

# Newsletter

## A word from...

Welcome all, to the Spring 2014 bumper edition of the International Society for Serotonin Research (ISSR) newsletter! Resonant with the dynamic Society that we are, it has been a very eventful 6 months. We have been especially busy finalizing plans for the 11<sup>th</sup> Meeting of our Society to be held in Western Cape, South Africa – July 9-12. Kelly Berg, with assistance from Sheryl Beck, together with De Wet Wolmarans and the entire local organizing committee, headed by Brian Harvey, have done an amazing job putting together a fantastic program. The Page and Rapport Lectures, to be given by Herb Meltzer and Charles Marsden, respectively, bookend fifteen outstanding symposia. A special feature of six of these symposia is the inclusion of one of our National Institute on Drug Abuse (NIDA) travel awardees as a fourth speaker. Six additional NIDA Travel awardees will speak in the special “Pioneers & Prodigies” session. The local organizing committee has plenty of South African hospitality and culture in store for us at the social events, including the opening and closing dinner receptions. If you haven’t already, I encourage you to check out the meeting website (<http://issr2014.org/>)...it’s spectacular. We hope that you will submit an abstract and join us for this exciting meeting in South Africa. Our meeting is also an official pre-conference satellite to the World Congress of Pharmacology (WCP2014) in Cape Town. Extend your stay and take time to enjoy this unique opportunity to explore South Africa on a “Serotonin Safari”.

We are also extremely delighted to announce that ACS Chemical Neuroscience will be publishing a special issue based on the proceedings of the 2014 ISSR meeting. Thanks go to our own Anne Andrews (councilor of the ISSR and Associate Editor) and Craig Lindsley (Editor-in-Chief) for their continuing support of the ISSR. Anne was instrumental in compiling the blockbuster special 25<sup>th</sup> Anniversary of the “Serotonin Club” Issue. You can be sure this will be another outstanding edition.

Finalizing plans for the upcoming meeting of our Society is not all that has been happening. At the Society’s annual mixer, held during the Society of Neuroscience (SfN) meeting in San Diego last November, we were treated to a wonderfully entertaining and hilarious presentation by the magnificent Rita Valentino. Here Rita made the proposal that our Society should have a “song”... heck, the Catecholamine Society does, so why shouldn’t we?! Ideas and suggestions welcome... Please send them along to Kelly Berg ([berg@uthscsa.edu](mailto:berg@uthscsa.edu)). The Society will also hold mixers at the annual meetings of the British Pharmacological Society and the Federation of all European Neuroscience Societies (FENS). Read on to find out what is in store for our mixer at the 2014 SfN meeting in Washington DC.

What an exciting year 2014 is shaping up to be. Details of the above mentioned and more can be found within this Spring Issue of our newsletter. On that note I must applaud Sebastian Fernandez for doing such an outstanding job putting this newsletter together. Enjoy! Looking forward to seeing you in South Africa in July, and at our mixer in DC later this year.

*Lynette C. Daws*

*Vice President (North America)*

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## 11th ISSR Meeting: A Serotonin Safari WCP2014 Satellite

Arabella Hotel and Spa, Western Cape,  
South Africa, July 9-12th, 2014

As I write this contribution for the newsletter, we are four months away from the "Serotonin Safari", a name that we have given to the 11th Congress of the International Society for Serotonin Research (ISSR) that will be held in South Africa in July this year (<http://issr2014.org/>). If this is the first time that you've become aware of this meeting, you must have been working too hard or living under a rock. Jokes aside! "The Serotonin Safari" is being held in the picturesque Western Cape Province of South Africa at the Arabella Hotel & Spa in a part of the country that has been affectionately named "the garden route". The Estate is an hour drive from Cape Town, in the heart of the Kogelberg Biosphere Reserve, nestled between protected nature reserves, the Bot River Lagoon and the Kogelberg Mountains, and approximately 10kms from the beautiful coastal town of Hermanus, famous for whale watching.

But of course, we're here for the science. The ISSR and local organising committee (LOC) have put together an academic program that will appeal to all clinical and basic scientists with an interest in the biology of serotonin. There was intense competition for inclusion of symposium proposals into the program, and we received a wonderful response with an equally wonderful array of excellent topics. However, space constraints within the program forced the program committee to make some hard decisions, but in the end the ISSR assembled 15 individual symposia, each with a chair/co-chair and up to three speakers. Topics under discussion include the role of serotonin in psychiatric illness, immune modulation, Alzheimer's disease, obesity and addiction, as well as serotonin neuroanatomy, neuropharmacology and receptor function. In addition, we are especially privileged to have Prof Herb Meltzer and Prof Charles Marsden delivering the prestigious Page and Rappaport lectures, respectively. Another exciting aspect of the meeting is that a selection of highly talented graduate

students and postdocs will present their work in the special "Prodigies and Pioneers" session. Finally, the congress proceedings will be published in ACS Chemical Neuroscience, while the abstracts will be published in a journal still to be confirmed.

The congress is purposefully placed as a pre-conference satellite meeting to the World Congress of Pharmacology 2014 (WCP2014) in Cape Town. The ISSR meeting will provide an ideal opportunity to network and to make contact with some of the leading minds in the field, as well as foster local (African) and international relations and collaborations. To enable this, the academic program on each day concludes with wonderful networking opportunities under relaxed conditions and entertainment, including an African marimba band that will set the scene at the opening function and a typical



*Arabella Hotel & Spa offers all the luxuries of a world class venue, excellent facilities, especially for congresses, pristine grounds, swimming pool, spa-facilities, gym, mountain views or lagoon waters, fine dining and an opportunity to savour some of the best wines South Africa has to offer. The immediate environs of the estate you're spoilt for choice with activities, such as kayaking at sea, shark-cage diving, whale watching (at certain times of the year), horseback rides through the shore, scenic hiking trails, and golf at the prestigious Arabella Golf Course, to name a few.*

South African musical ensemble that will perform during the wine tasting event. The LOC have arranged for a world-renown wine expert to lead us through a tour de force of the local wine making industry, while at the same time savouring the sights and sounds of an African sunset, surely an event not to be missed!

As chairman of the LOC, I cordially invite you to attend ISSR 2014. Allow yourself to be caught up in the raw



beauty of colourful South Africa, our rainbow nation, its people, its wild-life and its natural beauty. With two world-class international meetings being co-presented back to back, viz. WCP2014 and ISSR 2014, I ask that you make the most of this opportunity, enjoy Cape Town and its environs, enjoy the “vibe” of the meeting, and may it be a boiling pot for long-term interaction and collaboration between Africa and the world.

**Brian Harvey**  
Chairman Local Organising Committee

**Please note that we have extended the abstract submission deadline for poster presentation until 30 April 2014 to coincide with the final date of early bird registration. For any assistance or query, please contact the LOC member, Mr De Wet Wolmarans, [dewet.wolmarans@nwu.ac.za](mailto:dewet.wolmarans@nwu.ac.za)**

**We would like to acknowledge the generous contributions to the 11th meeting of the International Society for Serotonin Research: “A Serotonin Safari” by the following:**



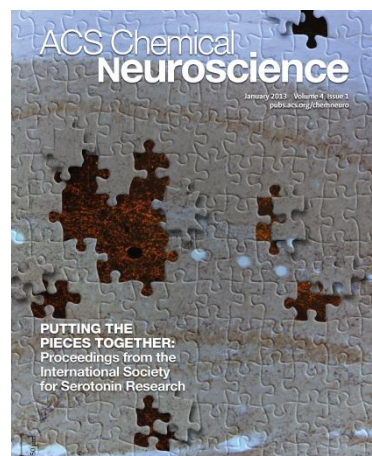
## Special Issue ACS Chemical Neuroscience ISSR Proceedings

Drs. Anne Andrews and Lynette Daws are planning a special issue arising from the 2014 International Society for Serotonin Research Meeting -- A Serotonin Safari -- to be published in ACS Chemical Neuroscience (<http://pubs.acs.org/journal/acncdm>). Drs. Andrews and Daws, who will serve as the editors for this special issue, would like to personally invite you to contribute to this edition. This issue, scheduled for publication in March 2015, will receive high visibility via several ACS planned initiatives. There are no page, color, or publication charges to publish in ACS Chemical Neuroscience. We are looking for high quality submissions for peer-review in short Letter, full-length Article, Review, or Viewpoint formats.

The submission deadline is December 15th; we welcome your submissions in advance of the deadline:

<https://acs.manuscriptcentral.com/acs>

The special issue that arose from the 2012 meeting in Montpellier, France, which celebrated the 25th Anniversary of the ISSR (Serotonin Club) was a blockbuster see <http://pubs.acs.org/action/showLargeCover?jcode=acncdm&vol=4&issue=1>. This issue included 25 timely and informative papers associated with the previous meeting including Viewpoint pieces from original Serotonin Club members, Paul Vanhoutte, Richard Green, and Charles Marsden. The special issue, and in particular, the Viewpoint format is an excellent opportunity for ISSR members to chart the future of serotonin research.



For further information or pre-submission inquiries regarding ideas for article content please contact Dr. Andrews ([aandrews@mednet.ucla.edu](mailto:aandrews@mednet.ucla.edu)) or Dr. Daws ([daws@uthscsa.edu](mailto:daws@uthscsa.edu)).

## NIDA Young Investigator Travel Award Winners

The call for applications to the NIDA Travel Awards to attend the 11<sup>th</sup> ISSR Meeting in South Africa was a tremendous success. The calibre of the applicants was outstanding, making the job of the selection committee extremely difficult. A total of twelve awards were made including graduate students, post-doctoral fellows and one early-stage investigator. Travel awardees will each be assigned a faculty mentor to assist in networking and navigating the meeting. On the first full day of the meeting, they will be honored at a breakfast where they will meet their mentor, officers and councilors of the ISSR as well as members of the local organizing committee. Award winners will speak in one of the selected symposia, or in the special "Pioneers & Prodigies" session; plus all twelve of our awardees will showcase their work at the poster session. We congratulate the winners, and encourage all junior researchers to participate in the activities of the Society.



**Collin Challis**  
University of Pennsylvania

*"Optogenetic modulation of the prefrontocortical-dorsal raphe microcircuit bidirectionally biases socioaffective decisions after social defeat"*

**Zoe Donaldson**  
Columbia University

*"Genetic mechanisms underlying variation in 5-HT<sub>1A</sub> receptors in the human"*



**Vera Niederkofler**  
Harvard Medical School

*"Aggression modulation through specialized dopamine receptor-expressing serotonergic neurons"*

**Amanda Maple**  
University of Arizona

*"Htr2a expression responds rapidly to environmental stimuli in an Egr3-dependent manner suggesting a functional link between two schizophrenia susceptibility genes"*



**Ornella Manfra**  
University of Oslo

*"Antagonist-mediated down-regulation of 5-HT<sub>7</sub> serotonin receptors is regulated by C-terminal domains and interaction with GASP1"*

**Derya Sargin**  
University of Toronto

*"Mice with compromised 5-HTT function lack phosphotyrosine-mediated inhibitory control over prefrontal 5-HT responses"*



**Matt Brodsky**  
University of Washington

*"Regulation of neuronal primary cilia morphology in striatal neurons by 5-HT<sub>6</sub> receptors"*

**Pablo Moya**  
Universidad de Valparaíso

*"Common and rare alleles of the serotonin transporter gene, SLC6A4, associated with Tourette's disorder"*



**Fiona Zeeb**  
Centre for Addiction and Mental Health, Toronto

*"Long-term depletion of serotonin increases risky decision-making on the rat gambling task"*

**Kate Nautiyal**  
Columbia University

*"Serotonin 1B receptors affect neural circuits underlying aggression during development, but modulate impulsivity circuits during adulthood"*



**Catherine Marcinkiewicz**  
University of North Carolina

*"Serotonin inputs to the bed nucleus of stria terminalis shape network function and behaviors relating to fear memory and anxiety"*

**Nathan Mitchell**  
University of Texas Health Science Center at San Antonio

*"Mechanisms contributing to lack of antidepressant efficacy in juveniles and adolescents"*



## ISSR Social Gathering FENS 2014

Sunday, July 6<sup>th</sup> 2014 at 6.45PM  
MILANO CAFÉ  
via procaccini 37, Milan

Benvenuti in Italia!!!

The ISSR makes an appearance at the Federation for European Neuroscience Societies (FENS) meeting in Milan, July 5-9. Join us to palliate the European summer with a typical Italian aperitivo. Don't miss the chance to exchange anecdotes with Susan Dymecki, Harry Steinbusch, Alexandre Dayer, Cornelius Gross and Patricia Gaspar, among others. Stop by, relax, have a drink, and be entertained by our organizers.



All FENS attendants will be welcome.

We will meet on Sunday 6<sup>th</sup> of July, from 6.45pm at MILANO café (via procaccini 37, Milan), just meters from the Conference Center. The cost is €15 per person and includes a drink and tapas.

### Contact information:

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Francesca Calabrese [francesca.calabrese@unimi.it](mailto:francesca.calabrese@unimi.it)

## ISSR: welcome of new councillors



**Dr. Nancy Muma**, Professor and Chair, Department of Pharmacology and Toxicology, University of Kansas is the new Councillor-North America



**Dr. Silvina Diaz**, Associated Investigator, IBCN-CONICET, Buenos Aires, Argentina is the new Associate Councillor- Rest of the World.

## 4th Annual ISSR Mixer – SFN 2014

Monday, November 17, 2014, 6-8PM  
FADÓ IRISH PUB AND RESTAURANT  
808 7th Street NW, Washington DC



Ay.... 'tis the luck of the Irish- yet AGAIN! Please join us for great food, bountiful beverage and plenty of blarney (ummm – we mean banter) in the relaxing ambiance of this traditional Irish Pub one block from the convention center. The cost is \$25 per head and will include an appetizer buffet, two drink tickets *and of course* a delightful stand-up routine (likely about “serotonin”) by a surprise guest.

Mark your calendars! You will not want to miss OUT

**Contact: Kelly Berg, [berg@uthscsa.edu](mailto:berg@uthscsa.edu).**

## ISSR 2016

### Call for Meeting Location/ Venue Proposals

Although our 2014 meeting “A Serotonin Safari”: Arabella Hotel and Spa, South Africa, 2014” is still 3-4 months or so away, it is now time to begin to plan for our next meeting to be held in 2016. We rotate between our three designated regions (North America, Europe and Rest of World), therefore, North America is next in the rotation. However, we are interested in great ideas for location and venue, as well as members to “host” (i.e., form the Local Organizing Committee) for 2016, regardless of region. Please submit your “bids” to our Secretary/Treasurer, Kelly Berg ([berg@uthscsa.edu](mailto:berg@uthscsa.edu)) and include the city, a suggested venue (e.g., Hotel, University, etc) and a brief (200 words or less) description for why this location would provide the best (and affordable) meeting experience for our members in 2016. Bids to host ISSR 2016 could be for anytime during the year, provided they are justified (e.g., satellite to SFN, EB, FENS etc.) The selection for the 2016 meeting location will be done during our general business meeting at ISSR 2014: “A Serotonin Safari” in July. Proposals for ISSR 2016 are due to Dr. Berg no later than June 30.



### Article Highlight

*"Serotonin discovery and stepwise disclosure of 5-HT receptor complexity over four decades"*  
*Pharmacol Rep. 2013*

Herr Professor Doctor Manfred Göthert was the Rapport lecturer at the Serotonin Club (now the International Society for Serotonin Research) meeting in Montreal (2010). His lecture material was slated to appear in the official publication of Rapport and Page lectures in the "Neuropharmacology" special issue from the conference. Due to unfortunate circumstances, that became impossible.

I am very pleased to alert our Society members and their colleagues that he has recently published a part of this lecture, covering the discovery of serotonin, in the journal "Pharmacological Reports". It is published as a Contemporary Witness Report, an interesting new review concept. Although this paper is only part of the comprehensive lecture he so elegantly presented in his Rapport lecture, it is well worth reading for any scientist interested in serotonin. I especially encourage young investigators to catch this glimpse of the genesis of our field.

There is free access to Dr. Göthert's paper. The full PDF can be found on PubMed and downloaded free of charge.

Göthert M, Pharmacol Rep. 2013;65(4):771-86.  
"Serotonin discovery and stepwise disclosure of 5-HT receptor complexity over four decades. Part I. General background and discovery of serotonin as a basis for 5-HT receptor identification"

Happy Reading!!

**Theresa Branchek**  
ISSR Past President

### Serotonin Symposium at British Pharmacological Society Meeting in 2013

On Tuesday 17 December 2013 the ISSR organised a symposium entitled 'New insights into serotonin receptor modulation and signalling' at the Queen Elizabeth II Conference Centre (beside the Houses of Parliament in Westminster, London) at the Xmas meeting of the British Pharmacological Society (BPS). The BPS undertook all the meeting arrangements in the usual highly proficient way and allowed members of the ISSR to attend the conference at a reduced affiliate rate for which we are very grateful. The symposium was the first session of the three day conference and we had been allocated the Fleming Room (photo below) the largest of the three halls used for parallel symposia. With only ten minutes to go, and no more than ten delegates in the audience, I feared this might not be the success we had hoped for. However, as the technician played the safety recording to instruct us how to survive at 200 feet in the event of a nuclear attack on parliament Pharmacologists appeared in droves with Danish pastries which had obviously been the attraction outside.

Joel Bockaert, (Department of Neuroscience and Cell Biology, University of Montpellier, front row to the left of the podium in the picture below) gave the first talk; 'New insights into 5-HT<sub>6</sub> receptor modulation, signalling and pathophysiology' describing exciting recent discoveries by his group of new proteins interacting with the receptor, including mTOR. Adrian Newman-Tancredi, (NeuroAct, Castres) gave a fascinating insight into how the 5-HT<sub>1A</sub> receptor can show tissue specific biased agonism in his talk entitled 'Targeting of pre- and post-synaptic 5-HT<sub>1A</sub> receptor sub-populations by selective biased agonist.'



After a short coffee break it was the turn of Nicholas Barnes (School of Clinical and Experimental Medicine, University of Birmingham) to couple his Apple Mac to the podium instead of the resident PC and present his talk; 'Tickling the 5-HT<sub>3</sub> receptor for therapeutic benefit; opportunities from allosteric modulation of the 5-HT<sub>3</sub> receptor.' Despite the conference centre providing prior

assurances that linking a Mac was within their capability, two technicians, several cables and ten minutes of anxiety later a powerpoint finally appeared on the screen and Nick provided an exciting overview of allosteric modulation of the 5-HT<sub>3</sub> receptor. Finally in his talk on '5-HT receptor adaptor proteins', Per Swenningsson (Department of Clinical Neuroscience, Karolinska Institute) outlined the interaction of the 5-HT<sub>1B</sub> receptor with the p11 protein and how this might be modified in depression.

Overall the symposium provided an up-to-date overview of the diversity of serotonin receptor interacting proteins, the role of trafficking chaperones in disease, the therapeutic potential of serotonin receptor biased agonists, and the complexity and regulatory features of ligand-gated ion channel subunits. For all the sessions there were in excess of 150 delegates present and active audience participation occurred during question time, demonstrating the success of the event. We would like to thank all the speakers, and Trevor Sharp, for helping assemble the proposal. We hope that we might be able to hold similar joint symposia with other Societies in the future to spread the knowledge of our Society and the work of our members on Serotonin.

**Kevin Fone**

*ISSR Vice President*

**Nick Barnes**

*ISSR Nomenclature Committee*

## Obituary



### **Jan Van Nueten 1926- 2013**

Dr Jan Van Nueten passed away on November 13th, 2013. Jan was one of the founders of the Serotonin Club during the World Congress of Pharmacology in Sydney in 1987. For many years he directed the in vitro pharmacology division of Janssen Pharmaceutica [Beerse, Belgium], a major drug discovery hub in the second half of last century. His major interest in serotonin focused on the ability of the monoamine to contract vascular smooth muscle either directly or by amplifying the actions of other vasoconstrictors, through activation of 5HT<sub>2</sub> [S<sub>2</sub>, as he called them] receptors. He was the primary pharmacologist involved in the development of ketanserin. Jan was a real pharmacologist, an outstanding scientist, a great friend, a humble man... We will remember him. We miss him...

**Paul M. Vanhoutte MD, PhD**

*Chair Professor*

*Department of Pharmacology and Pharmacy*

*Li Ka Shing Faculty of Medicine*

*Hong Kong, China*

## CALENDAR

<b>5-9 July, 2014</b>	9 <sup>th</sup> Forum of the Federation of European Neuroscience Societies (FENS)
<b>6 July, 2014</b>	ISSR Social Gathering at FENS Forum
<b>9-12 July, 2014</b>	11th International Society for Serotonin Research Meeting: WCP2014 Satellite A Serotonin Safari
<b>13-18 July, 2014</b>	17 <sup>th</sup> World Congress of Basic and Clinical Pharmacology
<b>15-19 November, 2014</b>	Society for Neuroscience Meeting 2014
<b>17 November, 2014</b>	ISSR 2014 SFN Mixer
<b>7-11 December, 2014</b>	53rd Annual Meeting, American College of Neuropsychopharmacology
<b>16-18 December, 2014</b>	British Pharmacological Society Meeting

### ISSR Mixer at the SfN 2013







## JOIN US

### **Anyone with an interest in serotonin research may become a member of the International Society for Serotonin Research (ISSR)**

To become a member, the annual dues are as follows:

- Regular Members: \$50 USD per year
- Graduate students/Post-doctoral Fellows: \$30 USD per year
- Retired Members: \$30 USD per year

To pay by credit card, please follow instructions on the membership page of our Society website, [www.serotoninclub.org](http://www.serotoninclub.org). Alternatively, payment can be made by sending a check endorsed to the "International Society for Serotonin Research" to the Secretary/Treasurer (Dr. Kelly Berg) at the address below. Please note that we require email confirmation of Student/Post-doc status from the mentor.

Membership renewals are (and renewal reminders will be sent) on a yearly basis beginning January 1, 2014.

Kelly A. Berg, Ph.D.  
Department of Pharmacology-mailstop 7764  
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San Antonio, TX 78229-3900  
EMAIL [berg@uthscsa.edu](mailto:berg@uthscsa.edu)

**Address change?** All communications with members are carried out via the internet so if we do not have your current e-mail address you risk losing all contact with the Society.  
If you have changed your address send it now while you are thinking about it. Kelly Berg (Secretary/Treasurer)  
[BERG@uthscsa.edu](mailto:BERG@uthscsa.edu)

## **Find Us**



[http://www.linkedin.com/groups/International-Society-Serotonin-Research-Serotonin-4541265?trk=my\\_groups-b-grp-v](http://www.linkedin.com/groups/International-Society-Serotonin-Research-Serotonin-4541265?trk=my_groups-b-grp-v)



Remember, we now have a Facebook page as well. Make sure you visit the site at [www.facebook.com/pages/SerotoninClub/170600399644105](http://www.facebook.com/pages/SerotoninClub/170600399644105) and "like" the Club to join.

**Newsletter** All Society members can send their contributions to the Newsletter, including article highlights, meetings/workshops details, job ads and any other relevant information.  
Send your contribution the editor ([sebastian.fernandez@inserm.fr](mailto:sebastian.fernandez@inserm.fr)).