

# Pharmacology International

No. 82 June 2014 The semi-annual newsletter from the International Union of Basic and Clinical Pharmacology

## In This Issue

### WCP2014

|  |        |
|--|--------|
| Registration Information                                 | Pg. 2  |
| Social Events  | Pg. 4  |
| Programme/Speakers                                       | Pg. 5  |
| PharmacoCareers Discount                                 | Pg. 6  |
| Mobile App/Social Media                                  | Pg. 7  |
| IUPHAR Business Meetings                                 | Pg. 8  |
| Young Scientists   | Pg. 9  |
| BPS Young Pharmacologists                                | Pg. 10 |
| Sponsor Acknowledgment                                   | Pg. 11 |
| Satellite Meetings                                       | Pg. 12 |
| The Road to Cape Town                                    | Pg. 14 |
| A Decade of Pharmacology<br>Revolution in Africa         | Pg. 18 |
| Pharmacology for Africa: A<br>Story of Courage & Success | Pg. 21 |
| General Travel Information                               | Pg. 27 |
| Activities in/near Cape Town                             | Pg. 31 |
| Quality Touring Services                                 | Pg. 38 |

### Anniversaries

|  |        |
|--|--------|
| 2014 Anniversaries   | Pg. 39 |
| Hellenic Society of Basic &<br>Clinical Pharmacology 30 <sup>th</sup>        | Pg. 40 |
| Section for Clinical Pharmacology<br>Serbian Medical Society 5 <sup>th</sup> | Pg. 42 |

### Recognition

|                                       |        |
|---------------------------------------|--------|
| My 42 Years (& Counting)<br>Netter    | Pg.44  |
| BCPT Nordic Prize<br>Sjöqvist         | Pg. 45 |
| IUPHAR Education Section<br>Tichelaar | Pg. 48 |
| PRACP Werner Kalow Prize<br>Lerer     | Pg. 49 |

### Call for Nominations

|                                   |        |
|-----------------------------------|--------|
| PRACP Werner Kalow Prize          | Pg. 50 |
| BPS Drug Discovery of<br>the Year | Pg. 51 |

### Meeting Reports

|   |        |
|---|--------|
| X <sup>th</sup> National Ukrainian School<br>of Young Pharmacologists | Pg. 52 |
| LATINFARMA 2013   | Pg. 54 |

### Executive Director

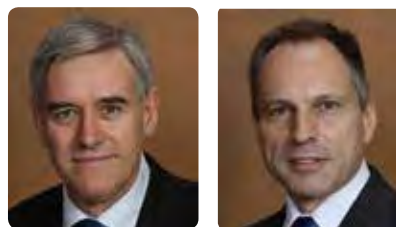
|                 |        |
|-----------------|--------|
| Sought for ICSU | Pg. 57 |
|-----------------|--------|

### Meeting Invitations

|   |        |
|---|--------|
| Upcoming Events   | Pg. 58 |
| Integrative & Organ Systems<br>Pharmacology Workshop          | Pg. 60 |
| Toxicology Society of So. Africa<br>Workshop                  | Pg. 61 |
| Rational Use of Medicines in<br>Developing Countries          | Pg. 62 |
| Clinical Pharmacology in Dev.<br>Countries Business Meeting   | Pg. 63 |
| James Black Conference - 9 <sup>th</sup><br>Adrenoceptor/GPCR | Pg. 64 |
| Intl Society of Pharmaco-<br>vigilance Annual Meeting         | Pg. 65 |



## Invitation to the 17th World Congress of Basic and Clinical Pharmacology



### Dear Pharmacology Colleague,

It is our pleasure to invite you to attend the 17th World Congress of Basic and Clinical Pharmacology (WCP2014) from 13-18 July 2014 in Cape Town, South Africa. This prestigious global event is held for the first time ever on the African continent. This year's programme is well designed with more than 350 renowned pharmacologists as speakers in plenary and scientific sessions. In addition, the Nobel laureate Prof Robert Lefkowitz will be the opening keynote speaker.

Cape Town is heralded as one of the most exquisite tourist destinations in the world, offering a safe haven in Africa, with easy access to the latest technological and medical services. The city is part of the Best Cities Global Alliance [www.bestcities.net](http://www.bestcities.net), and is regarded as one of the 10 best cities in the World. In fact, the Global Alliance will host its next meeting in Cape Town in December 2014. Many large international congresses, such as the World Diabetes Congress and many other prestigious meetings have been held in Cape Town over the past decade. Cape Town is known for its warm-hearted and friendly people and

offers unique diversity and extraordinary beauty. Table Mountain, majestically rising above the city, is one of the 7 World Nature Wonders and is visited on a daily basis all year round by mostly international visitors from across the globe. With numerous red and blue hop-on/hop-off busses touring all the attractions in and around Cape Town, this clearly demonstrates the ease and security around Cape Town. Cape Town International airport is a mere 20 minutes' drive away from the congress venue in the heart of the city bowl. For your convenience, delegates to the world congress will be welcomed and assisted upon arrival at the airport. Importantly, several excellent accommodation options are available, either onsite or within walking distance of the congress centre. High quality tours are also offered on the WCP2014 website ([www.wcp2014.org](http://www.wcp2014.org)).

We hope to meet you in Cape Town,

**With warm South African greetings**

*Douglas Oliver and Tiaan Brink*

WCP2014 President and Secretary-General





# Registration Information

## How to Register:

Registrations are open – delegates are invited to register by visiting the congress website [www.wcp2014.org](http://www.wcp2014.org) – select “Participate” and then “Register”.

## Registration Fees & Entitlements:

| CATEGORY              | NORMAL<br>(if registered and paid for<br>after 28 February 2014) |
|-----------------------|--|
| Standard Registration | ZAR 10,000 incl. VAT   |
| Student Registration  | ZAR 8,000 incl. VAT  |
| Day Delegate          | ZAR 2,500 incl. VAT  |
| Accompanying Person   | ZAR 1,500 incl. VAT  |

## Standard Registration includes:

- Attendance of all Congress sessions
- Attendance of social event: Welcome Function, Sunday 13 July 2014
- 2 x tea / coffee breaks per day
- All published Congress proceedings
- Delegate package
- Access to the Congress exhibition
- Gala Dinner tickets are available at an additional cost
- Lunch is not included

## Student Registration includes:

NB: This option is only open to bona fide FULL TIME students. A letter from your study supervisor/ supervising professor, confirming your formal registration as full time student or full time appointment as postdoctoral fellow, must be included with your registration (student card is not acceptable).

- Attendance of all Congress sessions
- Attendance of social event: Welcome Function, Sunday 13th July 2014
- 2 x tea / coffee breaks per day
- All published Congress proceedings
- Delegate package
- Access to the Congress exhibition
- Gala Dinner tickets are available at an additional cost
- Lunch is not included

## Day Delegate Registration – ZAR 2,500 (incl. VAT) per day

- Attendance for all Congress sessions on the day selected
- 2 x tea / coffee breaks

*Continued on page 3...*

- All published Congress proceedings for the day selected
- Delegate package
- Access to the Congress exhibition for the day selected
- Gala Dinner tickets are available at an additional cost
- Lunch is not included

#### Accompanying Person – ZAR 1,500 (incl. VAT)

- Attendance of Opening Function/Welcome Cocktail Function
- 2 x tea / coffee breaks in exhibition hall
- Closing ceremony
- Gala Dinner tickets are available at an additional cost
- Access to any Congress sessions not included

### Additional Meetings

(Delegate must indicate attendance on the registration form, not automatically included in registration fees)

| MEETING   | FEE                |
|---|--------------------|
| Thursday evening, 17 July 2014 17:00 - 19:00      |                    |
| Pharmacology for Africa (PharfA) General Assembly | No additional cost |
| Friday afternoon, 18 July 2014 14:00 - 18:00      |                    |
| Nelson Mandela International Day excursion        | ZAR 250 per person |

### Social Events

Welcome Cocktail – Sunday 13 July 2014 – ZAR 250 (incl. VAT) per person for additional tickets

(Included in Full Congress and Day Delegate registration)

- Light cocktail snacks
- Entertainment
- Access to the official opening of the Congress exhibition
- Drinks

Gala Dinner - Wednesday 16 July 2014 – ZAR 990 (incl. VAT) per person

(Not included in Full Congress or Day Delegate registration)

- Meal served: set menu
- Entertainment
- A limited drinks selection

\* NOTE: All fees are quoted in South African Rand (ZAR).





## SOCIAL EVENTS

The Organising Committee is planning the following social events for WCP 2014 delegates.

### OPENING CEREMONY AND WELCOME FUNCTION

Date: Sunday, 13 July 2014

Time: 17:30

Venue: Auditorium 1, CTICC

Dress code: Smart Casual

Join us for the official opening ceremony to celebrate WCP 2014 taking place in Cape Town, South Africa – at the southernmost tip of the African continent.

The official opening lecture will be given by Prof Robert Lefkowitz, Nobel Prize Laureate for Chemistry 2012.

The opening ceremony will be followed by the official opening of the exhibition where light finger snacks will be served. Limited wine, beer and softdrinks will be served complimentary. Bring cash with you for additional drinks.

Entry to the event is included in delegate registration fees as well as the accompanying persons fee. Additional tickets are available for R250.

### GALA DINNER

Date: Wednesday, 16 July 2014

Time: 19:00 for 19:30

Venue: The Ballroom, CTICC

Dress code: Formal evening wear

The WCP 2014 Organising Committee formally invites you to attend this prestigious elegantly African gala dinner.

A three course meal will be served with limited wine, beer and softdrinks included in the ticket.

You will be entertained by a mixture of classical, African jazz and cabaret artists. This will be a night to remember.

Book your tickets today at R990 per person.



### NELSON MANDELA DAY

Date: Friday, 18 July 2014

Time: 14:00 – 18:00

Venue: Various community projects in Cape Town and surrounds

Dress code: Comfortable, warm clothing

The response to the Nelson Mandela Day 67 Minutes programme has been overwhelming and is indeed encouraging. Participants will be able to participate in a programme of their choice, including:

- Baphumelele Children's Home, Khayelitsha – spend some time with destitute children
- Hands of Honour feeding programmes and restoration projects
- Hope Foundation Cape Town – various HIV Aids and Health projects
- Grassroots Soccer – teaching children through the world's most popular sport
- ASA – Women's cooperatives where vegetable gardens will be built for sustainable healthy food supply

This event is sold out. You will be able to sign up for the project of your choice on site at the congress.

### TO BOOK YOUR PLACE AT ANY OF THESE EVENTS CONTACT:

Carina du Plessis

Scatterlings Conference & Events

Email: [carina@soafrica.com](mailto:carina@soafrica.com)

# Programme Outline

# Speakers

## 11 – 13 July 2014

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Arrive in Cape Town. Meet & Greet transfer service to/from Cape Town International Airport is available for WCP 2014 delegates:  
[www.wcp2014.org/index.php/travel-info/transport/transfers](http://www.wcp2014.org/index.php/travel-info/transport/transfers)

## 12 & 13 July 2014

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Pre - Congress satellite meetings & set up of exhibition

## 13 July 2014

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14:00 – Registration Opens  
17:30 – Opening Ceremony  
19:30 – Welcome Reception

## 14 July 2014

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08:30 – 17:00 – Congress in Session  
19:00 – SASBCP General Assembly  
Evening at leisure

## 15 July 2014

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08:30 – 17:00 – Congress in Session  
17:00 – IUPHAR Analytical Pharmacology Lecture  
18:15 – IUPHAR General Assembly

## 16 July 2014

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08:30 – 17:00 – Congress in Session  
19:00 for 19:30 – Congress Gala Dinner

## 17 July 2014

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08:30 – 17:00 – Congress in Session  
17:00 – 19:00 – PharfA General Assembly  
17:00 – 19:00 – IUPHAR Clinical Division General Assembly

## 18 July 2014

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08:30 – 12:00 – Congress in Session  
12:00 – 13:00 – Closing Ceremony  
14:00 – 18:00 – Nelson Mandela International Day Activities



Robert Lefkowitz



Arthur Christopoulos



Alex Dodoo



Dariono Fabbro



Suzanne Hill



Nicholas Holford



Kazuhide Inoue



Kozo Kaibuchi



Yoshikatsu Kanai



Simon Mallal



Martin Michel



Simon Maxwell



Bruce McEwan



Salvador Moncada



Richard Neubig



Clive Ondari



Munir Pirmohamed



Pantagi Rangachari



Dan Roden



Stephen Stahl



Brian Strom



Ronald Taylor



Nicholas White

For the full programme listing visit

<http://wcp2014.org/index.php/programme/scientific-programme>





# www.PharmacoCareers.org

## IUPHAR CAREER CENTER

In honor of the World Congress of Basic and Clinical Pharmacology 2014 IUPHAR is offering a **30% discount** on all types of career postings.

Visit [www.PharmacoCareers.org](http://www.PharmacoCareers.org) and enter WCP2014 as your coupon code to take advantage of this limited offer!

*Online coupon expires August 31, 2014 - AUD, CAD, EUR, GBP & USD accepted.*

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Welcome Leonardo Scapozza - [log out](#)

### Review/Finalize Your Order

Please review your order and then choose a payment method below to complete the order. If you have any questions or encounter any problems, please call 860-437-5700.

| Order Summary  |                 |             |
|--|-----------------|-------------|
| Item   | Job Board       | Price       |
| <input checked="" type="checkbox"/> 30 Day Job Posting | PharmacoCareers | €170.00 EUR |

Have a coupon? Enter it here:  [Add Coupon](#)

**Total:** ~~€170.00 EUR~~

€119



# MOBILE APP

The WCP 2014 Mobile App will be available from the beginning of June for download on your smartphone, tablet or PC. To download the app, visit the following link: [www.eventmobi.com/wcp2014](http://www.eventmobi.com/wcp2014)

## Features of the mobile app:

- Alerts will keep you abreast of the latest developments and any changes
- Plan your agenda – choose the presentations you wish to attend and print it out for easy reference
- View a list of delegates
- Details of the plenary speakers and their presentations
- View the exhibitor and sponsoring companies information and make a note to meet with them

The app works on all smartphones, tablets and computers across all platforms as it uses the internet. Offline mode is available, but an internet connection is required to access any updates.


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## SOCIAL MEDIA

Join our discussions on our social media platforms:

 Like us on Facebook  
World Congress on Basic & Clinical Pharmacology 2014

 Join our group on LinkedIn  
17th World Congress on Basic & Clinical Pharmacology

 Follow us on Twitter  
@WCP\_2014



### Dear Colleague,

We trust that this feature has inspired you to join us in Cape Town at this cutting edge pharmacology congress where you will be able to meet with like-minded colleagues from around the world. We hope that you will have the time to explore our beautiful country before or after the Congress.

Looking forward to welcoming you in Cape Town in July!

Yours sincerely,  
Prof Vanessa Steenkamp  
Marketing Chair WCP 2014



# IUPHAR BUSINESS MEETINGS

**Expand your international participation  
by joining an IUPHAR special interest group.**

*Attend the below meeting(s) of interest to you to learn how.*

*WCP2014 registrants are welcome to all IUPHAR business meetings.*

*For more information, consult the online congress program at [www.WCP2014.org](http://www.WCP2014.org).*

## Sunday, July 13th

Education Section General Assembly at 11:00 (Meeting Room 1.40)

Gastrointestinal Section Business Meeting at 13:30 (Meeting Room 2.66)

## Monday, July 14th

Pediatric Section General Assembly at noon (Meeting Room 1.71)

## Tuesday, July 15th

Immunopharmacology Section Business Meeting at 13:00 (Meeting Room 1.71)

Drug Metabolism & Drug Transport Section Business Meeting at 17:00 (Meeting Room 1.71)

IUPHAR Council General Assembly at 18:15 (Roof Terrace)

*Member society delegates are asked to be seated by 18:10 to receive registration instructions.*

## Wednesday, July 16th

Pharmacogenetic/genomics Section Business Meeting at 14:45 (Meeting Room 1.71)

## Thursday, July 17th

Clinical Pharmacology in Developing Countries Subcommittee

Business Meeting at 15:30 (Meeting Room 1.71)

Clinical Pharmacology Division General Assembly at 17:00 (Meeting Room 1.40)

Pharmacology for Africa (PharfA) General Assembly at 18:45 (Ballroom West)





# Young Scientist



As chairman of the Young Scientist Informal Group of the South African Society of Basic and Clinical Pharmacology (SASBCP), allow me to extend a warm greeting and invitation from our side of the world. With less than four months to go to the start of the 17th World Congress

of Basic and Clinical Pharmacology (WCP2014), our excitement is becoming more and more evident.

With a schedule filled to the brim with pertinent pharmacological topics – ranging from scientific development and discovery of new pharmaceutical leads, to the advancement of clinical treatment regimens – this congress has something to offer for everyone. We are privileged to have with us a wide panel of extraordinary plenary speakers, with an opening keynote session by Nobel laureate Professor Robert Lefkowitz.

As a young scientist myself, I am elated at the opportunity to meet such great minds and further my scientific knowledge. With that said, let me also inform all our young scientists that we have an exciting time planned ahead.

The congress offers numerous 'Meet the Expert'-sessions, where we will be able to pick the brains of those from the scientific community.

This opportunity will allow us to learn from those who have made great advances in science, learnt from experience, and encountered the troubleshooting problems we are only starting to face. Furthermore, sessions will also include those with experience in the industrial market, and will be available for questioning with regards to the job market.

The International Union of Basic and Clinical Pharmacology (IUPHAR) is sponsoring a Young Investigator Research Competition to support and inspire early career pharmacologists. Ten young scientists will be selected from all those who have submitted abstracts to present during this session, with the first three places receiving a cash award for their excellence in research.

The young scientist social function (date still to be determined) will act as an informal platform to help establish a contact database between researchers. This evening hopes to not only increase collaboration between research institutes, but also create opportunities to mingle with those breaking into the scientific market.

I hope that you all are excited for what we have to offer, and I for one cannot wait to see all of you there.

Regards

Werner Cordier

## IUPHAR Congratulates the 10 Finalists in the Young Investigator Competition

Stephen Ayinbuomwan  
*Nigeria*

Luiz Sérgio F. de Carvalho  
*Brazil*

Johannes T. Ghebremariam  
*United States*

Christian Gruber  
*Austria*

Chantal Beatrice Magne Nde  
*Australia*

Ivica Matak  
*Croatia*

Claire Newton  
*South Africa*

Carolina Nör  
*Brazil*

Deepesh Pandey  
*United States*

Valéria Sandrim  
*Brazil*

The Young Investigator Competition begins at 10:30 a.m. on Wednesday, July 16th, 2014  
in the Cape Town International Convention Centre

[www.wcp2014.org/index.php/programme/scientific-programme/14-programme/224-iuphar-young-scientists](http://www.wcp2014.org/index.php/programme/scientific-programme/14-programme/224-iuphar-young-scientists)

# Fundraising for WCP2014 by the Young Pharmacologists Committee of the British Pharmacological Society

Daniel Reed and Tim Warner  
BPS YP Committee

It has been a great pleasure for the Young Pharmacologists Committee of the British Pharmacological Society to donate £17,000 towards student bursaries for attendance at the World Congress of Pharmacology 2014 in Cape Town.

This fund is the accumulation of sales of "I 'heart' pharmacology" t-shirts over recent years and generous donations from colleagues around the world.

The Young Pharmacologists Committee is comprised of under- and post-graduate students, early career research scientists from academia and industry as well as clinicians across all areas of pharmacology. The Committee is now established as a platform for young pharmacologists to have a direct line to policy makers and opinion leaders in biomedicine and pharmacology. Through these interactions the Committee has lobbied government, provided consultations to the executive committee and organized multiple symposia and networking events at many international conferences.



*IUPHAR executive committee wearing BPS young pharmacologist t-shirts.*

## IUPHAR Executive Committee 2011

When we as a committee became aware that WCP 2014 would be held in Cape Town, South Africa we were thrilled by this opportunity for young scientists to meet with world leaders in pharmacology in such an incredible city. We noted that, in the UK, Europe and the USA, there were many sources of funding and support available to students. These have allowed many young scientists to travel the world to talk about the pharmacology they love. We wanted to share this incredible experience with as many young scientists and students as possible from across Africa so decided to fund raise for bursaries for students and young scientists from the host continent to attend WCP 2014. As this was all about sharing our love for pharmacology, the "I 'heart' pharmacology" initiative was born. We sold "I 'heart' pharmacology" t-shirts and mugs all over

the world, and discussed our fund raising plans at almost every symposium, networking event or social event we attended. We even managed to corner the IUPHAR executive committee for a photograph in our now iconic (at least in the pharmacology world) "I 'heart' Pharmacology" t-shirts. Funds were also raised via our website during event registration.

In our original meetings we had set ourselves the goal of raising at least £1000. The response and the amount of funds raised, totaling £17000, have been overwhelming and we thank everybody who contributed and donated to this fund raising scheme. It is our great pleasure and privilege to contribute these funds to bursaries for African scientists at WCP 2014.

June 2014

# Thank you to our sponsors

|   |   |   |
|---|---|---|
|  <p>National Research Foundation</p>   |  <p>NORTH-WEST UNIVERSITY<br/>YUNIBESITHI YA BOKONE-BOPHIRIMA<br/>NOORDWES-UNIVERSITEIT<br/>POTCHEFSTROOM CAMPUS</p> |  <p>BRITISH PHARMACOLOGICAL SOCIETY</p>                        |
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## WCP2014 SATELLITES

***Satellite meetings provide specialized content and unique South African venues. Additional registration is required.***

### July 7th -10th

Integrative and Organs Systems Pharmacology Workshop

“Introduction to Laboratory Animal Science: A Global Perspective” at the Senate Chamber on the Westville Campus of University of KwaZulu-Natal

[www.iosp2014.ukzn.ac.za](http://www.iosp2014.ukzn.ac.za)

### July 9th-12th

11th International Society for Serotonin Research Meeting

“A Serotonin Safari” at the Arabella Hotel & Spa

<http://issr2014.org>

### July 11th-12th

Renin-Angiotensin-Aldosterone System Satellite Meeting

“Drugs for Hypertension and Heart Failure with a Special Focus on the RAAS” at the Spier Wine Estate Conference Centre

<http://raassatellite2014.org>

Toxicology Society of South Africa (TOXSA) Workshop

“In Vivo and In Vitro Methods to Identify and Evaluate Chemical Health Hazards: Establishment of Laboratory Facilities and Provision of Training in the Risk Assessment of Chemicals in South Africa” at the Two Oceans Aquarium

[http://wcp2014.org/images/TOXSA\\_workshop\\_11\\_-\\_12\\_July\\_2014\\_Final\\_Programme.pdf](http://wcp2014.org/images/TOXSA_workshop_11_-_12_July_2014_Final_Programme.pdf)

[http://wcp2014.org/images/TOXSA\\_Delegate\\_registration\\_form.pdf](http://wcp2014.org/images/TOXSA_Delegate_registration_form.pdf)



# WCP2014 SATELLITES (CONTINUED)

## July 12th-13th

Safety Pharmacology Meeting at the Protea Stellenbosch Hotel. Email [Linda.Grimbeek@nwu.ac.za](mailto:Linda.Grimbeek@nwu.ac.za) for further details.

IUPHAR Education Section Satellite Meeting at the Cape Town International Convention Centre  
[www.iuphar-ed2014.org](http://www.iuphar-ed2014.org)

## July 13th

Southern African Neuroscience Society (SANS)

“Basic & Clinical Neuroscience Symposium” at the University of Cape Town

<http://sans.org.za/index.php/sans-symposium-2014>

Southern African Academy for Medicines Development

“Training of Medicines Development and Regulation in Emerging Countries” at the Westin Cape Town Hotel

<http://wcp2014.org/index.php/programme/scientific-programme/14-programme/196-training-of-medicines-development-and-regulation-in-emerging-countries>

## July 14th

International Association of Therapeutic Drug Monitoring & Clinical Toxicology (IATDMCT) symposium

“Frontiers in Therapeutic Drug Management” at Cape Town International Convention Centre

<http://wcp2014.org/index.php/programme/scientific-programme/182>

Elsevier Symposium “Research Misconduct and Publishing Ethics” at Cape Town International Convention Centre

<http://wcp2014.org/index.php/programme/scientific-programme/14-programme/201-research-misconduct-and-publishing-ethics>

## July 19th-23rd

British Pharmacological Society

“James Black Conference: Adrenoceptors and GPCRs - where is structure leading?”

at the Mapano Lodge in Kruger National Park

[www.bps.ac.uk/meetings/AdrenoceptorsGPCRs](http://www.bps.ac.uk/meetings/AdrenoceptorsGPCRs)

*Young Scientists Grants are still available! See page 64.*



## The Road to Cape Town

The hosting of the 17th World Congress of Basic and Clinical Pharmacology (WCP 2014) in Cape Town, South Africa is a defining moment for the South African Society for Basic and Clinical Pharmacology (SASBCP). It is the culmination of a vision that was first considered some 47 years ago. We take you on a journey of belief in African pharmacology.

### The Beginning 1966 - 2001

The South African Society for Basic and Clinical Pharmacology (SASBCP) was established in 1966 under the leadership of its founding fathers, amongst others, Prof Johan Offermeier (first president). One of the eminent “fathers of Pharmacology”, Prof Everhardus J Ariëns, would be the first international speaker during the first annual congress of the Society in 1967.



*Prof Johan Offermeier (first President of the South African Society, 1966) and Prof Everhardus J Ariëns (first international speaker at the society's national congress, 1967)*

Some of you may recall the names of other founding pharmacologists during the early years, including Deo Botha and Theuns Naude (University of Pretoria); Bob Charlton and Koppel Furman (WITS, Johannesburg); Andries van Zyl and Frans Taljaard (University of Stellenbosch); John Reid and Perry Leary (University of KwaZulu Natal); Bill Jenkins (Onderstepoort); Norman Sapiëka (University of Cape Town). Upcoming young pharmacologists Peter Folb, Abraham Aucamp, Otto Müller, Hans Hundt, Pieter van Jaarsveld, Dek Sommers, Ben Potgieter, Charles de Wet, Ben Olman and many more followed in their footsteps.

### The first steps towards Cape Town 2014

By the turn of the millennium the South African Society had grown into a vibrant and sustainable group, an organisation that continues to make important strategic decisions to significantly impact the pharmacological communities in South Africa and also in the rest of Africa. During the 14th IUPHAR World Congress of Pharmacology 2002 in San Francisco, we explored options to submit a bid to host an upcoming IUPHAR congress in Africa.

Despite the tragic events of 9/11 still fresh in memories, there was an excitement in the air about developments to improve the interaction and synergism between the fundamental and therapeutic aspects of pharmacology. This included discussions to change the name of the union and to combine the basic and clinical congresses of IUPHAR.

The General Assembly voted Copenhagen, Denmark as the destination for this first historic 16th World Congress of Basic and Clinical Pharmacology in 2010. South Africa, we thought, would be the ideal destination for the next meeting after Copenhagen, a step that would embrace the developing world and emphasise our role in this new model of IUPHAR. We engaged in discussions with Prof Paul Vanhoutte, the then newly elected IUPHAR President, and executive committee members of IUPHAR, investigating the possibility to host the first ever IUPHAR World Congress in South Africa and on the African continent. It had been eight years after democracy in South Africa (1994), the end of apartheid, and the new South Africa had been viewed as a model for transition and transformation. A decision was made to put in the bid to host the congress in Cape Town in 2014 – a date then still 12 years away. San Francisco marked the beginning of an exciting journey for The South African Society for Basic and Clinical Pharmacology.

*Continued on page 15...*



*Rugby in San Francisco close to heart of South Africans*

### The planning and the bid: 2003 - 2006

Unnecessary to say that intense planning commenced immediately upon our return to South Africa, understanding that the extensive bid dossier was to be submitted by 2005. There were brainstorming sessions, think tanks, assessments of cities and congress venues in South Africa, stakeholder interactions, discussions with pharmacologists on the continent, and in particular assessments of Pharmacology Societies (or mostly the lack thereof) on the Africa continent.

Several important decisions were taken and initiatives launched, including that Cape Town, the mother city of South Africa, was the destination of choice for the 17th IUPHAR World Congress and that the Cape Town International Convention Centre (CTICC) would be the ideal venue.



*The Executive Committee of the South African Society 2003, planning for the bid to be presented in 2006.*

In September of 2005, the founding of the first regional office of the International Council for Science (ICSU), namely the Regional Office

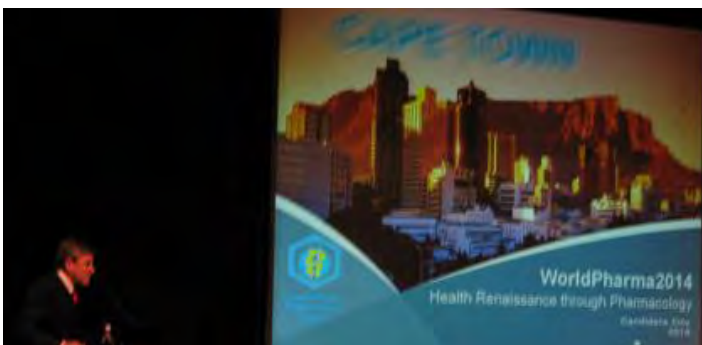
for Africa (ICSU ROA), paved the way for an important relationship fostering skills development on the whole African continent. Importantly, the "Pharmacology for Africa" (PharfA) initiative was planned to unite and organise pharmacology on the whole African continent. To involve and empower the whole African continent was a central objective and this transpired also as a key strategy for our bid to host the World Congress in Cape Town (also see the PharfA story).

Our submission of the draft bid dossier passed the first hurdle when IUPHAR invited the South African Society to submit the final proposal and to present the South African bid alongside Brazil, Israel, Korea and Japan in July 2006, during the General Assembly of IUPHAR in Beijing, China as part of 15th World Congress activities. With anticipation and excitement, the delegates from Africa and South Africa travelled to China.

First fruit of our endeavors and hard work paid off when the "Pharmacology for Africa" initiative was officially launched at the South African Embassy. And then, at last, the South Africans could feel the proverbial "butterflies in tummy" as the General Assembly of IUPHAR commenced, with the final bid presentations on the agenda. After the bid presentations by the five participating countries and following two rounds of voting, the winner was announced:

The 2014 IUPHAR World Congress will be held in South Africa! It was a special moment, particularly that the South African Society won the bid during its fortieth anniversary year.

History had been made and the South African and African delegations were overjoyed. With The IUPHAR World Congress 2014 would be held in Cape Town, South Africa - at the tip of the African continent and for the first time ever in Africa. Needless to say, there were jublations, tears, and appreciation in many African hearts; and of course a distinct level of anxiety.



*Douglas Oliver from South Africa presenting the bid to host the 17th World Congress of Basic and Clinical Pharmacology during the IUPHAR Annual General Meeting in Beijing, 2006.*



*Following the successful bid of South Africa, left to right, Tiaan Brink (former Secretary of the South African Society) and Douglas Oliver (South African bid presenter), Paul Vanhoutte (former president of IUPHAR) and his wife Jacqueline Vanhoutte, Wim Du Plooy (former president of the South African Society).*



*IUPHAR President-elect Sue Duckles (front row, middle) joined in the celebrations with African delegates. Also in the photo is Prof Douglas Oliver (front row, left) and Prof Tiaan Brink (front row, right), Prof Olufunmilayo Adeyemi from Nigeria (2nd row) and European pharmacologists celebrating with South Africans.*

### Early preparations for WCP 2014:

Several strategic meetings and promotions for WCP 2014 and PharfA followed after Beijing, including:

#### **Clinical Pharmacology International Congress (CPT2008 - Quebec, Canada)**

This marked the last of IUPHAR's congresses held separately for basic and clinical pharmacology. The Pharmacology for Africa (PharfA) strategy was discussed.

**IUPHAR summit (March 2009)** hosted by Prof Mohammed Khayyal and colleagues in Cairo, Egypt. WCP2014 and the Pharmacology for Africa (PharfA) strategy and Integrative and Organ Systems Pharmacology (IOSP) training workshops were on the agenda.

**16th IUPHAR World Congress of Basic and Clinical Pharmacology, coined WorldPharma 2010**, held in Copenhagen, Denmark. This marked the first combined meeting of basic and clinical pharmacology for IUPHAR and fittingly, the theme and logo design of the

Congress promoted the bridging of Basic and Clinical Pharmacology. With Kim Brøsen and Mike Mulvany at the steer, they hosted about 3,500 pharmacologists from around the globe, setting a new standard for IUPHAR with an excellent scientific programme and organisation. Pharmacology for Africa (PharfA) workshops and a strategic meeting were also held in Copenhagen in a build-up to ensure sound African participation in 2014.

*PS! It is noteworthy that 2010 was also an outstanding nation building year for South Africa, particularly because of the successful hosting of the FIFA Football World Cup which showcased South Africa as an ideal tourist destination.*

#### **Annual meeting of the West African Society of Pharmacy (WASP/SOAP) 2011**

in Kumasi, Ghana. South Africa discussed the possibility to hold a pharmacology congress for Africa in 2012 with the WASP president Prof Helen Kwanashie and her colleagues. The idea was to include pharmacologists from all over the continent.

#### **All Africa Congress of Basic and Clinical Pharmacology (ACP2012)**

held in Accra, Ghana, hosted by Prof Alex Dodoo and his team. For the first time ever, the presidents of the four African Societies (Egypt, Kenya, West-Africa and South Africa) were present with their full-hearted support of the events in Accra and Abuja (Nigeria). WCP2014 engaged extensively with delegates from across the continent regarding strategies for their participation in Cape Town.

ACP2012 clearly demonstrated a growing eagerness amongst pharmacologists from Africa to promote pharmacology and participate during the 17th IUPHAR World Congress in Cape Town in 2014. In addition, a pre-congress a workshop on Pharmacovigilance was held in Accra and an IOSP training workshop in Abuja. These workshops were attended by several young pharmacologists and demonstrated eagerness and potential of the younger generation.

*Continued on page 17...*



**Experimental Biology (EB 2013) held in Boston, USA.** The American Society for Pharmacology and Experimental Therapeutics (ASPET) welcomed WCP2014 with open arms in Boston. The Experimental Biology meetings include Pharmacology, and host about 13,000 delegates in total with several hundred exhibitors. WCP2014 saw EB 2013 as a key opportunity to promote the meeting. The WCP2014 exhibition booth caught the attraction of large numbers of the delegates. We had the privilege to meet with the Nobel Laureate and WCP 2014 keynote opening speaker, Dr

Robert Lefkowitz. WCP2014 also interacted with management and members of IUPHAR, ASPET and the British Pharmacology Society (BPS) to promote the World Congress in Cape Town. The response was overwhelming, showing enthusiastic support of WCP2014.

**By Douglas Oliver  
(President: WCP 2014)  
and Tiaan Brink  
(Secretary-General: WCP 2014)**



WCP 2014 marketing booth at CPT2008 in Quebec, Canada.



Ian Hughes presenting the Plenary Lecture for Teaching, and the WCP2014 exhibition booth at WorldPharma2010.



WorldPharma2010 in Copenhagen, Denmark, with Kim Brøsen during the opening ceremony.



Nelson Mandela and FIFA World Cup Football in South Africa 2010.



Participants of the successful workshop on "African Traditional Medicines" held during WorldPharma2010 in Copenhagen, Denmark.



Prof Alex Dodoo, convenor for ACP2012.



The ACP2012 Logo



ACP2012: Front row left to right: Presidents of Pharmacology Societies in Africa, with Ms Martha Gyansah Lutterodt (Chief Pharmacist of Ghana, middle), Prof Douglas Oliver (Chair Pharmacology for Africa PharA, 3rd left), Prof Alexo Dodoo (Congress Chair, 2nd right) and Dr Richard Glover (ISCU Regional Office for Africa, far right). Second and third rows: Delegates sponsored by South Africa.



IOSP training workshop 2012 in Abuja, Nigeria. South Africans (Prof Tiaan Brink, Prof Douglas Oliver and Ms Lilly Mokoena) participating from South Africa, presenting lectures via video conferencing to students in Nigeria.



WCP 2014 marketing booth in Boston, USA and Prof Rick Neubig, President-elect ASPET with Prof Tiaan Brink and Prof Douglas Oliver.

# A DECADE OF PHARMACOLOGY REVOLUTION IN AFRICA:

## Thank You to the International Community

Although pharmacology has been taught for a considerable period in the different Health Science Faculties on the African continent, the discipline has experienced significant growth and development during the last quarter century. While these advances are due primarily to the untiring efforts of the local professionals and the political support, they could not have occurred in the absence of an international agenda aimed at fostering global development.

African scientists have received considerable support from the international community, with the science of pharmacology, both basic and clinical, being one of the main beneficiaries. The support ranges from individual scholarships and overseas training opportunities, to funding pharmacology research and training programs, among others. Over the years, funds for such activities have been received from organizations such as the World Health Organization (WHO), United States Pharmacopeia (USP), the Joint United Nations Programme on HIV/AIDS (UNAIDS), and the International Council for Science (ICSU). In particular, the International Union of Basic and Clinical Pharmacology (IUPHAR) and WHO, through their specialist divisions, have been the major advocates for pharmacology worldwide.



*Some of the delegates and guest speakers at the 2007 first African conference on Drug Metabolism and Development, Johannesburg, South Africa. Participants were from Malaysia, USA, Kenya, Tanzania, South Africa, Uganda, Zimbabwe, Zambia, and Nigeria. The international guest speakers were Prof G. Tucker (UK) and Prof Olavi Pelkonen (Finland).*

Also, numerous countries offer pharmacology training opportunities for African nationals. Among these are the United Kingdom, United States, the Nordic Countries, Belgium, France, Germany, Australia, and others. Most of these countries have also established extensive collaborative research programs with the many African scientists, i.e., the North-South collaboration through bilateral agreements, non-governmental and philanthropic organizations and institutes, and professional societies.

Together these efforts have resulted in a significant increase in pharmacology research and training in many African institutions. This is evidenced by the substantial growth of many Africa-based research associations and societies over the past decade. Listed below are some of the more noteworthy organizations among this group.

- The African Society for Drug Metabolism and Development (ASDMD; [www.asdmd.org](http://www.asdmd.org)). Established in 2002, the ASDMD was championed by Prof Andrew Walubo and colleagues as a forum dedicated to promoting drug development research, in general, and the study of drug metabolism and transport, in particular.



*Participants and facilitators at the first drug metabolism workshop held in Bloemfontein, South Africa, in 2001. During this meeting discussion focussed on 'Research in Drug metabolism'. Participants were from Ethiopia, Kenya, Tanzania, South Africa, Zimbabwe, Zambia, and Nigeria. The international facilitators were Prof G. Tucker (UK), Prof Don Birket (Australia) and Prof Curt Omiecinski (USA).*



# A DECADE OF PHARMACOLOGY REVOLUTION IN AFRICA (CONTINUED)



Prof Collen Masimirembwe at work in one of the laboratories. To increase the skilled human resource base for cutting edge biomedical science and technology, AiBST has a postgraduate (MSc & PhD) training program that attracts many young scientists from across Africa. It also conducts advanced biomedical courses for both postgraduate students and professionals to encourage adoption of the best and most current laboratory technologies and practices ([www.aibst.com](http://www.aibst.com)).

- The Zimbabwe-based African Institute for Science and Biotechnology (AiBST; [www.aibst.com](http://www.aibst.com)). Founded in 2002 by Prof. Collen Masimirembwa, this research and training institution has centres in Nigeria, Egypt, and Kenya. The Institute utilizes advanced technology to provide training for young African and non-African scientists in pharmacokinetics and drug development.



Participants in the 2003 AiBST workshop on Pharmacogenetics of Drug Metabolism in Nairobi, Kenya. Participants were from Malaysia, South Africa, Zimbabwe, Uganda, Kenya, Nigeria, India, Sudan and Tanzania. The international facilitators were from Sweden, USA and Finland.

- The Pharmacology for Africa Initiative (PharfA; [www.iuphar-africa.org](http://www.iuphar-africa.org)). Founded in 2006 under auspices of the South African Society for Basic and Clinical Pharmacology (SASBCP; Prof Douglas Oliver and Prof Christiaan B. Brink), PharfA is dedicated to promoting pharmacology on the African continent by fostering the establishment and growth of local pharmacology societies, by encouraging basic and clinical pharmacology instructional and research programs, and by sponsoring activities aimed at professional development in the field.



Dignitaries at the 2008 inaugural ceremony of ANDI in Abuja, Nigeria. The meeting was opened by Senator J.J. Akpan Uduodehe, the Minister of State of the Federal Capital Territory of Nigeria District, and chaired by the Minister of Health of Nigeria, Dr Mohammed Hassan Lawal. Other dignitaries include the representative of the Ministry of Science and Technology, Mrs Grace Ekpiwhre, the Senate Committee Chairperson for Health, Dr Iyabo Obasanjo Bello, the WHO representative in Nigeria, Dr Peter Eriki, the WHO/TDR Director, Dr Robert Ridley, Executive Secretary of WHO's Secretariat on Public Health, Innovation and Intellectual Property (IGWG), Dr Eliil Renganathan, and the leader of Drug Discovery for Infectious Tropical Diseases at WHO/TDR, Geneva, Dr Solomon Nwaka.

- The African Network for Drugs and Diagnostics Innovation (ANDI; [www.andi-africa.org](http://www.andi-africa.org)). Founded in 2008 under the guidance of Dr Solomon Nwaka and colleagues at the WHO/TDR Geneva, ANDI is a broad based scientific research forum that is now based in Addis Ababa, Ethiopia (see below).



- The proceedings of ANDI's 4<sup>th</sup> Stakeholder Meeting and Donor Conference, 24 - 27 October, 2011, Addis Ababa, Ethiopia
- Several national pharmacology societies, including the Kenyan Society for Basic and Applied Pharmacology (2008), the South Africa College of Clinical Pharmacologists (2009), and the Uganda Pharmacology Society (2013) (UPhars; [www.uphars.org](http://www.uphars.org)).

# A DECADE OF PHARMACOLOGY REVOLUTION IN AFRICA (CONTINUED)



*The 2013 launch of the Uganda Pharmacology Society in Kampala, Uganda ([www.uphars.org](http://www.uphars.org)).*



- Given this growing appreciation for the discipline of pharmacology, it is no surprise that in 2012 the Health Professional Council of South Africa (HPCSA) formally recognized clinical pharmacology as an independent medical specialty.
- A new subspecialty in regulatory science will be offered in South Africa, with postgraduate training in pharmaceutical medicine at the University of the Western Cape (Prof Peter Eagles) and a postgraduate diploma in pharmaceutical medicine available for physicians at the University of Stellenbosch (Prof Bernd Rosenkranz). An online pharmacology education program that will be made available to all African countries is being developed by Prof Christiaan B. Brink at North West University.

These are just a few examples of the exciting developments that portend a bright future for African pharmacologists. While all these organizations and initiatives are involved in training pharmacologists or in promoting some aspect of the discipline, perhaps one of the most exciting developments has been the ANDI-led institutional-peer review in Africa, which led to the recognition of 32 African institutions as ANDI Centres of Excellence in health innovation. The large number (over 60) of participating institutions demonstrates the

strength, breadth and diversity of drug research in Africa. The ANDI Centres of Excellence, which are distributed across the five sub-regions of Africa, are all conducting research and development, with particular emphasis on innovative drugs, diagnostics, vaccines, medical devices, and traditional medicines.

Given these developments, the WCP2014 meeting is being held in South Africa at the right time, in the right place, and for the right audience, i.e., the developing pharmacologists on the African continent. This represents an excellent opportunity for African scientists to 'showcase' their progress in drug research as a token of appreciation for the international commitment to Africa, and as a demonstration of their resolve to uphold and advance the spirit of scientific enquiry for the betterment of all mankind. •

Andrew Walubo

University of the Free State, South Africa





# Pharmacology for Africa (PharfA): a story of courage and success

The 'Pharmacology for Africa' (PharfA) initiative was formally introduced in 2006 to organise and promote pharmacology on the African continent. Today, a mere seven years later, PharfA is internationally recognised and has led to several remarkable activities and milestones for organised pharmacology on the continent. Read on to learn more about our road to success, the latest developments in the pharmacological community on the African continent, as and a view of where we see the initiative in the next five years.

## 1 The Beginning: 2001 - 2006

In the late 1990's, a few attempts to organise pharmacology across Africa proved unsustainable. And maybe the time was just not right. By the turn of the millennium, however, the South African Society for Basic and Clinical Pharmacology (formerly known as the South African Pharmacology Society) embarked on a road that would have significant impact on pharmacology - not only in South Africa and also on the whole African continent.

A strategic decision was made to broaden horizons and to become an international role player. Going global meant a closer look at what was happening at home, and a decision to reach out to Africa. At that stage, the Society also considered the possibility to host IUPHAR's World Congress of Pharmacology 2014 in South Africa, which we soon realised could simultaneously serve as a vehicle to unite the whole continent. Embedded in this vision was a clear strategy to develop an initiative for Africa, coined the 'Pharmacology for Africa' (PharfA) initiative. By 2005 we were ready to submit a bid to host the 17th World Congress of Basic and Clinical Pharmacology 2014. We discovered that only the pharmacology societies in South Africa and Egypt were members of IUPHAR. A regional society, the West African Society of Pharmacology (WASP), was also in existence. Very little else was known about pharmacology on the continent, but times they were a-changing and with the new millennium came a host of impressive technological advantages, most notably the internet.

The World Wide Web opened doors, not only for information exchange, but also new ways to communicate, such as via email. We were convinced that the time was right for Africa to prosper. Numerous brainstorming sessions and teleconferences with pharmacologists in Africa followed, focusing on an assessment of the status of Pharmacology Societies and the needs of pharmacology on the continent. It became evident from the investigations and deliberations that there was a definite need to build, structure, mobilise and foster the industry in Africa. With the recognition and support of IUPHAR

and the South African National Research Foundation, a website and database ([www.iuphar-africa.org](http://www.iuphar-africa.org)) was developed and launched in 2005 for pharmacologists on the continent to register free of charge, with the aim to interact, build networks and identify expertise, as well as to promote pharmacology and facilitate the development of Society structures in countries and regions. The response was outstanding as more and more pharmacologists became aware of this initiative and registered. The database has become a valuable tool. During the same time frame, the International Council for Science (ICSU) embarked on a road to organise globally via regional offices. Africa, interestingly, was the first to respond and we witnessed a milestone event in September 2005 with the founding of the ICSU Regional Office for Africa (ICSU-ROA). ICSU-ROA identified 'Health' as one of the key development areas for science in Africa, and all of these developments supplemented the development of PharfA.



*Dr Robert Kriger, speaker and Dr Thomas Rosswall, executive director ICSU (Paris, France) during ICSU Regional Office for Africa inauguration.*

## 2 Beijing 2006: Official Inauguration of PharfA

The 'Pharmacology for Africa' initiative was officially launched during the 15th World Congress of Pharmacology 2006 on South African soil in China. And how is that possible? The South African ambassador to China, his Excellency Mr Ndumiso, hosted the first PharfA meeting in the South African embassy in Beijing. This event was attended by a significant number of delegates from across Africa, plus the



*The South African ambassador, his Excellency Mr Ndumiso Ntshinga, with Prof Paul Vanhoutte (left) and Douglas Oliver (right)*

Executive Committee of IUPHAR. PharfA received a mandate to move forward with its objectives and African delegates indicated their support to encourage colleagues to join in.

The meeting was heralded most successful and a historical milestone for pharmacology on the African continent, providing the thrust to unite, promote, network, organise, mobilise and build capacity for Pharmacology in Africa. In addition, winning the bid to host IUPHAR's 17th World Congress in Cape Town meant that Africa was given an opportunity to join hands for achieving yet another important shared goal.



*PharfA funding meeting in Beijing*

### 3 The years 2006 - 2011

Post the founding of PharfA and its first strategic meeting in Beijing, several important processes followed. The strategic aims and objectives were further developed with outcomes and time lines. The objectives of PharfA included developing and promoting interest and skills in research and education in basic and clinical pharmacology; creating platforms and encouraging networking

and collaboration across the continent; organising pharmacology on the continent as national and regional learned societies and related activities and stimulating and supporting international exposure.

In addition, the goal was to bring Africa together for the 17th World Congress of Basic and Clinical Pharmacology (WCP2014) in Cape Town. In fact, WCP2014 became an anchor point from which the further development of PharfA could gain momentum to go beyond 2014. A number of key meetings kept PharfA on track to flourish and achieve its objectives, as elaborated on below:

#### 3.1 Quebec 2008

IUPHAR hosted the last Clinical Pharmacology International Congress (CPT2008) in Québec City, Canada. During this meeting, planning sessions were held to finalise the implementation of an important project within the PharfA context - the Integrative and Organ Systems Pharmacology (IOSP) training workshops.

These workshops were designed (as an alternative to reductionistic experimental approaches) to train young investigators in pharmacology in in vivo techniques, complimentary to in vitro experimental approaches.



*Prof David Bylund (USA), Prof Tiaan Brink (South Africa) and Prof Mohamed Khayyal (Egypt) during the cpt2008 meeting in Québec City, where it was decided to take the IOSP workshops to Africa.*

#### 3.2 Egypt, South Africa & Kenya: 2009 - 2010

The year 2009 was a most exciting year for Africa,

*Continued on page 23...*





Delegates from Africa participating in cpt2008 in Québec City and the PharfA meetings.



David Bylund, (USA), middle, front row and Tiaan Brink (RSA), middle, standing row, with pharmacologists from the North-West University trained students for Kenya, Nigeria and South Africa

starting in Cairo with an Africa Summit meeting as part of the IUPHAR EXCO meeting. Prof Mohamed Khayyal acted as our host with splendid Egyptian hospitality. The Summit addressed the challenges and opportunities for pharmacology on the African continent. The strategies and roles of pharmacology for Africa were outlined and formalised, with specific reference to the IOSP workshops, networking in West Africa, and assistance to Kenya in establishing a new national learned Society of Pharmacology.



Lilly Mokoena, PhD student (South Africa) discussing the future with Prof Sue Duckles (USA) in Cairo.

Later in 2009, Prof Guantai was elected the first president of the newly founded Kenyan Society of Basic and Applied Pharmacology

(KeSoBAP). This was followed by the launch of the African Journal of Pharmacology. These were indeed milestones for Kenya, PharfA and IUPHAR. It was clear that investment in the next generation of basic clinical pharmacologists in Africa was timeous and critical to develop research, education, health care development and health care delivery on the continent. Pharmacology demonstrated that it would play an integral part to ensure basic and clinical pharmacology remains relevant in Africa.

Thereafter, three IOSP training workshops, sponsored by the International council for Science (ICSU) and local sponsors were held:

- South Africa: Workshop held in September 2009 in Potchefstroom, organised by Prof Tiaan Brink
- Egypt: Workshop held in February 2010 in Cairo, organised by Prof. A.M. Abdel-Tawab
- Kenya: Workshop held in May 2010 in Nairobi, organised by Prof Anastasia Guantai

IOSP training indeed contributed significantly to the skills development on the continent and will continue to form the basis for subsequent workshops.



Prof Anastasia Guantai (left from Sam Enna) from Kenya, presented their perspectives of pharmacology and the way forward

### 3.3 Copenhagen, Denmark 2010

The 16th World Congress of Basic and Clinical Pharmacology



*Participants of the successful workshop on "African Traditional Medicines" at WorldPharma2010*

(WorldPharma2010) was held in Copenhagen, Denmark. The PharfA steering committee, with the excellent support of the WorldPharma2010 organisers, organised meetings on matters of specific interest to Africa. This included a workshop on African Traditional Medicines and a PharfA strategic meeting. The latter meeting, addressed by the South African Ambassador in Denmark, discussed strategies to ensure active participation of Africa in 2014 and its further growth beyond.

Some 100 delegates from Africa and IUPHAR Executive participated in lively debate on the actions strategies towards 2014 and the building of pharmacology on the African continent. The response from pharmacologists from Africa was overwhelming, demonstrating that the efforts of PharfA were paying dividends. In view of the fact that it would be four years before the next IUPHAR World Congress in Cape Town, the proposal was made to host, under the auspices of PharfA, a Pharmacology Congress in 2012. The steering committee was tasked to develop a strategy for such a meeting.



*Patrick du Souich, president of IUPHAR with delegates to PharfA meeting in Copenhagen*

### 3.4 Kumasi, Ghana 2011

The West African Society of Pharmacy (WASP/ SOAP), with Prof Helen Kwanashie as president,

held their annual congress in 2009 in Kumasi, Ghana. Particular effort was made to discuss and promote WCP 2014 in South Africa, to encourage pharmacologists in West Africa to prepare for participation, to advocate the role of PharfA and IUPHAR, and to participate in the IOSP training workshop 2012. Assessment of several scenarios led the PharfA steering committee to approach the WASP executive committee to organise the fifth All African Congress of Pharmacology 2012 (ACP2012) under the auspices of PharfA. This would be the first such a meeting in 20 years. This continental congress also fitted well with IUPHAR's approach of hosting regional and/or specialised congresses in between IUPHAR World Congresses (in our case between 2010 and 2014). Prof Alex Doodoo was elected as chair of ACP2012 to be held in Accra, Ghana in July 2012. The PharfA steering committee, society presidents from Egypt, Kenya, WASP and South Africa, and Prof Walubo from South Africa were included on the programme committee. In addition, the congress was to be accompanied by two pre-congress training workshops, one on Integrative Organ Systems Pharmacology in Abuja, Nigeria (Prof Kwanashie and her team) and the other on Pharmacovigilance in Accra, Ghana (Prof Doodoo and his team). Funding of all these activities on short notice was critical and PharfA, assisted by IUPHAR, commenced immediately.

ICSU supported the training workshops with a significant grant. Strategy was also developed to assist in the funding of delegates to ACP2012 in Accra, involving the country societies and governmental funding agencies (notably the South African National Research Foundation and Medical Research Council). The successes of

*Continued on page 25...*



these important efforts allowed for significant delegate numbers from Nigeria (> 60) and South Africa (> 30) and training workshops being offered to more than 30 learners to each of the two workshops.



*Helen Kwanashie (President in Accra Ghana West African Society of Pharmacology) with Tiaan Brink and Douglas Olivier*

### 3.5 African Congress of Pharmacology 2012: Accra, Ghana

There was an excitement in the air as everybody was working very hard in preparation for the training workshops and ACP2012. An impressive scientific programme was developed with participation from across the continent. The programme was designed around the theme: Safe and Effective Medicines for Africa with the sub-theme: Promoting training, research and medicine therapy towards attaining the millennium development goals. The scientific programme consisted of 10 plenary speakers and 10 sessions (some presented in parallel) with more than 40 individual podium presentations and several posters. The WHO Collaboration Centre for Pharmacovigilance in Accra also partnered with the ACP2012. Delegates registered and submitted abstracts on a beautiful website with a true African flavour. Funding was coming in, allowing for travel grants to be awarded to students and established researchers. The presidents of the African Societies (Egypt, Kenya, West Africa and South Africa) offered their full support of the events in Accra and Abuja and members followed. ACP2012 was attended by some 120 delegates from across the African continent, including representatives

from Egypt, Eastern, Western and Central Africa and South Africa. There were also several participants from outside Africa, including the USA, the Netherlands and Iran. Dr Richard Glover represented the International Council of Science Regional Office of Africa (ICSU ROA), an important supporter of the activities of PharfA for several years.



*Alex Dodoo*



*The ACP2012 Logo*

ACP2012 clearly demonstrated a growing eagerness amongst pharmacologists from Africa to promote pharmacology and participate during the 17th IUPHAR World Congress in Cape Town in 2014. The General Assembly of the 'Pharmacology for Africa' (PharfA) initiative was held during ACP2012, with the first election of the management. This included:

- Prof Douglas Oliver (chair and IUPHAR representative)
- The president of the four national/regional learned societies on the continent, including Egyptian Society for Applied Pharmacology and Therapeutics (Prof Mohamed Khayya), the Kenyan Society for Basic and Applied Pharmacology (Prof Anastasia Guantai), the South African Society for Basic and Clinical Pharmacology (Prof Tiaan Brink), and the West African Society of Pharmacology (Prof Helen Kwanashie),
- Elected members: Prof Andrew Walubo (South Africa), Prof Eric Omogbai (Nigeria) and Dr Richard Glover (International Council of Science – Regional Office for Africa)
- The next General Assembly meeting of PharfA will be held in Cape Town during WCP2014, with the next All Africa Congress of Basic and Clinical Pharmacology scheduled for 2016. The two pre-congress training workshops (Pharmacovigilance in



*Front row: Presidents of Pharmacology Societies in Africa, with Ms Martha Gyansah Lutterodt (Chief Pharmacist of Ghana, middle), Prof Douglas Oliver (Chair Pharmacology for Africa PharfA, 3rd left), Prof Alexo Dodoo (Congress Chair, 2nd right) and Dr Richard Glover (ICSU Regional Office for Africa, far right). Second and third rows: Delegates sponsored by South Africa*



*Dinner Accra: Indeed an exciting congress with grand finale: a beach congress dinner on the sea sand!!*

Accra, Ghana and IOSP in Abuja, Nigeria) were most successful with more than 60 young pharmacologists participating. The enthusiasm and eagerness amongst the students was outstanding. History was also made when some of the interactive sessions were presented directly from South Africa (North-West University) via Adobe Connect e-conferencing facilities to the IOSP learners in Abuja, Nigeria. The continuation of these workshops was viewed by learners to be critical for the future of pharmacology on the African continent and they expressed keen interest for the next series of courses.

### 3.6 West Africa Society for Pharmacology (WASP/SOAP) – Lagos, Nigeria: 2013

The West African Society's annual pharmacology congress was held in October 2013 in Lagos, Nigeria. PharfA officers discussed strategies to optimise participation at WCP2014 in Cape Town, to enhance the research outcomes of pharmacology researchers in Africa, and to initiate the planning of the next All Africa Congress of Pharmacology for 2016.



*"This Congress is significant to ICSU ROA in a number of ways: 1. It highlights that Africa is taking its rightful place with the rest of the key role players in Science, Technology and Innovation; 2. The Pharmacology discipline in Africa is gaining momentum and organising itself to serve the continent better. Initiatives like the 'Pharmacology for Africa' (PharfA) are testimony to this latter fact."*

Edith Madela-Mntla – Regional Director

## 4 WCP2014 Cape Town 2014

PharfA is an integral component of the 17th World Congress in Basic and Clinical Pharmacology and will contribute towards its success.

Through the initiative, a number of workshops and sessions on topics of special interest to Africa will be presented. PharfA has also interacted with its global; supporters to offer travel grants to delegates from Africa, enabling them to participate at the first ever World Congress of Pharmacology on the African continent.

## 5 Summary

It is clear that PharfA has already proven to be an effective and sustainable initiative to promote basic and clinical pharmacology on the African continent. As an organisation, it promises to be a key role player in promoting the health needs on the African continent with milestone events, such as ACP2012 and WCP2014, as well as training workshops, and promoting research and education in Africa. PharfA has further received not only regional, but also continental and international recognition as an important vehicle for fostering the areas of capacity building, structuring, networking, and promoting basic and clinical pharmacology. Furthermore, through these activities, significant contributions are being made towards the healthcare systems in respective countries in Africa.

# General Travel Information

## Have you registered for WCP2014?

Immediately visit [www.wcp2014.org/index.php/participate/register/online-registration](http://www.wcp2014.org/index.php/participate/register/online-registration).

## Do you need a visa?

To determine whether you require a visa to enter South Africa, visit [www.home-affairs.gov.za/index.php/immigration-services/exempt-countries](http://www.home-affairs.gov.za/index.php/immigration-services/exempt-countries).

## Have you reserved your hotel?

The WCP2014 Organizers have negotiated discounted rates available at [www.wcp2014.org/index.php/travel-info/accomodation](http://www.wcp2014.org/index.php/travel-info/accomodation). Click on the "Official Hotels" button. When that screen loads, it may be necessary to scroll to the right to see the green "Book Now" link.

## Have you booked your flight?

Traveling to South Africa is relatively easy with several direct flights to Cape Town and Johannesburg available from major European cities, the Middle East, Asia, Australia and the United States as well as from other African countries. Many international flights to Cape Town (CPT) arrive via Johannesburg O.R. Tambo International Airport (JNB). The Cape Town International Airport is about 17km from the city center. In addition to a VAT refund office, it has an Information Desk and an accommodation hot line. Flight information may be obtained by telephoning +27 (0)21 9340407.

## How do you get from the airport to your hotel?

- Transfer service: The WCP2014 Organizers have organized a 'meet and greet' airport transfer service to all delegates and accompanying persons. Please visit [www.wcp2014.org/index.php/travel-info/transport/transfers](http://www.wcp2014.org/index.php/travel-info/transport/transfers) for more information.
- By taxi: A metered taxi to the city center will cost between ZAR300 and ZAR500. Some have flat rates, while others charge by the kilometer. Be sure to ask the driver what the fee will be before you enter the taxi.
- By bus: The MyCiti shuttle bus costs R57 for adults and R28.10 for children ages 4-11 (children four years old are free). The bus leaves the airport every 20 minutes between 05:10 and 22:00. Luggage is limited to 66 pounds/30 kilograms per person and must be carried by the passenger unaided. For more information, call +27 860 103 089 or visit [www.myciti.org.za](http://www.myciti.org.za).

## How do you get around Cape Town?

- Taxis: There are no roving taxis in Cape Town. Hire one at taxi-stands or summon one by calling +27 (0)21 4344444. A standard tip for taxi drivers is 10% of the total fare.
- Rikkis (tuk-tuks): These are three wheeled vehicles that carry up to six passengers and may be hailed on the street, summon one by calling +27 (0)21 234888 or visit [www.Rikkis.co.za](http://www.Rikkis.co.za). A standard tip for rikki drivers is 10% of the total fare.
- Hop on-Hop Off City Sightseeing Bus: Explore Cape Town attractions at your own pace by simply hopping off and on at any of the stops with your ticket. The buses follow a timetable that can be found on their bus stop signs and [www.citysightseeing.co.za](http://www.citysightseeing.co.za). Tickets are available at the Tour Office (Stop 1, outside the Two Oceans Aquarium), on the bus (with credit or debit card) or at [www.hop-on-hop-off-bus.com](http://www.hop-on-hop-off-bus.com). Their telephone is +27 (0)21 511 6000.
- MyCiti Shuttles offers public transportation to most of the local attractions and shopping. Visit [www.myciti.org.za](http://www.myciti.org.za) to obtain time-tables, fares and maps or use their interactive Trip Planner.







- Hire a car: Most car rental companies are represented at the Cape Town International Airport. It is advisable to take out the insurance offered by the vehicle rental companies, unless you have specific coverage already in place. Most major credit cards are accepted. For links and a list of car hire companies in South Africa, visit [www.southafrica.info/travel/advice/driving.htm#Ug901JKLBCw#ixzz2cEOjY0iS](http://www.southafrica.info/travel/advice/driving.htm#Ug901JKLBCw#ixzz2cEOjY0iS).

### Is tipping expected?

Tipping for a range of services is common in South Africa. In restaurants the accepted standard is 10% to 15% of the total, although a gratuity will sometimes already be included, so first check your bill. Hotel porters are tipped around ZAR20. It is also appropriate to tip taxi drivers, tour guides and hairdressers. Do not offer to tip your bellman in anything but Rand, as he will not be able to legally exchange it to his currency.

### What is the conference venue?

Located at 1 Lower Long Street, the Cape Town International Convention Centre (CTICC) is a renowned venue that offers all facilities, infrastructure and technology expected of a centre of competitive international stature. Maps of the area and convention layout are available at [www.cticc.co.za/maps-and-directions](http://www.cticc.co.za/maps-and-directions). Maximize your time by downloading the WCP2014 mobile app from [www.eventmobi.com/wcp2014](http://www.eventmobi.com/wcp2014) to plan your itinerary in advance. Alerts will keep you informed of the latest developments.

### What is the attire?

Business casual: Men rarely wear ties outside of finance. A jacket with an open collar is fine. Women wear slacks routinely, thus no need for dresses unless you prefer them. It can get chilly so bring something warm to wear and dress in layers.

### How do you pay for goods and services?

- Currency: The South African Rand (ZAR or R) is the local currency. One hundred cents equal one rand. "Rand" is both singular and plural. Notes/bills are issued in denominations of R200, R100, R50, R20, R10 and coins in R5, R2, R1, 50c 20c, 10c, 5c (there are two 5c coins in circulation). Sales are rounded down to the nearest 5c. Currency exchange rates are available at banks and published daily in the press or telephone Rennie's Bureau de Change at +27 (0)21 641086. The use of foreign currency in South Africa is illegal. Automated Teller Machines (ATMs) are a safe and reliable way to get local currency. Visit



Image from [compareholidaymoney.com](http://compareholidaymoney.com)

- an ATM in the airport after clearing customs or go to one of the many ATMs within walking distance of the convention center. The exchange rate at banks is generally preferable to that offered at foreign exchange kiosks at the airport, other major tourist centers, or from your hotel's cashier. If you prefer a bank, they are located throughout the city and are open Monday - Friday 9:00 to 15:30 and Saturday 8:30 to 11:00. Your passport is required for all transactions.
- Credit Cards: Most international cards are accepted but many places will take only Visa and MasterCard. Some vendors require you to input the 4 digit PIN when using credit or debit cards so be sure you know yours before leaving home. Petrol (fuel) cannot be purchased on a traditional credit card. Some banks issue a special 'petro' or 'garage' card for this purpose.

Continued on page 29...



## Do you need insurance?

Registration for the Congress implies that delegates agree that neither the Local Organizing Committee nor the Professional Conference Organizer assume any liability or responsibility for any losses, accidents or damage to person's private property. Delegates are requested to make their own arrangements for medical, travel and personal insurance.

## What do you need to know about Cape Town?

If you have a specific question, contact the Cape Town Tourism Head Office and Visitor Center, located in the Pinnacle Building at the corner of Burg and Castle Streets. Their website is [www.capetown.travel](http://www.capetown.travel), telephone is +27 (0)86 132 2223 and the email address is [info@capetown.travel](mailto:info@capetown.travel).

- Situated at the southern tip of Africa, Cape Town is the second-most populous city in South Africa, after Johannesburg, with a population of 3,740,026 in an area of 2,455km (948mi<sup>2</sup>).
- Cape Town is two hours ahead of Greenwich Mean Time.
- Although South Africa has 11 official languages, most people are able to speak English. Afrikaans and Xhosa are also widely spoken in Cape Town. All congress sessions will be held in English.
- During July, the sun rises around 7:30 a.m. and sets about 6:00 p.m.
- The weather is characterized by virtually constant temperatures, with daily highs around 63°F/17°C, rarely exceeding 73°F/23°C or dropping below 57°F / 14°C, accompanied by partly cloudy skies about half the time. The average probability of precipitation in a given day is about 43%. The relative humidity ranges from 52% (mildly humid) to 97% (very humid) over a typical July. Sunscreen and a hat are recommended whenever you are out of doors during the day, particularly between 10 a.m. and 4 p.m.

## Do you need an adapter for your electronics?

The voltage throughout South Africa is 220V/50 hz. Most plugs are 15 amp, 3-prong or 5 amp, 2-prong, in both cases with round pins. Many hotels offer 110 volt outlets for electric shavers and appliances. Adaptors can be bought at the airport on your arrival, and may be available at some hotels.



## Where may you smoke?

The City of Cape Town's Environmental Health Section prohibits smoking in public places. You may smoke only in designated areas.

## How do you make a call?

- Mobile phones: South African telecommunications include four mobile service providers that ensure countrywide coverage and generally good reception in urban areas. Before leaving home, check with your mobile phone carrier to ensure yours will work in Cape Town. Mobile phones can be rented at the Cape Town International Airports and prepaid airtime can be purchased at most retail outlets.
- Dialing: For outgoing international calls, dial 00 plus the country and area codes of the destination concerned. Refer to telephone directories for international dialing codes, or obtain 24-hour assistance by calling 10903. For incoming international calls, the code for South Africa is +27 followed by the city code or cell phone code, but drop the first 0. Cape Town's city code is (0)21.

## Is internet access available?

Most international hotels offer wireless connections in guestrooms, business centres or restaurants. However, most hotels and public areas will charge for WiFi internet access.

## Where can you worship?

Places of worship span the world's major religions and some lesser ones, too. For detailed information visit [www.capetown.travel/attractions/entry/places\\_of\\_worship](http://www.capetown.travel/attractions/entry/places_of_worship).



### How can you enjoy a healthy and safe visit?

- Don't forget sunscreen! Wear sunscreen and a hat whenever you are outdoors during the day, particularly between 10 a.m. and 4 p.m.
- Drinking water: Be sure to stay hydrated. It's safe to drink and cook with water taken from taps in urban areas. Not all tap water in rural areas is safe for consumption.
- Medical services: South Africa does not have a national health scheme. The patient is individually responsible for settling all accounts. Travel insurance covering accidents, illness or hospitalization during your stay is strongly recommended. Access to medical care for conference participants will be available should there be a need. Obtain more information by visiting [www.southafrica.info/travel/advice/healthtips.htm](http://www.southafrica.info/travel/advice/healthtips.htm).
- Immunizations: Malaria risk in South Africa is confined to the northeastern parts of the country (the Lowveld of Mpumalanga and Limpopo and on the Maputaland coast of KwaZulu-Natal) and is lowest during the dry season (May - August), but take appropriate measures to avoid mosquito bites. Talk to your doctor about proper precautions, especially if your travel plans include destinations outside of Cape Town. Yellow fever certificates are required of any visitors over 1 year of age travelling from or through the yellow fever belt of Africa or South America. Detailed information is available on [wwwnc.cdc.gov/travel/destinations/traveler/none/south-africa](http://wwwnc.cdc.gov/travel/destinations/traveler/none/south-africa).
- Security tips from [www.capetown.travel/content/page/health-safety](http://www.capetown.travel/content/page/health-safety):
  - Don't carry all of your cash with you, use traveler's checks or use a credit card.
  - Please remove your registration badge before leaving the conference center, do not advertise that you are a tourist.
  - Heed the advice of your hosts, the Cape Town Tourism Visitor Centre staff, or locals on where to go after dark. Try not to walk alone.
  - Avoid carrying cameras or video cameras in plain sight and never leave belongings unattended.
  - Do not allow strangers to assist you in any way at ATMs.
  - Street children and beggars may approach you for a handout. Social workers recommend against giving them money for a variety of reasons.
  - At night, park in a secure, well-lit area.
  - A tourist police assistance unit is located in Tulbagh Square and open Monday - Saturday 11:00 - 23:00 and Sunday 9:00 - 21:00. Their telephone is +27 (0)21 4182852/3.
- Important telephone numbers
  - 107 – Emergency from a landline
  - 112 – Emergency from a mobile phone
  - 10111 - Police
  - 10177 - Ambulance
  - 082911 - Netcare911 (ambulance services)

### Where can I locate an embassy/consulate?

Many countries have consulates and embassies in Cape Town. Consult the yellow pages directory under consulates & embassies or look in the telephone book under your country's name.

# Activities in and around Cape Town

**A note about photography** - There is much to focus on in the Cape. The light is bright so it is recommended that you use a film or transparency with an ISO rating of 100/21.

## Cape Town Museums

See the map on the next page (32) for locations.

**1. Bo-Kaap Museum** | 0.9 mile/1.5 km from CTICC | [www.iziko.org.za/museums/bo-kaap-museum](http://www.iziko.org.za/museums/bo-kaap-museum) | 71 Wale Street | Bo-Kaap | +27 (0)21 481 3939

Situated in an Islamic area, the Bo-Kaap Museum started as a display home to depict the lifestyle of a 19<sup>th</sup> century Muslim family. Built in the 1760s, the house is the oldest one still in its original form. It has since been expanded to offer visitors glimpses into the lives of the historic Cape Malay community, which included freed slaves, and the New Year Carnival. Open Monday - Saturday 10:00 to 17:00. Adult admission ZAR20

**2. Castle of Good Hope** | 1.6 miles/2.6 km from CTICC | [www.castleofgoodhope.co.za](http://www.castleofgoodhope.co.za) | Corner of Darling and Buitenkant Streets | City Centre | +27 (0)21 787 1260

The pentagon-shaped Castle of Good Hope was constructed from 1666 to 1679 by the Dutch East India Company and remains the oldest standing colonial building in South Africa. The collections include the Military Museum, historic paintings and period furniture, and the 17<sup>th</sup> century castle forge. Guided tours and horse & carriage rides (additional admission applies) are offered Monday through Saturday. Open daily 9:00 to 16:00. Adult admission ZAR30

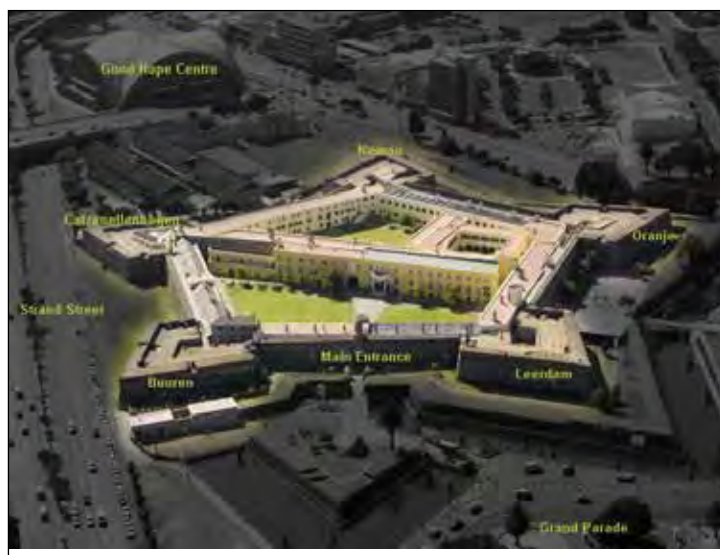


Image from [www.castleofgoodhope.co.za](http://www.castleofgoodhope.co.za)

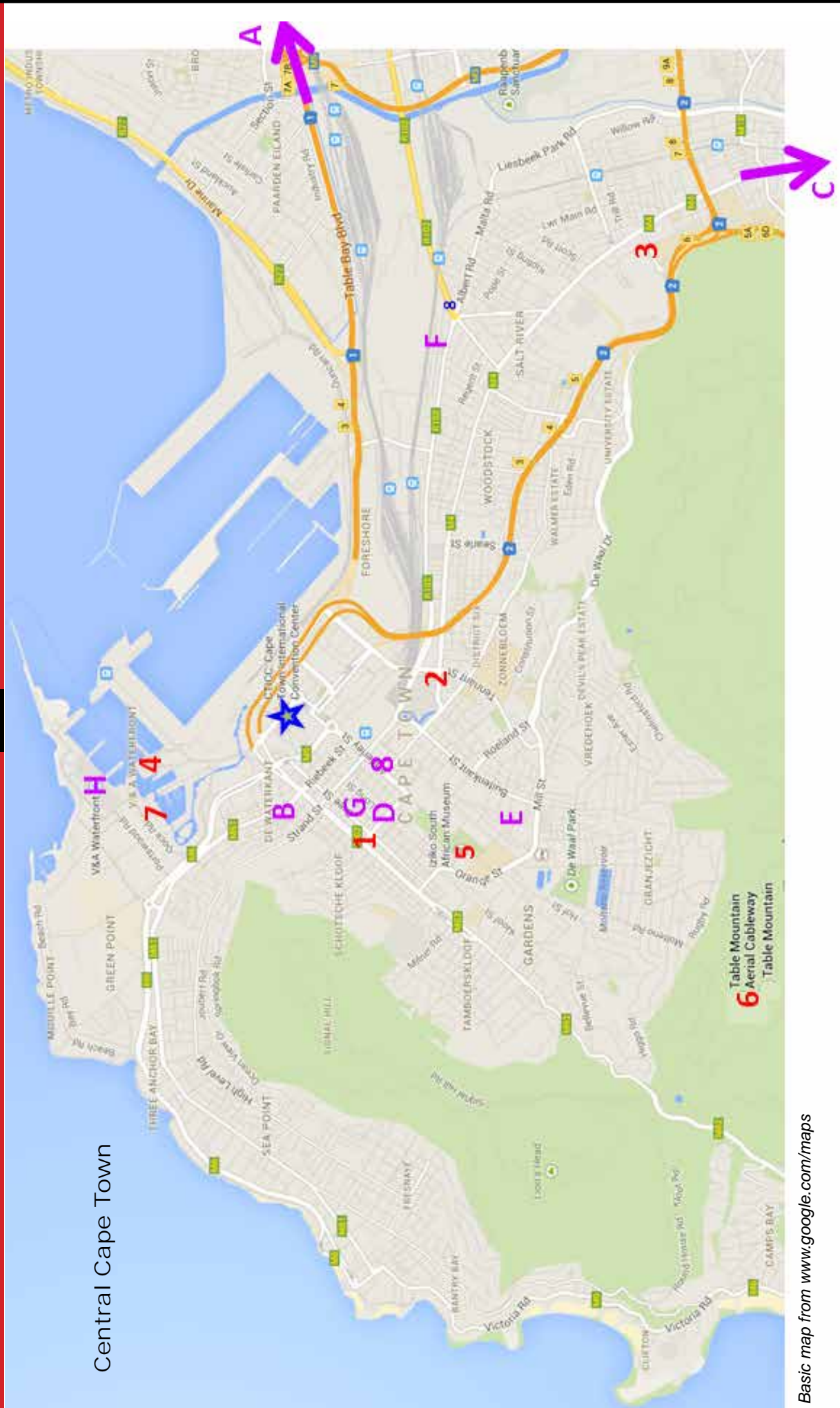
**3. Heart of Cape Town Museum** | 4.1 miles/6.6 km from CTICC | [www.heartofcapetown.co.za](http://www.heartofcapetown.co.za) | Groote Schuur Hospital, Groote Schuur Drive | +27 (0)21 404 1967

The first human heart transplant on December 3<sup>rd</sup>, 1967 was orchestrated by Professor Christiaan Barnard. Although Denise Darvall's life was claimed by a car accident, her heart saved Louis Washkansky. Guided tours at 09:00, 11:00, 13:00 and 15:00 honor everyone who played a major role in a surgical feat that created a new medical era. For an additional ZAR50, a shuttle can be arranged to take you to the museum from your hotel. Open daily 9:00 to 17:00. Adult admission ZAR230.

**4. Iziko Maritime Centre** | 1.2 miles/1.9 km from CTICC | [www.iziko.org.za/museums/maritime-centre](http://www.iziko.org.za/museums/maritime-centre) | Union-Castle House 1st Floor | Dock Road | V&A Waterfront | +27 (0)21 405 2880

A unique collection of ship models, artifacts and photographs associated with shipping, the Iziko Maritime Centre provides a wonderful overview of Cape Town commerce by ship dating from the late 1930s to the early 1960s. Open daily 10:00 to 17:00. Adult admission ZAR20

Continued on page 33...





**5. Iziko Museums of South Africa** 1.2 miles/1.9 km from CTICC | [www.iziko.org.za](http://www.iziko.org.za) | 25 Queen Victoria Street | Company Gardens

**South African Museum** | [www.iziko.org.za/museums/south-african-museum](http://www.iziko.org.za/museums/south-african-museum) | +27 (0)21 481 3800

Founded in 1825, the museum moved to its present location in the historic Company Gardens in 1897. The museum offers just over a million specimens of archeological importance including tools that date back 120,000 years. The current exhibit features a 100,000 year old “mortar” of abalone for making ochre, the oldest known evidence of humans practicing chemistry. Open daily 10:00 to 17:00. Adult admission ZAR30.



*Iziko South African Museum photograph from [www.iziko.org.za](http://www.iziko.org.za)*

**Cape Town Planetarium** | [www.iziko.org.za/museums/planetarium](http://www.iziko.org.za/museums/planetarium) | +27 (0)21 481 3900

The Planetarium is a round celestial theatre. The Minolta star machine and multiple projectors transport the audience through the amazing universe. The stars are recreated in the dome providing an extraordinary experience, no matter what the weather is doing. Open daily 10:00 to 17:00. Adult admission ZAR40.

**South African National Gallery** | [www.iziko.org.za/museums/south-african-national-gallery](http://www.iziko.org.za/museums/south-african-national-gallery) | Government Avenue | Company's Garden | +27 (0)21 481 3970

A premier art museum, the National Gallery is home to outstanding collections of South African, African and European art, including paintings, sculpture and contemporary installations. Open daily 10:00 to 17:00. Adult admission ZAR30.

**6. Table Mountain National Park** | 4.3 miles/6.9 km from CTICC | [www.sanparks.org/parks/table\\_mountain/tourism/attractions.php](http://www.sanparks.org/parks/table_mountain/tourism/attractions.php) | Cape Point | +27 (0)21 712 2337 or 0527

A nature reserve of 85 square miles/221 km<sup>2</sup>, this scenic area offers endless choices for things to see and do. Gate and activity admissions for adults range from ZAR52 to ZAR105.

**Boulders Penguin Colony** | Boulders Visitor Centre | [www.sanparks.org/parks/table\\_mountain/tourism/attractions.php#boulders](http://www.sanparks.org/parks/table_mountain/tourism/attractions.php#boulders) | +27(0) 21 786 2329

Established in 1983, about two thousand endangered African Penguins call these beaches home. For best viewing, arrive at low tide ([www.sanho.co.za/tides/tide\\_index.htm](http://www.sanho.co.za/tides/tide_index.htm)). Gate hours daily 08:00 to 17:00 during July. Adult admission ZAR55.

**The Flying Dutchman Funicular** | <http://capepoint.co.za/flying-dutchman-funicular> | +27 (0) 21 780 9010 or 9011

Taking its name from the local legend of a ghost ship, this funicular takes visitors from the car park to the old lighthouse and back, enjoying open vistas on the way. Open daily 09:00 to 17:30. Adult admission ZAR52.



**Table Mountain** | [www.sanparks.org/parks/table\\_mountain/tourism/activities.php](http://www.sanparks.org/parks/table_mountain/tourism/activities.php)

Cape Town Tourism recommends you use a qualified mountain guide should you wish to explore Table Mountain National Park on foot. Take with you a Table Mountain map, comfortable hiking shoes, some friends and a completely charged mobile phone. In fact, save the emergency number +27 861 106 417 into your mobile phone before you begin your hike. To book a guide, call the Contact Centre at 0861 322 223 (price varies by company). On the second Sunday of every month, volunteers offer free guided walks originating just inside the main gate at Cape Point (gate adult admission ZAR105).

**7. Two Oceans Aquarium** | 1.7 mile/2.7 km from CTICC | [www.aquarium.co.za](http://www.aquarium.co.za) | Dock Road | +27 (0)21 418 3823

Located in the V&A Waterfront, the Two Oceans Aquarium offers visitors over 3,000 specimens in exhibits devoted to natural habitats. Want to get closer? Become a qualified scuba diver in their Discover Scuba course then swim among their sharks in the I&J Predator Exhibit (additional fee applies). Or meet the Rockhopper Penguins in person at 11:00 on Tuesdays, Thursdays, Saturdays and Sundays (additional fee applies). Open daily 09:30 to 18:00. Adult admission ZAR125 or buy online for ZAR112.



*Two Oceans Aquarium photo from [www.aquarium.co.za](http://www.aquarium.co.za)*

## Shopping

Foreigners can claim sales tax (VAT) refunds so ask the cashier to fill out a tax refund form when purchasing goods. See [www.taxrefunds.co.za/claimvat.php](http://www.taxrefunds.co.za/claimvat.php) for details.

**A. Canal Walk Shopping Centre** | 6.6 miles/10.7 km From CTICC | [www.canalwalk.co.za](http://www.canalwalk.co.za) | Century City Boulevard | between Cape Town & Bellville Central Business Districts  
This is the regional retail mall offering everything under African skies. Boasting over 400 shops, multiple cinemas and cuisine from every corner of the world, you're sure to find it here. The estimated taxi fare is ZAR125 to reach it from the Cape Town Convention Centre or take the MiCiti Shuttle ([www.myciti.org.za](http://www.myciti.org.za)). Open daily 9:00 to 21:00.

**B. Cape Quarter Lifestyle Village** (0.7 mile/1.1 km From CTICC) | [www.capequarter.co.za](http://www.capequarter.co.za) | 27 Somerset Road | Green Point | +27 (0)21 421 1111

This open air shopping destination carries everything from groceries to books, from décor to the latest fashions, and from spa treatments to art galleries. Open Monday –

Friday 09:00 – 18:00, Saturday 09:00 to 16:00, Sunday 10:00 to 14:00.

**C. Cavendish Square** | 7 miles/11.4 km from CTICC | [www.cavendish.co.za](http://www.cavendish.co.za) | Dreyer Street | Claremont | +27 (0)21 657 5620

Situated in the southern suburbs, Cavendish Square offers luxury shopping and Pampering with a capital “P”. The Courtesy Team, in formal attire, stands ready to carry bags or offer advice. Upscale restaurants, coffee shops, fast food, cinemas and 200+ boutiques and shops complete the shopping experience. The estimated taxi fare is ZAR130 to reach it from the Cape Town Convention Centre. Open Monday - Saturday 09:00 to 19:00 and Sundays 10:00 to 17:00.

Find more malls by visiting [www.cape-town-guide.com/malls-in-cape-town.html](http://www.cape-town-guide.com/malls-in-cape-town.html).

**D. Church Street Antiques Market** | 0.8 mile/1.3 km from CTICC | Corner of Long and Wale Streets | +27 (0)21 438 8566

Whether you're looking for a rummage or jumble-sale style bargain or a specific antique, come to the Church Street Antiques Market to sift through a collection of storefronts, kiosks and street vendors on and around Long and Wale Streets. Here you'll find vintage everything along with curios and gifts. Bring cash as most of the merchants don't accept credit cards. Open Monday - Saturday 09:00 to 16:00, weather permitting, but on Saturdays the market closes early, so plan to arrive at opening time.

**E. City Bowl Market** | 1.5 miles/2.5 km from CTICC | [www.citybowlmarket.co.za](http://www.citybowlmarket.co.za) | 14 Hope Street | Company Gardens | +27 (0)73 270 8043

If you're a foodie then don't miss the City Bowl Market. Operating out of an old school hall twice a week (Thursday nights and Saturday mornings), the food vendors change regularly, but the fare is always well-priced and delicious. On Thursday evenings, you'll find an impromptu bazaar with craft beer on draught. Saturday mornings are family-friendly and there is typically live music. Open, weather permitting, Thursdays 16:30 to 20:30 and Saturdays 9:00 to 14:00.

**F. Neighbourgoods Market** | 2.5 miles/4 km from CTICC | [www.neighbourgoodsmarket.co.za/cape-town](http://www.neighbourgoodsmarket.co.za/cape-town) | The Old Biscuit Mill Complex | 373-375 Albert Road | Woodstock | +27 (0)21 448 1438

One hundred specialty vendors sell fresh vegetables, seafood, gourmet treats, artisan breads, hand-made cider and aromatic coffee from a sky-lit brick building that served as a factory for decades. Arrive early to avoid the rush. Open rain or shine Saturdays 09:00 to 14:00.



Pan African Market photo from [www.southafrica.net/country/us/en](http://www.southafrica.net/country/us/en)

**G. Pan African Market** | 0.8 mile/1.3 km from CTICC | 76 Long Street | +27 (0)21 426 4478

This is souvenir shopping at its finest in the heart of the Cape Town art and antique district. You'll find African folk art, crafts and goods ranging from jewelry to local masks, musical instruments, gifts and collectibles. Bargaining is welcome. Open Monday – Friday 09:00 to 17:00, Saturday 09:00 to 15:00.

Continued on page 36...



## H. Victoria and Alfred (V&A) Waterfront (1.2 miles/1.9 km from CTICC)

### **V&A Market on the Wharf** | Dock Road | +27 (0) 21 276 0200

Housed in the Waterfront's historic Old Power Station, this market is the Mother City's first permanent food bazaar. Market on the Wharf gives both locals and tourists the chance to cruise more than 50 stalls. The bazaar focuses on both global cuisine and traditional favorites. Enjoy authentic German pretzels and Belgian waffles as well as spicy Durban curry or delicious South African biltong. While the spacious two-story venue boasts plenty of indoor seating, the outdoor tables afford breathtaking views of the Waterfront's working harbor and majestic Table Mountain. So, bring the family – there's a special kiddies' area – to spend a relaxing lunch or early dinner at the market. Open daily 09:30 to 17:00.

### **The Barrows Court** | Victoria Wharf | +27 (0)21 408 7600

You'll meet inspiring entrepreneurs, who offer distinctive gifts, clothing, accessories and more from kiosks and small stands. Open daily 09:00 to 21:00.

### **The Red Shed Craft Workshop** | Victoria Wharf | +27 (0)21 408 7600

Designed as a showcase for talent and creativity, the Red Shed Craft Workshop specializes in handmade art and merchandise. Unique gift ideas, exclusive clothing, leather goods, children's creations, contemporary furnishings and highly sought after works of art are all available. Open Monday - Saturday 09:00 to 21:00, Sundays 10:00 to 21:00.

### **Waterfront Craft Market & Wellness Centre** | Adjacent to the Two Oceans Aquarium | +27 (0)21 408 7840

The Wellness Centre is one of a kind in this informal retail environment and offers a range of therapies, treatments and holistic products. It's temporarily housed on the North Wharf. Open daily 10:00 to 17:30.











## Useful Links

- [www.capetown.travel](http://www.capetown.travel)
- [www.lonelyplanet.com/south-africa/cape-town/things-to-do](http://www.lonelyplanet.com/south-africa/cape-town/things-to-do)
- [www.timeout.com/cape-town/features/407/20-great-things-to-do-in-cape-town](http://www.timeout.com/cape-town/features/407/20-great-things-to-do-in-cape-town)
- [www.capetown.travel/uploads/files/map-green.pdf](http://www.capetown.travel/uploads/files/map-green.pdf)
- [www.southafrica.net/country/us/en](http://www.southafrica.net/country/us/en)
- [www.aboutcapetown.com](http://www.aboutcapetown.com)
- [www.capetownmagazine.com/events/2014-07-11/11\\_37](http://www.capetownmagazine.com/events/2014-07-11/11_37)
- [www.tripadvisor.co.uk/AttractionsNear-g312659-d1418617-Cape\\_Town\\_International\\_Convention\\_Centre-Cape\\_Town\\_Central\\_Western\\_Cape.html](http://www.tripadvisor.co.uk/AttractionsNear-g312659-d1418617-Cape_Town_International_Convention_Centre-Cape_Town_Central_Western_Cape.html)













# Restaurants in Cape Town

Below is a list of the top 10 restaurants at the V&A Waterfront:

|   |  |
|---|--|
|  <p><b>Sevuga Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Asian, Contemporary, Dim Sum, Grill, Japanese, Seafood, Sushi</b><br/>Sevuga is highly acclaimed restaurant and has been one of Cape Town's most sought after venues on the Victoria &amp; Alfred Waterfront. Sevuga is the sister restaurant to the much loved</p>  |  <p><b>Gibson's Burgers</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Grills, Light Meals, Steakhouse</b><br/>At Gibson's Burgers in Cape Town the owners' mission was to establish 'The Best Burger' and travelled far and wide to visit the premier burger places in the World, including Chi</p>   |
|  <p><b>The Quarterdeck Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Breakfast, Cape Malay, Indonesian, Malaysian, Seafood, South African, Vegetarian</b><br/>The Quarterdeck Restaurant is situated in the Portwood Hotel in the Victoria and Alfred Waterfront. The Restaurant is located in an original section of the Breakwater Conical Station, which was bu...</p>  |  <p><b>Belthazar Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Grills, Steakhouse</b><br/>The Cape is traditionally known as the place for wine lovers the world over and Belthazar Restaurant on the Waterfront in Cape Town entices with the biggest wine bar in the world. Situated close to</p>                                    |
|  <p><b>Signal Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Cape Malay, Contemporary, Seafood, South African</b><br/>Signal restaurant is situated on the popular Victoria &amp; Alfred Waterfront in Cape Town and offers diners authentic Cape cuisine that's both freshly prepared and creatively served. Signal</p>  |  <p><b>Balducci's Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Italian</b><br/>Balducci's Restaurant situated at the Victoria &amp; Alfred Waterfront in Cape Town offers diners the opportunity to experience the taste of Italian cuisine with delectable dishes such as onion zuppa.</p>   |
|  <p><b>Quay Four</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Breakfast, French, Light Meals, Pub &amp; Bars, Seafood, Traditional, Vegetarian</b><br/>Quay Four, need we say more? This popular restaurant was one of the first to set up on the V&amp;A Waterfront in Cape Town. Now one of Cape Town's favourite restaurants, it is situated on a p...</p>  |  <p><b>moyo - V&amp;A Clock Tower</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>African, Buffet, Seafood, South African, Tapas, Vegetarian</b><br/>moyo Restaurant at the V&amp;A Clock Tower in Cape Town exemplifies contemporary elite Africa and generates an exciting blend of design, food, and entertainment that seduces and thrills!</p> |
|  <p><b>Hildebrand Restaurant</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>African, Breakfast, Cocktails, Continental, Fine Dining, Italian, Light Meals, Mediterranean, Seafood, South African, Traditional</b><br/>Hildebrand Restaurant is situated at the V &amp; A Waterfront in Cape Town and boasts magnificent marine views where diners can enjoy a traditional Italian meal, fresh seafood, meat or a tasty veni...</p> |  <p><b>Primi Wharf</b><br/>Victoria &amp; Alfred Waterfront, Western Cape <b>Breakfast, Contemporary, Italian</b><br/>FREE WIFI! *** FREE WIFI! *** FREE WIFI! Situated in the popular V&amp;A Waterfront, enjoy the passionate service and tradition of serving good food in generous portions for which Primi Piatti</p>                                    |

Top 10 restaurants in Cape Town:

|  |   |
|--|---|
|  <p><b>Aubergine Restaurant</b><br/>Cape Town Central, Western Cape <b>Continental, Cosmopolitan, Fine Dining, Game, International, Seafood, Vegetarian</b><br/>Aubergine Restaurant strives to provide everything that's fine in the world of wine and dining. Aubergine has string of awards and accolades attesting to their dedication and commitment to</p> |  <p><b>Mesopotamia Kurdish Restaurant</b><br/>Cape Town Central, Western Cape <b>Italian, Kurdish, Mediterranean</b><br/>A first for South Africa! Mesopotamia Kurdish restaurant situated in the heart of Cape Town offers a truly unique and exceptional dining experience. You are invited to share in an array of meze and</p>   |
|  <p><b>Bombay Brasserie Restaurant</b><br/>Cape Town Central, Western Cape <b>Contemporary, Indian, Vegetarian</b><br/>Bombay Brasserie Restaurant recently opened in Cape Town and is situated at the new premier luxury Taj Hotel in Cape Town. The Taj has ensured that standards set in it's A-list London restaura...</p>                                   |  <p><b>Marimba Restaurant</b><br/>Cape Town Central, Western Cape <b>African, Cocktails, Contemporary, Continental, Fusion, Game, International, Seafood, South African</b><br/>Get into the mood for dining to the sounds of Africa in a beautiful Cape Town setting. Marimba restaurant offers traditional South African cuisine in a contemporary style served with fine attention.</p> |
|  <p><b>Wafu Restaurant</b><br/>Cape Town Central, Western Cape <b>Asian, Dim Sum, Fusion, Seafood, Sushi</b><br/>From its home above Waiyama, Wafu offers welcomes you to 'the Asian way', a unique melding of distinctive Asian tapes dining and a glorious 180° vista of the Atlantic Ocean and the i...</p>   |  <p><b>Gold Restaurant</b><br/>Cape Town Central, Western Cape <b>African, Cape Malay, Game, South African, Traditional</b><br/>Gold Restaurant is situated in a trendy area of Cape Town. This lively and diverse Pan-African restaurant promises a night of sumptuous wine and dining with live entertainment set against a glor...</p>  |
|  <p><b>Savoy Cabbage Restaurant</b><br/>Cape Town Central, Western Cape <b>Fine Dining, Game, International, Seafood, Vegetarian</b><br/>Savoy Cabbage Restaurant in the heart of Cape Town, is enticingly modern and with a menu brimming with flavour served in a textured interior of glass, concrete, Table Mountain stone and brick.</p>                    |  <p><b>Five Flies Restaurant</b><br/>Cape Town Central, Western Cape <b>Fine Dining, Fusion, International, South African</b><br/>Five Flies restaurant, situated in the heart of the Cape Town's legal and Financial district, offers fine dining par excellence. A few years ago, the venue was an elite club with white washed.</p>   |
|  <p><b>Rick's Cafe Americain</b><br/>Cape Town Central, Western Cape <b>African, Cocktails, Cosmopolitan, Game, Grills, Wine bar</b><br/>When you step into Rick's Cafe Americain in the heart of Cape Town you are immediately welcomed into a large sophisticated 120 seater restaurant with three roaring fireplaces, a stylis...</p>                         |  <p><b>Bowl Restaurant</b><br/>Cape Town Central, Western Cape <b>African, Asian, International, Light Meals</b><br/>Bowl Restaurant housed at The Adderley Hotel is conveniently situated in the heart of Cape Town's historical Adderley Street making it strategically placed for both tourists and corporate cli...</p>  |



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Cape Peninsula



Wine Country



Garden Route



Safaris



# 2014 Anniversaries

**IUPHAR congratulates these member societies on their Milestone Anniversaries:**

Italian Society of Pharmacology  
1939 - 2014

Czech Society for Experimental  
and Clinical Pharmacology and Toxicology  
1959 - 2014

Slovak Pharmacological Society  
1959 - 2014

Indian Pharmacological Society  
1969 - 2014

Portuguese Society of Pharmacology  
1969 - 2014

Canadian Society of  
Pharmacology and Therapeutics  
1974 - 2014

Croatian Pharmacological Society  
1979 - 2014

Hellenic (Greek) Society of Pharmacology  
1984 - 2014

Serbian Medical Society  
Section on Clinical Pharmacology  
2009 - 2014

**Congratulations to the**  
IUPHAR Gastrointestinal Section  
1994 - 2014



**The Hellenic Society of Basic and Clinical  
Pharmacology (HSP) celebrates its' 30th Anniversary**

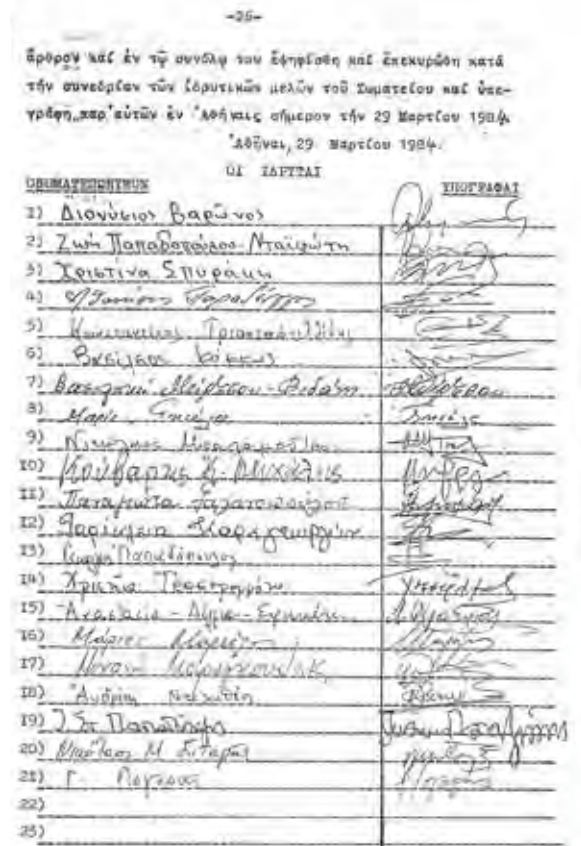


*The birth of the Society.* Credit for the creation of the Society for Pharmacology in Greece is given to Prof. Marios Marselos of the University of Ioannina. While attending an IUPHAR meeting, it became clear to Prof. Marselos that although Greek pharmacologists could attend IUPHAR events, a Greek national society was needed for Greece to formally join the Union. The idea to form a Society was greeted with enthusiasm by two colleagues who were also attending that meeting, Christina

Spyraki and Zeta Papadopoulou-Daifoti, from the University of Athens. Both were also instrumental in establishing the organization. Ultimately, the HSP was officially established on March 29, 1984 by 21 pharmacologists (Figure 1), all of whom were faculty members at Greek medical schools. At about the same time, several new Schools of Medicine, Pharmacy, Veterinary Science and Nursing were being created throughout Greece, all of which required the establishment of pharmacology teaching and research programs. Some of the new pharmacology groups were led by Greek scientists who returned to the country after establishing successful careers abroad.

Today, there are eleven academic departments of pharmacology and a division of pharmacology in a major research institute, the Biomedical Research Foundation of the Academy of Athens. The HSP, at present, numbers approximately 200 active members who represent all of the current academic laboratories and research centers, as well as scientists that work in the Greek pharmaceutical industry.

*Structure, objectives and goals.* The HSP is a non-profit, non-governmental organization supported by membership fees and donations. The Executive Committee of the HSP is elected by the General Assembly for two year terms. The Committee consists of seven members, including the president, vice-president, secretary-general, treasurer and three councilors. The objectives of the Society are to promote and advance the discipline of pharmacology by supporting research in the field and by encouraging college graduates to follow a career in pharmacology, to facilitate national and international collaborations, and to contribute to pharmacology



Continued on page 41...

## The Hellenic Society of Basic and Clinical Pharmacology (HSP) 30th Anniversary (continued)

education and teaching at both the undergraduate and graduate levels. HSP is also involved in disseminating authoritative information to the pharmacology community and the general public. The goals of the HSP for the coming years are to organize a trans-departmental, trans-institutional program leading to MSc/doctorate degrees in Pharmacology, to contribute towards the establishment of Clinical Pharmacology as a medical specialty, and to initiate continuing education programs for pharmacists and other healthcare professionals.

*Scientific events and activities.* While the first scientific meeting of the Society took place in 1988, the HSP was able to sponsor only a limited number of events, including joint events with other scientific societies. Under the leadership of Professor M. Maragoudakis of the University of Patras, the 1<sup>st</sup> Panhellenic Congress of Pharmacology was held in Athens in 2000. The following year there was a national meeting on drug safety. These events signaled the beginning of a new era for the Society. Since 2000, a Congress of Pharmacology is held every two years, usually with the participation of 5-10 international speakers. A smaller, one-day meeting is sponsored on alternate years. In 2009 the HSP hosted the 7th European Association for Clinical Pharmacology & Therapeutics (EACPT) Summer School of Clinical Pharmacology and Therapeutics in Alexandroupolis. This year, the Society held its 8<sup>th</sup> Biennial meeting in Athens on May 23-24, with the British Pharmacological Society and the Immunopharmacology Section of the International Union of Basic and Clinical Pharmacology (IUPHAR) participating in this event.



The Society published in 2013 the first issue of its newsletter (at left), of which two issues are scheduled to appear each year.

*Unifying pharmacology in Greece.* A major milestone in the growth of the HSP came in 2012 with the merger of the Hellenic Society of Pharmacology and the Hellenic Society of Clinical Pharmacology to form the Hellenic Society of Basic and Clinical Pharmacology (retaining the acronym HSP). This helps foster research and teaching collaborations and interactions among basic scientists and clinicians, and stimulates advances in translational medicine.

*The international profile of HSP.* The HSP has been a member of the Federation of European Pharmacological Societies (EPHAR) and the IUPHAR since its inception, with representatives in the General Assemblies of both of these international bodies. It has been a member of the EACPT since 2006. Greek Society delegations attend and present their research at all the major meetings, including the EPHAR, EACPT and IUPHAR congresses. A number of HSP members also serve on European committees responsible for drug approval.

During the 2006 IUPHAR meeting in China, Greece became an elected member of the EPHAR Executive Committee, with a 4-year extension of this assignment awarded during the 2008 meeting in Manchester. During WorldPharma2010 in Copenhagen the HSP organized a popular workshop on “Synaptic events in brain function”. The HSP is seeking to host the EPHAR2020 conference in Athens and will be presenting its bid for this event in Cape Town during the WCP2014. The HSP supports and actively participates in the EPHAR-sponsored European Certification of Pharmacologists initiative.

*Looking into the future.* It is anticipated that HSP will continue to grow in the years ahead. Both the Society and its individual members are committed to working with colleagues world-wide to help shape the future of pharmacology in the face of the constant scientific and societal changes. The HSP is placing special emphasis on ensuring the new generation of pharmacologists is adequately trained to meet the challenges and opportunities of the future. •

Andreas Papapetropoulos, PhD, FBPharmacoS  
HSP President

## The Section for Clinical Pharmacology, Serbian Medical Society Celebrates 5<sup>th</sup> Anniversary

### Enhancement of Clinical Pharmacology within the Healthcare System



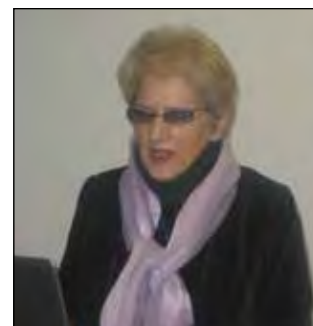
During its first five years of existence, the Section for Clinical Pharmacology (SCP) has established itself as an important component of the Serbian Medical Society (SMS). This view has been stated publically and privately by the President Academician Professor Radoje Čolović, SMS general manager Suzana Bjelogrić, and by SMS colleagues.

The major goal of the Section is to improve the visibility and enhance the participation of clinical pharmacologists as critical members of the health care teams involved in tertiary, secondary and primary health care. While most members of the section are clinician or bench scientists and educators, some are employed by the pharmaceutical industry or Serbian regulatory bodies

Since 2009 the SCP-SMS members have participated actively in Continuing Medical Education (CME) programs, receiving the highest number of points awarded by the Health Council of Serbia for the quality of its presentations. As these points are necessary for awarding and renewing professional licensure, awareness of clinical pharmacology, and of its importance in the practice of medicine, has grown. Examples of the most popular CME courses were: *Biotechnological and similar biological medicinal products – From discovery to therapeutical application*, by course leader, Prof. Momir Mikov; *Monitoring and reporting of drug side-effects – Factors for safe and successful pharmacotherapy*, by course leader, Dr. Branka Terzic; *Therapy and prevention of disease in older people*, by course leader, Prof. Kornelija Djakovic Svajcer; *Serotonin – The red thread in clinical pharmacology*, by course leader, Prof. Ivana Timotijevic; and *Good clinical practice in clinical trials*, by course leader, Prim. Dragana Maca Kastratovic.



Momir Mikov, MD, PhD at the podium.



Branka Terzic, MD, PhD  
delivering a course

As part of this increase in activity and visibility, the Section has established numerous international affiliations. Through the Serbian Medical Society, the section has liaised with the European Clinical Research Network (ECRIN). Its director, Prof. Jacques Demotes Mainard, presented SCP-SMS members with an overview of how ECRIN can offer collaborative opportunities. ECRIN also serves as a European outlet for providing and obtaining updated information on developments in research and clinical care.

Continued on page 43...



## The Section for Clinical Pharmacology, Serbian Medical Society 5<sup>th</sup> Anniversary (continued)

SCP-SMS periodically invites international lecturers. For instance, Prof. David T.W. Wong, of the University of California - Los Angeles, presented at the Academy of Medical Sciences recent research on saliva biomarkers. Prim. Kastratovic, the principal investigator for Serbia, followed his presentation with the results in the Serbian population obtained from Prof. Wong's collaboration research site in Belgrade. It is hoped this line of research will facilitate early detection of cancer through an oral test.

The Section sponsors annual conferences entitled, "Week of Hospital Clinical Pharmacology", which are held at end of each November. SCP-SMS held its 5<sup>th</sup> annual meeting in Belgrade, Serbia, on November 30<sup>th</sup> through December 1<sup>st</sup>, 2013. The theme of the "5<sup>th</sup> Week of Hospital Clinical Pharmacology Week" (V WHCP) was "Integration of Science and Profession". The proceedings included a three-day workshop, social functions, and a poster competition. Approximately one hundred clinical pharmacologists and medical specialists attended this gathering, including guests from Germany, France and Italy. The winning poster was *Acquired pure red-cell aplasia associated with carcinoid tumor of the thymus - case report*, that was presented by Dijana M. Šefer (pictured at right), Nada D. Suvajdzic, Milan S. Petakov.



The Section has recently established an online, peer-reviewed, open access journal entitled *Hospital Pharmacology – An International Multidisciplinary Journal*. It specializes in publishing quantitative and qualitative original clinical pharmacology research with a focus on pharmacovigilance. Also welcomed are editorials, hot topics commentaries, book reviews and announcements pertinent to those in the field. It seeks to foster multidisciplinary research and collaboration among academic scientists, the pharmaceutical industry and the healthcare sector. For more information or to download the Instructions for Authors, please visit [www.hophonline.org](http://www.hophonline.org).



SCP-SMS members met December 19<sup>th</sup>, 2013 to launch the new journal, Hospital Pharmacology.

SCP-SMS wishes to congratulate their president, Prof. Mikov, who was appointed last year as an associate member of the Academy of Medical Sciences of the Serbian Medical Society in acknowledgment of his research and leadership. The Serbian Medical Society presented the award for science to Prim. Kastratovic on glory Djurdjevdan, on the 6<sup>th</sup> of May 2014.

An increase in the visibility of the clinical pharmacology within the healthcare system and society at large is being achieved by the collaborative efforts of individuals involved in health-related disciplines, medical education, medical sciences, regulatory affairs, and institutional management. The continued encouragement and support of IUPHAR remains an invaluable resource as well. •

Prim. Dragana Maca A. Kastratovic, MD, PhD, spec clinical pharmacology  
SCP-SMS Secretary  
SCP-SMS Representative to IUPHAR



During May, 2014 Prof. Radoje Čolović, President of the Serbian Medical Association, presented Prim. Maca Kastratovic with the science award.



## My 42 Years (and Counting) with IUPHAR

My first encounter with IUPHAR took place in 1961 at the first congress in Stockholm, where I gave my first presentation in a large cinema hall near the Sergels Torg in central Stockholm. It was the 1st International Pharmacology Congress after the painful separation from the International Union of Physiological Sciences (IUPS) via the intermediate formation of a Section of Pharmacology (SEPHAR) within the IUPS. The somewhat complicated and controversial birth of IUPHAR has been eloquently described by Börje Uvnäs in 1981 in Tokyo (cf. "IUPHAR Adventures"). Thereafter, IUPHAR was successfully promoted also by the likes of Helena Raskova of Prague and George Koelle of Philadelphia.

A decade after the first congress I was elected by the German Pharmacology Society to be one its delegates to the 5th IUPHAR International Congress held in San Francisco in 1972. I continued as a delegate for the German Society over the next fifteen years, culminating at the 10th IUPHAR International Congress in Sydney in 1987. On the famous steps of the Sidney Opera House (Wagner's Lohengrin), Paul Lechat of Paris invited me to succeed Alfred Pletscher as Treasurer of IUPHAR. Among other tasks this entailed admonishing delinquent societies to pay their dues and to raise funds from donors. During my tenure as Treasurer we nearly doubled the financial reserves of the Union which, by current standards, were still quite low. Together with Colin Dollery and Setsuro Ebashi, and the Secretary General, Theophile Godfraind, an atmosphere of friendly collaboration, mutual understanding and support grew among the officers and member societies. Strategic objectives (e.g. 'receptorology') were established and pursued. After two terms as Treasurer, I was succeeded by Ernst Mutschler during the 12th IUPHAR International Congress in Montreal in 1994 .

This transfer was immediately followed by an invitation to serve as chair of the IUPHAR Membership Committee. This committee, which consists of five members from different continents, is responsible for vetting applications from societies requesting membership in IUPHAR. Over the past twenty years this committee has recommended to the Executive Committee the admission of over a dozen new member societies.

Now, after twenty years, I pass the reins of the Membership Committee to Regina Markus but I will continue to serve as the Vice-Chair. I look forward to seeing how IUPHAR will evolve to meet the new challenges experienced by pharmacologists in the Twenty-First Century.

Karl J. Netter

IUPHAR Membership Vice-Chair 2014 - 2018

IUPHAR Membership Chair 1994 - 2014

IUPHAR Treasurer 1987 - 1994

# Professor Folke Sjöqvist is the 2013 *BCPT* Nordic Prize Winner in Basic & Clinical Pharmacology & Toxicology

Professor Folke Sjöqvist, who recently turned 80, is still very active and has accomplished remarkable results in many areas of Clinical Pharmacology. He began his thesis work under the pharmacologist-toxicologist pioneer, Professor Bo Holmstedt, and with Professor Börje Uvnas chairing the institution at the Karolinska Institute in Stockholm. The thesis concerned basic experimental pharmacology and ganglionic autonomic transmission. He then had a long postdoc in the USA where his scientific interest was profoundly reoriented towards clinical pharmacology. The most important influence was in the laboratory of the legendary Bernard B. Brodie at the National Institutes of Health (NIH). Professor Sjöqvist became engaged in the new fields of drug metabolism exploring the roles of species and inter-individual differences and innovative methods for specific chemical drug analysis. He also studied clinical trial methodology with Professor Louis Lasagna at Johns Hopkins in Baltimore, USA.

Coming back to Sweden with a much extended view on the importance and potential of applying pharmacological knowledge in a clinical setting, he started a long journey to establish Clinical Pharmacology as a research topic firmly anchored in clinical reality. With the help of a new drug analytical method, Sjöqvist and colleagues found a 36-fold variation in plasma drug concentrations in a small group of psychiatric patients treated with a standard recommended dose of the tricyclic antidepressant desipramine [1]. This finding had profound importance for those pursuing research trying to evaluate the importance of inherent large variability in drug metabolism and pharmacokinetics at large among individuals. Much later, it was shown that the patient with the highest plasma concentration in the pivotal study mentioned above was a deficient metabolizer due to CYP2D6 polymorphism. These findings marked the start of development of pharmacogenetics in clinical pharmacology at the Karolinska Institute.

Professor Sjöqvist attracted a large number of students to his department and formed research teams, ideally with a composition of one clinician, one specialist in drug assays and one clinical pharmacologist. Among research topics were drug treatment in endogenous depression, epilepsy, rheumatic diseases and tuberculosis. The relation between antidepressant effect and plasma concentrations of antidepressants was shown in patients [2], as was the clinical relevance of antiepileptic plasma concentration for the control of convulsions. There were also studies on protein binding of selected drugs, drug metabolism and pharmacogenetics. The latter topic has been a main study path of the institution up to today, now more focused on rare drug metabolic genotypes being associated with adverse drug reactions or abnormal dose requirements due to multiple genes encoding for the CYP2D6 isoenzyme.

During the 1980s and 1990s, Professor Sjöqvist's institution had a leading position in the elucidation of genomic traits of importance for oxidative drug metabolism utilizing methods of molecular biology. Together with the Karolinska





# Professor Folke Sjöqvist is the 2013 BCPT Nordic Prize Winner

(continued)

Institute biochemist, Professor Magnus Ingelman-Sundberg, Professor Sjöqvist embarked on a joint project funded in 1988 by the Swedish Medical Research Council to use molecular biological methods in order to understand the molecular mechanisms for variability in drug metabolism already observed in 1972.

Professor Sjöqvist stimulated his students to study paediatric clinical pharmacology, and these studies have been taken to great depths by his successors. The importance of appropriate drugs for children has recently been highlighted by the international medical community and drug regulators. The treatment for severe pain as well as geriatric problems in drug treatment related to naturally decreasing kidney function in old age has been subject to studies at the institution. Also, a series of more basal studies on pharmacokinetics and pharmacokinetics-dynamics have been carried out.

Professor Sjöqvist appears today as an author of 266 publications in PUBMED. Altogether, his scientific papers have been cited 15,000 times and his Hirsch index is 66.

Professor Sjöqvist realized early the importance of pharmacoepidemiological methods, which offer the only feasible way to elucidate some of the clinical problems associated with drug use. Some of his collaborators became early leaders in the field, with a number of scholars being associated with projects in the area and still today. The amazing number of 125 graduate students have had dissertations with support from the institution and very often a strong personal tutoring by Professor Sjöqvist. There have been 172 visiting scientists of many differing scientific experience and skills between 1968 and 2012.

In the 1970s, Professor Sune Bergström, at the time President of the Karolinska Institute, initiated research that aimed at establishing rational drug therapy in developing and poor countries. This resulted in a long-term collaborative project with colleagues and students mainly from Africa. As a result of this, and in collaboration with the WHO, a considerable number of graduate students from developing countries have been received at Professor Sjöqvist's institution. Quite a number of them have also presented collaborative thesis work at the Karolinska Institute. Exchange and teaching programmes have also been carried out with China and Egypt, initiating a number of studies to understand interethnic differences in drug response due to pharmacogenetic polymorphisms.

Professor Sjöqvist has participated in a vast number of university committees over the years. We would specifically like to mention his chairmanship of the curriculum committee for the training of medical students lasting from 1980 to 1987. He was also a popular 'Inspector' of the Medical Students' Association. He has been an active member of the Nobel Assembly, which is responsible for the selection of Nobel Prize laureates.

Always emphasizing the importance for clinical pharmacology to have a role in clinical medicine, Professor Sjöqvist has been active in establishing and developing local and

*Continued on page 47...*



# Professor Folke Sjöqvist is the 2013 BCPT Nordic Prize Winner

(continued)

central drugs and therapeutics committees. These have been long-term commitments, and there are today profound changes in the ways drugs are selected and utilized in healthcare systems across countries. Professor Sjöqvist has always stressed the concept of drug evaluation as a key function for clinical pharmacologists. In essence, this activity was practicing what is now called evidence-based medicine. In 1974, a drug information centre was established at the institution. This centre has expanded its activities, and questions are now searchable on the net open to the public.

Professor Sjöqvist has been instrumental in the creation of the European Association for Clinical Pharmacology (EACPT) organizing committee of the third world conference in Clinical Pharmacology and Therapeutics in Stockholm in 1986. This conference followed the first and second ones, organized in London and Washington, respectively. He was awarded the 'Life-time Achievement in Clinical Pharmacology' by the EACPT in 2008. Professor Sjöqvist has, together with Professor Michael Orme, United Kingdom, chaired the work to establish a global strategy for how clinical pharmacology can contribute to health care, research and education. This project was finished in 2012 by publishing *Clinical Pharmacology in Health Care, Teaching and Research* jointly by the World Health Organization, the Council for International Organizations of Medical Sciences (CIOMS) and IUPHAR. In fact, the first version of this important report was published in *BCPT* [3].

A large number of students may tell about the never-ending enthusiasm of Professor Sjöqvist to explain why pharmacology is important and how it can improve clinical medicine. He is an excellent reviewer and known for his ability to take in new facts in the scientific process with his analytical mind. He can also communicate the beauty of scientific work to his young and senior collaborators and support them in the working process. He is a great teacher and academician in many respects.

It is thus concluded that the extraordinary scientific skills, academic enthusiasm, commitments and contributions of Professor Folke Sjöqvist would make him a worthy receiver of the *BCPT* Nordic Prize in Basic and Clinical Pharmacology & Toxicology. •

Kim Brösen  
*Editor-in-Chief, BCPT*

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## 2014 IUPHAR-Ed Early Educator Award



Dr. Jelle Tichelaar, from the Netherlands, is the recipient of the 2014 IUPHAR-Ed Early Educator Award. Attend the IUPHAR-Education Section Satellite meeting on the 12th and 13th of July 2014 in Cape Town, South Africa to hear his presentation "A feasibility study of a learner centered student run clinic (LC-SRC) with the emphasis on pharmacotherapy".



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# Bernard Lerer is the Recipient of the 2014 PRACP Werner Kalow Responsible Innovation Prize in Global Omics and Personalized Medicine



Professor Bernard Lerer

The Pacific Rim Association for Clinical Pharmacogenetics (PRACP) is proud to announce Bernard Lerer as the recipient of the 2014 inaugural *Werner Kalow Responsible*

*Innovation Prize in Global Omics and Personalized Medicine*. Dr. Lerer is professor of psychiatry and director of the Biological Psychiatry Laboratory, Hadassah-Hebrew University Medical Center, Jerusalem, Israel.

The Werner Kalow Responsible Innovation Prize is awarded to an exceptional interdisciplinary scholar or research team that has made highly innovative and enduring transdisciplinary contributions to global omics science and personalized medicine. The prize is established in memory of a beloved colleague, mentor and friend, the late Professor Werner Kalow who, beginning in the 1950s, cultivated the idea and practice of pharmacogenetics in modern therapeutics. The PRACP, one of the oldest learned societies in the Asia-Pacific region, was founded by Professor Kalow and his colleagues more than two decades ago to foster and advance the field of pharmacogenetics.

Throughout a long career dedicated to biological psychiatry, Professor Lerer made many highly innovative and transdisciplinary contributions to the fields of clinical psychopharmacology, pharmacogenetics and personalized medicine. We are confident Professor Kalow would enthusiastically endorse the selection of Professor Lerer as the inaugural recipient of this award. The full report for the PRACP Werner Kalow prize appears in the April 2014 issue of *OMICS: A Journal of Integrative Biology* (<http://online.liebertpub.com/doi/abs/10.1089/omi.2014.0029>).

## Biography of Bernard Lerer, MD

Professor Bernard Lerer has been the Director of the Biological Psychiatry Laboratory at Hadassah-Hebrew University Medical Center, Jerusalem, Israel since 1990. He was recently chosen to lead a National Knowledge Center for Research on Brain Disorders that was established at Hadassah Medical Center by the Israel Ministry of Science. Professor Lerer was educated at the University of Cape Town, Hadassah and Herzog Hospitals in Jerusalem, and at the Lafayette Clinic in Detroit. His main research interests are the molecular genetic basis of major psychiatric disorders, particularly schizophrenia, psychopharmacogenetics and the neurochemical mechanisms of action of antidepressants, mood stabilizers, and electroconvulsive therapy (ECT). He served as Director of the National Institute for Psychobiology in Israel from 1994-2002, Vice President of the International College of Neuropsychopharmacology (CINP) from 1996 to 2000 and Founding Editor-in-Chief of the *International Journal of Neuropsychopharmacology* from 1998 to 2008. Professor Lerer was a founder and past-President of the Israel Society for Biological Psychiatry. He has received the A.E. Bennett Research Award of the US Society for Biological Psychiatry and the Mentorship Award of the Israel Society for Biological Psychiatry. He has been a Fellow of the American College of Neuropsychopharmacology since 1996. Professor Lerer has extensive international research collaborations and has served as a Visiting Professor at the Universities of Cape Town, Copenhagen, Hiroshima, and Miami. He has received research support from the NIH, the European Union, the Israel Science Foundation, and the Israel Ministries of Health, Science and Economics. Prof. Lerer has published over 340 papers in peer reviewed journals, several book chapters, and four books. He is married to Ziona Lerer and has 3 children and 4 grandchildren. •

Continued on page 50...

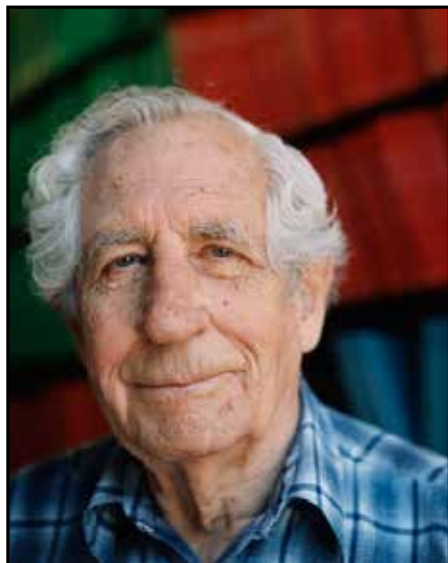
## 2014 PRACP Werner Kalow Responsible Innovation Prize in Global Omics and Personalized Medicine (continued)

### CALL FOR THE 2016 PRACP WERNER KALOW PRIZE

Nominations are being solicited for the 2016 PRACP Werner Kalow prize awardee. Qualified candidates are outstanding *individual*, interdisciplinary scholars, or *research teams* with a proven record of highly innovative contributions to omics and/or personalized medicine in the spirit of responsible innovation. There is no geographic limitation on nominees. The application process requires that a signed, 1500-word nomination letter (by the applicant or her/his sponsor) be forwarded by surface mail no later than May 31, 2015 to *Dr. Vural Özdemir, Independent Scholar in Science Studies, Atatürk Bulvari, No: 23/5, Nazilli, Aydın, Turkey.*



Vural Özdemir<sup>1</sup>, Laszlo Endrenyi<sup>2</sup>, Edmund J.D. Lee<sup>1</sup>, Kazutaka Shimoda<sup>1</sup>, Toshiyuki Someya<sup>1</sup>, Brian Tomlinson<sup>1</sup>



Professor Werner Kalow (1917 – 2008)

<sup>1</sup> Pacific Rim Association for Clinical Pharmacogenetics

<sup>2</sup> Faculty of Medicine, University of Toronto

#### REFERENCE

Özdemir V, Endrenyi L, Aynacıoğlu S, Bragazzi NL, Dandara C, Dove ES, Ferguson LR, Geraci CJ, Hafen E, Kesim BE, Kolker E, Lee EJ, Llerena A, Nacak M, Shimoda K, Someya T, Srivastava S, Tomlinson B, Vayena E, Warnich L, Yaşar U. *Bernard Lerer: Recipient of the 2014 inaugural Werner Kalow responsible innovation prize in global omics and personalized medicine.* OMICS 2014; 18(4): 211-221.

## Drug Discovery of the Year 2015 Opens for Nominations

The British Pharmacological Society is now accepting nominations for its third Drug Discovery of the Year award. The award was established by the Society in 2012 to demonstrate the importance of pharmacology in the development of new medicines, and to reward the achievements of the teams of scientists who discover and develop these drugs.

### Previous winners

2013: the Genentech team who developed vismodegib

2014: the GlaxoSmithKline team responsible for trametinib

Professor Humphrey Rang, BPS President, comments: *“The British Pharmacological Society was encouraged by the exceptional quality of the nominations received last year. I am delighted to announce the call for submissions to our third Drug Discovery of the Year award and to welcome nominations from across all disease areas that demonstrate the importance of both pre-clinical and clinical pharmacology in translating early discoveries into medicines that benefit patients.”*

The Society's Industry Committee will consider nominations for the discovery team behind a drug – whether a large or a small molecule – that best fulfills the following criteria:

- preclinical to clinical translation shows the importance of both preclinical and clinical pharmacology in the drug discovery/development process
- gained regulatory approval within the last three years in the EU and/or US
- has a significant impact on an unmet medical need
- first-in-class, or is a significant improvement over other drugs in the class
- mechanism of action known

Nominations must be received by 1 October 2014. The winning team will be publicly announced during the Society's flagship meeting *Pharmacology 2014*, held in London on 16-18 December 2014, and attended by an anticipated 1,000 pharmacologists.

The award does not promote the administration, consumption, prescription, purchase, recommendation, sale, supply or use of the winning medicine; nor does it pre-empt any regulatory decisions. Further information is available from [www.bps.ac.uk](http://www.bps.ac.uk).



## A Tribute to Oleksandr V. Stefanov The X<sup>th</sup> National Ukrainian School of Young Scientists Pharmacologists

The Xth biennial National Ukrainian School of Young Scientists Pharmacologists was held on October 23-34, 2013 in Kiev. The School was established in the early 1990's by Professor Oleksandr Stefanov, a member of the Ukraine



*Some of the Young Scientists-Pharmacologists along with members of the School Organizing Committee on their way to the coffee break between sessions.*

National Academy of Medical Sciences. Meeting attendees are both established scientists and talented students. The program included lectures presented by famous Ukrainian scientists on topics in the pharmacological sciences and related disciplines.

It was noted that there are many unresolved issues concerning the effectiveness and safety of pharmaceuticals. It was proposed that these issues can only be successfully addressed by the collaborative efforts of specialists in various fields of medicine. To confront these challenges, stress was placed on the need for enthusiasm and optimism, as well as solid training in pharmacology and the biomedical sciences. In addition, accumulation of the information needed to solve these problems requires not only the efforts of academic scientists, but practicing physicians as well. The entire School of Young Scientists Pharmacologists endorsed promulgation of these ideas to succeeding generations as part of the process of defining the role of the pharmacological sciences in the 21<sup>st</sup> century.

The meeting was opened by Ganna Grigoryeva, DSc, vice-president of the Association of Pharmacologists of Ukraine. Dr. Grigoryeva warmly welcomed all attendees and noted, that the School of Young Scientists Pharmacologists plays a crucial role in sustaining the traditions of the Ukrainian pharmacological community and in fostering the professional growth of young scientists.



*Professor M. Golovenko delivered the lecture, Outlines of the Future of Pharmacology.*

The scientific program was launched by Professor Mykola Golovenko, a member of the Ukraine National Academy of Medical Sciences, who presented a lecture entitled *Outlines of the Future of Pharmacology*. He noted the dynamic changes taking place in pharmacological research are driven in large part by new technologies. Collectively he labeled these approaches BioInfoCognito (BIC). The foundation of BIC is composed of biotechnologies (symbol gene), informational technologies (symbol bit),

# The X<sup>th</sup> National Ukrainian School of Young Scientists Pharmacologists (continued)

and cognitive technologies (symbol neuron). He went on to highlight how the strategic use of these tools are important for advancing research in pharmacology.

Also lectures were delivered by Professor Alexander Reznikov - *Contemporary Technology of Antitumor Activity Testing on Mouse Xenografts*; Professor Natalia Voloschuk - *Gender Aspects of Pharmacodynamics and Pharmacokinetics of Medicines*; Corresponding Member of the Ukraine National Academy of Medical Sciences Yuri Gubsky - *Problems of Pain in Palliative Medicine: Social Challenge and Molecular Pharmacology*; Professor Igor Belenichev - *Participation of Heat Shock Proteins (HSP) in Realization of Neuroprotection and Neuroplasticity Mechanisms*; Professor Vitaly Mamchur - *Two Medicines, One Organism – Mechanisms of Interaction at Comorbid Pathology*; Professor Anatoly Soloviev - *Ion Channels as Pharmacological Targets*; Professor Alexander Zholos - *Pharmacological Potential of TRP-channels*; Corresponding member of the Ukraine National Academy of Medical Sciences Tetiana Bukhtiarova and Dr. Tatiana Ephyhmeva - *Contemporary Development of Medicines: from Experimental Investigations to Clinical Studies*; Professor Valentina Kovalenko - *Pharmacological Factors of Medicinal Interaction within the Individual Patient*; and Professor Igor Zupanec - *Brands and Generics: Myths and Reality*.



Professor V. Mamchur lectured on the topic of Two Medicines, One Organism - Mechanisms of Interaction at Comorbid Pathology.

Both the young scientists and invited speakers engaged in active discussions following each presentation. The lecturers all received memorial gifts in recognition of their accomplishments and participation in the meeting.

A young pharmacologist scientific article competition was held as part of the meeting. Articles published within the last three years were considered. Olga Tovchiga of the National Pharmaceutical University, Kharkiv, received the award for the best publication. Her article is entitled *The Influence of Oxonate-induced Hyperuricemia and Allopurinol on Behavioral Reactions of Rando-bred Mice*.

Given the informal nature of the meeting, the high quality of the science, and the open communication among participants, the event was a valuable experience for the young scientists, both personally and professionally. •

Ganna Shayakhmetova  
Secretary of the Board of the  
Association of Pharmacologists of Ukraine



During the School, the participants were encouraged to ask questions and offer their comments on the presentations.



At the conclusion of the School, each participant received a certificate of completion.

## 20th Latin-American Congress of Pharmacology (LATINFARMA 2013), October 21-25, 2013, Havana International Convention Centre, Cuba

On October 21-25, 2013 the Cuban Society of Pharmacology, together with the Latin-American Association of Pharmacology (ALF), the International Union of Basic and Clinical Pharmacology (IUPHAR), and the Pan-American Health Organization (PAHO), held the XX Latin-American Congress of Pharmacology and Therapeutic (LATINFARMA 2013) at the Havana International Convention Centre, in Havana, Cuba. The scientific program was composed of 19 different workshops and symposia. The meeting was attended by approximately 700 delegates, including 200 foreign participants from 23 different countries.



### Pharmacology International

June 2014



The Opening Session (photograph above) was highlighted by presentations from Dr. Salvador Moncada (UK), who was the Congress Special Guest Speaker, and Dr. Agustín Lage, Director of the Center of Molecular Immunology, one of the most important Cuban scientific institutions. Their talks were entitled *Biological and therapeutic relevance of the discovery of prostacyclin and nitric oxide* and *Immunotherapy and complexity: Solving the barriers for the control of the advanced cancer*, respectively. Participants then enjoyed music from a local ensemble (photograph above right).



Among the scientific activities, the workshop on immunopharmacology and biotechnology was the most popular. Sessions on immunopharmacology were focused on current approaches for identifying new therapeutic targets and exploratory studies of new agents for the treatment of various disorders, from cancer to inflammatory conditions. Included was a discussion of results from studies involving the cell-T receptor as a new approach for the treatment of cancer, the pharmacological potential of kinases inhibitors, and the design and evaluation of new molecules for the treatment of cancer and rheumatoid arthritis.



## LATINFARMA 2013 (continued)

Other featured speakers were Dr. Fabio Ciceri, from Italy, and Dr. Willem W. Overwijk, from the United States, about the clinical importance of the cell-T receptor gene in antitumor immunotherapy and the selection of cancer vaccine targets, respectively. Outstanding presentations by Cuban scientists covered topics including cytotoxic antitumor properties of human antibodies reactive to the ganglioside NEUGC GM3, the pharmacological intervention of signalling during proliferation, cell viability and the CK2 enzyme in the Type T acute lymphoblastic leukemia, and the molecular mechanisms involved in inhibiting the proliferation of tumor cells exposed to high concentrations of epidermal growth factor (EGF).

The workshop entitled *3Rs Alternatives in Pharmacology, Toxicology and Teaching* was also a popular event. The session was introduced by Dr. Mario Landys Chovel, Vice-President of the Cuban Society of Pharmacology and a member of the LATINFARMA Organizing Committee. The workshop was divided into two sessions. The first one focused on the 3Rs in pharmacology and toxicology, with lectures presented by outstanding scientists from the field of 3R alternatives, including Chantra Eskes, Pilar Vinardell and Adela Rosenkranz. Humane Education was the topic covered in the second session. The subject matter of this workshop was complemented by a pre-Congress course entitled the *First Latin-American Seminar on Alternatives to Animal Experiments*, which was organized and chaired by Dr. Nick Jukes. The course included oral presentations, round table discussions, videos, and multimedia programs.

Another important event was the establishment of the Latin-Ibero-American Network for Alternatives, created by representatives from Cuba, Argentina, Brazil, México, Peru and Spain. The objectives of this regional network are to reinforce the scientific strengths of the member groups and to address weaknesses by scientific exchange programs and collaborations, courses, and educational activities, participation in inter-laboratory validation studies, and to focus on the development and implementation of Alternatives for Pharmaceuticals and Biological products, as well as for Cosmetics, Food and Chemicals. To this end, a mission statement was drawn up and an organizational structure established to begin implementing projects to achieve the goals of Alternatives in Latin-America.

Prof. Wim Vanden Berghe (Belgium) organized a symposium on epigenetics. He opened the session with a discussion about the ability of flavanols to modulate the transcription of genes involved in atherosclerosis with heterogenic epigenetic changes of their DNA methylation state. Subsequently, the epigenetic mechanisms involved in cancer, such as DNA methylation, histone modification, nucleosome positioning, and micro-RNA expression, as well as the experimental models used for these studies, were discussed. The symposium ended with a discussion of the effect of DNA demethylation on CYP1A1 gene expression, and how this relates to the bioactivation of many mutagenic and carcinogenic compounds.

Dr. Idania Rodeiro organized and chaired a symposium on pharmacogenetics. Covered during the first day of this symposium were topics such as the pharmacogenetics of CYP2D6 and its clinical implication for antidepressant treatment and suicide in Latin-American populations as well as the influence of the genetic variation in smoking and lung cancer, the genotype and allele frequencies of cytochromes as they relate to drug toxicity, efficacy and variability in responses in Latin-American populations. The second session was devoted to a discussion of the use of genetically modified mouse models for studying mechanisms of chemically-induced liver cancer, the role of the immunogenetics and bioinformatics in the pharmacogenetic profile of vaccines, the development of biotechnological pharmaceuticals, the application of DNA microarrays technology for studying human blood samples, and gender-related gene expression.

Other scientific sessions included a workshop on pharmacovigilance, headed by Dr. Elki Sollenbring, of the World Health Organization, and a workshop entitled Learning of Pharmacology. The latter was attended by many Latin-American professors who shared their experiences. There was also a workshop on the pharmacology of natural products, with sessions devoted to the safety and efficacy of these agents, as well as efforts made to define the



## LATINFARMA 2013 (continued)

mechanisms of actions of phytomedicines. Other workshops included one on clinical trials that featured Dr. Gianni Tognoni and lively discussions on clinical trials designed to test products for treating newly identified conditions and the need to create regional programs on executing clinical trials and good clinical practices. The workshop on nanomedicine focused on the development of microspheres containing proteins, the synthesis, characterization and drug delivery profile of magnetic PLGA-PEG-PLGA/maghemite nanocomposite, and the new pegylation technologies used for developing biodrugs. A workshop on brain injury and neuroprotection featured basic and clinical science lectures presented by speakers from Brazil, Uruguay and Cuba.



Dr. Salvador Moncada, pictured at left, was recognized at the conference for his significant contributions to the field of pharmacology and related disciplines. The recognition ceremony took place in the Main Room of University of Havana, with the participation of important academics and scientific investigators from Cuba and the rest of Latin-America.

Regional meetings were held during LATINFARMA, including a meeting of the Ibero-American Network of Pharmacogenetic and of the Executive Committee of the Latin-American Association of Pharmacology (ALF), photograph below. During



the ALF meeting the attendees approved plans to enhance the ALF activities aimed at strengthening pharmacology in Latin America. One of these initiatives involves creating a regional journal to showcase pharmacological research in the region and to promote collaborations. Some other goals achieved during the ALF meeting were the acceptance of Peru and Costa Rica as new active members, as well as the selection of Cuba as the location for the ALF Permanent Secretary. The meeting closed with the agreement that the next ALF Congress, the 21<sup>st</sup>, will be held in Brazil in 2016, and the 22<sup>nd</sup> in Mexico in 2018.

The LATINFARMA Organizing Committee would like to express its thanks to the scientists, organizations, and institutions that helped make possible the organization and execution of the 20<sup>th</sup> congress. •

Mario Landys Chovel, Diadelis Remírez, Idiania Rodeiro and René Delgado  
LATINFARMA 2013 Organizers



The International Council for Science (ICSU) is seeking an

## **Executive Director**

located in the Paris office, to lead implementation of the strategic goals and plans of the organization, manage its Secretariat and oversee day-to-day operations. The incumbent should be prepared to conduct frequent world-wide travel.

**Closing date: 11 August 2014 (midnight CET)**

The Executive Director is expected to:

- Act to achieve ICSU's mission, strategy and plans, and contribute to their formulation and development;
- Work with and seek synergy and harmony among all components of the ICSU membership: Scientific Unions, National Members and Interdisciplinary Bodies;
- Ensure effective links between ICSU and partners in the UN, governmental and non-governmental sectors and help raising funds in support of ICSU's programmes;
- Manage the ICSU Secretariat and its staff in Paris and the Regional Offices around the world.

ICSU is seeking candidates with the following:

### Qualifications and knowledge

- An advanced university degree (Doctorate or equivalent) in a relevant science discipline and a record in the conduct of scientific research;
- At least fifteen years of experience in international collaboration and management of scientific programmes;
- High-level liaison and representation experience with major national and international scientific and stakeholder bodies.
- Knowledge of relevant intergovernmental partner organisations and processes, including UN structures
- Demonstrated ability to work within a complex, international, interdisciplinary and multicultural environment
- A full command of written and spoken English. Working knowledge of French and knowledge of other languages is considered an advantage.

### Skills

- Leadership and management as well as strategic, financial and staff management skills
- Excellent communication, networking and partnership building skills
- Proven ability to write documents in a concise, convincing manner
- Ability to build consensus amongst diverse views
- Ability to operate successfully with a high degree of autonomy and to delegate effectively
- Ability to participate effectively in fund raising
- The salary will be dependent on the experience and qualifications of the candidate.

[www.icsu.org/news-centre/jobs-at-icsu/jobs/vacancy-executive-director](http://www.icsu.org/news-centre/jobs-at-icsu/jobs/vacancy-executive-director)



# Upcoming Events

## July

**Drugs to Fight Cardiovascular Damage sponsored by the European Association for Clinical Pharmacology and Therapeutics**

July 3 - 5, 2014 in Nijmegen, the Netherlands

<http://www.eacpt2015.org>

**Integrative and Organs Systems Pharmacology (IOSP) workshop sponsored by the IUPHAR Education Section: WCP2014 Satellite**

July 8 - 11, 2014 at the Westville Campus, University of KwaZulu-Natal, Durban, South Africa

[www.iosp2014.ukzn.ac.za](http://www.iosp2014.ukzn.ac.za)

**11<sup>th</sup> International Society for Serotonin Research Meeting: WCP2014 Satellite**

July 9 - 11, 2014 in Arabella Golf Estate and Spa, Arabella, South Africa

[www.serotoninclub.org](http://www.serotoninclub.org)

**Emerging Trends in the Pharmacology of Drugs for Hypertension and Heart Failure with a Special Focus on the RAAS: WCP2014 Satellite**

July 11 - 12, 2014 at the Spier Wine Estate Conference Centre, Cape Town, South Africa

<http://raassatellite2014.org>

**TOXSA Workshop on In Vivo and In Vitro Methods to Identify and Evaluate Chemical Health Hazards: Establishment of Laboratory Facilities and Provision of Training in the Risk Assessment of Chemicals in South Africa: WCP2014 Satellite**

July 11 - 12, 2014 at the Two Oceans Aquarium, Cape Town, South Africa

[www.wcp2014.org/images/TOXSA\\_workshop\\_11\\_-\\_12\\_July\\_2014\\_Final\\_Programme.pdf](http://www.wcp2014.org/images/TOXSA_workshop_11_-_12_July_2014_Final_Programme.pdf)

[www.wcp2014.org/images/TOXSA\\_Delegate\\_registration\\_form.pdf](http://www.wcp2014.org/images/TOXSA_Delegate_registration_form.pdf)

**Training of Medicines Development and Regulation in Emerging Countries sponsored by the Hungarian Society for Experimental and Clinical Pharmacology and the Southern African Academy for Medicines Development: WCP2014 Satellite**

July 13, 2014 at the Westin Cape Town Hotel, South Africa

<http://pvsconsultancy.com/wp-content/uploads/2014/04/WorkshopProgramme.pdf>

**Drug Discovery and Development Project Simulation: WCP2014 Satellite**

July 12 - 13, 2014 in Cape Town, South Africa

<http://wcp2014.org/index.php/programme/scientific-programme/8-site-pages/176-drug-discovery-and-development>

**Safety Pharmacology Meeting: WCP2014 Satellite**

July 12 - 13, 2014 at the Protea Stellenbosch Hotel, Cape Town, South Africa

Contact: Linda Grimbeek [Linda.Grimbeek@nwu.ac.za](mailto:Linda.Grimbeek@nwu.ac.za)

**IUPHAR-Ed Pharmacology Education Meeting: WCP2014 Satellite**

July 12 - 13, 2014 at the Cape Town International Convention Centre, South Africa

[www.iuphar-ed2014.org](http://www.iuphar-ed2014.org)

**Basic & Clinical Neuroscience Symposium by the Southern African Neuroscience Society: WCP2014 Satellite**

July 13, 2014 at the University of Cape Town, South Africa

<http://sans.org.za/index.php/sans-symposium-2014>



# Upcoming Events

## **17<sup>th</sup> World Congress of Basic and Clinical Pharmacology**

July 13 - 18, 2014 at the Cape Town International Convention Centre, South Africa  
[www.WCP2014.org](http://www.WCP2014.org)

## **James Black Conference: Adrenoceptors and GPCRs - Where is Structure Leading? sponsored by the British Pharmacological Society: WCP2014 Satellite**

July 19 - 23, 2014 in Mopani Lodge, Kruger National Park, South Africa  
[www.bps.ac.uk/meetings/AdrenoceptorsGPCRs](http://www.bps.ac.uk/meetings/AdrenoceptorsGPCRs)

## **The Best Summer School on Stress organized by the Selye International Institute for Advanced Studies & IUPHAR Gastrointestinal Section**

July 21 - 25, 2014 in Zagreb, Croatia, For scientific & professional issues - Sandor Szabo: [szabo.uci@gmail.com](mailto:szabo.uci@gmail.com), For lodging & local accommodations - Jelena Suran: [jelena.suran@gmail.com](mailto:jelena.suran@gmail.com)

## *September*

### **James Black Conference - Inspired Biologics 2014, sponsored by the British Pharmacological Society**

September 18-19, 2014 in Cambridge, United Kingdom  
[www.bps.ac.uk/meetings/Biologics](http://www.bps.ac.uk/meetings/Biologics)

### **8<sup>th</sup> International Symposium on Cell/Tissue Injury and Cytoprotection/Organoprotection sponsored, in part, by the IUPHAR Gastrointestinal Section and the Hungarian Society for Experimental and Clinical Pharmacology**

September 24 - 26, 2014 in Budapest, Hungary, Contact Klara Gyires [gyirkla@net.sote.hu](mailto:gyirkla@net.sote.hu)

### **7<sup>th</sup> Santorini Conference Biology Prospective Systems Medicine, Personalized Health & Therapy under the auspices of the IUPHAR Pharmacogenetics/genomics Section**

September 25-27, 2014 in Santorini, Greece  
[www.santorini2014.org](http://www.santorini2014.org)

## *October*

### **27<sup>th</sup> Congress of the European College of Neuropsychopharmacology (ECNP)**

October 18 - 21, 2014 in Berlin, Germany  
[www.ecnp.eu](http://www.ecnp.eu)

### **New Ideas in Ancient Cultures: Advancing Pharmacovigilance in Asia, the 2014 Annual Meeting of the International Society of Pharmacovigilance**

October 19 - 22, 2014 in Tianjin, China  
[www.isoponline.org/index.php?page=isop-2014-annual-meeting](http://www.isoponline.org/index.php?page=isop-2014-annual-meeting)

### **2014 Annual Meeting of the Safety Pharmacology Society**

October 19 - 22, 2014 in Washington, DC, USA  
[www.safetypharmacology.org](http://www.safetypharmacology.org)

## *December*

### **ASCEPT-MPGPCR Joint Scientific Meeting cosponsored by the Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists**

December 7 - 11, 2014 in Melbourne, Australia  
<https://ascept.org/2014-ascept-annual-scientific-meeting>

### **Pharmacology 2014 sponsored by the British Pharmacological Society**

December 16 - 18, 2014 in London, United Kingdom  
[www.bps.ac.uk/meetings/Pharmacology2014](http://www.bps.ac.uk/meetings/Pharmacology2014)



## Integrative and Organs Systems Pharmacology (IOSP) WORKSHOP

"An initiative of the International Union  
of Basic and Clinical Pharmacology (IUPHAR)  
to train the next generation young integrative scientists"

8-11 July 2014 | Durban | South Africa  
A Satellite Meeting of WCP 2014

### WHO SHOULD ATTEND?

#### *Young researchers with sound foundations of in vivo research:*

- Post-graduate students who pursue or hold a post-graduate qualification in pharmacology, toxicology, physiology, biochemistry or related science field where *in vivo* research is conducted
- Early career scientists who wish to further advance their *in vivo* research skills

### CONTENT

#### *Lectures, discussions, practicals and visits covering:*

- Animal models, alternatives, protocol planning
- Ethical experimental techniques
- Animal research equipment and husbandry
- Practical animal handling
- Pain management and anaesthesia for laboratory animals
- Non-human primates in biomedical research
- Animal models to investigate specific diseases
- Pharmaceutical animal safety tests
- Research on sharks and other marine animals



UNIVERSITY OF <sup>TM</sup>  
KWAZULU-NATAL  
INYUVESI  
YAKWAZULU-NATALI

Discipline of Pharmaceutical Sciences (Division of Pharmacology)  
& Biomedical Resource Unit (BRU)

VENUE: SENATE CHAMBER, WESTVILLE CAMPUS

### CONTACT

#### *Convenors:*

- Dr Johannes Bodenstein (Pharmacology)
- Dr Sanil Singh (BRU)

#### *IOSP2014 Secretariat:*

**MISS PRENISHA RAJDEV**

**TEL:** +27 31 260 1604/2709

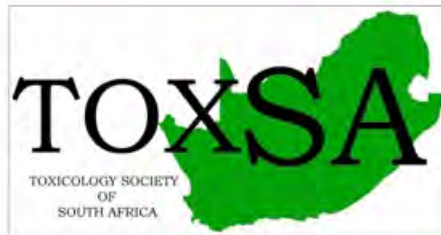
**FAX:** +27 31 260 1606

**E-MAIL:** [iosp2014@ukzn.ac.za](mailto:iosp2014@ukzn.ac.za)

**WEBSITE:** [www.iosp2014.ukzn.ac.za](http://www.iosp2014.ukzn.ac.za)







The Toxicology society of South Africa will be hosting a pre-conference workshop from **11 - 12 July 2014**, at the **Two Oceans Aquarium, Cape Town**.

The title of the workshop is: "***In vivo* and *in vitro* methods to identify and evaluate chemical health hazards: Establishment of laboratory facilities and provision of training in the risk assessment of chemicals in South Africa**". The workshop will focus on the regulation of chemical entities in South Africa and is divided into three main sections:

- Local regulatory requirements
- Assessing effects on human health
- Evaluating effects on the environment

This workshop brings together both local and international scientific expertise, as well as important bodies involved in the governing of chemical entities in South Africa.

Please note that a limited number of seats are available for this workshop.





Informal workshop on  
**RATIONAL USE OF MEDICINES  
IN DEVELOPING AND EMERGING COUNTRIES**

Organized by the  
IUPHAR Subcommittee for Clinical Pharmacology in Developing Countries  
In conjunction with WCP2014  
Meeting Room 1.71 of the Cape Town International Convention Centre

**Tuesday, July 15<sup>th</sup> from 3:00 to 5:00 pm**

**I: Introduction and presentations by Chairs** (5 minutes)

Each presentation is for 10 minutes followed by 5 minutes of discussion

**II: Educational activities**

1. Undergraduate training of medical students in clinical pharmacological principles and rational use of medicines in India: model for others? *Prof. Dinesh K. Badyal, Ludhiana, India*

**III: Methods and tools**

2. African Pharmacological Science Gateway (<http://sgw.africa-grid.org/pharmacology-science-gateway>) for virtual collaboration across borders: Experience and potentials for clinical pharmacology in developing countries. *Dr Collen Masimirembwa, Director of AiBST (African Institute for Biomedical Science and Technology), Harare, Zimbabwe*
3. Multicountry studies of drug policies and utilization: methods, experience and applicability in developing and emerging countries. *Dr. Brian Godman, senior researcher, Stockholm Sweden and guest professor, Glasgow Scotland and Rio de Janeiro, Brazil*

**IV: Rational Use of Medicines: research and training**

4. Rational use of antibiotics in children in Sri Lanka: Experience from a prescription survey and impact of WHO Model Formulary in a hospital. *Prof. Shalini Sri Ranganathan, consultant pediatrician, Colombo, Sri Lanka*
5. Rational use of medicines in Uganda: Plans and achievements in research and healthcare. *Prof. Celestino Obua, Kampala, Uganda*
6. A regional multi-country network in pharmacogenetics and rational use of medicines in Latin America: Past activities, plans and what others may learn from us. *Prof. Adrian LLerena, et al., Badajoz, Spain*

**V: Interactive panel discussion:** Sharing and collaborating across borders for clinical pharmacologists on rational use of medicine educational activities (20 min, each participant submits two suggestions for initiatives on a slip of paper)

**VI: Concluding discussion** (5 minutes)

**VII: Closing remarks** (2 minutes) *Prof. Andrew Walubo, Blomfontein, South Africa*

**Chairs:**

Dinesh K. Badyal of Ludhiana, India ([dineshbadyal@gmail.com](mailto:dineshbadyal@gmail.com))

Lars L. Gustafsson of Stockholm Sweden ([lars-l.gustafsson@ki.se](mailto:lars-l.gustafsson@ki.se))



IUPHAR Subcommittee for Clinical  
Pharmacology in Developing Countries

**Business Meeting**

In conjunction with WCP2014

**Thursday, July 17<sup>th</sup>**

**from 3:30 to 5:30 p.m.**

Meeting Room 1.71 in the  
Cape Town International Convention Centre

*Suggested chair: Lars L. Gustafsson, Stockholm Sweden*

**Aims:** *Summarize Subcommittee achievements since Copenhagen 2010, discussion of future activities, and election of co-chair and secretary*

**Attendees:** *Subcommittee members and all other WCP2014 registrants interested in promoting clinical pharmacology as a medical discipline for research, education and clinical services in developing and emerging countries*

**Agenda:**

1. Aims of meeting: 2 minutes
2. Agenda modified and confirmed: 2 minutes
3. Presentations of participants, plans for future activities: 10 minutes
4. Summary and discussion of accomplishments since 2010 and ongoing activities: 10 minutes *Lars L. Gustafsson*
5. Subcommittee priorities: Strategic planning and funding opportunities: 40 minutes *All*
6. Election of co-chair and secretary: 15 minutes
7. Other issues: 8 minutes
8. Plans for additional Cape Town meetings and activities: 2minutes

On behalf of the IUPHAR Subcommittee for Clinical Pharmacology in Developing Countries,  
Lars L. Gustafsson, Chair ([lars-l.gustafsson@ki.se](mailto:lars-l.gustafsson@ki.se))

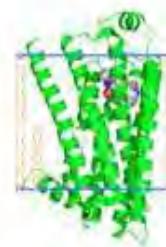




## 9<sup>th</sup> Adrenoceptor/GPCR

### James Black Conference

Kruger National Park, South Africa, 19-23 July 2014



#### Invitation to Scientists attending the WCP2014 Congress in South Africa

A James Black Conference [Adrenoceptors and GPCRs - where is structure leading?](#) will take place on 19-23 July 2014 in Kruger National Park, South Africa as a satellite after the World Congress of Pharmacology. The meeting will be led by Nobel Laureate, Brian Kobilka, and several other leaders in the GPCR and Adrenoceptor fields and will have an emphasis on interaction and discussion. Major Sponsors are The National Research Foundation of South Africa and the British Pharmacological Society.

You are invited to [register](#). We are operating on a first come, first served basis, and places are limited to 70 by the accommodation.

#### Young Scientist Grants

There is a special emphasis on early stage researchers (Students and post-docs within three years of being awarded their PhD), who will have the opportunity to interact over three days in an intimate atmosphere with world leaders in the field. Grants are available to cover their costs, included registration, accommodation and transport from Johannesburg airport.

James Black believed that top scientists should share their experience with young scientists. We will emulate this in a Master Class setting, providing more junior researchers with an opportunity to meet the leaders in their fields.

Grants will be made available on a first-come-first-served basis, subject to a satisfactory 100 word case being made for why you want to attend this James Black Conference. Grants will be paid at the Conference. To be considered for a grant, register and pay for the meeting and accommodation and simultaneously send your 100 word case in an email to [ian.mcgrath@glasgow.ac.uk](mailto:ian.mcgrath@glasgow.ac.uk). Once we reach our maximum number, we will establish a waiting list and you will not be charged unless we can guarantee a place. There will also be prizes for the best posters by young scientists.

For those unable to pay in advance there is another option, explained on the website. [www.bps.ac.uk/meetings/AdrenoceptorsGPCRs](http://www.bps.ac.uk/meetings/AdrenoceptorsGPCRs)



# Tianjin 2014

## 14<sup>th</sup> ISoP ANNUAL MEETING

Oct. 19-22, 2014



### Meeting Information

#### *New Ideas in Ancient Cultures: Advancing Pharmacovigilance in Asia*

This meeting will focus on the latest developments in pharmacovigilance and on thoughts for future perspectives in China and Asian-Pacific region. A special focus will be given to young scientists and healthcare professionals dedicated to pharmacovigilance. Early registration deadline is **July 31, 2014**. Register today!

### Programme

The organizers of ISoP 2014 are confident that this will be a memorable conference, the first one in China:

- A panel of distinguished international experts in pharmacovigilance will participate in an exciting scientific programme,
- There is the great opportunity to attend the joint session with the WHO Annual National Centres' Meeting on 20 October (morning) and combine the two events.
- The 3 pre conference training courses held on the 19 October will be informative and comprehensive. Here are the subjects:
  - Principles of Meta-analyses,
  - Core and emerging issues in ADR reporting and pharmacovigilance including the potential role of consumer reporting,
  - Communication in pharmacovigilance.

### Topics

The inspiring scientific programme will include both plenary and parallel sessions covering a range of topics including:

- Pharmacogenomics and Personalized Medicine
- Signal Detection
- Hepatic and Dermatological ADRs
- Need for and Analyses of Networks of Data
- Risk Management Plan
- Specific Populations and Treatments: Pediatrics and Geriatrics
- Pharmacovigilance and Women's Health
- Herbal Pharmacovigilance
- Oral presentations from young scientists in pharmacovigilance

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## Contributions:

We welcome contributions from member societies, divisions, sections and committees. Please submit articles and photographs to [iuphar@kumc.edu](mailto:iuphar@kumc.edu) at least one month prior to the cover date.

## Membership:

The members of IUPHAR are national, international, and special research interest societies. If you are an individual, please visit [www.iuphar.org](http://www.iuphar.org) for additional information on the societies you may be interested in joining.

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