



# Breaking Through

The newsletter of the University of Ottawa Institute of Mental Health Research

Volume VI, issue 3

September 2011

## RESEARCH AND CLINICAL HIGHLIGHTS

### Cannabinoid and Endocannabinoid Modulation of Reward, Memory and Mood



by **Dr. Xia Zhang**, research director,  
Translational Neuroscience, IMHR.

Cannabis, marijuana or cannabinoids (compounds found in cannabis), produce analgesia effects and modulate vomiting, seizures, ischemia, cerebral trauma, mood and tumors in both humans and animals. However, heavy marijuana use can result in transient motor suppression, transient memory impairment and dependence in a significant subset of humans. How cannabis produces these effects is not clear. Cannabinoids act on type 1 and type 2 cannabinoid receptors, i.e., CB1R and CB2R, which are mainly distributed in the brain and peripheral immune system, respectively. Since the discovery of CB1R and CB2R in the 1990s, our brain has been found to contain endogenous cannabinoids or endocannabinoids (chemicals with action similar to cannabinoids).

Our brain consists of two main cell types: neurons and glial cells. Neurons communicate to each other via synapses that transmit information from the axon of one neuron to the dendrite of another neuron. Both excitatory glutamatergic and inhibitory GABAergic transmission at synapses can be transient or long-term, which are modulated by CB1R located in excitatory and inhibitory presynaptic terminals as well as in glial cells. Activity- or experience-dependent enhancement and weakening of synaptic strength, i.e. long-term potentiation (LTP) and long-term depression (LTD), respectively, plays important roles in drug addiction, memory processing and mood modulation through mechanisms that are far from being fully understood.

Our research is to explore how cannabinoids and endocannabinoids modulate reward, memory and mood through LTD and LTP induction as a result of their actions on CB1Rs in both presynaptic terminals and astrocyte-type of glial cells. Specifically, we are determining the contributions of cannabinoid- and endocannabinoid-induced LTD and LTP at midbrain and hippocampal synapses to cannabinoid addiction, working memory performance, fear memory extinction and anxiety and depression development. These studies are performed simultaneously on four platforms employing molecular and biochemical, electrophysiological, neuroanatomical and behavioral strategies.

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Mental Health - Care & Research  
Santé mentale - Soins et recherche

## RESEARCH AND CLINICAL HIGHLIGHTS cont'd

### Anxiety Program at The Royal: Advances in CBT

by **Drs. Andy Jacobs, Dave Davies** and **Jakov Shlik**, Anxiety Disorders Program, Royal Ottawa Mental Health Centre.



Anxiety disorders are striking in both their prevalence and the often devastating impact they can have on quality of life. Fortunately, anxiety disorders are also among the most treatable of mental health conditions. At the Royal's Anxiety Disorders Program, we are fortunate to serve a very large volume of consumers and offer effective and efficient evidence-based cognitive-behavioural treatments (CBT). Ongoing outcome evaluation research efforts suggest that our group-based CBT protocols are helpful in diminishing symptoms of anxiety, depression, and functional impairment, and we are continually exploring new avenues for advancing our ability to greater serve our clients and our community. The results of recently completed and ongoing research activities are being regularly presented at national and international conferences (Anxiety Disorders Association of America, Canadian Association of Cognitive Behavioural Therapy, Canadian Psychological Association and Canadian Psychiatric Association).

In keeping with the Royal's values on innovation in treatment, optimizing outcomes, and increasing efficiency of service delivery, a primary focus in our work has been the examination of the role of comorbid depression in predicting treatment response and outcome for participants in group CBT. Data collected thus far have demonstrated, reassuringly, that the presence of comorbid depression does not interfere with the robust improvement in anxiety symptoms that a client can expect from participation in treatment. However, clients who do experience clinically significant depressive symptoms at the outset of treatment typically endorse more severe anxiety symptoms (compared to their non-depressed counterparts) at both treatment outset and completion.

In response to these findings, our Anxiety Disorders Program team has focused our program development

efforts on evolving groups that address comorbid anxiety and depression in one unified treatment protocol. A pilot study of this protocol has proven promising, and the

Program expects to be running these

comorbidity groups regularly within the current academic year. Additionally, recent additions to the program's staffing compliment bring the ability to easily incorporate Behavioural Activation-based depression treatment strategies into existing exposure-based anxiety treatment protocols in both group and individual formats. The ability to explore and expand upon the common threads in the cognitive-behavioural treatment of mood and anxiety disorders is currently a major focus of international research and clinical development in psychotherapy, and these efforts of the Anxiety Disorders Program at the Royal ensure we remain on the cutting edge of effective, efficient, and evidence-based treatment.

The Anxiety Disorders Program also remains committed to maintaining an awareness of the needs in our greater community and targeting our services in a way that will maximize our ability to reach the greatest numbers of people in the most need. Toward this end, Program members have completed a comprehensive assessment of the needs of individuals with severe, treatment-resistant obsessive-compulsive disorder (OCD) and their healthcare providers – frequently one of the most underserved anxiety disorders populations. Our findings have demonstrated a clear need for intensive OCD treatment modalities that are thus far largely unavailable; a lack not only within our own Champlain District, but across Canada as a whole. The identification of this need is serving as a rich springboard for further development of resources for these individuals, and the Program is enthusiastically exploring options on this front. At the same time, Program staff is developing a comprehensive workshop (to be delivered in November 2011) that will serve to disseminate effective exposure-based treatment strategies to a wide range of mental healthcare professionals involved in the treatment of OCD.

## GRANTS, AWARDS AND DISTINCTIONS – KUDOS!

**Dr. John Bradford** was appointed to the Order of Canada on June 30, 2011 by the Governor General of Canada. Dr. Bradford was one of 35 appointed Members as recommended by the Advisory Council for the Order of Canada. The Order of Canada, one of our country's highest civilian honors, was established in 1967 to recognize a lifetime of outstanding achievement, dedication to community and service to the nation (<http://www.gg.ca/document.aspx?id=14175&lan=eng>).



**Dr. Paul Fedoroff**, was recently named Fellow of the American Psychiatric Association (earned award) and Fellow of the Canadian Psychiatric Association (earned award).



**Professor Dave Holmes** and Dr. Stuart Murray were awarded an operating grant from the Canadian Institutes of Health Research (CIHR) [2011-2013] for the pursuit of their studies on the effects of the use of seclusion on psychiatric patients and on nurses.



**Mr. Patrick Martin** has received awards from the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Fonds québécois de la recherche sur la société et la culture (FQRSC) [2011-2013] for his study entitled « Pratiques émancipatrices d'infirmières québécoises politiquement engagées au regard des conditions d'exercice de la pratique

infirmière ». Mr. Martin is currently enrolled in his doctoral studies at the Faculté des sciences infirmières, Université de Montréal, under the supervision of **Professor Dave Holmes**.

**Dr. Rob Milin** was recently named a Master Clinician by the American Academy of Child and Adolescent Psychiatry in recognition for his outstanding work in the field of child and adolescent psychiatry.



**Dr. Georg Northoff** and colleagues received a major five-year operating grant from the Canadian Institutes of Health Research (CIHR) to study the "Neural and biochemical correlates of resting state activity and emotional processing in major depressive disorder – multimodal imaging (fMRI, MRS and PET) during GABA- and glutamatergic intervention".



**Ms. Zaida Ramahan** was awarded PhD Scholarships from PHIRNET – Canadian Institutes of Health Research [2010-2013] and The Canadian Institute for Energy Training (CIET) [2011-2012] for her study entitled "Nursing the 'Other': Exploring the Roles and Challenges of Nurses within Canadian Rural Northern Communities". Ms. Ramahan is currently enrolled in her doctoral studies at the School of Nursing, University of Ottawa, under the supervision of **Professor Dave Holmes**.

*Congratulations to all!*

### Postdoctoral Fellowship

The IMHR and Great West Life have recently partnered with the CIHR Institute of Neurosciences, Mental Health and Addiction for the launch of a 3-year postdoctoral fellowship on **Depression Research and Intervention** through the **CIHR Fellowship: Fall 2011 Priority Announcement** program. The applications must be relevant to the understanding and/or treatment of depression and co-morbidity with a focus on translational research and early detection (e.g. diagnostic biomarkers, brain imaging), or environmental vulnerability factors, or therapeutic interventions.

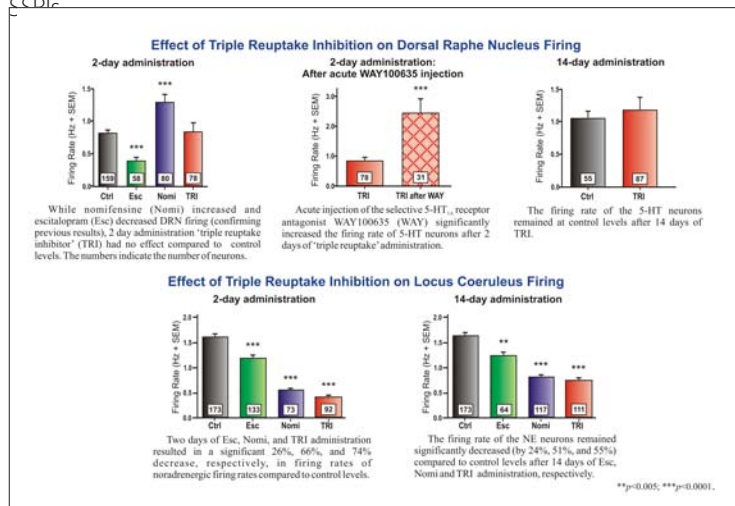
The maximum amount of the fellowship is \$55,000 per annum for up to 3 years. The **application deadline is October 3, 2011**. For more information on this Funding Opportunity, and questions on how to apply, please refer to the Funding Opportunity Details on the CIHR website (<http://www.researchnet-recherchenet.ca/mr16/srch.do?all=1&search=true&org=CIHR&sort=program&masterList=true&view=currentOpps&fodAgency=CIHR&fodLanguage=E>).

In its April and June editions, Breaking Through highlighted the successful **3rd Annual IMHR Young Researchers' Conference** held at The Royal under the theme Lab to Life: Translational Mental Health Research. This issue features a summary of the **two Best Basic Research Posters**. The prizes were awarded ex aequo to **Ms. Jojo Jiang** from the University of Ottawa IMHR and **Mr. Juan-Pablo Lopez** from McGill University.



The research of **Jojo Jiang** and collaborator M. El Mansari, conducted under the supervision of Dr. Pierre Blier, relates to **"Sustained triple reuptake inhibition decreases the firing activity of norepinephrine but not serotonin neurons in the rat brain"**.

While SSRIs are the most frequently used treatment for depression, recent studies have established the existence of reciprocal relationships between the serotonin (5-HT), norepinephrine (NE) and dopamine (DA) systems in the brain. All should be considered when investigating the mechanism of action of antidepressant drugs. A recent approach in depression treatment is triple reuptake inhibitors (TRI). Since TRIs are still being developed and not readily available, administration of the SSRI escitalopram (ESC) and nomifensine (a NE/DA reuptake inhibitor) was used to mimic the effect of, and will be referred to as a TRI. This study examines the effects of TRI administration on locus coeruleus (LC) NE and dorsal raphe nucleus (DRN) 5-HT neurotransmission. **Methods:** Subcutaneously implanted minipumps delivered ESC (10 mg/kg/day), and/or nomifensine (5 mg/kg/day) for 2 and 14 days. In vivo recordings were conducted in anesthetized male Sprague-Dawley rats. **Results:** The TRI decreased the firing of NE neurons by about 60% after both 2- and 14-day administration. A 2-day administration of TRI resulted in 5-HT firing rates that were the same as control levels. In order to determine if this TRI produced an increased activation of the 5-HT<sub>1A</sub> autoreceptor, the selective 5-HT<sub>1A</sub> antagonist WAY100635 was injected intravenously. This led to a tripling of the firing rate of 5-HT neurons. The firing rate of the 5-HT neurons also remained at control levels after 14 days of TRI. **Discussion:** As with SSRIs, S/NRIs, and SNRIs, the TRI was shown to decrease the firing rate of LC NE neurons after both 2- and 14-day administration. However, the normal spontaneous firing rate of DRN 5-HT neurons was maintained after the 2-day TRI administration compared to the robust inhibitory action of SSRI.

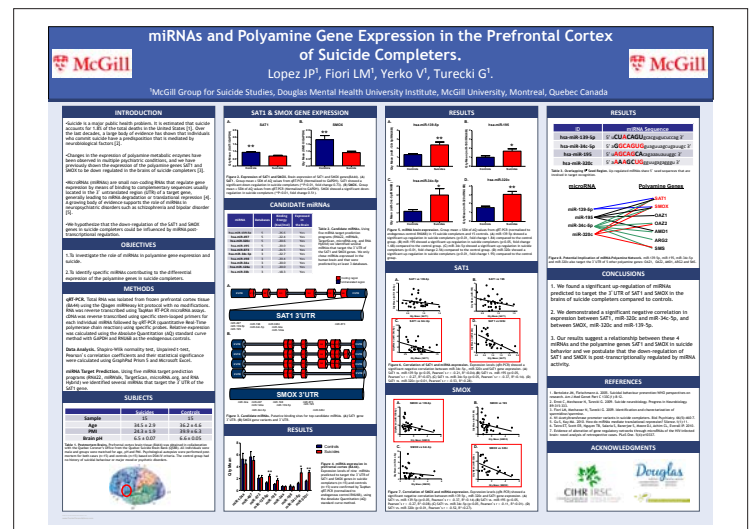


The result suggests that there was an increased activation of the excitatory  $\alpha 1$ -adrenergic and D2 receptors on 5-HT neurons resulting from NE and DA reuptake inhibition, respectively. At optimal levels, there may be a more rapid enhancing action on 5-HT transmission than with a SSRI alone.



The research of **Juan-Pablo Lopez** and collaborators L.M. Fiori and V. Yerko, conducted under the supervision of Dr. Gustavo Turecki, relates to **"miRNAs and Polyamine Gene Expression in the Prefrontal Cortex of Suicide Completers"**.

MicroRNAs (miRNAs) are small, non-coding RNA molecules that play an important role in the post-transcriptional regulation of mRNA. These molecules have been the subject of growing interest as they are believed to control the regulation of a large number of genes, including those expressed in the brain. Evidence suggests that miRNAs could be involved in the initiation and progression of neuropsychiatric disorders. Alterations in metabolic enzymes of the polyamine system have been reported to play a role in predisposition to suicidal behavior and we have previously shown the expression of the polyamine genes SAT1 and SMOX to be down-regulated in the brains of suicide completers. We hypothesize that the dysregulation of these genes in suicide completers could be influenced by miRNA posttranscriptional regulation. **Methods:** Using five miRNA target prediction programs, we identified several miRNAs that target the 3'UTR of SAT1 and SMOX. We profiled the expression of 10 miRNAs in the prefrontal cortex (BA44) of suicide completers (N=15) and controls (N=15) using qRT-PCR. **Results:** We found that several miRNAs showed significant up-regulation in the prefrontal cortex of suicide completers compared to healthy controls. Furthermore, we demonstrated a significant correlation between these miRNAs, SAT1 and SMOX expression. **Conclusion:** Our results suggest a relationship between miRNAs and polyamine gene expression in suicide behaviors and postulate a mechanism for SAT1 and SMOX down-regulation by posttranscriptional activity of miRNAs. Ultimately, our results provide new evidence for the role of miRNAs in neuropsychiatric disorders.



# ANNOUNCEMENTS

## Appointment



**Dr. Paul Fedoroff** was recently nominated Member of the Peer Review Committee for the American Academy of Psychiatry and the Law. In 2010, Dr. Fedoroff also became Chair of the Committee on Sex Offenders for the American Academy of Psychiatry and the Law (AAPL).



**Professor Dave Holmes**, Vice-Dean Academic and University Research Chair in Forensic Nursing, was appointed as the Director and Associate Dean of the School of Nursing, University of Ottawa, for a five-year term starting on July 1, 2011.



**Dr. Rob Milin** was appointed as a Member of the Board of Directors of the American Academy of Addiction Psychiatry. Dr. Milin was also named to the Editorial Board for the World Journal of Psychiatry, Open Access Journal in 2011.



**Dr. Michael Seto** has recently joined the Canadian Psychological Association's Task Force on the Future of Psychology in Corrections. Objectives include research and training needs and opportunities for clinical forensic psychology in Canada, in light of a chronic shortage of qualified professionals in correctional settings.

Because of his research on internet-facilitated sexual offending, Dr. Seto has also been asked to consult with the United States Sentencing Commission, National Centre for Missing and Exploited Children (NCMEC), and National Criminal Justice Association in the past six months, participating in roundtable meetings and/or providing summary reviews of the literature on this topic.



**Dr. Kimberly Sogge** was recently appointed as Chair-Elect of the Sport and Exercise Psychology section of the Canadian Psychological Association.



**Dr. Nicola Wright** was recently appointed as a Member of the Canadian Psychological Association's Scientific Affairs Committee. As one of only a few committee members from a non-university based institution, Dr. Wright's membership on the committee will give The Royal a national voice on research matters in psychology.

## Farewell



In August, the Psychology Team at The Royal bid farewell to **Dr. Nicole Varshney**, C.Psych., Psychologist in the Youth Program. Dr. Varshney will add her substantial knowledge as a clinical researcher to

the Ottawa community in a private practice specializing in children and adolescents.

In September, **Dr. Kimberly Sogge** left The Royal, as Chief of Psychology Professional Practice, for a full time private psychology practice focused on women's mental health and performance. She will also continue her teaching and supervision of graduate students at the University of Ottawa. We wish Dr. Sogge all the best for continued success!

## Young Researchers' Committee Update

by **Lisa Batten**  
*Mood Disorders Research Unit, IMHR*



September arrived very quickly! The Young Researchers' Committee is kicking the sand off of their feet and heading into another great year of conference planning as we begin to lay out the details of the upcoming 4th Annual Young Researchers' Conference on March 23, 2012. We have submitted a grant application to the Canadian Institutes of Health Research with the hopes of once again obtaining funding to assist with conference planning. Working closely with support from the IMHR, the Young Researchers' Forum hopes to make the next conference our best one yet! We are excited to bring together innovative young researchers to network and share their knowledge with one another. It's a great time to showcase the outstanding work occurring at the IMHR and to create stimulating exchange of ideas among individuals working in mental health.

- If you are an early career researcher interested in joining the scientific and organizing committee for the upcoming conference, please contact Lisa Batten at [Lisa.Batten@theroyal.ca](mailto:Lisa.Batten@theroyal.ca). We also welcome thoughts, ideas, and suggestions for future events to be held for young researchers.

## AROUND THE WORLD

### The Brain in Chinese

#### Interesting e-Links

by Dr. David Armstrong, IMHR

➤ **Mobile Device Real-Time Flight Tracker – great for conference and meeting travel**

Flight Status from KAYAK is one of the best real-time flight trackers... and FREE!

- find and track flights by airline, route and flight number;
- see flights en route on a map – confirm that the flight announcement really aligns with where the plane is;
- iPhone, Blackberry, Android and mobile devices applications available
- <http://www.kayak.com/mobile>

➤ **3D Brain for Mobile Devices by Cold Spring Harbor Laboratory**

Use your touch screen to rotate and zoom around 29 interactive structures – very impressive 3D graphics. Discover how each brain region functions, what happens when it is injured, and how it is involved in mental illness. Each detailed structure comes with information on functions, disorders, brain damage, case studies, and links to modern research. The link below is for Apple devices but Cold Spring has developed this for other systems.

- Free application at <http://itunes.apple.com/ca/app/3d-rain/id331399332?mt=8>

by Dr. Georg Northoff,  
research director, Mind, Brain Imaging and  
Neuroethics Unit, IMHR

I have long-standing collaboration in China and visited several places in May. I flew from Ottawa via Vancouver to Hong Kong. However, after getting up gruesomely early at 4 a.m. to catch the plane to Vancouver, that city did apparently not want to get rid of me. A 12 hour delay for the flight to Hong Kong is quite something. What to do? I worked on my book and finished a chapter. Good for the book and good against any boredom. Then I flew into Hong Kong in the evening and had meetings with my colleagues the next morning. We got together to plan a rather complex study with several imaging modalities like fMRI, PET and MRS with all the facilities being well installed in Hong Kong. This meeting served to prepare for a study which is currently conducted by Niall Duncan, a Scottish graduate student of mine, who is currently enjoying a three month stay in his Queen's former colony. What is the study about? Of course about the self and how it is mediated by neuronal and biochemical activity in the brain in healthy subjects as compared with subjects who suffer from lesions in midline regions of the brain. In the afternoon, I had to go back to the airport, leaving Hong Kong after not even 24 hours, to go on to Hangzhou in mainland China.



**Hong Kong**

Hangzhou is about two hours west of Shanghai. I hold a professorship there, a chair for mental disorders. I help to establish their imaging centre and supervise my Chinese group including several doctoral and postdoctoral students. As with everything in China, the hospital for mental disorders is large and contains about 800 beds for patients. We had several discussion on how to set up brain imaging in the best way and to

However, before that I should say that Hong Kong is quite an amazing place, skyscrapers set against lavish green mountains which make for a beautiful contrast. Hence, each time I am in Hong Kong, I run in the mountains and enjoy the scenery.

integrate it with the clinical demands. Quite a challenge no matter where you are in the world, be it Germany, China or Canada. And we had the formal opening ceremony of the Imaging Centre. I gave a talk – in English obviously. The dinner afterwards was even more of an unforgettable experience – several round tables, wonderful food, and drinking and cheering all the time, no wonder that my rather sparse Chinese thinned out almost completely at the very end...



**West Lake, Hangzhou**

Hangzhou is a mythical place in China since it has the West Lake, a beautiful lake in the midst of lush green hills decorated by many Chinese pagodas and other buildings set up by many emperors during the long history of China. This contrasts quite with Shanghai, which is a buzzing big city with impressive skyscrapers.

I met my colleagues in the biggest Chinese hospital for neurosurgery (that means something!), where we are planning to conduct a study in vegetative state to reveal the neuronal mechanisms that lead to the loss of consciousness in these patients. Another postdoctoral student of mine, Pengmin Qin from China, will conduct the study at the beginning of next year. As you can see, every visit by me is followed by a longer stay by one of my students.

Consciousness is one of the nuts still to crack in the neuroscience of the brain. Why do we have consciousness at all? Does our brain predispose us to have consciousness (or some unconsciousness) rather

*Continued on page 7...*

than remaining non-conscious? No answer to these questions yet. And who does not want to participate in a puzzle that will ultimately resolve how the brain works and why we are the way we are? This will also contribute to better understanding the alterations of the self, which are so prominent in psychiatric disorders like depression and schizophrenia. Hence, we also plan to conduct a multimodal imaging study in patients with schizophrenia in Shanghai, in collaboration with the rather small psychiatric hospital there that contains only two thousand beds...

On the weekend I also visited a little water town, Zhouzhang, with beautiful, old houses along rivers and canals.

Traveling by yourself in China is an experience – especially given my basically non-existent Chinese. But the Chinese people are very friendly and are always helpful, thereby creating many funny situations, especially given the fact that my own pride prevented me from using the one page with all the English-Chinese instructions to survive in daily life handed to me by my colleagues in Hangzhou. Besides all the water, I enjoyed the performance of several Chinese operas in Zhouzhang which, I must say, is a wonderful experience being completely different from the western-style opera.

I went on to Beijing for a conference, the 10th Sino-German workshop for Cognitive Neuroscience. Don't be fooled by the name. There were Germans and Chinese indeed, but many other nationalities too, including people from Canada (what a surprise!), USA, Russia, India, Spanish, Italy, Poland, etc. These kinds of conferences provide the opportunity to hear about research in fields which one is not primarily occupied



**Zhouzhang**

with, as for instance, the visual cortex in my case. Since the self and consciousness, my prime interest, are everywhere in our experience, I also need to look everywhere in the brain and that is exactly what we are currently doing. I also met my long-standing Chinese collaborator in Beijing, Shihui Han, to discuss some future projects, papers, and grant applications.

After Beijing, I headed home to Ottawa. The flight was long and served me well to do work on my consciousness book. In the first week in Ottawa, the jetlag was pretty bad, though. I was rather experiencing a shadow of my own self in my clouded consciousness. The Chinese brain? Brain is brain and human is human and that holds true everywhere in the world. Both brain and humans function according to the same principles; principles which are still unknown and therefore the prime target of my research into the brain and how it yields consciousness. However, there are several specifics about the Chinese culture whose manifestations in the brain we currently investigate in transcultural imaging studies. And there are not only cultural specifics about the Chinese brain but also about the Chinese food which I adore. Bon appetite!



## Interesting e-Links cont'd

by Dr. David Armstrong, IMHR

### ➤ Eye Illusions HD Free

Who told you your eyes can't play tricks on you? Seeing is NOT believing. Another iPad, iPhone, iPod Touch application at no cost. Truly an interesting application to show how the brain interprets the world we see...

- <http://itunes.apple.com/us/app/eye-illusions-hd-free/id422830489?mt=8>

### ➤ Speedtest.net

Assesses your internet connection's download and upload speeds – are you getting internet access aligned with what you have paid for? A free online tool.

- <http://speedtest.net>

# SYMPOSIA, CONFERENCES, MEETINGS, FORUMS, LECTURES AND EVENTS

## COMING UP

***Women in Mind -  
A Conference on Women's  
Mental Health  
Friday, October 21, 2011  
(7:45 a.m. - 4:40 p.m.)  
at the Ottawa  
Convention Centre***

Women in Mind will bring together leading researchers and practitioners for Ottawa's first academic conference devoted to women's mental health. Speakers and panelists will present and discuss leading-edge research and best practices for mental health care that reflect women's physiological and social needs.

- **Dr. Pauline M. Maki** professor in the Departments of Psychiatry and Psychology at the University of Illinois, Chicago, is the keynote speaker and will address the effects of estrogen on cognition and dementia.
- **Dr. Claudio Soares**, associate professor in the Departments of Psychiatry and Behavioral Neurosciences and Obstetrics & Gynecology at McMaster University, will present research on mood and perimenopause.
- **Dr. Dennis Raphael**, professor of health policy at York University's School of Health Policy and Management, will speak on the social determinants of women's mental health.

## Academic and Research Day 2011

The 31st Academic and Research Day, organized by the Department of Psychiatry of the University of Ottawa, was held on June 2, 2011 at the Royal Ottawa Mental Health Centre. The event was an Accredited Group Learning Activity as defined by the Maintenance of Certification program of the Royal College of Physicians and Surgeons of Canada.

The objective of the day was to increase the rigor in academic and research activities, and to incorporate best-evidence into clinical activities. The successful event featured:

- A keynote lecture entitled "White Coat – Black Art: How I do it" by **Dr. Brian Goldman**.  
Dr. Goldman, an emergency room physician who has worked at Mount Sinai Hospital in downtown Toronto for more than 20 years, is also a prominent medical journalist and the host of CBC Radio's White Coat, Black Art. The objective of this lecture was to show how you take an idea for and develop it to become what is presented on the radio and secondly, how to develop what on the surface is a psychiatric topic, but approach it from another angle that makes it engaging to the public.
- Presentations on "Who are and what do the Canada and Endowed Research Chairs do within the Department of Psychiatry?" by **Drs. Pierre Blier, Georg Northoff and John Lyons**.  
**Dr. Blier**, Canada Research Chair in Psychopharmacology and Endowed Chair of Research in Mood and Anxiety Disorders, **Dr. Northoff**, Canada Research Chair, Mind, Brain Imaging and Neuroethics, and **Dr. Lyons**, Endowed Chair of Mental Health Research at CHEO, described what it means to be a Clinical and/or Endowed Research Chair and presented an overview of their areas of expertise and role.
- A presentation by **Dr. Katharine Gillis** on new programs and departmental opportunities in telemedicine, women's health, youth transition, and shared care.

- Poster presentations highlighting 10 basic science and 33 clinical studies.

The basic science posters were presented by **Franck Chenu, Ramez Ghanbari, Dave J. Hayes, Jon James, Jojo Jiang, Daphne Kamino, Pam Kent, Philip Kesner, Stella Manta and Stacey Shim**.

The clinical posters were presented by **Danielle Impey, Derek J. Fisher, Dylan M. Smith, Crystal Villeneuve, Dhrasti Shah, Jennifer L. Phillips, Jean-Claude Bissierbe, Meagan Bone, Natasha Hudek, Lisa Batten, Elizabeth Glennie, Gary Fine, Sharman Robertson, Wendy Spettigue, Fotini Zachariades and Genevieve Proulx, Giorgio A. Tasca, Drew Kingston, Katie Greenough, Natalia Jaworska, A.G. Ahmed, Mathieu Dufour, Michelle Mathias, Katherine Young, Clare Gray, Tamina Eapen and Natalie Sochocky, Paula Cloutier, Erika Jansman, Soojin Chun, Selena Walker, Helen Spenser, Alan Douglass, Katharine Gillis and Steven F. Michel**.

- Four concurrent workshops on:

- 1) "Incorporating practice guidelines in your practice" led by **Drs. Deanna Mercer and Katharine Gillis**
- 2) "Program Evaluation and Quality Improvement: Why it matters to my practice" led by **Dr. Susan Farrell and Joan Fernandez**
- 3) "Building research in your day-to-day practice" led by **Drs. Alan Douglass and Wendy Spettigue**
- 4) "Moving knowledge into practice through evidence-based educational planning" led by **Drs. Elisabeth Lindsay and Andrew Wiens**

*Continued on page 9...*

- An awards presentation concluded the activities of the day.
- The Department of Psychiatry Best Clinical Poster Presentation was awarded to **Dr. Wendy Spettigue** for her presentation entitled *'Quetiapine use for the adjunctive treatment of adolescents with anorexia nervosa: A retrospective preliminary chart review.'*



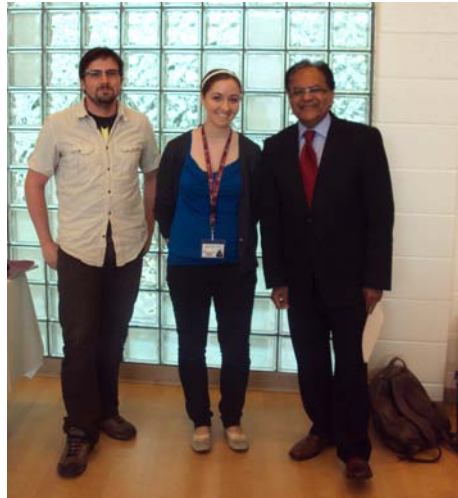
Dr. Wendy Spettigue, Dr. Jean-Philippe Daoust and Dr. Elliott Lee

- The IMHR Young Investigator's Award for the Best Presentation in Clinical Research was given to **Jennifer Phillips** for her presentation entitled *'Analysis of Cortical Thickness in Treatment-Resistant Major Depressive Disorder.'*



Jennifer Phillips and Dr. Zul Merali

- The IMHR Young Investigator's Award for the Best Presentation in Basic Science Research was given to **Pam Kent** for her presentation entitled *'Neonatal blockade of gastrin-releasing peptide receptors as an animal model of autism.'*



Jon James and Samantha Graitson receiving the award on behalf of Pam Kent and Dr. Zul Merali

## Inaugural Health Research Caucus Event

Hosted by the Health Research Caucus Chair Senator Kelvin K. Ogilvie and promoted by Vice-Chairs Dr. Kirsty Duncan (Liberal) and Megan Leslie (NDP), the event held on Parliament Hill on June 7, 2011 provided Parliamentarians with an overview of current research taking place at the **University of Ottawa Institute of Mental Health Research (IMHR)** and the Centre for Addiction and Mental Health (CAMH) in Toronto. Guest speakers included **Dr. Pierre Blier** of the IMHR and Dr. Jeffrey Meyer of the CAMH. More than 25 MPs and Senators representing all parties attended as well as several distinguished members and guests, reflecting the interest in this important issue.

## Mindfulness Based Training

**Dr. Jean-Claude Bisserbe**, clinical director of the Mood Disorders Program at The Royal, **Dr. Kimberly Sogge**, chief of Psychology Professional Practice at The Royal, and **Gail McEachern**, MBSR guest teacher in Learning and Development at The Royal all attended training in Mindfulness Based Cognitive Therapy for Relapse Prevention in Depression offered by Dr. Zindel Segal, C.Psych. of the CAMH in Rhinebeck, New York.

- The next MBSR for Health Care Professionals course will be offered at The Royal in October 2011. It is open to all mental health care professionals working at the Royal and in the community. For more information and registration for mindfulness based trainings go to [www.theroyal.ca](http://www.theroyal.ca) > Community and Education at The Royal > Public Events > Professional Education Events.



## Comments & Suggestions

The IMHR welcomes your feedback about the newsletter.

Please contact  
**Dr. Martine Lafrance**  
project director  
at 613.722.6521 ext. 6727  
or by email at  
[martine.lafrance@rohcg.on.ca](mailto:martine.lafrance@rohcg.on.ca).

## RECENT PUBLICATIONS AND CONFERENCE PRESENTATIONS

### COMING UP - cont'd

#### *Women in Mind - A Conference on Women's Mental Health*

*Friday, October 21, 2011  
(7:45 a.m. - 4:40 p.m.)  
at the Ottawa  
Convention Centre*

- **Dr. Valerie Taylor**, assistant professor in Psychiatry and Behavioral Neurosciences at McMaster University and head of its Mood Disorders Somatic Health Program, will discuss mental illness and medical comorbidity in women.
- **Dr. Charmaine Williams**, associate dean Academic of Social Work and the Factor-Inwentash Chair in Health and Mental Health at the University of Toronto, will talk about women's caring: psychological and social issues.
- **Dr. Catherine Shea**, chair of the Division of Geriatric Psychiatry and associate professor at the University of Ottawa, geriatric psychiatrist at the Royal Ottawa Mental Health Centre and Director of the Day Hospital and Rural Outreach for the geriatric psychiatry program, will speak on women, aging and mental illness.
- **Dr. Jasmine Ghandi**, clinical lead and psychiatrist for the Ottawa Regional Perinatal Mental Health Program at The Ottawa Hospital, head of Interpersonal Psychotherapy training, Department of Psychiatry, University of Ottawa and assistant professor, will talk about mental illness in the pregnant and postpartum woman.
- To learn more on the conference, visit [www.theroyal.ca/womeninmind](http://www.theroyal.ca/womeninmind).

### Publications

**Blier, P. (2011)** Optimal clinical use of mirtazapine: contribution of neurobiology. *CNS Drugs* 25 (special issue 1): 26-29.

**Côté, G., Crocker, A. G., Nicholls, T. L., Seto, M. C. (in press)** Risk assessment instruments in clinical practice. *Canadian Journal of Psychiatry*.

**Crocker, A. G., Côté, G., Braithwaite, E., Nicholls, T., Seto, M. C. (2011)** To commit detain or to release? Correlates of dispositions for individuals declared not criminally responsible on account of mental disorder. *Canadian Journal of Psychiatry*, 56, 293-302.

**Eke, A. W., Seto, M. C., Williams, J. (in press)** Examining the criminal history and future offending of child pornography offenders: An extended prospective follow-up study. *Law and Human Behavior*.

**Enzi, B., Doering, S., Faber, C., Hinrichs, J., Bahmer, J., Northoff, G. (2011)** Reduced deactivation in reward circuitry and midline structures during emotion processing in borderline personality disorder. *World J Biol Psychiatry*. [Epub ahead of print].

**Federman, C., Holmes, D., Tremblay, F. (2011)** Reflecting on HIV Disclosure Laws in the Context of Unsafe Sex and the Harm Reduction Strategy. *Social Theory & Health*. DOI:10.1057/sth.2011.5.

**Fedoroff, J.P. (2011)** Forensic and Diagnostic Concerns Arising From the Proposed DSM-5 Criteria for Sexual Paraphilic Disorder. *The Journal of the American Academy of Psychiatry and the Law*, Volume 39, 238-41.

**Gagnon, M., Holmes, D. (2011)** Bodies in Mutation: Understanding Lipodystrophy Amongst Women Living with HIV/AIDS. *Research and Theory for Nursing Practice*, 25 (1) 23-38.

**Hayes, D.J., Northoff, G. (2011)** Identifying a network of brain regions involved in aversion-related processing: a cross-species translational investigation. *Frontiers in Integrative Neuroscience*. [Epub ahead of print].

**Holmes, D. (2011)** Aporia. *Journal de réadaptation médicale*. DOI:10.1016/j.jrm.2011.01.001.

**Jacob, J.D., Holmes, D. (2011)** Working Under Threat: Fear and Nurse-Patient Interactions in a Forensic Psychiatric Setting. *Journal of Forensic Nursing*, 7, 68-77.

**Jansman, E. M., Seto, M. C., Crocker, A. G., Nicholls, T. L., Côté, G. (in press)** International trends in demand for forensic mental health services. *International Journal of Forensic Mental Health*.

**Jaworska, N., McIntosh, J., Villeneuve, C., Thompson, A., Fisher, D., Milin, R., Knott, V. (2011)** Effects of Nicotine on EEG Activity and Affect in Adolescent Females with Major Depressive Disorder: A pilot study. *Journal of Addiction Medicine* 5(2):123-133.

**Kennedy, S.H., Young, A.H., Blier, P. (2011)** Strategies to achieve clinical effectiveness: refining existing therapies and pursuing emerging targets. *Journal of Affective Disorders*. (Epub May 13).

**Kingston, D. A., Yates, P. M., Firestone, P. (in press)** The self-regulation model of sexual offender treatment: Relationship to risk and need. *Law and Human Behavior*.

**Marshall, W. L., Marshall, L. E., Kingston, D. A. (2011)** Are the cognitive distortions of child molesters in need of treatment? *Journal of Sexual Aggression*, 17, 118-129.

**Milin, R., Walker, S. (2011)** Adolescent Substance Abuse. *Substance Abuse: A Comprehensive Textbook*, Fifth Edition, Pedro Ruiz and Eric Strain (eds), Lippincott Williams & Wilkins, Philadelphia, PA, pp.786-801.

**O'Byrne, P., Holmes, D. (2011)** Desire, Drug Use, and Unsafe Sex: A Qualitative Examination of Gay Men who Attend Gay Circuit Parties. *Culture, Health and Sexuality* 13(1), 1-13.

**O'Byrne, P., Holmes, D. (2011)** Drug Use as Boundary Play: A Qualitative Exploration of Gay Circuit Parties. *Substance Use and Misuse*, 10(15) 1-13.

**Perron, A., Holmes, D. (2011)** Constructing Mentally Ill Inmates: Nurses' Discursive Practices in Corrections. *Nursing Inquiry*. DOI:10.1111/j.1440-1800.2011.00526.x.

**Perron, A., Rudge, T., Blais, A.M., Holmes, D. (2011)** Ideology, Nursing Ontology, and Ethics as Politics. *Advances in Nursing Science*, 34 (1), 3-5.

*Continued on page 11...*

**Piko, B.F., Milin, R., O'Connor, R., Sawyer, M. (2011)** From Epidemiology through Psychological Aspect to Clinical Implications: Special Issue on Multidisciplinary Approach to Child and Adolescent Depression. Depression Research and Treatment. Open Access Journal, Article ID 854594.

**Qin, P., Northoff, G. (2011)** How is our self related to midline regions and the default-mode network? *Neuroimage* 57, 1221-1233.

**Racine, E., Northoff, G., Menon, R.S., Kimmelman, J., Illes, J. (2011)** A Canadian perspective on ethics review and neuroimaging: tensions and solutions. *Can J Neurol Sci* 38, 572-579.

**Rudge, T., Holmes, D., Perron, A. (2011)** The Rise of Practice Development with/in Reformed Bureaucracy: Discourse, Power, and the Government of Nursing. *Journal of Nursing Management*. DOI: 10.1111/j.1365-2834.2010.01174.x.

**Seto, M. C., Fernandez, Y. M. (in press)** Dynamic risk groups among adult male sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*. doi:10.1177/1079063211403162.

**Seto, M. C., Wood, J. M., Babchishin, K. M., Flynn, S. (in press)** Online solicitation offenders are different from child pornography offenders and lower risk contact sexual offenders. *Law and Human Behavior*.

**Skilling, T. A., Doiron, J. M., Seto, M. C. (2011)** Understanding differences in self and parent reports among adolescent sex and non-sex offenders. *Psychological Assessment*, 23, 153-163. doi: 10.1037/a0021229.

**Yang, Z., Zhao, J., Jiang, Y., Li, C., Wang, J., Weng, X., Northoff, G. (2011)** Altered negative unconscious processing in major depressive disorder: an exploratory neuropsychological study. *PLoS One* 6, e21881.

## Conference Presentations

**Basarke, S., Seto, M. C., Hannah, R. (2011, June)** Who succeeds in youth mental health court diversion? Predictors of diversion outcomes in an Ontario sample. North American Correctional and Criminal Justice Psychology Conference, Toronto, Ontario.

**Batten, L.A., Wickramartne, P., Hernández, M., Dugal-Tessier, D., Alvarez-Goldman, M., Adams, P., Flament, M.F., Pilowsky, D.J., Tessier, P., Blier, P.M., Stewart, J., McGrath, P., Weissman, M.M. (2011, October)** Psychiatric Disorders in Children of Depressed Parents: Characteristics Impacting Outcome. American Academy of Child and Adolescent Psychiatry/Canadian Academy of Child and Adolescent Psychiatry Joint Annual Meeting, Toronto, Ontario.

**Blier, P. (2011, September)** Symposium: Relationship between aesthetics and treatment success in depression: Aesthetics predict failure. European College of Neuropsychopharmacology Congress, Paris, France.

**Blier, P. (2011, September)** Symposium: Improving efficacy and tolerability of antidepressants in clinical practice - Combination of antidepressants from treatment initiation: New treatment strategy in clinical practice. World Psychiatric Association, Buenos Aires, Argentina.

**Blier, P. (2011, June)** L'approche aux atypiques de la schizophrénie et du trouble bipolaire. Annual meeting of Association des Médecins Psychiatres du Québec, Mont-Tremblant, Québec.

**Blier, P. (2011, June)** Symposium: Perspectives in Mental Health Care: Mood Disorders- Recent progress and practical tips. Canadian Psychiatric Association, Vancouver, British Columbia.

**Blier, P. (2011, June)** Symposium: Perspectives in Mental Health Care - Managing Clinical Challenges. Canadian Psychiatric Association, Ottawa, Ontario.

**Blier, P. (2011, May)** Symposium: The neurobiology of depression: the serotonin hypothesis revisited- Novel therapeutics and

beyond. Université de Montréal, Groupe de Recherche en Sciences Neurologiques, Montréal, Québec.

**Blier, P. (2011, May)** Symposium: Rational Neuropsychopharmacology - Rational combination therapies for mood disorders. Fifth Canadian Neuroscience Annual Meeting, Québec, Québec.

**Bradford, J. (2011, August)** Law and Psychiatry Course. McMaster Muskoka Seminars.

**Bradford, J. (2011, June)** MacMaster University Grand Rounds "Isaac Ray: Lessons Learned Lessons Forgotten", Hamilton, Ontario.

**Bradford, J. (2011, May)** The National Conference 2011: Mood Disorders Association of Manitoba/Mood Association of Canada; Mental Health Disorders: Challenges in the workplace, aboriginal communities, and the criminal justice system. Keynote address: Mental Health Challenges in the Criminal Justice System". Winnipeg, Manitoba.

**Charette, Y., Salem, L., Crocker, A. G., Braithwaite, E., Seto, M. C., Nicholls, T. L., Côté, G. (2011, June)** Symposium: Balancing individual rights and public safety: Level of supervision of Review Boards and criminal recidivism in an urban area subsample of individuals found NCRMD. In A. G. Crocker (Chair), Urbanization, substance use and management of criminal behavior: Canadian Trajectory Study of individuals not criminally responsible due to mental disorder. 11th Annual Conference of the International Association of Forensic Mental Health Services, Barcelona, Spain.

**Chenu, F., El Mansari, M., Blier, P. (2011, September)** Electrophysiological effects of the repeated administration of agomelatine on the serotonin, norepinephrine, and dopamine systems in the rat brain. European College of Neuropsychopharmacology Congress, Paris, France.

**Chernoloz, O., El Mansari, M., Blier, P. (2011, September)** Chronic administration of quetiapine increases norepinephrine and serotonin neurotransmission in the rat brain. 24th European College of Neuropsychopharmacology Congress, Paris, France.

**Cote, I., Bradford, J., Fedoroff, P. (2011, March)** Symposium: The Russell Williams Case: The Army Star to the Convicted Murderer. CAPL Conference, Québec City, Québec.

**Crocker, A. G., Seto, M. C., Braithwaite, E., Charette, Y., Nicholls, T. L., Côté, G. (2011, June)** Symposium: Urbanization, substance use and management of criminal behavior: The Canadian National Trajectory Project. In A. G. Crocker (Chair), Urbanization, substance use and management of criminal behavior: Canadian Trajectory Study of individuals not criminally responsible due to mental disorder. 11th Annual Conference of the International Association of Forensic Mental Health Services, Barcelona, Spain.

**Federman, C., Holmes, D. (2011)** The Enemy Within and Without: Guantanamo and the Problem of Jurisprudence in the Age of Terror. Association for the Study of Law, Culture & the Humanities Conference, Las Vegas, United States.

**Fedoroff, J.P. (2011)** Internet child porn and sex crimes. XXXII International Congress on Law and Mental Health, Humbolt University, Berlin Germany, pp. 92-93.

**Gates, M., Marshall, L. E., Alguire, T. (June, 2011)** A New Approach to the Treatment of Domestically Violent Men: Methods and Outcomes. Partner Abuse Response providers of Eastern Ontario (P.A.R.E.O.) quarterly meeting. Smith Falls, Ontario.

**Gates, M., Marshall, L. E., Alguire, T. (June, 2011)** An examination of a treatment group for domestic violence in incarcerated mentally ill offenders. Second North American Correctional and Criminal Justice Psychology Conference (NACCJPC), Toronto, Canada.

**Gates, M. (January, 2011)** The Living Without Violence Group: A group to tackle the issue of domestic violence. Presented to the trauma unit of the St. Lawrence Valley Correctional and Treatment Centre, Secure Treatment Unit, Brockville, Ontario.

**Gosselin, A., Robertson, C., Boivin, M. (2011, September)** Relationship between sleep disturbances, PTSD, depression and alcohol use among veterans referred for treatment at an Operational Stress Injury clinic. World Association of Sleep Medicine Conference, Québec City, Québec.

**Jansman, E. M., Seto, M. C., Crocker A. G., Nicholls, T. L., Côté, G. (2011, June)** International trends in demand for forensic mental health services. Annual University of Ottawa Department of Psychiatry Research Day, Ottawa, Ontario.

**Kingston, D. A., Michel, S., Bradford, J. M. (2011, August)** Developmental Adversity and Long-Term Consequences associated with Hypersexuality. 37th Annual Meeting of the International Academy of Sex Research, Los Angeles, California.

**Kingston, D., Ahmed, AG. (2011, Mar. 30-April 1)** The Assessment and Diagnosis of ADHD in Adult Forensic Population. 7th Annual Pacific Psychiatry Conference, Vancouver, British Columbia.

**Michel, S. F., Laforty, J., Bradford, J. M. W., Seto, M. C. (2011, June)** Metabolic syndrome in forensic psychiatric patients: Description and implementation of a metabolic clinic. Annual University of Ottawa Department of Psychiatry Research Day, Ottawa, Ontario.

**O'Bonsawin, M., Ahmed, AG., Duffy, S. (2011, Feb.27-March 2)** R. v. Rodney King: Competencies and Rights in Psychiatric Practice. 16th Annual Winter Conference of The Canadian Academy of Psychiatry and The Law, Québec City, Québec.

**Phillips, J.L., Batten, L.A., Aldosary, F., Tremblay, P., Du, L. Blier, P. (2011, September)** Influence of the 5-HTTLPR polymorphism on brain structure in treatment-resistant major depressive disorder. 24th European College of Neuropsychopharmacology Congress. Paris, France.

**Potter, D., Robertson, C., Gosselin, A., Bialik, B. (2011, March)** The impact of mindfulness therapies on objective vs. self-report sleep measures: A review. Young Researcher's Conference, Ottawa, Ontario.

**Rudge, T., Perron, A., Holmes, D. (2011)** Domesticating Research: Practice Development and its Organisational Agenda. In *Sickness and in Health 4: Ethics – Power – Practice*. The University of South Denmark, Odense, Denmark.

**Seto, M. C., Chivers M. L., Roy, C., Grimbos, T. (August, 2011)** Self-reported and genital arousal responses to masochism stories in men and women. In M. L. Lalumière (Chair), New developments in research on sexual concordance and category-specificity in men and women. International Academy of Sex Research, Los Angeles, California.

**Seto, M. C., Crocker, A. G., Nicholls, T. L., Côté, G. (2011, June)** Symposium: Forensic mental health in Canada: Context for the National Trajectory Project. In A. G. Crocker (Chair), Urbanization, substance use and management of criminal behavior: Canadian Trajectory Study of individuals not criminally responsible due to mental disorder. 11th Annual Conference of the International Association of Forensic Mental Health Services, Barcelona, Spain.

**Thibaut, F., Cosyns, P., Bradford, J. (2011, May)** 10th World Congress of Biological Psychiatry. World Federation of Societies of Biological Psychiatry Task Force Treatment Guidelines, Session on Paraphilias, Prague, Czech Republic.

**Woods, V., Ahmed, AG, Korovessis, A. (2011, Feb.27-March 2)** The Efficacy of Group REBT in Adults with Dysfunctional Anger. 16th Annual Winter Conference of The Canadian Academy of Psychiatry and The Law, Québec City, Québec.

## Media Interviews

**March 2011**, CBC Radio Saskatoon "The Current Edition", **Dr. Paul Fedoroff**, Treatment of High Risk Sex Offenders.

**July 2011**, CTV Ottawa News at Noon, **Dr. Paul Fedoroff** interviewed live, mass murders, in relation to the Norway incident.