Following our previous announcement in June, the Organizing Committee of the WCP2018 is pleased to share the latest information on the Congress. We sincerely look forward to welcoming you at WCP2018 in Kyoto.

Call for Abstracts

Abstract Submission is now available at www.wcp2018.org
Submission Deadline: December 14, 2017

General Guidelines

- In principle, accepted abstracts shall be presented as posters, and only a limited number of requests for oral presentation will be granted. Please note that your preferred presentation format may not necessarily be granted, and the final judgement rests with the Scientific Program Committee.
- The body of abstracts should contain a maximum of 350 words and must be in English.
- The abstract should be constructed with clear paragraphs for background, methods, results, conclusions.
- One image (figure, table, chart or illustration) can be attached to the abstract.
- Acceptable data formats: JPG, GIF, PNG. Maximum file size: 5MB, 600(w) x 800(h) pixels.
- 2-3 keywords should also be provided that best describe the abstract’s content.
- The first author must present his/her presentation.
- The first author must complete pre-registration when submitting an abstract.
- Abstracts must be submitted via the congress website.
- Notification of abstract acceptance will be sent to the first author no later than March 30, 2018.
- The Scientific Program Committee reserves the right to reject any abstract that it considers not to be appropriate in relation to the congress criteria.

Congress Bursaries & IUPHAR Young Investigator Awards

When you submit your abstract, please indicate that you would like to apply for the Congress Bursaries and/or IUPHAR Young Investigator Awards. There will be a question in the online form asking if you would like to apply for the grants or not. It is possible to apply for both Congress Bursaries and the IUPHAR Young Investigator Awards.

For more information, please visit the WCP2018 website at www.wcp2018.org

Continued on page 2...
Registration

Registration is now available at www.wcp2018.org

Early Bird Registration Deadline: March 30, 2018
Regular Registration Deadline: May 31, 2018

Registration Fees

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Scientific Program

**THEME**  Pharmacology for the Future -Science, Drug Development and Therapeutics-

### 40 Lectures

**Opening Lecture**
- Cancer Immunotherapy
  - Tasuku Honjo, M.D., Ph.D.
  - Kyoto University, Japan
  - Sunday, July 1, 2018  16:00 - 17:00

**Plenary Lecture**
- Recent Progress in iPS Cell Research and Application
  - Shinya Yamanaka, M.D., Ph.D.
  - Kyoto University, Japan
  - Monday, July 2, 2018  11:15 - 12:15

- The Cardiovascular Effects of Peptidase Inhibition
  - Nancy J. Brown, M.D.
  - Vanderbilt University Medical Center, USA
  - Wednesday, July 4, 2018  11:15 - 12:15

**Tang Prize Lecture**
- Genome Engineering: Technologies and Applications
  - Feng Zhang, Ph.D.
  - McGovern Institute for Brain Research, USA
  - Tuesday, July 3, 2018  17:00 - 18:00

**Analytical Pharmacology Lecture**
- Towards a Molecular Understanding of Drug Action at GPCRs
  - Bryan L. Roth M.D., Ph.D.
  - University of North Carolina at Chapel Hill, USA
  - Wednesday, July 4, 2018  17:00 - 18:00

and 33 Cutting Edge Lectures  Continued on page 3...
Venue
Kyoto International Conference Center (ICC Kyoto)
Takaragaike, Sakyo-ku, Kyoto 606-0001 Japan
Phone: +81-75-705-1229  Fax: +81-75-705-1100
http://www.icckyoto.or.jp/en/access/

Visa
Japan operates a visa-waiver program for 67 countries and regions (information from Japan’s Ministry of Foreign Affairs, last revised December 2014). Travelers on short-term stays for the purpose of attending a conference, tourism, etc. from these countries do not require a visa to enter Japan. For those who require a visa to enter Japan, the congress secretariat will prepare the necessary documents for the participants’ visa applications.

Accommodation
With a long history as the leading tourist city in Japan, Kyoto offers over 20,000 rooms in the central area, with everything from economic youth hostels and budget hotels to first class city hotels and traditional Japanese style inns “Ryokan.” WCP2018 offers preferential rates to the delegates for the duration of the Congress. Accommodation booking is now available through the WCP2018 website at www.wcp2018.org

Exhibition and Sponsorship Opportunities
WCP2018 offers societies, pharmaceutical firms, biotech, not-for-profits and corporations the opportunity to share with the Congress participants information about products and services of interest to the pharmacological community. Specific details to sponsor a seminar, exhibit a booth or become a Congress sponsor may be viewed at www.wcp2018.org/sponsors-and-exhibitors/index.html.

Satellite Symposia

Brain Mapping and Therapeutics
Date and time: Friday, June 29, 2018  13:30 - 17:30
Venue: Korean Brain Research Institute, Daegu, Republic of Korea

Systems Pharmacology and Artificial Intelligence Based on Real World 'Big' Data
Date and time: Friday, July 6, 2018  14:00 - 17:30
Venue: Kyoto University Clock Tower Centennial Hall, Kyoto, Japan

For more information, please visit the WCP2018 website at www.wcp2018.org
What to Do in Kyoto

Experience the destination! The Organizing Committee plans to offer you several opportunities for you to experience Japanese culture. Items with a ★ are planned for tours/excursions or cultural experiences in the venue. More details will be announced on the WCP2018 website when they become available. Also, there will be a Travel Desk on-site at the conference to provide tourism information.

Shopping

Kyoto is not all temples and shrines; it is a wonderful place to shop for traditional Japanese arts and crafts as well as modern items. There are two main shopping districts in Kyoto: The Kyoto Station area and the traditional “downtown” area of Kyoto running along Shijo-dori Street. Kyoto Station has a lot of shops right inside and underneath the station building, as well as vast electronics and camera emporiums. Shijo-dori Street features several large department stores, hundreds of smaller shops and the famous food market, Nishiki Market.

Sake and Japanese whisky

Kyoto sake brewers are gathered in Fushimi district where the pure water nurtures delicious rice and produces excellent sake. Kyoto sake is classed as a more sweet style. Kyoto is also known for its world-class whisky production. Award-winning whisky Yamazaki Single Malt is made in Yamazaki, where Suntory built its first whisky distillery in the country in 1923. Located in the outskirts of Kyoto, Yamazaki’s water quality remains legendary even today.

Zazen (seated meditation)

Zazen is the essence of the Zen practice. It is said that through Zazen, one can be unified with the cosmos, surpassing the human ego. There are several temples that offer Zazen classes in English. The Zen priest will guide you in practicing Zen meditation and provide a lesson on the significance of Zen in Japanese culture.

Kimono/Yukata

Although kimono are the best-known article of Japan’s traditional dress, Japanese people usually wear kimono only on special occasions, on account of the complicated rules regarding how to wear a kimono, and the difficulties faced when dressing yourself in one. However, in the summer, Japanese often wear a simpler type of kimono known as the “Yukata.” Kimono and yukata are similar, yet kimono are made of silk, while yukata are made of cotton. The yukata is the most casual type of kimono for summer use. It is easier to wear than other varieties. Why not enjoy the Kyoto summer in a yukata?

Traditional Crafts

Kyoto is a city of exquisite craftsmanship and home to the largest number of local traditional crafts in Japan. The development of Kyoto traditional industries with their own special techniques played a great role in shaping its unique culture. Nishijin weaving, Yuzen dyeing, Kyo-yaki and Kiyomizu-yaki ceramics, lacquerware, Japanese umbrellas, fans or tabi socks – even today, Kyoto traditional crafts are indispensable to Japanese arts such as the tea ceremony, flower arrangement and Noh theatre, as well as to the modern Japanese lifestyle.

Enjoy Kyoto’s scenic nature

Kyoto has been a place of scenic natural beauty since ancient times with little changing over the centuries. Nature can be found everywhere in Kyoto, from the spectacular mountain scenery of Arashiyama, swaying bamboo grove of Sagano, exciting Hozu river boat ride, to the endless tunnel of torii shrine gates that wind up the mountain in Fushimi. If you are interested in hiking, you may wish to take an outing to the sacred mountain Hiei-zan or Kurama on the northern outskirts of Kyoto. Enjoy visits to these well-known temples nestled on the slopes of the mountains, making for an energetic trek. A cable car or bus can take you up part of these mountains.
Pharmacology Education Project

A free learning resource to support education and training in the pharmacological sciences

The IUPHAR Pharmacology Education Project provides resources to enhance pharmacology knowledge across many disciplines, with expert-created content and curated links to supporting resources, including drugs and targets in the Guide to Pharmacology.

www.pharmacologyeducation.org

Please contribute content to this growing resource by visiting the website or email admin@pharmacologyeducation.org

For more information, contact John L. Szarek, PhD, CHSE, PEP Co-Director at jszarek@tcmc.edu

Continued on page 6...
The Editorial Board members of the Pharmacology Education Project will lead a symposium at WCP2018 on Monday, July 2nd at 4:10 p.m. Introducing the IUPHAR Pharmacology Education Project www.PharmacologyEducation.org (S11-10 in the scientific program)

The purpose of this session is to introduce the Pharmacology Education Project in more detail including:

... resources available,
... navigating the site,
... using the resources in teaching,
... and how to contribute.

Members of the Editorial Board will each address an aspect of the site then introduce themselves to the congress participants. The speakers and their topics are:

From idea to reality
by Simon Maxwell

Taxonomy and structure of the Pharmacology Education Project website
by John L. Szarek

Pharmacology teaching materials for resource poor countries
by Leszek Wojnowski

Navigating the Pharmacology Education Project: Using the materials in teaching
by Elizabeth Davis

The Pharmacology Education Project: An international effort
by Chay-Hoon Tan

Register for WCP2018 at http:\www.WCP2018.org
Are you hiring?

www.PharmacoCareers.org

Enter WCP2018 as the coupon code to receive a 30% discount on all pharmacology career employer products during 2018!
Welcome to the newest IUPHAR Member Societies!

Founded in 1974, the mission of the Malaysian Society of Pharmacology and Physiology (MSPP) is to advance the science, teaching, and ethics in the fields of physiology and pharmacology, to promote integration with other professionals, and to be an avenue for public awareness on the use and misuse of drugs. The Society is a non-profit professional organization and its activities include sponsoring an annual conference, teaching courses and workshops.

The objectives of the Irish Association of Pharmacologists (IAP) are to promote basic and clinical pharmacology research on the island of Ireland; provide a forum for exchange and collaboration for scientists working in pharmacology and therapeutics, and allied disciplines in both research and industrial contexts; offer an effective forum for lobbying; and establish IAP as a member of international associations so as to provide members with international forums and contacts in order to promote research, development and international collaboration. Initiated in the 1990s to organize annual meetings, the members formalized the entity in 2016 as an unincorporated association.
Future Meetings

In 2018, we have two exciting local meetings planned. Our annual Nomenclature Committee (NC-IUPHAR) meeting will be held in Edinburgh from May 18th – 20th, 2018 to coincide with the British Pharmacological Society supported meeting on May 17th, entitled Pharmacology Futures 2018 – celebrating 250 years of pharmacology at the University of Edinburgh (http://bit.ly/2fBHzju). During October 1st – 2nd, 2018 we will host the British Pharmacological Society Focused Meeting on Immunopharmacology: Challenges, Opportunities and Research Tools in Edinburgh. The meeting will include 6 - 8 themed symposia/sessions with invited speakers and, based on submitted abstracts, selected oral and poster presentations. Prizes will be awarded for the top scoring young investigators. The focus will be on new concepts and developments in immunity, inflammation and infection, as related to pharmacology, and how these areas can be exploited in drug discovery. More details will become available soon so please monitor http://www.guidetopharmacology.org or sign up to receive our communications so you’ll receive the latest news as it is released.

Another focus for 2018 is the World Congress of Basic and Clinical Pharmacology in Japan. This quadrennial congress provides an opportunity for pharmacologists from around the world to come together in Kyoto during July 1st – 6th. NC-IUPHAR has invited Dr. Bryan Roth (http://www.wcp2018.org/program/bio/bryan_l_roth.html) to deliver the IUPHAR Analytical Pharmacology Lecture, which he has titled Towards a Molecular Understanding of Drug Action at GPCRs. We look forward to that greatly. The NC-IUPHAR Deputy Chair, Arthur Christopoulos (http://www.wcp2018.org/program/bio/cel_04.html), will deliver a Cutting Edge Lecture titled GPCR Allostery and Bias in Modern Pharmacology: Structural, Pharmacological and Clinical Implications. We also have a number of symposia organized and delivered by members of NC-IUPHAR, including Computational Pharmacology, Databases and Drug Discovery by David Gloriam, Christopher Southan and Adam Pawson, which will explore the benefits of in silico approaches for pharmacology; Biased Agonism at G Protein-coupled Receptors: The Promise and the Challenges by Anthony P. Davenport; and New Controllers of Inflammation: What Are the Hottest Targets? by Francesca Levi-Schaffer. Please visit http://www.wcp2018.org/program/index.html to mark the dates and times on your diary.

Guide to IMMUNOPHARMACOLOGY (GtoImmuPdb)

We are now 24 months into the Wellcome Trust funded project to extend GtoPdb into the arena of immunopharmacology in order to produce a Guide to IMMUNOPHARMACOLOGY (GtoImmuPdb;
May 2017 saw the launch of beta-release v1.0 (http://bit.ly/2vWHEp5), for which details were also provided in the last newsletter (June 2017). Beta-release v1.0 was followed by beta-release v2.0 in August 2017 (http://bit.ly/2eH2GAE).

During the summer of 2017 we undertook user-testing, which helped to identify aspects of design and navigation that needed improvement, and features that users would like to see implemented as we move towards deployment. In response to previous user feedback we will also look at developing a graphical-based navigation system, in the first instance for browsing cell type and process data. We are always eager to hear from users about their experience of GtoImmuPdb, so please don’t hesitate to contact us (curators@guidetopharmacology.org) with any comments and feedback.

Publications

The IUPHAR/BPS Guide to PHARMACOLOGY database (GtoPdb) team and collaborators have recently published an article entitled *Is systems pharmacology ready to impact upon therapy development? A study on the cholesterol biosynthesis pathway* in the *British Journal of Pharmacology* assessing the potential impact of systems pharmacology on therapy development. To realize the full potential of databases of pharmaceutical drugs/targets and of cellular mechanisms in health/disease, we must combine results from both to predict new multi-drug therapies. The article is available at [http://onlinelibrary.wiley.com/doi/10.1111/bph.14037/full](http://onlinelibrary.wiley.com/doi/10.1111/bph.14037/full) and describes the serious current obstacles to such prediction, but that introducing new systematic practices would facilitate this opportunity. The team is also working on a number of publications expected to appear during late 2017. The list includes our biennial database publication in *Nucleic Acids Research*, a write-up of the SynPHARM project, a *Current Protocols in Bioinformatics* invitation, a paper on the Resource Description Framework (RDF) project, as well as invitations from the American Chemical Society journal, *ACS Omega*, and *ChemMedChem*.

We look forward to another year of progress in 2018!

Guide to PHARMACOLOGY database team
Edinburgh, Scotland
The IUPHAR Subcommittee on Clinical Pharmacology in Developing Countries continues to partner with the Medicines Utilization Research in Africa (MURIA) group to advance drug utilization research in Africa and to promote sustainable Rational Uses of Medicines (RUM) through trainings, workshops, networking and cross national research (1-6). The third edition of the annual Training Workshop and Symposium on Drug Utilization (DU) Research in Africa organized and facilitated by the two groups took place June 26th through 28th, 2017 at the University of Namibia in Windhoek, Namibia. This year the theme was ‘Medicines Utilization Research in Africa influencing patient care and policy’ (7).

The meeting attracted over a hundred participants from countries ranging across Africa, Europe and North America, including Botswana, Brazil, South Africa, Swaziland, Namibia, Tanzania, Zimbabwe, Zambia, Kenya, Nigeria, Italy, the United States, and the United Kingdom. The opening ceremony on Monday morning, June 26th in the main auditorium of the University of Namibia Health Sciences Campus kicked off the three-day workshop. The event was graced by the University of Namibia management team, represented by Dr. Kalumbi Shangula (Assistant Pro Vice Chancellor – Health Sciences Campus), Prof. Tim Rennie (Associate Dean – School of Pharmacy), Prof. Peter Nyarango (Dean – Faculty of Health Sciences) and Prof. Frednard Gideon (Pro Vice Chancellor – Academic Affairs). Important dignitaries, such as Ms. Jo Lomas, the British High Commissioner to Namibia, were also in attendance.

In his welcome address, Prof. Shangula expressed his delight in seeing delegates from several countries come together in Windhoek to exchange knowledge and work together towards improving the use of medicines in Africa. He was particularly pleased that the issue of ‘Maternal to Child Transmission of HIV’ was among the many topics covered by the speakers. He recounted the challenges faced by the Namibian health authorities in putting together the health programme now considered one of the most successful in the country. Prof. Rennie deplored the widespread misuse of antibiotics, which has contributed to the prevalence of anti-microbial resistance (AMR) on the continent as well as in other parts of the world (8-13). He also commended the workshop organisers for including undergraduate and postgraduate students’ presentations in the program. While welcoming the delegates to Namibia and the University of Namibia in particular, Prof Nyarango also lent his voice to the urgent need to address the problem of AMR, as well as making medicines affordable while working on developing novel antimicrobials. Thereafter, Prof. Gideon officially declared the workshop opened. He advocated advancement strategies such as increased networking among the participants, soliciting academic and industrial collaborations for better training and research, seeking opportunities for sponsored doctorate degree programmes in AMR and MURIA and, in partnership with government, academia and industry, creating sensible policy statements and guidelines on various aspects of drug utilization in Africa.

Continued on page 12...
Third Training Workshop on 
Drug Utilization Research in Africa 
(continued)

Subsequently, Mr. Francis Kaleemera, of the University of Namibia and a member of 
the local organizing committee, and Prof. Brian Godman, from Karolinska Institutet, 
introduced the parallel introductory and advanced workshop sessions. The Introductory 
DU workshop, anchored by Prof. Ilse Truter, from Nelson Mendela Metropolitan 
University, covered a general introduction to DU research. The coursework described 
the methodologies of Anatomical Therapeutic Chemical (ATC)/defined daily dose (DDD) 
systems, qualitative DU research and an introduction to statistical techniques applicable 
to drug utilization research, which was taught by Ms. Marike Cockeran of North-West 
University. The Advanced DU group was further divided into two tracks. One advanced 
workshop featured a hands-on session on statistics and advanced analysis facilitated by 
Ms. Cockeran as well as presentations on developing and implementing quality indicators 
for studies by Prof. Godman (below).

The second track of the advanced workshop featured instruction by Ms. Alessandra 
Ferrario, of the London School of Economics, on available data sources and pharmaco-
epidemiology methodologies and applications with emphasis on use of data on import, 
procurement and local production of drugs for DU research. Prof. Johanita Burger, North- 
West University, then explained the use of claim databases followed by an introduction to 
patient level databases by Prof. Godman. The advanced groups thereafter came together 
with Andy Gray, University of KwaZulu-Natal, leading the workshop on research 
proposal writing while Ilse Truter and Margaret Oluka from University of Nairobi, 
subsequently made presentations on qualitative 
research in DU 
studies followed 
by a questions and 
answers session. 
The first day of 
the meeting was 
rounded off with an 
outdoor informal 
dinner for interested 
participants (at right).
The second day, June 27th, 2017 was dedicated to research presentations and updates on DU activities within various countries. The day opened with welcome remarks by the Chief Pharmacist of Namibia followed by presentations on:

- ‘Development of Horizon Scanning Activities and Its Implications for Africa’ by Roberta Joppi, Mario Negri Institute of Pharmacology Research
- ‘Managed Entry Agreements and Pricing Considerations for Medicines across Countries- Building on the European Experience’ by Ms. Ferrario
- ‘An Innovative Web-based Pharmaceutical Information Dashboard Enhances Evidence-based Decision Making in ART Pharmaceutical Services in Namibia’ by Mr. Wuletaw Churfo, Namibia Ministry of Health and Social Services
- ‘Feedback from Zimbabwe, Botswana and South Africa on the On-going Cross-national Antibiotics Point Prevalence Studies’ by Dr. Sekesai Zinyowera, Zimbabwe Ministry of Health and Child Welfare, Prof. Natalie Schellack, Sefako Makgatho Health Sciences University, and Dr. Bene Paramadhas, University of South Africa - Pretoria
- ‘Completed and On-going Studies in Nigeria on Antimicrobials and Non Communicable Diseases’ and ‘Promotion of Drugs and Therapeutics Committees’ jointly presented by Drs. Olayinka Ogunleye and Joseph Fadare
- ‘Feedback on DU Action Plans from Kenya’ by Prof. Oluka

Of particular interest in this session was ‘Update on Good Practices of DU Studies in Countries from the Latin America and African Regions’ presented by Prof. Maribel Salas, a member of the International Society of Pharmacoepidemiology Board. She described a joint project undertaken by the International Society of Pharmacoepidemiology and MURIA towards enhancing good practices and the quality of DUR in these regions. The afternoon session featured oral presentations on antimicrobial utilization by conference participants including ‘Strategies to Improve Antibiotic Prescribing and Dispensing in Africa’, the MURIA Positioning Statement proposed by Prof. Schellack and Prof. Anastasia Guantai, University of Kenya, which further stimulated discussions on inappropriate uses of antimicrobials and some potential solutions. The poster sessions and abridged oral presentations, mostly by students, was concluded with a presentation by Prof. Truter on ‘Dispensing Patterns of Anti-migraine Agents with a Focus on Seasonal Variations in Prescribing in South Africa’.

Continued on page 14...
The final day, June 28th, 2017 continued the oral presentations with:

- ‘Pediatric Antiretroviral Treatments in Namibia’ by Mr. Greatjoy Mazibuko
- ‘Insulin Prescription Errors in a Public Tertiary Hospital in Kenya’ by Prof. Guantai
- ‘Predictors of Adherence to Oral Antihypertensives among Patients in Ghana by E. Sarkodie, University of Health and Allied Sciences, and a similar study from primary health care setting in South Africa and Namibia by Enos Rampamba, Sefako Makgatho Health Sciences University, and Maria Maija Nashilongo, University of Namibia, respectively
- ‘Quality of Anticoagulation with Warfarin at a Tertiary Hospital in Botswana’ by Julius Mwita, University of Botswana
- ‘Access to Medicines for Children in Nigeria Reporting an Exploratory Study on the Quality of Oral Essential Cardiovascular Medicines and Diuretics’ by Samuel Orubu, University College London

In total, the meeting featured over 35 oral and over 30 poster presentations (above) and ended with a consensus session on future directions for the group including potential cross national studies, publication strategies and funding sources. Working groups were constituted for the various areas of research interests. The participants reported that the meeting was highly interactive and impactful with improved quality of presentations as compared to the previous workshops. The speakers are recognized for their time and efforts in making the workshop successful. Participants departed Windhoek in high spirits looking forward to next MURIA Group meeting in 2018 at the same venue.

Acknowledgements: Drs. Ogunleye and Fadare want to thank IUPHAR for the financial support they received to participate in the workshop.

Olayinka O. Ogunleye
Joseph O. Fadare
Lars L. Gustafsson (Chair: devcountries@iuphar.org)
Clinical Pharmacology in Developing Countries Subcommittee
Additional contributors: Brian Godman, Amos Y. Massele
The participants enjoyed the networking opportunities offered by the workshop.

References


A MODEL FOR MENTORING IN CLINICAL PHARMACOLOGY
TWO NIGERIAN CLINICAL PHARMACOLOGISTS
VISIT KAROLINSKA INSTITUTET

Dr. Olayinka Ogunleye, a Consultant Physician and Clinical Pharmacologist at Lagos State University College of Medicine and its Teaching Hospital, and Dr. Joseph Fadare, also a Consultant Physician and Clinical Pharmacologist at Ekiti State University College of Medicine and its Teaching Hospital, are both from Nigeria. Recently, they were hosted by the Clinical Pharmacology Division at the Karolinska Institutet and Karolinska University Hospital in Stockholm, Sweden, for mentoring and training during a two-week visit October 14th through the 28th, 2017. The experience was organized and hosted by Prof. Lars L. Gustafsson, the Co-Chair of the IUPHAR Subcommittee for Clinical Pharmacology in Developing Countries, together with Assoc. Prof. Georgios Panagiotidis, the Head of the Division of Clinical Pharmacology at Karolinska Institutet, and Prof. Marja-Liisa Dahl, the Head of the Clinic at Karolinska University Hospital at Karolinska Institutet. The visit marked the launch of the Karolinska Institutet as an IUPHAR Mentoring Center in Clinical Pharmacology (http://www.iuphar.org/index.php/clinical-division/mentoring-centers).

Olayinka and Joseph first met Prof. Gustafsson at the 2014 World Congress of Basic and Clinical Pharmacology in Cape Town, South Africa where they shared with him their interests in strengthening clinical pharmacology in education, research and clinical services in Nigeria. Since then they have collaborated in many activities related to the IUPHAR Subcommittee for Clinical Pharmacology in Developing Countries. Prof. Gustafsson has been passionately committed to clinical pharmacology development in Africa so has used his long record of collaborative works in training and research across Africa to mentor and support Olayinka and Joseph for the past three years.

The overall objectives of the visit were to interact with the staff members in both academic and clinical units in Stockholm to learn how specialists in clinical pharmacology can organise a program built on a tight collaboration between academic, educational and clinical services. During their two weeks on campus, Olayinka and Joseph interacted with over thirty senior and junior staff members with expertise in all major areas of training, research and clinical service related to clinical pharmacology. Their extensive clinical pharmacology curriculum included presentations about the organization of academic and clinical tasks, undergraduate training and specialization program, drug information services, drug analytical services and therapeutic drug monitoring, pharmacogenomics, as well as drug and therapeutic committee organization and services. In addition, they were exposed to pediatric clinical services, pharmacoepidemiology and drug utilization research,

Notably, the historical overview and importance of how to establish and sustain high quality research, teaching and services in clinical pharmacology were discussed with emeritus professor, Folke Sjöqvist. He is the founder of the Department of Clinical Pharmacology at the Karolinska Institutet, the first in Sweden, and has played a major role in the development of the discipline globally. Olayinka and Joseph had the privilege to present a joint seminar to the division on under- and postgraduate education and training in clinical pharmacology in Nigeria. Olayinka and Joseph also met a number of research students at the division who shared with us integral aspects of their research projects. There were regular feedback sessions and reflections with the hosts plus time was scheduled to offer us a glimpse of Stockholm outdoor life.

Olayinka and Joseph had the opportunities to interact with Prof. Michael Spedding (IUPHAR Secretary General), Dr. Darrell Abernethy (Chair, IUPHAR Clinical Division) and Prof. Guilherme Kurtz (Chair, IUPHAR Pharmacogenetics and Pharmacogenomics Section) during two Skype meetings. They conveyed their recommendations for further strengthening clinical pharmacology in teaching, research and services through the Clinical Pharmacology Mentoring Centers and through global health and pharmacogenomics research. At the conclusion of the visit, Olayinka and Joseph, together with Prof. Gustafsson and Assoc. Prof. Jaran Eriksen, also of the Karolinska Institutet Division of Clinical Pharmacology, evaluated the activities completed during the visit and agreed on an action plan for continued collaborations between Olayinka and Joseph’s institutions and the Karolinska Institutet Division of Clinical Pharmacology.

The two weeks were highly interactive, productive and had a great impact on both of us. We are indeed grateful for this opportunity. An immediate next step is to present our impressions to our colleagues in Nigeria and to institute possibilities for a clinical pharmacology mentoring center in Nigeria, supported by Karolinska Institutet and IUPHAR.

Olayinka O. Ogunleye
Joseph O. Fadare
Members, IUPHAR Subcommittee for Clinical Pharmacology in Developing Countries
The IUPHAR Gastrointestinal (GI) Pharmacology Section was pleased to accept an invitation from Profs. Predrag Sikiric and Sven Seiwerth to organize a special meeting to celebrate the century of continuous efforts that the Medical Faculty at the University of Zagreb has invested in education and science as the first and the oldest medical faculty in Croatia. The Croatian Gastroenterological Society and the Croatian Surgical Society were also major contributors to the celebratory meeting by organizing symposia. On June 8th, 2017 the participants were cordially welcomed by Marijan Klarica (at left), Dean of Medical Faculty University of Zagreb. Damir Boras (at upper right), Rector of University of Zagreb, described the significance of the University of Zagreb within the region and, in particular, the contributions of the Medical Faculty over the past 100 years. Duan Chen (at right), Chair of the IUPHAR GI Pharmacology Section, offered his congratulations on behalf of the Section and IUPHAR.

International experts highlighted the latest advances and challenges in the field (see next page). At the conclusion of the scientific sessions, the meeting delegates (below) participated in a traditional ceremony organized by the Catholic Faculty of Theology at the University of Zagreb.
IUPHAR Gastrointestinal Pharmacology Section in Zagreb
(continued)

Program Highlights

June 8th

Repurposing the endoscopic injection of Botulin toxin A for the treatment of obesity
  Duan Chen (Norway)

Critical role of vitamin D3 in Helicobacter pylori eradication in stomachs
  Chi Hin Ho (Hong Kong, China)

Role of sulforaphane in protection of GI mucosa against H.pylori- and NSAID-induced oxidative stress
  Akinori Yanaka (Japan)

Adaptogens and gastric cytoprotection: molecular mechanisms
  Kavita Gulati (India)

Stress, anxiety and gastric mucosal integrity: a pharmacological analysis
  Arunabha Ray (India)

Big anniversaries in 2017: 100 years of Zagreb University, 110 years of Hans Selye & 80 years of his first stress articles
  Sandor Szabo (USA)

From Selye to Robert to stable gastric pentadecapeptide BPC 157
  Predrag Sikiric (Croatia)

Gastroprotective effect of remote ischemic preconditioning: involvement of glucocorticoids
  Ludmila Filaretova (Russia)

Ulcer research in light of clinicians: hopes and realities
  Gyula Mozsik (Hungary)

The effect of inhibitors of endocannabinoid deactivation on gastric and intestinal mucosal lesions, ulceration
  Klara Gyires (Hungary) Gyires K., Lázár B., Zádori Z.S.,

The effects of chronic cyclooxygenase-2 inhibition in the gastrointestinal tract of rats
  Zoltan Zadori (Hungary)

Fistula and other tissues healing by the Croatian Surgical Society
  Zarko Rasic (Croatia), Marko Sever (Croatia), Robert Klicek

BPC 157, duodenocolic and rectovaginal fistulas
  Marko Sever (Croatia)

BPC 157, colocutaneous fistulas
  Robert Klicek (Croatia)

Internal fistulas: BPC 157 and vesicovaginal fistulas healing
  Domagoj Rasic (Croatia)

BPC 157, NO-system, diclofenac toxicity and massive small bowel resection
  Nermin Lojo (Croatia)

Internal fistulas: BPC 157 heals enterovesical fistulas in rats
  Tihomir Gragic (Croatia)

BPC 157 induced liver regeneration after 70% hepatectomy in rats
  Dalibor Crvenkovic (Croatia)

BPC 157, heterotopic ossification, fracture in rats
  Neven Starcevic (Croatia)

BPC 157, glaucoma, sick eye in rats
  Tamara Kralj (Croatia)

BPC 157 and adhesion formation
  Lidija Berkopic (Croatia)

June 9th

Animal model of esophagitis
  Koji Takeuchi (Japan)

Acetic acid ulcer-its history and recent progress
  Susumu Okabe (Japan)

Visceral hypersensitivity and enteric mast cells
  Jackie Wood (USA)

Fat to FAT in GI disease
  Ki-Baik Hahm (Korea)

Obesity and experimental colitis. Role of exercise, myokines and products of adipose tissue
  Tomasz Brzozowski (Poland)

The role of AIEC in Crohn Disease
  Gaetano Iaquinto (Italy)

Nerve-cancer cell crosstalk as a new concept in cancer biology and a potential therapeutic target
  Chun-Mei Zhao (Norway)

GI and safety issues with NSAIDs: Critical analysis of current data
  Kim Rainsford (UK)

Hydrogen sulfide as an important component of the gastrointestinal mucosal barrier
  Marcin Magierowski (Poland)

Fecal microbiota transplantation: New insight
  Peter Konturek (Germany)

Molecular physiology and pharmacology of epithelial transport processes in ameloblasts leading to dental enamel formation – evidence for bicarbonate secretion
  Gabor Varga (Hungary)

BPC 157 as right remedy for NSAID-induced GI damages
  Ki-Baik Hahm (Korea)

The novelty of BPC 157: Challenges & opportunities
  Sandor Szabo (USA)

BPC 157 pathways
  Sven Seiwerth (Croatia)

Coagulation disorders in nonalcoholic fatty liver disease
  Lucija Virović Jukić (Croatia)

Cytokines and adipokines in nonalcoholic fatty liver disease
  Dominik Kralj (Croatia)

Adipocytokines and colonic adenomas
  Sanja Stojšavlijević (Croati)

Treatment options in nonalcoholic fatty liver disease: state of the art
  Marko Duvnjak (Croatia)

Continued on page 20..
IUPHAR Gastrointestinal Pharmacology Section in Zagreb
(continued)

**Program Highlights**
(continued)

**June 10th**

Sleep and GERD: An eye opening experience  
Ronnie Fass (USA)
GERD management: –It is time for a paradigm shift  
Ronnie Fass (USA)
Rare GI diseases in Primary Health Care – mystery or hysteria  
Hrvoje Tiljak (Croatia)
Helicobacter pylori infection: who should we test and how should we treat it  
Marco Romano (Italy)
Guanosine attenuates inflammation in a DNBS-induced colitis rat model by modulating inflammatory cytokines and reducing oxidative stress  
Maria Grazia Zizzo (Italy)
Mid gut infection in honeybees. Stable gastric pentadecapeptide BPC 157 in honeybee (Apis mellifera) therapy, to control N. ceranae invasions in apiary conditions  
Ivana Tlak Geiger (Croatia)

The next day, the IUPHAR GI Section meeting participants (above) were special guests at the terrace restaurant of the Andrija Štampar Institute of Public Health. Its renowned public health library collection is one of the jewels of the University of Zagreb.

Even though course examinations were approaching, the local students were more than happy to assist with hosting the international and regional guests and attend the featured presentations. We thank the many people who made possible this event and those who have helped established the Medical Faculty at the University of Zagreb as a leader in research and teaching.

**Predrag Sikiric**  
Professor, Medical Faculty at the University of Zagreb

and

**Duan Chen**  
Chair, IUPHAR GI Pharmacology Section
The Latvian Society of Pharmacology was established in 1972 and its first president was Professor Modris Melzobs, MD. From 1994 to 2012 the Society was led by Professor Vija Kluša, MD, PhD, and since 2012 by Professor Baiba Jansone, PhD. Pharmacology in Latvia has evolved into one of the leading scientific disciplines and Latvian pharmacology is recognized internationally. The main scientific areas include molecular pharmacology, neuropharmacology, neuroinflammation, the role of mitochondria and animal models in various diseases, mesenchymal stem cell pharmacology, peptide research, studies on natural products, drug discovery, particularly the search for novel compounds capable of halting neurodegenerative, cardiovascular and endocrine diseases.

The pharmacological community in Latvia unites specialists from academia and institutes, such as: the University of Latvia, Rīga Stradiņš University, the Latvian Institute of Organic Synthesis, and the Latvian Biomedical Research and Study centre, as well as pharmaceutical companies, such as JSC “Grindeks”, “Biolat”, SIA “Rigvir” and others. Active research scientists, industry specialists and students of life sciences represent about 50 active members of the Society (below).

Society members Ruta Muceniece, Maija Dambrova, Baiba Jansone, Una Riekstīna, Jolanta Pupure, Līga Zvejniece, Elīna Makarova, Baiba Švalbe and Marina Makrecka-Kuka have been awarded the L'Oréal-UNESCO Fellowships for Women in Science. Professors Kluša, Muceniece and Dambrova are full members of the Latvian Academy of Sciences, and Dr. pharm. Edgars Liepinš is a corresponding member of the Latvian Academy of Sciences. Professor Jansone provides scientific expertise to the Committee on Herbal Medicinal Products, and Associate Professor Riekstīna to the Committee for Advanced Therapies at the European Medicines Agency.

Continued on page 22...
Recently, the Department of Pharmacology of the Faculty of Medicine of the University of Latvia moved to the newly constructed campus named the “House of Nature” (at right). It is equipped with state of the art research equipment for in vivo (behaviour and memory experimental studies of neurodegenerative diseases in rodents etc.), ex vivo and in vitro experiments, and modern conference auditoria and seminar rooms. The researchers of the Laboratory of Pharmaceutical Pharmacology at the Latvian Institute of Organic Synthesis, headed by Professor Dambrova, and the Latvian Biomedical Research and Study Centre, which focuses on in vivo cancer studies, have also recently acquired new facilities.

The Latvian Society of Pharmacology organizes biannual meetings and international conferences to disseminate recent achievements in pharmacology, awards Honorary Members, and commemorates outstanding Latvian pharmacologists. As an example, in 2014, the Society held a meeting commemorating the would-be 90th birthday of Professor Agris Kimenis (1924-1994), who was from 1963 to 1987 the first head of the Laboratory of Pharmacology at the Latvian Institute of Organic Synthesis. He supervised screening of new substances at the rate of about 1000 compounds per year and oversaw pre-clinical investigation of original drugs, such as the anticancer drug Fturafur, the cardioprotectant Mildronate (Meldonium), the myorelaxant Dioxonium, and the antihypertensive Foridone, among others.

Commemorative meeting of the members of the Latvian Society of Pharmacology in honour of the would-be 90th birthday of Agris Kimenis, November 2014.
The Latvian Society of Pharmacology Celebrates 45 Years
(continued)

In 2017, the Latvian Society of Pharmacology celebrates its 45th anniversary. To commemorate this event, members of the Society organize the 2nd International Conference in Pharmacology entitled ‘From Cellular Processes to Drug Targets’ (ICP2017RIGA; http://www.icp2017riga.lu.lv) that took place at the campus of the University of Latvia “House of Nature” in Riga on October 19-20.

We welcomed conference participants from several different countries, many of whom experienced Riga, the capital of Latvia, for the first time. An exciting European city with a medieval Old Town, Riga boasts the highest concentration of Art Nouveau (Jugendstil) architecture (below) in the world. Therefore, UNESCO has designated the Historic Centre of Riga as a World Heritage Site. The Conference program highlighted the newest findings in pharmacology, bringing together all the active and honorary members of the Society, as well as academicians, industry specialists, doctors, students of life sciences, and internationally based scientists in a creative scientific atmosphere that promoted new collaborations. This conference was particularly auspicious because the members of the Latvian Society of Pharmacology commemorated Professor Modris Melzobs on the occasion of the 90th anniversary of his birthday. Professor Melzobs served as the inaugural president of the Society from 1972 until 1994.

Continued on page 24...
In honour of Dr. Oswald Schmiedeberg, the founder of experimental pharmacology, the Latvian Society of Pharmacology established the Oswald Schmiedeberg’s medal (above) that is presented to new Honorary Members at the Society organized conferences. Johann Ernst Oswald Schmiedeberg (1838-1921) was born near Talsi in Latvia and his grandparents were Latvians. Oswald Schmiedeberg studied medicine in Tartu (then called Dorpat) in Estonia, where he received in 1866 his Doctorate in Medicine. In 1868 he was appointed as a lecturer in pharmacology at the University of Tartu. Furthermore, in 1872 as professor of pharmacology in Strasbourg he began building a world-famous pharmacological institute. Dr. Schmiedeberg was particularly interested in the pharmacological action of the alkaloids muscarine, nicotine and digitalis glycosides. He published over 200 articles and books. During his leadership more than 150 pharmacologists were trained in Strasbourg. Notably, the journal of the German Society of Experimental and Clinical Pharmacology and Toxicology, Naunyn-Schmiedeberg’s Archives of Pharmacology, was named in his honor. Dr. Schmiedeberg’s school attracted many of the brightest scientists of the day. As one example, Professor Hans Cäsar Amsler from Switzerland headed the newly established Institute of Pharmacology in Riga from 1921 to 1940.

Since 1998, the Latvian Society of Pharmacology has awarded the Oswald Schmiedeberg’s medal to 34 Honorary Members (see next page), which includes pharmacologists and other specialists from Latvia and abroad, for their important contributions to the field of pharmacology in Latvia, or for facilitating the development of the pharmacology education and research in Latvia.

The Latvian Society of Pharmacology highly values the outstanding contributions of all Honorary Members because not only have they facilitated the development of pharmacology within Latvia but they established and prioritized the importance of excellent and lasting international collaborations. They are all our good friends and their support cannot be overestimated.

On October 19, 2017, the new Honorary Members congratulatory ceremony of the 2nd International Conference in Pharmacology, the Oswald Schmiedeberg’s medal was awarded to Associate Professors Inga Kadish, PhD, and Thomas van Groen, PhD, of the University of Alabama at Birmingham, USA. Both have accepted
Honorary Members of the Society

1998
Pēteris Alberts (Sweden/Latvia)
Liisa Ahte (Finland)
Lembt Allikmets (Estonia)
Shyam S. Chatterjee (Germany)
Jens S. Schou (Denmark)
Guna Jākobsone (Latvia)
Valdis Jākobsons (Latvia)
Edmunds Lukevics (Latvia)
Algis Mickis (Lithuania)
Michael Noeldner (Germany)
Sven Ove Ögren (Sweden)
Rita Petričeka (USA)
Jurgis Ramanauskas (Lithuania)
Aivars Uldis Ramāns (USA)
Niels A. Thorn (Denmark)
Jarl Wikberg (Sweden)

1999
Skaidrīte Ģērmane (Latvia)
Modris Melzobs (Latvia)

2001
Ivars Kalviņš (Latvia)
Alexander Zharkovsky (Estonia)
Gunārs Duburs (Latvia)

2005
Jānis Stradiņš (Latvia)
Heinz Lüllmann (Germany)
Gunārs Čipēns (Latvia)
Povilas Gaidelis (Lithuania)

2007
Antī Kalda (Estonia)
Helgi Schiöth (Sweden)

2012
Boris Z. Simkhovich (USA)
Edwin Zvartau (Russia)
Laura Della Corte (Italy)
Sergei B. Seredenin (Russia)
Raimo Tuominen (Finland)
Stefan Chłopicki (Poland),
Vilmantė Borutaitė (Lithuania)

2017 (photograph at right)
Vija Zaiga Kluša (Latvia)
Inga Kadish (USA)
Thomas van Groen (USA)

The Latvian Society of Pharmacology Celebrates 45 Years

(continued)

pharmacologists from Latvia into their laboratories, helping to facilitate the transfer of the research knowledge to Latvia. Oswald Schmiedeberg’s medal was also presented to Professor Kluša, the president of the Latvian Society of Pharmacology from 1994 until 2012. She served as the head of the Laboratory of Peptide Molecular Pharmacology and Biology 1978 to 1987, then the Laboratory of Pharmacology at the Latvian Institute of Organic Synthesis 1987 to 1998, before she founded and headed the Department of Pharmacology of the Faculty of Medicine of the University of Latvia (1998-2017). For her achievements in science and founding a School of Pharmacology at the University of Latvia, Professor Kluša received in 2013 the Three Star Order, which is the highest Latvian Republic Award.

The Latvian Society of Pharmacology has been affiliated with the Latvian Academy of Sciences since 1997. In 1994, the Latvian Society of Pharmacology joined the IUPHAR and in 2010 the Federation of European Pharmacological Societies (EPHAR).

Since joining the European Union in 2004, pharmacologists from Latvia have had the opportunity to receive various international grants, including the European Regional Development Fund, European Social Fund, the Norwegian Financial Mechanism funding, etc. Latvian pharmacologists have firmly established collaborations with international partners from countries such as Sweden, USA, Estonia, Norway, Lithuania, Canada, Italy, and Portugal as well as continuing cooperation with local industry, e.g., JSC “Grindex”, JSC “Olainfarm”, SIA “Rigvir”, “Silvanols” and “Biolat”. The members of the Latvian Society of Pharmacology are pleased to have had opportunities to collaborate with research partners from other countries and in other fields beyond pharmacology, such as biomedicine, pharmacy, and medicinal chemistry. More detailed information about recent research achievements in pharmacology in Latvia is available in a 2016 Pharmacological Research Special Issue entitled “Countries in focus: Pharmacology in the Baltic States” (Jansone et al., 2016).

Baiba Jansone
President, Latvian Society of Pharmacology
baiba.jansone@lu.lv

Reference
Upcoming Events

January

Winter Meeting of the Norwegian Society of Pharmacology and Toxicology
January 25 - 28, 2018 in Beitostølen, Norway
http://nsft.net/nsfts-vintermote-2018

February

84th Annual Meeting of the German Society for Experimental and Clinical Pharmacology and Toxicology with the 3rd German Pharm-Tox Summit, a joint meeting with the Association of Clinical Pharmacology
February 26 - March 1, 2018 in Göttingen, Germany
http://www.gpts-kongress.de

50th Annual Conference of the Indian Pharmacological Society
February 15 - 17, 2018 in Mumbai, India
http://www.indianpharmacology.org/7/Annual-Conference.html

March

119th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics
March 21 - 24, 2018 in Orlando, Florida, USA
http://www.ascpt.org/ASCPT-2018-Annual-Meeting

April

10th Congress of Toxicology in Developing Countries (CTDC10) organized by the International Union of Toxicology
April 18 - 21, 2018 in Belgrade, Serbia
https://www.iutox.org/ctdc.asp

Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics in conjunction with Experimental Biology 2018
April 21 - 25, 2018 in San Diego, California, USA
http://www.aspet.org

May

Joint meeting of the Canadian Society of Pharmacology and Therapeutics, Canadian Chapter of Controlled Release Society and Canadian Society for Pharmaceutical Sciences
May 22 - 25, 2018 in Toronto, Canada
https://pharmacologycanada.org

June

Annual congress of the French Pharmacology Society
June 12 - 14, 2018 in Toulouse, France
https://pharmacol-fr.org/congres-sfpt

July

IUPHAR 18th World Congress of Basic and Clinical Pharmacology
July 1 - 6, 2018 in Kyoto, Japan
http://www.wcp2018.org

To include your events here, please e-mail the details to iuphar@kumc.edu.
Pharmacology Futures 2018  
May 17, 2018  
National Museum of Scotland, Edinburgh

Professor David Webb, President of the British Pharmacological Society and Christison Chair of Therapeutics and Clinical Pharmacology at the University of Edinburgh, highlights a major international meeting taking place next year.

In 2018, it will be 250 years since the founding of a separate Chair of Materia Medica in Edinburgh. Students at the Edinburgh Medical School were taught about drugs from as early as 1676. At that time, most drugs were effectively herbal remedies extracted from plants and animals, and it was therefore appropriate that the subject was taught by a Professor of Botany. In 1738, however, the first Chair of both Botany and Materia Medica was appointed. At this time, students were expected to know the properties of 250 plants, 60 minerals, various gums and resins, and also extracts of snails, worms and vipers – all used as medicines.

In 1768, Materia Medica was separated from Botany, seeing the founding of what was probably the first Chair in the world of what would become pharmacology. To celebrate this rich 250-year history of pharmacology in Edinburgh and to look forward to the future of the discipline, the British Pharmacological Society is hosting a focused meeting to explore the technologies and skills that will drive drug development over the next 10 to 15 years. The Royal Society of Edinburgh is lending its support to this meeting. Some highlights of the drug discovery and development programme include:

- The role of structural genomics in drug development
- The importance of epigenetics in drug discovery
- The role of stem cells in therapeutics, drug safety pharmacology, and drug discovery
- The use of biomarkers in guiding therapy
- The importance of allosteric drug binding sites for novel drug development
- Trans-institute approaches to drug development for neurological diseases

The University of Edinburgh’s Cameron Prize for Therapeutics, founded in 1879, will be awarded to Dame Sally Davies, Chief Medical Officer for England, at this meeting. The event is being hosted at the National Museum of Scotland, so we will be celebrating the long history of pharmacology in Edinburgh amidst diverse collections that journey through Scotland’s rich history. We will be making the most of the iconic setting by hosting a drinks reception in the ‘Explore Gallery’, and dinner in the ‘Grand Gallery’.

The full programme, along with a list of the many eminent speakers who will address the meeting, can be viewed and downloaded from [www.bps.ac.uk/pharmacologyfutures2018](http://www.bps.ac.uk/pharmacologyfutures2018). Online registration is now open. Book early to avoid disappointment!

Continued on page 28...
Pharmacology Futures 2018 will explore the technologies and skills that will drive drug development over the next 10 to 15 years, with speakers sharing their visions of the future to celebrate 250 years of pharmacology in Edinburgh. The University of Edinburgh’s Cameron Prize for Therapeutics will be awarded during the meeting.

PhD students and early career researchers are invited to submit a scientific abstract showing how their work contributes to the ‘Future of Pharmacology’. The best three from each category will be invited to give an oral presentation. Two winners will be selected, one from each category (PhD students and early careers researchers) to receive certificates and prizes of £250. The authors of all other accepted abstracts will be invited to present a poster.

For more information about attending or presenting please contact
meetings@bps.ac.uk or visit www.bps.ac.uk/pharmacologyfutures2018

Early bird registration rate expires: 16 April 2018  Registration deadline: 10 May 2018
Abstract submission deadline: 02 March 2018  Member bursary deadline: 02 March 2018

Early bird registration fees from £50.
Please visit www.bps.ac.uk/pharmacologyfutures2018 to book your place.

*Early careers researchers: oral communications – for those with up to 7 years' full-time equivalent post-doctoral experience as of May 2018

Speakers
How do we make the UK a world leader in drug discovery?
Professor Chas Bountra, University of Oxford, UK
Human pluripotent stem cell models for future drug discovery and disease modelling
Professor Christine Mummery, Leiden University Medical Centre, The Netherlands
Minding the gap: Linking preclinical studies to the development of novel therapeutics at the National Institutes of Health
Professor Susan Amara, National Institute of Mental Health, USA
Drugging transcription: Progress and potential for treating human diseases
Dr Rob Peinjra, GlaxoSmithKline, UK
The pharmacology of turning thoughts into local blood flow in the brain
Professor Mark Nelson, University of Vermont, USA
The role of biomarkers in translational pharmacology
Dr James Dux, University of Edinburgh, UK
GPCR allostery: From theory to medicine
Professor Arthur Christopoulos, Monash University, Australia
2017 Cameron Prize for Therapeutics lecture: Building and maintaining a global response to antimicrobial resistance (AMR)
Professor Dame Sally Davies, Department of Health, UK

Chairs
Professor Sue Fleetwood-Walker, University of Edinburgh, UK
Professor Mark Evans, University of Edinburgh, UK
Dr Sally Argyle, University of Edinburgh, UK
Professor David Wylie, University of Edinburgh, UK
Professor Sir John Savill, Regius Professor of Medical Science, University of Edinburgh, UK

Local organisers
Professor Michael Eddleston, Professor of Clinical Toxicology, Pharmacology, Toxicology and Therapeutics, University of Edinburgh, UK
Professor David Webb, President, British Pharmacological Society and Christison Professor of Therapeutics and Clinical Pharmacology, University of Edinburgh, UK
On behalf of Professor Mark Evans, Dr Gillian Gray, Professor John Kelly, Dr Dawn Livingstone, Dr Emma Morrison, Professor David Wylie and Professor Steve Hill

Dr Gillian Gray, Professor John Kelly, Dr Dawn Livingstone, Dr Emma Morrison, Professor David Wylie and Professor Steve Hill
The Council for International Organizations of Medical Sciences

Student Award for Best Scientific Article

CIOMS is pleased to announce the establishment of an annual award of US$1,500 for the best scientific article published in the areas of pharmacovigilance and research ethics. In the case of research ethics, papers dealing with health-related research involving humans are eligible. The article must have been published in a scientific peer-reviewed journal in English.

The first award application deadline is 1 March 2018.

Eligibility

1. Award applicants/recipient should be medical students from member organizations of the International Federation of Medical Students’ Associations (IMFSA). Medical students continuing as PhD students can also be eligible.

2. All students listed as authors of the scientific article applied for the award are equally eligible meaning that the award sum will be distributed between student authors equally.

3. Applications can be submitted for scientific articles that have been published in peer-reviewed scientific journals in English.

4. The applications for scientific articles with student-only authors are given priority. Papers with mixed authorship in which students are co-authors can be considered provided there is enough evidence of the important role of student/s in this work.

5. An individual may not receive more than one CIOMS award in a year, nor may an individual receive more than one award for the same body of work.

6. The applicant MUST provide evidence that she/he is a medical student currently enrolled in a medical school.

7. A minimum of three eligible applications are required in an award cycle (usually one year) before the selection committee may select an award recipient(s).

Award Application Requirements

Submit your application by e-mail to info@cioms.ch, including:

1. Short cover letter from the main applicant (applicant who duly represents all the student authors of the article, if more than one) with clear contact data and brief description of the accomplishments, as well as the contact data of the scientific supervisor of the student/s.

2. A copy of the article as it appeared in a peer reviewed journal.

3. A letter from the scientific supervisor in the University supporting the application (recommended but not mandatory)

4. One to two letters of reference. All letters of recommendation may come from the nominee’s institution.

5. Nominations should be specific about the achievements.

Additional information can be found at www.cioms.ch.