



Serotonin Club Newsletter



Views of Montreal from the Hotel

Serotonin Club Meeting **Fantastic Success** Montréal, Quebec Hôtel Omni Mont-Royal 9th – 11th, July 2010

The meeting was held at the Omni Mont-Royal hotel, very near the McGill University campus. Many of us had very enjoyable views of Mont Royal and the McGill campus. As in years past, it was an enjoyable combination of outstanding science in a most pleasant setting. The Serotonin Club acknowledges the efforts of the local organizers in making this conference a tremendous success: Paul Albert, Francine Cote, Laurent Descarries, Charlotte McCusker.

This year's theme "Serotonin: the Next Wave" featured the latest developments in serotonin research. The program included the leading researchers in serotonin,

highlighting the most recent advances in multiple aspects of serotonin research.

The meeting began on Friday night with introductory comments and a history of past Serotonin Club meetings by President Theresa Branchek. The program also included the work of "the next wave" of serotonin researchers. The Travel Fellows



Dr. Branchek's Introduction were presented with their certificates and Dr. Branchek announced when they would be speaking or presenting their posters.

The following young investigators were recipients of Travel Awards and their research featured in the conference program: Wendy Adams, University of Melbourne, Australia; Noelle Anastasio, University of Texas Medical Branch, Galveston; Océane Aribou, Institut de Génomique Fonctionnelle, Montpellier, France; Nicole Baganz, Vanderbilt University, Nashville; Tracy Gilman, University of California, Los Angeles; Nathalie Goodfellow, University of Toronto; Sarah Haita, CNRS, Paris; Moe Igari, Tohoku University School of Medicine, Japan; Julia Lemos, University of Washington, Seattle; Valentina Mosienko, Max-Delbrueck-Center for Molecular Medicine, Berlin; Melanie Paquette, University of Texas Health Science Center, San Antonio; Soha Salam,



Travel Awardees

CRICM, UPMC / INSERM, Paris; Abbie Schindler, University of Washington, Seattle; Pram Yadav, University of North Carolina, Chapel Hill; Fiona Zeeb, University of British Columbia.

The quality of the science and the presentations of these young investigators

were outstanding. The attendance of these young investigators at the meeting was



Networking during a break



Attendees fully attentive

supported by a grant from the National Institutes of Health (1 R13 MH091948-01). We are grateful to the National Institute of Mental Health and the National Institute of Drug Addiction for this support of the next generation of leadership in our field.

Prof. Dr. Bryan Roth opened the Serotonin Club Meeting with his impressive Page Lecture* entitled: **From Molecules to**

Therapeutics. He focused on his laboratory's utilization of a platform designed for high content high throughput screening. Unusual in the academic world, this capability enables simultaneous measurement of the activity of known and novel compounds activities in a variety of downstream pathways. He also discussed details of signal transduction and interacting proteins. This rich information allows analysis and re-evaluation of compounds of clinical interest, for example antipsychotic compounds. The insights thus derived can give us clues to improved therapies for patients. Clozapine and olanzapine were shown to interact with a unique spectrum of molecular targets that were not shared with the typical antipsychotic drug haloperidol. The serotonergic neuronal system was implicated in the atypical antipsychotic drugs actions. Indeed the therapeutic actions of the atypical antipsychotic drugs were abolished in a pharmacological model that mimics NMDA receptor hypofunction in *Pet-1*^{-/-} mice (mice without serotonin), but haloperidol's function was intact. Further investigation revealed that the lack of response was not due to 5-HT_{2A} post-synaptic receptor insensitivity, diminished forebrain 5-HT_{1A} receptor

expression or activity, but was due to the absence of the 5-HT_{1A} pre-synaptic autoreceptor mediated response. From all of these results, it is clear that an intact pre-synaptic component of the 5-HT neuronal system is essential for the atypical antipsychotic clozapine's actions.

*Dr Elaine Sander-Bush was the invited Page lecturer. Due to urgent family considerations she was unable to attend. Dr. Roth kindly accepted our last-minute request to deliver this lecture.

Herr Prof. Dr. Manfred Göthert treated our gathering to a masterful personal tour of the evolution of our perspective on serotonin receptors during his Maurice Rapport Lecture entitled: **INCREASE IN 5-HT RECEPTOR COMPLEXITY OVER 4 DECADES – HISTORICAL, PHARMACOLOGICAL AND FUNCTIONAL ASPECTS.** Starting with the identification of the chemical structure of serotonin by Dr. Rapport (who was sitting in the first row!) as well as the initial characterization scheme of Gaddum and Picarelli, Dr. Göthert traced the milestones in our progress. Highlights included the availability of Baumgarten's hydroxylated tryptamines which could be for the characterization of 5-HT receptors first using classical pharmacologic techniques and subsequently the advent of the revolutionary



Dr. Bryan Roth



Herr Prof. Dr. Manfred Göthert

techniques of radioligand binding studies (late 70's-early 80's). He covered the emerging controversy over pre-and post-synaptic receptors, followed by the dawn of molecular cloning (late 80's and thru the 90's) which was instrumental in defining relationships between various receptors that had been studied using a variety of techniques and species. More recently, the complexity of serotonin receptor diversity has increased through the elucidation of serotonin receptor modification (e.g. genetic, splice or subunit variation). In his most recent studies, data have been presented that suggest that the activity state of 5-HT_{3A} receptors can be allosterically regulated by the endocannabinoid anandamide. This scholarly overview was not only a great nostalgia tour for the Club's senior membership, but also provided an important framework from which our younger investigators can understand the underpinnings of our field. We greatly appreciate Dr. Göthert's salute to Dr. Rappaport through this elegant lecture.

Elections for Councillors

We are in need of new Councillors. Dr. Julie Hensler will assume the role of President and Dr. Lynette Daws the role of North American VP as of January 2011. Therefore there is an opening for one North American Councillor.

In addition, elections are now open for nominations for two European councillors and two Rest of the World councillors. You may nominate yourself. If you nominate someone else we will confirm with them that they are willing to serve. The term is for four

years and can be renewed once (if your constituency votes you in a second time!).

Elections will be held by the councillor's constituency if more than two candidates are nominated.

Please send in your nominations by September 30th.

Dinner at SfN Monday Night, November 15th Roy's at the Marriott Hotel San Diego

We have reserved a room on the water with an outside lanai from 5:30 to 9 pm. Dan Hoyer is the guest speaker, for approximately 20 min, and I am sure the talk will be most enjoyable and relate in some fashion to Serotonin. In addition he has agreed to give the talk standing on a table. The food will be buffet style and in addition each person will probably have two drink tickets included. After that you may purchase additional beverages. The charge for the dinner will be **\$35** for students, **\$70** for members, and **\$90** for non-members (includes new three year membership). You may pay by sending a check made out to the Serotonin Club to the address at the end of the newsletter or by Paypal. See instructions at the end of the newsletter.



Next Serotonin Club Meeting in Montpellier, France, July 10-12, 2012.

The local organizing committee composed of Joel Bockaert, Michel Hamon and Philippe Marin are already making arrangements for our next meeting. The meeting will be held at the Faculty of Medicine in Montpellier. The call for symposia will probably occur after the first of the year in January, so start thinking now of new, novel and exciting data that you want to present and symposia topics that you want to organize. Remember that the symposia will be chosen based on new and novel information. The dates of the Serotonin Meeting were chosen so that individuals may also attend the FENS meeting in Barcelona Spain, July 14-18th, 2012.

In addition, the officers of the Club are discussing arrangements for the 2014 meeting that will be held in South Africa as a satellite meeting to the World Congress of Basic and Clinical Pharmacology (IUPHAR) in Cape Town, South Africa.

Other Meetings of Interest:

Society for Neuroscience 2010
Nov. 13-17, 2010, San Diego, CA
www.sfn.org

ACNP 2010
Dec 5th – 9th, Miami Beach, FL
www.acnp.org

Winter Conference on Brain Research
Jan 22-27th, 2011
Keystone, CO
www.conferences.uiuc.edu/conferences/conference.asp?ID=318

Experimental Biology

April 9-13, 2011
Washington, D.C.
www.experimentalbiology.org

The College on Problems of Drug Dependence
June 18-23rd, 2011
Hollywood, FL
<http://www.cpdd.vcu.edu/>

European College of Neuropsychopharmacology
Sept. 3-7, 2011
Paris, France
www.ecnp.eu

CINP World Congress
June 3rd – 7th, 2012
Stockholm, Sweden
www.cinp2012.com

FENS Forum of Neuroscience
July 14-18, 2012
Barcelona, Spain
fens2012.neurosciences.asso.fr

World Congress of Basic and Clinical Pharmacology 2014
July 13-18, 2014
Cape Town, South Africa
www.iuphar2014.org

Pay your dues using



Go to serotoninclub.org website for instructions. If you are receiving this newsletter then you are already a member. We will contact you when it is time to renew. **PLEASE URGE YOUR COLLEAGUES TO JOIN!!!!** Those members whose membership is due for renewal in 2011 will be contacted at the beginning of the year. You may also send a check for \$60 (\$30

for students) USD payable to the
Serotonin Club directly to Sheryl Beck
(address at end of newsletter).

Address change?

If you have changed your address send it to us now
while you are thinking about it – send to:

rivers@email.chop.edu

**All communications with members are now
carried out via the internet so if we do not have
your current e-mail address you risk losing all
contact with the Club**

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