology. The aim of this scheme is to facilitate networking and interaction with role models, providing practical advice, motivation and increased confidence for mentees.

For more information please visit the WIP section of the BPS website at www.bps.ac.uk

The IUPHAR Nominating Committees welcomes nominations, before November 1, 2008, for the following positions on the IUPHAR Executive Committee for the period between the international meetings in 2010 and 2014:

- President
- Secretary General
- Treasurer
- First Vice President
- Second Vice President
- Five (5) Councillors

IUPHAR international union of basic and clinical pharmacology

Suggestions can be submitted by individuals, or groups of individuals, who belong to an IUPHAR member society. Nominations should be accompanied by brief biographical sketches (1-2 pages) highlighting the achievements of the candidate and other qualifications for office. Be sure to indicate for which position(s) the candidate is being nominated. Nomination materials should be sent electronically to Professor S.J. Enna, IUPHAR Secretary General, at iuphar@kumc.edu as a single file. Nominations received after October 31, 2008 will not be considered. The nomination material will be forwarded to the Nominating Committee, which is charged with preparing a slate of candidates for consideration by the General assembly during the 2010 meeting in Copenhagen, Denmark. The Nominating Committee is chaired by Bertil B.Fredholm, Stockholm, (Bertil.fredholm@ki.se), and includes as members James A. Angus, Melbourne, Michel Eichelbaum, Stuttgart, Sergio Erill, Barcelona, and Keitaro Hashimoto, Shimokatu.

For further information on the nominating procedure please consult the IUPHAR homepage at www.iuphar.org/ Requests for Society support for prospective candidates should be sent to Karen Schlaegel at ks@bps.ac.uk in the first instance.

EACPT 12-15th July 2009 in Edinburgh

We are delighted to announce that the European Association for Clinical Pharmacology and Therapeutics (EACPT) will hold its 9th biennial international congress in Edinburgh in 2009, the first time it will have been held in the UK. The EACPT 2009 meeting will run from Sunday, 12th to Wednesday, 15th July 2009, and follows on from the very successful meeting in 2007 in Amsterdam.

The Congress will have a major focus on translational medicine, with themes related to drug discovery, drug development and drug safety, and the therapeutics of organ-based diseases. There will also be symposia related to Pharmacoeconomics, Pharmacogenetics, Pharmacovigilance, and medical education in safe prescribing, as well as debates on some of the current hot topics in clinical pharmacology.

© Harvey Wood, Douglas Corance and Marius Alexander

We are delighted invitations to give a plenary lecture have been accepted by Dr Garret Fitzgerald, on translational medicine, and Dr Patrick Vallance, on the interface between industry and academia. The meeting will also be supported by a number of satellite symposia highlighting major new developments in the field. We anticipate a lively and informative meeting comprising strong science and educational programmes.

The local organisers are based in the University of Edinburgh, which has a strong historic record in pharmacology, clinical pharmacology and therapeutics. The local team are strongly supported by a UK national organising committee, a UK scientific advisory board, and an EACPT international advisory board. We are also delighted to have the support of our UK learned body, the British Pharmacological Society, members of which make up our various advisory committees, and which itself has given strong support to the meeting.

The Congress will be held in Edinburgh, Scotland's capital city, in the award-winning Edinburgh International Conference Centre (EICC), situated in the heart of the city. The purpose-built EICC offers state-of-the-art facilities and will provide a perfect venue for the Congress. Edinburgh is large enough to be able to provide all the facilities international delegates would expect but small enough and friendly enough to explore thoroughly on foot.

The Old Town of Edinburgh was developed from the 11th century, originally within defensive walls, around the rock on whose peak is situated Edinburgh Castle. From here, the historic Royal Mile sweeps down to the Palace of Holyrood House, the Queen's official royal residence in Scotland. The Castle provides a spectacular backdrop to the busy shop filled streets - in particular George Street. Edinburgh is also famous for its New Town, which is a model of 18th century town planning with its magnificent Georgian Terraces, and with the Old Town comprises a UNESCO World Heritage Site.

© Harvey Wood

There is a wealth of accommodation in Edinburgh, ranging from 5 star luxury and exclusive boutique hotels to smaller traditional accommodation full of Scottish character. In addition there are many fine restaurants, which draw on the rich produce of the Scottish countryside around the city. An exciting and memorable social programme and accompanying guests programme will be arranged throughout the Congress. Scotland is also the home of golf, including the famous championship links of Muirfield, St Andrews and Turnberry (which will host the Golf Open in the week immediately following our Congress). Scotland, especially the Highlands, offers some of the most spectacular scenery in the world. So, to relax before or after the Congress, maybe you should consider holidaying in Scotland?

Travel to Edinburgh is now very easy, with air, rail and road links with all of the major cities in the UK, and many cities within Europe.

Please put the dates of the Congress in your diaries. Go to the website (www.eacpt2009.org) to record your interest and for further information on registration and abstract submission.
We look forward to seeing you in Edinburgh next summer!

Professor David Webb (President) and Dr Simon Maxwell (Chair)
on behalf of the Organising Committee

BPS Response to consultation on EU Directive Information on Patients

The British Pharmacological Society promotes translational research – Today's Science, Tomorrow's Medicines and wishes to see the safe, effective, and cost-effective use of medicines please see 'Clinical pharmacology providing tools and expertise for translational medicine' (Br J Clin Pharmacol 2008 Feb; 65(2): 154-7). The BPS also responds to consultations on a wide range of clinically relevant subjects. Here is the response to the European Union consultation on article 88a of Directive 2004/27/EC, 'Information to Patients.'

1. The British Pharmacological Society
The Clinical Section of the British Pharmacological Society represents Clinical Pharmacologists – doctors who specialize in the effects of medicines in humans – and those interested in human pharmacology. A principal aim of the Society is to ensure safe, effective, rational, and appropriate prescribing of medicines. We therefore wish to state our views in the furtherance of this aim for the citizens of the EU.

2. The need for patient information on medicinal products
We agree strongly that patients require objective, understandable, and non-promotional information (paragraph 2.2) on medicinal products, in order to participate in discussion and make informed and rational decisions about their own treatment and the treatment of those they care for. We also endorse the view that such information should, as far as possible, be objective and unbiased, evidence-based, current, relevant, and non-promotional if it is to be of acceptable quality. However, treatment choices can only be made when there is objective information on the following:

- the nature and prognosis of the condition being treated
- the probability, nature, and extent of benefit from treatment
- the probability, nature, and severity of adverse effects and other harms
- the direct financial costs (whether borne by the individual or a private or state insurer)
- the existence of other options for treatment, including non-pharmacological methods

It will be necessary to ensure that passively disseminated information (termed 'push' information in the Consultation Document) provides or refers to these key elements, if patients are to make rational and informed choices.

3. The difficulties with information provided by the pharmaceutical industry
We endorse the continued ban on advertising to the public (paragraph 3.3.1) and recall that studies suggest that such advertising increases the consumption of pharmaceuticals without corresponding health benefits.

We believe that the conscious and unconscious interests of commerce make it impossible for pharmaceutical companies by themselves to provide information that fulfils the requirements of being objective and non-promotional. While there may be ethical and public-spirited attempts by pharmaceutical companies to improve the public health, there is also evidence or suspicion of unethical or dishonest practices that are counter to the desire for rational, effective, and cost-effective use of medicines for the benefit of the community. These include: exaggerated claims [1]; biased studies and partial analyses [2,3,4]; covert promotion of unlicensed uses [5]; the re-designation of social or cosmetic problems as medical problems capable of pharmaceutical solution [6,7]; and prolongation of drug profitability by minor changes in composition [8] or inhibition of generic competition [9]. We therefore consider that strong safeguards are necessary, and that those safeguards should be independent of pharmaceutical companies.

4. The necessary safeguards
Given the serious concerns over the ability of pharmaceutical companies to deliver objective, understandable, and non-promotional information, we strongly support the system referred to in the EU report regarding Article 88a. From this we note that in some Member States, provision of information is mainly ensured by public authorities, and includes predominantly product related information they have approved. Many such authorities go further and cover other types of information, such as guidelines on treatments, or comparative information on the value of medicines. This system balances the needs and rights of patients and consumers to have reliable and comprehensible information against the needs of companies to promote the use of medicinal products. The EU may decide that it is impossible or undesirable to restrict the provision of unsolicited information to public authorities. In that case, we would urge that – given the well-documented difficulties with data from the industry – information put into the public domain should first be seen by the competent authorities and checked against a series of criteria for accuracy, balance, and comprehensiveness. We do not support the notion of a 'co-regulatory body' that included representatives of pharmaceutical companies, since this would be analogous to the accused sitting on the jury.
While we do not wish to set out detailed criteria here, necessary standards for information should at least include the following provisions:

- when evidence of benefit is claimed, the claims should be put in terms of absolute benefit, not relative benefit, accompanied by information on the baseline effect (measures such as the number-needed-to-treat may also be helpful);
- when evidence of benefit is claimed, it should be supported by references to material in the public domain;

Continued from page 19

• all discussions of benefit should be accompanied by evidence of any frequent or serious adverse drug reactions, with an indication of the likely reliability of this information (for example, the upper 95% confidence limit for the likely incidence of a fatal adverse drug reaction);
• discussions of safety should be supported by references to material in the public domain;
• all discussions of a specific medicinal product should indicate the likely cost of a standard course of treatment (for an average patient of the specified age-group) or, when the product is intended for use for periods longer than one year, the annual treatment cost. It may be that some assurance that information is consistent across the EU, and that the disseminated information is comprehensible to the average school leaver, should also be sought.

5. Secondary sources of pharmaceutical information
Pharmaceutical companies have considerable influence on academic doctors and pharmacists, patient support groups, and expert committees. When a pharmaceutical company helps any of these groups to produce pharmaceutical information for the public, we urge that the same rules should apply as if the information came directly from a pharmaceutical company.

6. Information solicited by the public
The public can solicit information on drugs and medicines from many sources, including pharmaceutical companies. Private enquiries and enquiries on behalf of others should be answered honestly and in accordance with the spirit of the regulations suggested. We accept that a regulator could not examine all such information before it is disseminated, although standard information might best be agreed before it is used. We also support the view (paragraph 3.3.3) that complaints should be monitored. We believe that they should also be investigated by the regulator or by an independent body; who should have the power to undertake random checks of information supplied by pharmaceutical companies to members of the public.

7. Conclusions
The Society welcomes the opportunity to comment on proposals for the regulation of information from pharmaceutical companies. We argue that such information is not guaranteed to be objective, balanced, and accurate unless it comes from public authorities. At the least, information offered to the public by pharmaceutical companies should meet strict criteria, and should be examined to ensure that it does so before it is disseminated.

8. References

1. Herxheimer A, Collier J. Promotion by the British pharmaceutical industry, 1983-8: a critical analysis of self regulation. BMJ 1990; 300(6720): 307-11.

2. Yank V, Rennie D, Bero LA. Financial ties and concordance between results and conclusions in meta-analyses: retrospective cohort study. BMJ 2007; 335(7631): 1202-5.

3. Peppercorn J, Blood E, Winer E, Partridge A. Association between pharmaceutical involvement and outcomes in breast cancer clinical trials. Cancer 2007; 109(7): 1239-46.

4. Jørgensen AW, Hilden J, Gøtzsche PC. Cochrane reviews compared with industry supported meta-analyses and other meta-analyses of the same drugs: systematic review. BMJ 2006; 333(7572): 782.

5. Mack A. Examination of the evidence for off-label use of gabapentin. J Manag Care Pharm 2003; 9(6): 559-68.

6. Moynihan R. The making of a disease: female sexual dysfunction. BMJ 2003; 326(7379): 45-7.

7. Moynihan R, Cassels A. Selling sickness. How drug companies are turning us all into patients. Allen & Unwin, 2005.

8. Geyman JP. The corporate transformation of medicine and its impact on costs and access to care. J Am Board Fam Pract 2003; 16(5): 443-54.

9. Shuchman M. Delaying generic competition—corporate payoffs and the future of Plavix. N Engl J Med 2006; 355(13): 1297-300.

Robin Ferner
Chair of the Clinical Pharmacology Section of the BPS

Filipendulaa ulmaria
(Meadowsweet)

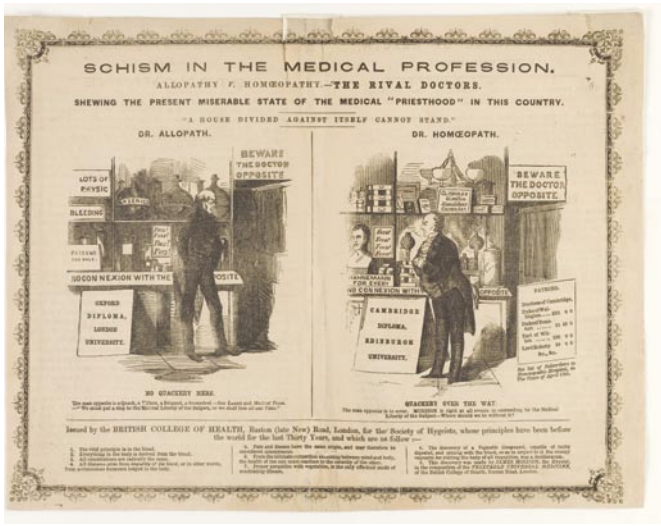
The Shahs do a great service in drawing attention to the dangers of herbal medicines (*pA*$_2$, *December 2007*). But I think they are quite wrong to contrast, several times, herbal medicine with "allopathic" medicine. Rose Shapiro, in her recent book, "Suckers. How alternative medicine makes fools of us all", points out that the term allopath was invented by Samuel Hahnemann as a term of abuse for physicians who did not believe in homeopathy. That being the case, allopath is a word that should be left for witch doctors.

Herbal medicines are just medicines like any other. They are classified as "herbal medicines" largely because they haven't been show to work. Those that work simply become part of pharmacology. They differ from normal medicines in only three ways. They are unstandardised extracts in the style of pharmacology as it was 100 years ago. Those who sell them are not required to show that they work. And the MHRA has allowed them to be labelled in a way that suggests that they do work.

David Colquhoun
Department of Pharmacology, University College London

We **are grateful** to Prof Colquhoun for his kind words and drawing our attention to this historical perspective on the use of the word "allopathy". For want of a better alternative, our use of the words "allopathic medicines" was an innocent one, intended to distinguish herbal remedies from those that are well researched, systematically developed and shown to be effective. Nevertheless, it is worth contemplating whether the term"allopathic medicines" is better reserved to describe "normal" medicines such as the selective serotonin re-uptake inhibitors in view of the recent media publicity questioning their efficacy. We are particularly pleased with his observations on effective herbal remedies becoming part of pharmacology because we already draw attention to the herbal pedigree of some of our widely used and effective medicines.

Devron Shah and Rashmi Shah
Rashmi Shah Consultancy Ltd



Homeopathy ephemera

Comment on term 'allopathic medicine'

The history of use of the word allopathic over the years has been complex and confusing. It is not necessarily a pejorative term for conventional medicine - though certainly has been used that way by some herbalists and homoeopaths.

The stem 'allo' tells us that 'difference' or 'opposition' is the key. The point about Hahnemann and homeopathy lies in the 'homeo' bit = 'like' or 'similar', in that the agents given are ones - whether herbal, inorganic or whatever - that produce the same effects as the disease (his so-called 'Law of Similars'), which then at infinite dilution are supposed to help the body overcome whatever it is that causes the disease (perhaps a bit like desensitization vaccines). So, in the strict sense, if one uses an agent that changes the state of the patient, say one that lowers BP in a disease where it is raised, then literally this is allopathy.

It is perhaps salutary to bear in mind that the pejorative use of the term came from a period (early nineteenth century) when non-homeopathic practitioners (i.e. conventional doctors), in the absence of effective drugs often used drastic remedies such a purging, bleeding, sweating, and vomiting – which would often change the state of the patient for the worse.

Sometimes herbal medicines and homeopathic medicines are contrasted with allopathic medicines as if they were necessarily different in origin, but this is not correct. Agents that have been harnessed in homeopathic and allopathic treatments (even in modern times) include, for both, preparations of herbal, inorganic, synthetic organic and animal derived organic, origins.

But, of course, the main difference in these various medications is whether or not they work!

Ian Morton
ex-Department of Pharmacology, King's College London

Future Meetings

2008

13-17 July- EPHAR 2008 Federation of European Pharmacological Societies Congress
Manchester, UK , www.ephar2008.org

17-20 July- Serotonin Club EPHAR 2008 Satellite Meeting
Keble College, Oxford, UK

16-17 August- 6th James Black Conference, New Pain Concepts and Future Treatments
St Andrews, UK. E-mail: meetings@bps.ac.uk

8-11 September-Society for General Microbiology 163rd Meeting
Dublin, Ireland
E-mail: meetings@sgm.ac.uk

16-17 September-Festschrift symposium 'Autonomic Respiratory and Cardiovascular Pharmacology'.
Welsh School of Pharmacy, Cardiff. Peter Penson, Email: pensonpe@cardiff.ac.uk

1-2 October-BPS Focused Meeting: Lysophospholipid receptors, role in health and disease
Novartis Horsham Research Centre, UK. E-mail: meetings@bps.ac.uk

14-16 November- 7th International meeting of the Sphingolipid Club.
Holiday Inn, Leiden, Norway, www.sphingolipidclub.com

16-18 December-BPS Winter Meeting
Brighton, UK. E-mail: meetings@bps.ac.uk

2009

5-6 February-Joint Meeting with the Royal Society of Chemistry 'Ion Channels as Therapeutic Targets'
Novartis Horsham Research Centre, UK. E-mail: meetings@bps.ac.uk

7-9 May-Joint Focused Meeting with DGPT New drugs in cardiovascular research.
Dresden, Germany. E-mail: meetings@bps.ac.uk

8-10 July- BPS Summer Meeting
University of Edinburgh, UK. E-mail: meetings@bps.ac.uk

12-15 July- EACPT Congress of the European Association for Clinical Pharmacology and Therapeutics Edinburgh, UK. www.eacpt2009.org

15-17 December- BPS Winter Meeting
Brighton, UK. E-mail: meetings@bps.ac.uk

2010

17-23 July- WorldPharma 2010 (IUPHAR Congress)
Copenhagen, Denmark. www.iuphar2010.dk

EPHAR 2008 MANCHESTER

YOUNG PHARMACOLOGISTS WINE TASTING QUIZ

at EPHAR 2008 Congress

This event is an opportunity for Young Pharmacologists to network with each other outside of the meeting.

The event will be held at Pure Nightclub from 20:30 and will include:

THE PHARMACOLOGY OF WINE

A talk by Prof Roger Corder, QMUL

WINE TASTING QUIZ

BUFFET

DISCO

BPS BRITISH PHARMACOLOGICAL SOCIETY
Today's science, tomorrow's medicines

Monday 14 July
@ Pure Nightclub, Manchester

Free online access available for BPS members – see below for details

BJCP

British Journal of Clinical Pharmacology

An International Journal of Human Pharmacology and Therapeutics

Published for the British Pharmacological Society

Editor-in-Chief: **Professor James M. Ritter**

Regional editors from **Europe**, **North America** and **Australasia**

Take a look at some of the top-cited articles from Volumes 63 / 64

- Is inappropriate medication use a major cause of adverse drug reactions in the elderly?
  Marie-Laure Laroche, Jean-Pierre Charmes, Yves Nouaille, Nicolas Picard & Louis Merle (63:2; Feb 2007)
- Risk of falls after withdrawal of fall-risk-increasing drugs: a prospective cohort study
  Nathalie van der Velde, Bruno H. Ch. Stricker, Huib A. P. Pols & Tischa J. M. van der Cammen (63:2; Feb 2007)
- Comparative assessment of four drug interaction compendia
  Agnes I. Vitry (63:6; Jun 2007)
- Cardiovascular toxicity due to venlafaxine poisoning in adults: a review of 235 consecutive cases
  C. Howell, A. D. Wilson & W. S. Waring (64:2; Aug 2007)
- The pharmacokinetics, pharmacodynamics and tolerability of dabigatran etexilate, a new oral direct thrombin inhibitor, in healthy male subjects
  Joachim Stangier, Karin Rathgen, Hildegard Stähle, Dietmar Gansser & Willy Roth (64:3; Sep 2007)

www.bjcp-journal.com

Free online access for BPS members

BPS members receive free online access to *BJCP* as part of their membership. For more information, please email **info@bps.ac.uk**

BPS BRITISH PHARMACOLOGICAL SOCIETY
Today's science, tomorrow's medicines

WILEY-BLACKWELL