

The Canadian Association
for Neuroscience presents

8th Annual Canadian Neuroscience Meeting 2014



Place Jacques-Cartier



Place des Arts



Old Montréal



Mary Queen of the World Cathedral
/ Skyline of downtown

© Tourisme Montréal, Stéphan Poulin

Meeting Program

May 25–28, 2014
The Hilton Bonaventure Hotel
Montréal, Québec

www.can-acn.org

Call now to start equipping your optogenetics lab

1.855.473.1063



Shipped in 24 hours

Most common lasers are in-stock and ready to ship.



Save your budget

Our customers save up to 50% by choosing Laserglow as their light source provider for optogenetics.



Over 80 wavelengths

Ranging from 266 to 2200 nm, including all wavelengths used for optogenetics research.



Complete optogenetic solutions

Ask about our offers on fibers, implants, modulators, function generators, etc.



© 2014 Laserglow.com Limited

PRICING EXAMPLE

Wavelength	Output Power	Standard	LabSpec	Fiber-Coupled (FC/PC or SMA)
405 nm	>30 mW	\$780	\$1820	+\$400
473 nm	>30 mW	\$782	\$1680	+\$400
532 nm	>30 mW	\$758	\$1580	+\$400



CCR Registered Vendor
Corporate and Educational Purchase Orders Welcome

Contact us today to learn more: - by phone at **1.855.473.1063** - by email at sales@laserglow.com
visit www.laserglow.com for more information on Laserglow lasers for optogenetics

TABLE OF CONTENTS

About CAN-ACN	page 1
Letter from the President	page 1
CAN-ACN Leadership	page 2
CAN-ACN Administration	page 3
Future Meeting	page 4
General Conference Information	page 5
Award Winners	page 7
2014 Young Investigator Awardees	page 7
Brainstar Awardee Talks 2014	page 8
Special Meetings & Social Events	page 10
Program at a Glance	page 11
Annual Conference Schedule	page 12
Plenary Symposia and Keynote Sessions	page 19
Parallel Symposia	page 23
Poster Author Index	page 31
Poster Sessions	page 40
Poster Session 1 – Monday, May 26, 2014	page 40
Poster Session 2 – Tuesday, May 27, 2014	page 50
Poster Session 3 – Wednesday, May 28, 2014	page 60
CAN-ACN Exhibitors	page 71
Poster Floor Plans	page 75

PLEXON[®]

Plexon is the pioneer and global leader in custom, high performance and comprehensive data acquisition and analysis solutions specifically designed for neuroscience research.



- Neural data acquisition systems
- 2D and 3D Video tracking and behavioral analysis systems
- Electrical and optogenetic stimulation systems
- Online and offline data analysis software
- Chronic and acute electrodes
- Microdrives
- Commutators
- Amplifiers
- Headstages
- Adaptors
- Cables
- Custom Builds

Every three days a new lab chooses Plexon...come find out why!

www.plexon.com

ABOUT CAN-ACN



The Canadian Association for Neuroscience is a community of scientists, researchers and students brought together with the common purpose of representing the interests of Canadian neuroscientists at national and international levels. CAN's mission is to promote communication among neuroscientists throughout Canada, and generate interest and understanding of the importance of scientific research and development.

CAN-ACN Annual Meeting

Since 2007, the Canadian Neuroscience Annual Meetings have been an important platform for researchers to present their work, generate scholarly debate, obtain valuable feedback and be informed about the important neuroscience research done across country and abroad. This highly regarded conference is in its 8th year, with proposals from our membership reaching record numbers for our 2014 meeting.

8th Annual The Canadian Association for Neuroscience presents Canadian Neuroscience Meeting 2014

LETTER FROM THE PRESIDENT

Dear Colleagues and Friends,

It is my pleasure to welcome you to the 8th Annual Canadian Neuroscience Meeting in Montreal. Our Scientific Program committee has put together an impressive list of Keynote and Plenary speakers. As we build on the experience of our previous meeting, we aim to continue to showcase the best of neuroscience research in Canada.

I wish to thank all our members who have submitted proposals for parallel symposia this year. As you will see in the program, parallel symposia, organized by our members, are a very important part of our meeting, and feature a wide range of research topics.

I also wish to thank our members who submitted the names of candidates for the Young Investigator Award. The very high quality of the candidates proposed this year highlight the excellence of many young neuroscientists in this country. All candidates can be proud of having been nominated.

The CAN meeting is an ideal place to meet and interact with colleagues from across the country. It is also a great place for trainees to present their work and get valuable feedback. We also have special mentoring and career development sessions for trainees and junior investigators.

I hope you enjoy the meeting, and I look forward to seeing you in person on-site at the event.

Samuel David
President of the Canadian Association for Neuroscience

Chers collègues et amis,

Il me fait grand plaisir de vous accueillir au 8^{ème} congrès annuel de l'Association canadienne des neurosciences à Montréal. Notre comité du programme scientifique a assemblé une liste impressionnante de conférenciers pléniers et d'honneur. Partant de l'expérience acquise lors de nos congrès précédents, nous visons à continuer de mettre en valeur le meilleur de la recherche en neuroscience au Canada.

Je tiens à remercier tous nos membres qui ont soumis des propositions de symposium parallèles cette année. Comme vous verrez dans le programme, les symposium parallèles, organisés par nos membres, sont une partie très importante de notre congrès, et traitent d'un éventail large de sujets de recherche.

Je tiens aussi à remercier nos membres qui ont soumis des candidatures au prix du jeune chercheur de l'ACN. La grande qualité des candidatures soumises cette année met en lumière l'excellence de la relève en recherche en neuroscience dans notre pays. Tous les candidats peuvent être fiers de leur mise en candidature.

Le congrès de l'ACN est l'endroit idéal pour rencontrer et interagir avec des collègues de tous les coins du pays. C'est aussi une occasion pour les étudiants et stagiaires de présenter leur travail et de recevoir un feedback important. Nous offrons également des séances de mentorat et de développement de carrière pour les étudiants, stagiaires et jeunes chercheurs.

Je vous souhaite un excellent congrès, et j'ai bien hâte de vous accueillir en personne!

Samuel David
Président de l'Association Canadienne des Neurosciences

CAN-ACN LEADERSHIP

Elected members govern the Canadian Association for Neuroscience. These members comprise the Board of Directors who in turn elects Officers that comprise the Executive Committee. The Society's Bylaws govern how the Board manages the Society.

Executive Committee:

President: **Samuel David**, McGill University

Vice-president
(President-elect): **Doug Munoz**, Queen's University

Secretary: **Katalin Toth**, Université Laval

Treasurer: **Ellis Cooper**, McGill University

Board Members:

Past President: **Yves De Koninck**, Université Laval

Advocacy Officer: **David Kaplan**, University of Toronto

Charles Bourque, McGill University

William Colmers, University of Alberta

Edward Ruthazer, McGill University

Melanie Woodin, University of Toronto

2014 Scientific Program Committee



Conference Chair:

Dr. Sheena Josselyn

Senior Scientist, Neurosciences
& Mental Health, SickKids
Research Institute

Associate Professor, Physiology,
University of Toronto, Canada
Research Chair, Molecular and
Cellular Cognition



Co-chair:

Dr. Kurt Haas

Associate Professor, Department
of Anatomy and Cell Biology,
University of British Columbia
Tula Foundation Investigator,
Brain Research Centre
MSFHR Scholar

Name	Institution
Jaideep Bains	University of Calgary
Shernaz Bamji	University of British Columbia
Jean-François Cloutier	McGill University
Jody Culham	University of Western Ontario
Kerry Delaney	University of Victoria
Liisa Galea	University of British Columbia
Michiru Hirasawa	Memorial University
John Howland	University of Saskatchewan

Name	Institution
Stefan Kohler	University of Western Ontario
Steve Lacroix	Université Laval
Neil Magoski	Queen's University
Karim Nader	McGill University
Amy Ramsey	University of Toronto
Kaori Takehara-Nishiuchi	University of Toronto
Louis-Eric Trudeau	Université de Montréal

CAN-ACN ADMINISTRATION

Association Secretariat & Conference Management

secretariat@can-acn.org

De Armond Management Ltd.

- Marischal De Armond
- Jude Ross

Communications Director and webmaster

info@can-acn.org

- Julie Poupart

Membership Information

CAN-ACN membership is open to students, post-doctoral fellows and principal investigators actively engaged in neuroscience research in Canada and around the world. Memberships are valid September 1 through August 31 each year.

Benefits

CAN-ACN membership includes the following benefits:

- Eligibility to submit or sponsor communications at CAN Scientific meetings
- A significant reduction on registration for our annual meeting
- Networking opportunities
- The possibility of advertising positions and meetings on the CAN-ACN website
- A forum to exchange information with colleagues and the general public
- Eligibility for CAN-ACN prizes and awards

To become a CAN-ACN Member please visit us at the registration desk today.

De Armond Management Ltd is a full service Conference and Association Management company, specializing in supporting Scientific, Academic and Research organizations and groups with their Conference, Congress, and Member Management requirements. **Our services include:**



Conference Management

Conference planning and consulting services to support your event from conception to delivery



Conference Registration

Provide your attendees with a simple, convenient, online way to register and pay for your event



Conference Web Development

Support your conference with a website that speaks to your audience and drives participation and registration



Abstract Management

Collect, review and administer your Abstracts online with our integrated Abstract Management system



Association Management

Freedom to focus on your long-term strategies, while we manage your daily operations and member services



E-Communications

Connect with your community, delegates and members with effective messaging using our E-Communications system

To learn more about us or to secure our services for your conference or organization, please call 1 800 472-7644 or e-mail us.



De Armond Management
LIMITED

CONFERENCE, EVENT &
ASSOCIATION SPECIALISTS

info@dearmondmanagement.com • www.dearmondmanagement.com

9th Annual CAN-ACN Meeting

Vancouver, British Columbia, May 24-27 2015

We are pleased to announce that the 2015 Annual Meeting will take place May 24-27 at the Westin Bayshore Hotel, Vancouver, British Columbia, Canada

Key dates: Abstract submission opens November 26, 2014 | Registration opens early 2015

Special CAN-ACN rates:

Double room (single or double occupancy) \$199

Hotel reservations are open now!

Visit www.can-acn.org

Download the official CAN Mobile App!

CAN is excited to announce the launch of our interactive mobile application for the 2014 Annual Meeting! The CAN Mobile App is available for iPhone, Android, Blackberry and any smartphone or tablet that has web-enabled browser capability. Maximize your time and experience with the CAN Meeting – scan the QR code on the back of your badge to download the app.

The CAN app allows you to:

- View all conference information (sessions, abstracts, speakers, exhibitors, maps, attendee profiles, etc.) on your mobile device
- Build a personalized schedule and access any session handouts
- Find information quickly with the search feature
- Opt into messaging with other attendees
- Receive important conference-related notifications and updates
- Take notes on your mobile device during specific sessions with the ability to extract the information later
- Browse local restaurants and attractions
- **And much more...**



GENERAL CONFERENCE INFORMATION

Conference Venue

The Hilton Bonaventure Hotel

900 Rue de la Gauchetière Ouest, Montréal, QC H5A 1E4

All conference sessions will take place in this location.

Registration

Annual Conference registration fees include access to all sessions including panel, symposium, and poster sessions. Registration also includes 2 daily refreshment breaks.

Name Badges

Your name badge is your admission ticket to the conference sessions, coffee breaks, reception. Please wear it at all times. At the end of the Conference we ask that you recycle your name badge in one of the name badge recycling stations that will be set out, or leave it at the Registration Desk. Conference sessions will be monitored for name badges.

Lost name badges:

There is a \$25 replacement fee for any lost or missing name

badges – If you've lost your name badge, visit the registration desk for a replacement as soon as possible.

Registration and Information Desk Hours

The CAN-ACN Registration and Information Desk, located in the Grand Ballroom Foyer will be open during the following dates and times:

Sunday, May 25	12:00pm to 6:00pm
Monday, May 26	8:00am to 5:00pm
Tuesday May 27	8:00am to 5:00pm
Wednesday May 28	8:00am to 5:00pm

If you need assistance during the conference, please visit the Registration Desk.

Poster Information

Set-Up / Removal

There are three Poster Sessions during the Meeting and posters have been allocated to one of these three sessions based on poster themes. Poster presenters must set-up and remove their posters during the following times.

Poster Session 1 – Monday, May 26

Poster Hours:	10:00am – 11:00am
(lunch on own – posters will remain open)	12:00pm – 1:30pm
	3:00pm – 5:30pm

Poster set-up:	Sunday, May 25: 7:00pm – 8:00pm
	Monday, May 26: 7:00am – 8:30am

Removal of all posters by: 6:00pm on May 26

Poster Session 2 – Tuesday, May 27

Poster Hours:	10:00am – 11:00am
(lunch on own – posters will remain open)	12:00pm – 1:30pm
	3:00pm – 5:00pm

Poster set-up:	Tuesday, May 27: 7:00am – 8:30am
----------------	----------------------------------

Removal of all posters by: 6:00pm on May 27

Poster Session 3 – Wednesday, May 28

Poster Hours:	10:00am – 11:00am
(lunch on own – posters will remain open)	12:00pm – 1:00pm
	1:00pm – 3:00pm

Poster set-up:	Wednesday, May 28: 7:00am – 8:30am
----------------	------------------------------------

Removal of all posters by: 6:00pm on May 28

Information on Poster Authors, Poster Numbers and Poster Titles begins on page 31. For a complete copy of all the poster abstracts, a limited supply of printed abstracts is available for purchase at the registration desk for \$30 + tax. Digital copies can be downloaded from the Member Only section of the CAN-ACN Website.

Message Board

For your convenience, a Message Board will be located near the Registration Desk. Feel free to leave messages of interest to other conference participants.

Staff

CAN-ACN staff from De Armond Management can be identified by ribbons on their name badges. Feel free to ask anyone of our staff for assistance. For immediate assistance please visit us at the Registration Desk.

Food Sales

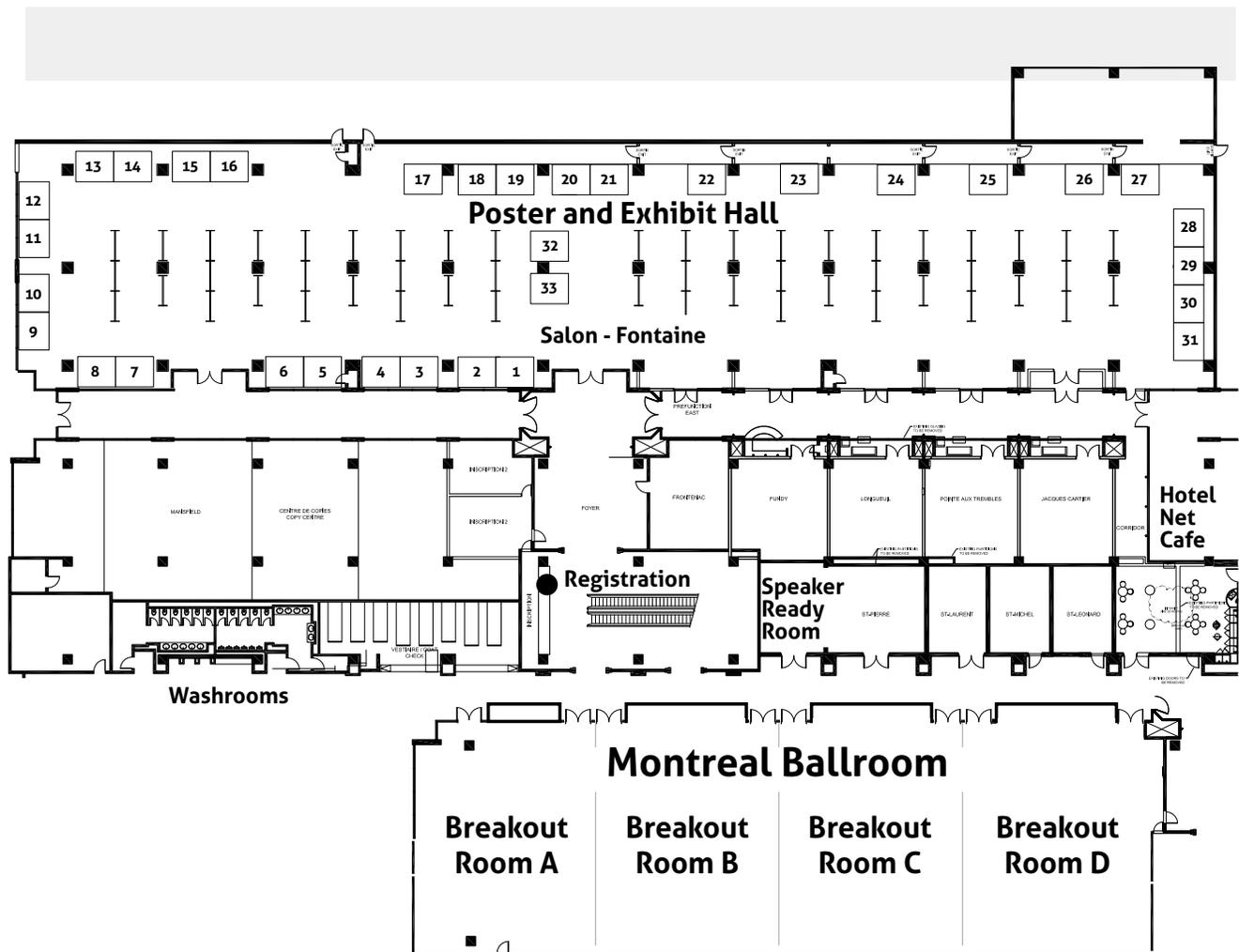
The hotel offers a selection of food and drinks for sale in the Net Cafe, and at portable kiosks on the conference floor.

Menu item	Price (Including Taxes & Service)
Coffee, Tea, Herbal Tea	\$ 3.50
Bottled Juice, Soft Drinks, Bottled Water	\$ 4.00
Muffin, Croissant	\$ 3.50
Brownies	\$ 3.00
Home Baked Cookies	\$ 3.50
Granola Bars	\$ 3.50
Whole Fresh Fruit	\$ 3.00
Sliced Fruits Package	\$ 7.50
“Half” Lunch Box (Half Sandwich, Vegetable Sticks, Dip)	\$ 8.00
Sandwich	\$ 4.50
Green Salad, Dressing	\$ 6.00
Vegetable Sticks, Dip	\$ 6.00
Individual Bags of Chips	\$ 3.00
Chocolate Bar (Candy Bar)	\$ 3.00

Food Sales

Food courts are located in the basement of the hotel building, and in the Montreal Central Train Station, next door to the hotel.

Check out the Local Places in the CAN Conference App for more options.



Exhibitor	Booth Number
Fine Science Tools	1
CIHR Institute of Neurosciences, Mental Health and Addiction	2
Huron Technologies International Inc.	3
Leica Microsystems (Canada) Inc	4
Blackrock Microsystems	5
Tucker-Davis Technologies	6
ADInstruments	7
Douglas Hospital Research Center	8
Clever Sys Inc.	9
ROXON MEDI-TECH LTD.	10
Plexon Inc.	11
VPixx Technologies Inc.	12
Precision NanoSystems Inc.	13
EMD Millipore	14
Alzet Osmotic Pumps / Durect Corp	15
Lafayette Campden Neuroscience	16
PeproTech, Inc.	17

Exhibitor	Booth Number
Harvard Apparatus Canada	18
Stoelting Co.	19
Olympus Canada Inc.	20
Noldus Information Technology Inc.	21
Hotchkiss Brain Institute, University of Calgary	22
ABCAM	23
HEKA Electronics Inc.	24
Brain Vision LLC	25
Mouse Specifics, Inc.	26
Parkinson Society Canada - Société Parkinson Canada	27
Nikon Canada Inc.	28
StressMarq Biosciences Inc.	29
VIEWPOINTLIFESCIENCES	30
Metris B.V	31
Biopac Systems Canada Inc	32
MycROsite L.L.C.	33

AWARD WINNERS

2014 CAN Young Investigator Awardees

The Canadian Association for Neuroscience is proud to announce that **Dr. Stephanie Borgland**, from the Hotchkiss Brain Institute at University of Calgary, and **Dr. Brian Chen**, from the Centre for Research in Neuroscience at McGill University, are both winners of CAN Young Investigator Awards for 2014. Dr. Brian E Chen and Stephanie L Borgland were both judged equally deserving of this distinction, which recognizes excellence in neuroscience research in a young neuroscientist. **The Young Investigator Award lectures will take place on Tuesday, May 27 from 5:00pm - 6:00pm in the Montreal Ballroom**



Brian E Chen

The Canadian Association for Neuroscience is proud to announce that **Dr. Brian E Chen**, from the Centre for Research in Neuroscience at McGill University is awarded a Young Investigator Award for 2014.

Dr. Brian E Chen seeks to understand how the instructions to wire up a brain are encoded within the genome. His research uses a combination of high-resolution imaging techniques with advanced molecular genetics to look inside the brains of living animals while their neurons form synaptic connections. Dr. Chen's lab uses both invertebrate model organisms to help identify basic genes involved in neural wiring, and vertebrate to relate these implications to the human brain. Dr. Chen's research will provide insight into how the brain's wiring diagram is encoded in the genome, and how these instructions malfunction in mental disorders.

Dr. Chen's research accomplishments demonstrate his ability to address central questions in the field of neuroscience. His research has helped deepen our understanding of the mechanisms underlying neural wiring, and the genetic causes of intellectual disabilities such as Fragile X, Down syndrome, and autism. His important research has been published in high impact journals such as Nature, Cell, and Nature Neuroscience.

Dr. Brian Chen received his PhD in Neurobiology from the State University of New York at Stony Brook at the age of 24, where he worked with Dr. Karel Svoboda at the Cold Spring Harbor Laboratory. Dr. Chen then moved to a post-doctoral fellow position at the Dana-Farber Cancer Institute at Harvard Medical School working with Dr. Dietmar Schmucker until 2006, when he moved to a second post-doctoral position at Harvard where he won a Merck Award for Genome Related Research working with Dr. Joshua Sanes. In 2009, he joined McGill University to start his own lab as a new Investigator. He was awarded the Canada Research Chair in Neural Circuit Formation in 2009, and the Sloan Research Fellowship in 2011 from the Alfred P. Sloan Foundation. His research has produced major insights into our understanding of the cellular and molecular basis of neuronal circuit formation and refinement.

Please visit Dr. Chen's website for more information about his research: brianchenlab.mcgill.ca and genedig.org for his genomics app.

Young Investigator Award Lecture Abstract:

The overall goal of my research is to **understand how genetic information enables a brain to self-assemble and learn**. Deciphering the complex instructions within our genes that encode the wiring diagram of the brain will provide valuable insight into how these pre-specified programs go awry in abnormal brain development such as in Down syndrome. I will discuss three projects in the lab in pursuit of my long-standing goal to identify and characterize all of the molecules required to create a neuron's hard-wired synaptic targeting pattern, and re-create this synaptic connectivity in other neurons to re-wire their circuits and predictably alter the behavior of the animal.



Stephanie L Borgland

The Canadian Association for Neuroscience is proud to announce that **Dr. Stephanie L Borgland**, from the Hotchkiss Brain Institute and University of Calgary, is awarded a Young Investigator Award for 2014.

Dr. Stephanie L Borgland studies the neuroscience behind aberrant motivation related to addiction and obesity. In our society, the level of public awareness on the health effects of obesity is ample enough that most people that become obese overeat despite the knowledge that the consequences will be harmful. Similarly, a key feature of drug addiction is the loss of inhibitory control over drug-seeking and taking despite negative consequences. The mechanisms in the brain underlying abnormally heightened motivation leading to obesity and addiction may be similar. Dr. Borgland, an addiction expert, and her research team focus on the neural mechanisms that underlie eating for reasons other than hunger.

Dr. Borgland is internationally known for her innovative work in neuroscience and has made a number of significant contributions that have been published in top journals in neuroscience (including Nature Neuroscience, Neuron, The Journal of Neuroscience and Biological Psychiatry). Her lab uses a combination of techniques to explore how areas of the brain involved in evaluating reward and motivating behaviour are rewired by consumption of high fat foods. The laboratory has made exciting discoveries on how peptides that signal satiety, such as insulin and leptin, modulate dopamine neurons involved in reinforcement and motivation. This understanding is of key importance to determining the neurobiological factors underlying the promotion and the termination of eating.

For more information about Dr. Borgland and her research, please visit her profile at the Hotchkiss Brain Institute: www.hbi.ucalgary.ca/members/borgland

Young Investigator Award Lecture Abstract:

Does a junk food binge promote future feeding? Short-term access to palatable food causes a long lasting increase in synaptic efficacy in the VTA.

In an environment rich in easily accessible palatable foods, it is no surprise that one consumes beyond homeostatic needs. However, little is known about the synaptic and cellular mechanisms that underlie non-homeostatic feeding. Dopamine neurons of the ventral tegmental area (VTA) are part of a critical circuit for the motivation to obtain food. These neurons respond to cues that predict food or drug rewards by increasing phasic firing. This burst-like firing activity of VTA dopamine neurons requires glutamatergic signaling. Thus, how excitatory synaptic transmission is modulated within the VTA under physiological and pathophysiological states is of great interest. Our previous work has demonstrated that insulin can suppress excitatory synaptic transmission onto dopamine neurons via an endocannabinoid-mediated mechanism. Additionally, insulin administered to the VTA can decrease hedonic feeding or conditioned place preference for palatable food. One or 24 hour access to palatable food induces an endocannabinoid-mediated synaptic depression. However, with 24 hour access to palatable food, the synaptic depression was offset by an increase in glutamatergic synaptic density onto dopamine neurons. This was followed days later by an increase in glutamatergic synaptic strength that lasted at least a week. Furthermore, latencies to exit a dark box to an illuminated area containing palatable food was decreased in mice 48 hours after short-term access to palatable food. After the behavioural test, mice given short-term access to palatable food consumed more food than mice pre-exposed to a just a pellet of the food. These effects were blocked by intra-VTA insulin, a treatment known to reduce excitatory synaptic efficacy onto dopamine neurons. Taken together, short-term access to palatable food can cause a long-lasting increase of synaptic efficacy onto dopamine neurons and promote future food seeking.

BRAINSTAR AWARDEE TALKS 2014

Each year, since 2001, the Institutes for Neurosciences, Mental Health and Addiction (INMHA) of the Canadian Institutes of Health Research (CIHR) selects up to 15 great research articles and award their authors a Brain Star Award. These awards were designed to recognize the excellence of research done in Canada by students and trainees in all fields and disciplines covered by INMHA, to promote research careers in neuroscience, mental health and addiction in Canada, and to stimulate the participation of trainees in the planning and development of INMHA activities.

The top three Brain Star Awardees are invited by INMHA and CAN to present their award-winning research at the Canadian Neuroscience Meeting. INMHA also gives the recipient a prize of \$1500, and recognition on the INMHA website and communications.

Kaylena A. Ehgoetz Martens University of Waterloo

Freezing of Gait in Parkinson's Disease: A Mysterious Phenomenon with an Unknown Neural Mechanism

Monday, May 26 9:30am - 9:45am

Freezing of gait (FOG) is a unique and severely debilitating phenomenon that appears as a sudden failure to be able to continue or maintain walking. It often leads to falls, hospitalization and eventually immobilization, in Parkinson's disease and many other neurological populations. This sudden interruption to movement has puzzled researchers and clinicians, since the underlying cause of FOG remains unknown. Recently, many hypotheses have been proposed to attempt to explain this interesting phenomenon, but FOG continues to be a highly debated issue. To date there are no universal models that can explain the underlying neural mechanism of FOG.

The focus of my research is to understand the underlying brain mechanisms of freezing of gait (FOG). Some of the most common situations that provoke FOG involve a change in visual environment, such as turning, or passing through a doorway, where integration of vision and proprioception is fundamental. Interestingly, sensory impairments are well-established in PD but have never been considered to contribute to FOG. The current work focused on manipulating different sensory feedback by having patients walk toward a doorframe in complete darkness in order to identify whether sensory-perceptual deficits were in fact contributing to these arrests in walking. This research was the first to study FOG in the dark, which astoundingly elicited over 150 FOG episodes which is a record number of freezes in any experimental setting. Thus, this unique protocol uncovered a useful method of eliciting FOG, since FOG is very difficult to trigger in experimental settings. We found that FOG was reduced during conditions where the doorframe or participants' body was illuminated which suggest that

AWARD WINNERS

proprioceptive deficits might be contributing to FOG. One of the most important findings of this study was the potential link between threat and anxiety and freezing of gait in PD, since significantly more FOG episodes occurred when participants walked toward a doorframe in complete darkness compared to open space in complete darkness (visually identical conditions). Until recently, no study has considered whether anxiety might be a cause of FOG, thus a follow-up study directly compared FOG when walking in anxious situations compared to non-anxious situation by using virtual reality.

By understanding the brain mechanisms of freezing of gait, we can begin to develop new treatments and prevention strategies in order to reduce the burden on patients living with this debilitating symptom and ultimately improve their quality of life.

Francesco Ferrini Department of Veterinary Sciences, University of Turin, Turin, Italy

Microglia-mediated alteration of Cl⁻ homeostasis underlies morphine hyperalgesia

Tuesday, May 27 9:30am - 9:45am

Opioid analgesics remain the pharmacological cornerstone of modern pain therapy but their use is plagued by severe side effects that leave patients without adequate pain control: paradoxical hyperalgesia (increased pain sensitivity) and analgesic tolerance (loss in pain relieving effects) are unfortunate results. As a consequence, morphine hyperalgesia and tolerance are the major limiting factors for a prolonged use of morphine, especially in the treatment of chronic pain. Increasing evidence suggest that spinal microglia take part in the onset of these unwanted effects.

In the present study, we examined the importance of microglia-neuron interaction in the development of morphine-induced hyperalgesia and analgesic tolerance.

We found that morphine administration alters Cl⁻ homeostasis in pain-transmitting neurons of the spinal dorsal horn through the downregulation of KCC2, the main neuronal Cl⁻ extruder. A reduced Cl⁻ extrusion capacity results in increased Cl⁻ accumulation, which weakens the strength of synaptic inhibition. Restoring synaptic inhibition or blocking the BDNF receptor TrkB reversed morphine-induced hyperalgesia, without affecting tolerance. Similarly, preventing the activation of microglia or ablating spinal microglia specifically attenuated morphine hyperalgesia with no effects on tolerance. By intrathecal injections of morphine-activated microglia and in vivo behavioral analysis of transgenic mice we were able to dissect the biochemical processes underlying microglia-neuron communication. Morphine was shown to drive P2X4 receptor expression in microglia which in turn gates the release of BDNF. In addition, we found that mice lacking BDNF in microglia show normal morphine analgesia and tolerance, but do not develop hyperalgesia.

Collectively, our results suggest microglia-to-neuron signaling mediated by the P2X4-BDNF-KCC2 pathway is critically involved in the development of opioid induce hyperalgesia, but not tolerance. By teasing apart the core sequence of signaling events and molecules, we dissociated key mechanisms of morphine hyperalgesia from that of tolerance. Our findings also established a commonality in mechanisms between morphine-induced hyperalgesia, and the sequelae of neuropathic pain. Thus, restoring synaptic inhibition in the spinal dorsal horn may represent a novel strategy for controlling morphine-induced hyperalgesia without affecting morphine analgesia.

Marc Bergeron Centre de Recherche de l'Institut Universitaire en Santé Mentale de Québec (CRIUSMQ)

Chloride extrusion enhancers as novel therapeutics for neurological diseases

Wednesday, May 28 9:30am - 9:45am

The K⁺-Cl⁻ cotransporter KCC2 is responsible for maintaining low Cl⁻ concentration in neurons of the central nervous system (CNS), essential for postsynaptic inhibition through GABAA and glycine receptors. While no CNS disorders have been associated with KCC2 mutations, loss of activity of this transporter has emerged as a key mechanism underlying several neurological and psychiatric disorders including epilepsy, motor spasticity, stress, anxiety, schizophrenia, morphine-induced hyperalgesia and chronic pain. Recent reports indicate that enhancing KCC2 activity may be the favoured therapeutic strategy to restore inhibition and normal function in pathological condition involving impaired Cl⁻ transport. We designed an assay for high-throughput screening which led to the identification of KCC2 activators that reduce [Cl⁻]_i. Optimization of a first-in-class arylmethylidene family of compounds resulted in a KCC2-selective analog (CLP257) that lowers [Cl⁻]_i. CLP257 restored impaired Cl⁻ transport in neurons with diminished KCC2 activity. The compound rescued KCC2 plasma membrane expression, renormalised stimulus-evoked responses in spinal nociceptive pathways sensitized after nerve injury and alleviated hypersensitivity in a rat model of neuropathic pain. Oral efficacy for analgesia equivalent to that of Pregabalin but without motor impairment was achievable with a CLP257 prodrug. These results validate KCC2 as a druggable target for CNS diseases.

SPECIAL MEETINGS & SOCIAL EVENTS

Sunday, May 25, 2014

5:45 – 6:45 PM **Presidential Lecture: Lynn A. Raymond**, University of British Columbia
Location: Montréal Ballroom

6:45 – 8:00 PM **Opening Reception**
Location: Montreal Ballroom Foyer

Monday, May 26, 2014

5:30 – 7:00 PM **Parkinson Society Canada Donald Calne Award & Lecture**
Location: Bonaventure Room

Reception: 5:30 PM **Parkinson Society Canada – 11th Donald Calne Lecture**



6:00 – 7:00 PM **Dr. Rajput**, will speak about the findings of his longitudinal study of brain tissue affected by Parkinson's disease, an autopsy-based program known as the best of its kind in the world. This Saskatchewan-based autopsy program has greatly contributed to the global knowledge of Parkinson's disease.
Meeting room: Bonaventure room

Parkinson Disease Research - The Saskatchewan Way

Presenter: **Dr. Ali H. Rajput**,
Royal University Hospital Saskatoon

5:30 – 6:30 PM
Meeting room: Breakout Room A

How to Succeed in Academic Science - Career Development Workshop

How does one succeed in graduate school, choose the correct postdoctoral fellowship, publish in high impact journals, become an attractive candidate for Assistant Professorship search committees, and build a successful new lab? What is the life of an Academic Research Scientist really like, and is it right for you? The Academic career path requires developing a complex assortment of skill sets, and an early understanding the challenges one will face allows for rational planning. All of these issues will be open for discussion by a panel of early- and mid-career faculty from across Canada, who will answer your questions in an open panel format.

5:30 – 6:30 PM
Meeting room: Breakout Room B

Implicit Gender Bias Workshop

Run by **Dr. Anne Etgen** of
Increasing Women in Neuroscience
(IWiN) of the Society for Neuroscience

To fuel discovery, science needs a diversity of minds, perspectives, and voices. Research has shown that diverse teams make for better science and lead to better results. Over the last several decades, great progress has been made to increase the ranks of female scientists. Yet women remain underrepresented within STEM (science, technology, engineering and math) fields, including neuroscience. While data show that progress has been made in early-career stages, with women now comprising a majority of PhDs, the problem worsens considerably at the upper ranks of academia where the number of women faculty has failed to keep up with the number of women pursuing higher education in the sciences. Learn how implicit bias, often subtle and based on cultural stereotypes, influences the recruitment, promotion, and retention of women and diverse faculty in higher education. This workshop will be run by **Dr. Anne Etgen**, Professor Emerita of neuroscience, psychiatry and behavioral sciences, obstetrics and gynecology, and pediatrics at the Albert Einstein College of Medicine.

5:30 – 6:30 PM
Meeting room: Breakout Room C

Publishing 2.0: Can we change the publishing system in researchers' best interests?

With the advent of online journals the entire landscape of scientific publishing is shifting. This provides exciting opportunities for scientists, trainees and granting agencies to shape the world of publishing more toward the interests of research and researchers than for-profit publishing companies. A panel will discuss scientific publishing today and possibilities for changing the system over the next years. Participants will include **Mark Patterson** from *eLife* (a new open access journal, launched by three prominent international funding agencies), Canadian researchers at various career stages (postdoctoral fellow to senior principal investigator), and a representatives from Canadian funding agencies (CIHR).

7:30 – 9:30 PM

CAN Student Social

Location: Thomson House Annex Downtown McGill University Campus

3650A rue McTavish, Montreal

One drink free and free sandwiches and chips. The map and directions are available on the Conference App

Tuesday, May 27, 2014

6:00 – 7:00 PM **Keynote Lecture: Michael E. Greenberg**, Harvard Medical School
Location: Montréal Ballroom

PROGRAM AT A GLANCE

Time	Sunday May 25	Monday May 26	Tuesday May 27	Wednesday May 28			
8:30	CAN Satellite Neuroscience careers in government and industry - pre-registration only CAN Satellite Linking primate brain circuits to behavior: advancements and applications - pre-registration only Registration Desk Open	Registration & Conference Information Desk Open Exhibits Open, Posters on Display	Registration & Conference Information Desk Open Exhibits Open, Posters on Display	Registration & Conference Information Desk Open Exhibits Open, Posters on Display			
8:45					Plenary Speaker-Ed Boyden <i>Tools for mapping brain computations</i>	Plenary Speaker-Eric Nestler <i>Transcriptional and epigenetic mechanisms of drug addiction</i>	Plenary Speaker-Jay Gottfried <i>All roads lead to smell: What odors can teach us about brain function</i>
9:00							
9:15							
930					Brainstar Awardee Talk 1	Brainstar Awardee Talk 2	Brainstar Awardee Talk 3
945							
1000							
1015					Coffee Break, Posters and Exhibits	Coffee Break, Posters and Exhibits	Coffee Break, Posters and Exhibits
1030							
1045							
1100		Plenary Symposium <i>Development and application of optogenetic tools</i>	Plenary Symposium <i>Mechanisms in learning reward value</i>	Plenary Symposium <i>The cognitive neuroscience of the senses</i>			
1115							
1130							
1145							
1200				Focus on Brain: new CQDM/Brain Canada partnership funding program in neurosciences to accelerate drug discovery			
1215		Posters and Exhibits Lunch on Own	Posters and Exhibits Lunch on Own				
1230							
1245							
100				Posters & Exhibits Lunch on Own			
115							
130		Parallel Symposia #1	Parallel Symposia #5				
145		Parallel Symposia #2	Parallel Symposia #6				
200		Parallel Symposia #3	Parallel Symposia #7				
215		Parallel Symposia #4	Parallel Symposia #8				
230							
245							
300				Coffee Break 2:00pm - 2:30pm			
315				CAN-ACN AGM			
330				Parallel Symposia #9			
345				Parallel Symposia #10			
400				Parallel Symposia #11			
415				Parallel Symposia #12			
430							
445							
500	Opening Presentation		Young Investigator Award Lectures				
515	YIA Presentation						
530	INMHA Anthony Philips	Parkinson Society Canada Donald Calne Award and Lecture					
545		Publishing 2.0					
600		Women in Neuroscience					
615	Presidential Lecture, Lynn Raymond, UBC	Career Development	Keynote Lecture Michael Greenberg, Harvard Medical School				
630							
645				End of Meeting			
700							
800	Opening Reception						
815		CAN Social 7:30 - 9:30pm					

ANNUAL CONFERENCE SCHEDULE

Saturday, May 24, 2014

3:00 – 5:00 PM **CAN 2014 Public Lecture:**
Jeanne Timmins Auditorium, *How life experiences impact on mental health*
Montreal Neurological Institute,
3801 University street
Michael Meaney, McGill University &
Gustavo Turecki, McGill University

Sunday, May 25, 2014

9:30 AM – 4:00 PM **Satellite**
Breakout Room C *Neuroscience careers in government and industry*

9:00 AM – 4:45 PM **Satellite**
Breakout Room D *Linking primate brain circuits to behavior: advancements and applications*

Montréal Ballroom **Welcome and Opening Remarks**

5:00 – 5:15 PM **Samuel David**, President of the Canadian Association for Neuroscience

CAN Young Investigator Award Presentation:

5:15 – 5:30 PM **Yves De Koninck**, Chair of the Nominations Committee

5:30 – 6:00 PM **Anthony Phillips**, Director of the Institutes of Neuroscience, Mental Health and Addiction, CIHR

Presidential Lecture

6:00 – 7:00 PM **Lynn A Raymond**, University of British Columbia
Montréal Ballroom *Mechanisms and neuroprotective strategies in neurodegeneration: Huntington disease can lead the way*

7:00 – 8:15 PM **Opening Reception**
Montréal Ballroom Foyer

Monday, May 26, 2014

8:30 – 9:30 AM **Featured Plenary Speaker**
Montréal Ballroom
Edward S. Boyden, MIT
Tools for mapping brain computations

9:30 – 9:45 AM **Brainstar Award Talk**
Montréal Ballroom
Kaylena Ehgoetz, University of Waterloo
Freezing of gait in parkinson's disease: A mysterious phenomenon with an unknown neural mechanism

9:45 – 10:00 AM **Coffee break - Poster & Exhibit Hall**

10:00– 11:00 AM **Posters & Exhibits**

11:00 AM – 12:00 PM **Plenary symposium**
Montréal Ballroom
Development and application of optogenetic tools
Chair: **Robert Campbell**, University of Alberta
Timothy H. Murphy, University of British Columbia
In vivo optogenetic assessment and control of mouse cortical circuits
Andrew Woolley, University of Toronto
Optogenetic control using photoactive yellow protein

ANNUAL CONFERENCE SCHEDULE

12:00 – 1:30 PM **Lunch on own** - Poster & Exhibit Hall

1:30 – 3:00 **Parallel Symposia**

Symposium 1 *Functional and dysfunctional regulation of brain blood flow*

Breakout Room A

Sponsored by **Hotchkiss Brain Institute**

Chair: **Grant Gordon**, Hotchkiss Brain Institute, University of Calgary

Speakers:

Grant Gordon, Hotchkiss Brain Institute, University of Calgary

Tonic activity-independent blood flow control by astrocytes

Bijoy Menon, Hotchkiss Brain Institute, University of Calgary

Pial Collaterals in humans: Imaging, hemodynamics, determinants and effect on clinical outcomes in patients with acute ischemic stroke

Ian R Winship, University of Alberta

Imaging and augmenting collateral blood flow in the brain during acute ischemic stroke

Campbell Teskey, Hotchkiss Brain Institute, University of Calgary

Seizures Induce a Severe Ischemic/Hypoxic Episode

Symposium 2 *Genetic and environmental regulation of gene expression and development of vulnerability to psychiatric disorders*

Breakout Room B

Sponsored by **Institut universitaire en santé mentale de Québec**

Chair: **Michael Meaney**, McGill University

Speakers:

Rosemary C Bagot, Mount Sinai, NY

Circuit-wide transcriptional profiling in a mouse model of depression

Timothy W. Bredy, University of Queensland

Role of DNA hydroxylation in regulating memory associated with fear-related anxiety disorder

Kieran J O'Donnel, McGill University

Epigenetics and early intervention: a study of DNA methylation in the nurse family partnership

Michael S. Kobor, University of British Columbia

Genomic embedding of early life experiences

Symposium 3 *Synaptic adhesion molecules: From synapse development to complex behavior*

Breakout Room C

Sponsored by **The Research Institute of the McGill University Health Centre**

Chair: **Valérie Mongrain**, University of Montréal &

Hideto Takahashi, University of Montréal

Speakers:

Hideto Takahashi, University of Montréal

Synaptogenic adhesion complexes for excitatory and inhibitory synapse development

Jason Lerch, SickKids Hospital

*Variable effects on brain and behaviour in mouse models featuring loss of function mutations in *Neurologin3*, *Neurexin1*, and *Cntnap2**

Valérie Mongrain, University of Montréal

Role of Neuroligins and Eph receptors in sleep regulation

Nahum Sonenberg, McGill University

Translational control of autism and Fragile-X syndrome

Symposium 4 *Moving toward an understanding of brain functioning using computational approaches*

Breakout Room D

Sponsored by **the Montreal Neurological Institute and Hospital – The Neuro**

Chair: **Frances K Skinner**, University of Toronto &

Maurice Chacron, McGill University

Speakers:

Eve Marder, Brandeis University

Variability, homeostasis and modulation in neural circuits

Tara Klassen, University of British Columbia

Multi-scale in silico modeling of personal ion channel gene mutations as a cause of epilepsy and brain mediated sudden death

Jesse Gillis, Cold Spring Harbor Lab

Gene networks for understanding brain function and dysfunction

Gunnar Blohm, Queen's University

Understanding sensory-to-motor transformations through network models

3:00 – 3:30 PM **Coffee break** – Poster & Exhibit Hall

3:00 – 5:30 PM **Posters & Exhibits**

5:30 PM **Parallel Sessions**

Career Development Sessions of Potential Interest to All (Choose your favorite!)

Bonaventure Room **Parkinson Society Canada Donald Calne Lecture** (of interest to all)

Breakout Room A **Career development workshop – Careers Inside Academia** (targeted to trainees and junior faculty)

Breakout Room B **Implicit Gender Bias Workshop** (of interest to all)

Breakout Room C **Publishing 2.0** (of interest to all)

7:15 – 8:45 PM **W. Garfield Weston Foundation Reception**

Invite only

7:30 – 9:30 PM **CAN Student Social**

Thomson House Annex Downtown McGill University Campus

Map and directions available on the Conference App

Tuesday, May 27, 2014

8:30 – 9:30 AM **Featured Plenary Speaker**

Montréal Ballroom

Eric Nestler, Mt. Sinai, NYC

Transcriptional and epigenetic mechanisms of drug addiction

Sponsored by **Fonds de recherche du Québec - Santé**

9:30 – 9:45 AM **Brainstar Award Talk**

Montréal Ballroom

Francesco Ferrini, University of Turin

Microglia-mediated alteration of Cl⁻ homeostasis underlies morphine hyperalgesia

9:45 – 10:00 AM **Coffee break** – Poster & Exhibit Hall

ANNUAL CONFERENCE SCHEDULE

10:00 – 11:00 AM **Posters & Exhibits**
Sponsored by **SickKids Center for Brain & Mental Health**

11:00 AM – 12:00 PM **Plenary symposium**
Montréal Ballroom *Mechanisms in learning reward value*
Sponsored by **the Canadian Institutes of Health Research**
Chair: **Stephanie Borgland**, Hotchkiss Brain Institute, University of Calgary
Jonathan Britt, McGill University
Dissecting the neural circuits underlying motivated behaviours relevant to reward learning and drug addiction
Stan Floresco, University of British Columbia
Dopaminergic circuits mediating risk/reward decision biases

12:00 – 1:30 PM **Lunch on own** - Posters & Exhibits

1:30 – 3:00 PM **Parallel Symposia**

Symposium 5 ***Large-scale brain dynamics: Combining insights from intracranial EEG and fMRI***
Breakout Room A
Sponsored by **Tucker-Davis Technologies**
Chairs: **Karim Jerbi**, University of Montréal & **Christopher Honey**, University of Toronto
Speakers:
Yuri Saalmann, University of Wisconsin
Thalamic control of cortical dynamics
Christopher Honey, University of Toronto
Large-scale patterns of rhythmic suppression in human cerebral cortex
Thilo Womelsdorf, York University
How single cell activity in prefrontal and anterior cingulate cortex contributes to large-scale network dynamics: State specific burst synchronization at beta and gamma band activity
Karim Jerbi, University of Montréal
The neurophysiological basis of the default-mode network

Symposium 6 ***Novel cellular and molecular mechanisms in the pathophysiology of parkinsonism***
Breakout Room B
Sponsored by **Department of Neurology and Neurosurgery at McGill University**
Chair: **Austen J Milnerwood**, University of British Columbia
Speakers:
Edward Fon, McGill University
Function of Parkin and PINK1 in mitochondrial Quality-Control
Louis-Eric Trudeau, University of Montréal
Axonal arborization and energetic metabolism of nigral dopamine neurons: A window into selective vulnerability
Martin Lévesque, Laval University
Multiple roles of Lmx1a and Lmx1b in dopaminergic axonal connectivity and maintenance
Austen J Milnerwood, University of British Columbia
Multiple Parkinson's disease-linked proteins regulate synaptic transmission and neurotransmitter receptor trafficking

Symposium 7 *New cuts by calpain to remodel the nervous system*

Breakout Room C

Sponsored by **Institut universitaire en santé mentale de Québec**

Chair: **Wayne Sossin**, McGill University

Speakers:

Tim O'Connor, University of British Columbia

Calpain activity maintains the stability of neurite morphology in Vivo

Mandana Amini, University of Ottawa

Dual nature of calpain in the CNS: Plasticity and Injury

Paul De Koninck, Laval University

A tail to memorize: Cleavage of synaptic GluN2B by calpain to support synaptic plasticity

Carole Abi Farah, McGill University

Role of typical and atypical calpains in cleavage of PKCs into PKMs for memory formation

Symposium 8 *Linking neural circuit dynamics to cognition and behaviour*

Breakout Room D

Chair: **Masami Tatsuno**, University of Lethbridge &

Paul Frankland, University of Toronto

Speakers:

Masami Tatsuno, University of Lethbridge

Role of sleep for motor skill learning

Jennie Young, MIT

Processing objects and space in the hippocampus

Matthijs van der Meer, University of Waterloo

Segmentation of spatial experience by theta oscillations

Kari Hoffman, York University

Hippocampal oscillations in monkey and humans during memory-guided visual search

3:00 – 3:30 PM **Coffee break** – Poster & Exhibit Hall

3:00 – 5:00 PM **Posters & Exhibits**
Sponsored by **SickKids Center for Brain & Mental Health**

5:00 – 6:00 PM **Young Investigator Award Lectures**
Montréal Ballroom Sponsored by **Faculty of Medicine - McGill University**
Stephanie Borgland, University of Calgary & **Brian Chen**, McGill University

6:00 – 7:00 PM **Keynote Lecture**
Montréal Ballroom **Michael E. Greenberg**, Harvard Medical School
Signaling networks that regulate synapse development and cognitive function

ANNUAL CONFERENCE SCHEDULE

Wednesday, May 28, 2014

8:30 – 9:30 AM **Featured Plenary Speaker**
Montréal Ballroom **Jay Gottfried**, Northwestern University
All roads lead to smell: What odors can teach us about brain function

9:30 – 9:45 AM **Brainstar Award Talk**
Montréal Ballroom **Marc Bergeron** (CRIUSMQ)
Chloride extrusion enhancers as novel therapeutics for neurological diseases

9:45 – 10:00 AM **Coffee break - Poster & Exhibit hall**

10:00 – 11:00 AM **Posters & Exhibits**

11:00 AM – 12:00 PM **Plenary symposium**
Montréal Ballroom *The cognitive neuroscience of the senses*
Chair: **Shayna Rosenbaum**, York University
Speakers:
Morris Moscovitch, University of Toronto
Spatial (and event) memory in humans and rodents
Ingrid Johnsrude, Queen's University
The role of prediction and attention in speech perception

12:00 – 1:00 PM **Lunch on own** - Posters & Exhibits

12:00 – 12:30 PM **Focus on Brain: new CQDM / Brain Canada partnership funding program in neurosciences to accelerate drug discovery**

1:00 – 3:00 PM **Posters & Exhibits**

2:00 – 2:30 PM **Coffee break** – Poster & Exhibit Hall

3:00 – 3:30 PM **CAN-ACN Annual General Meeting**
Breakout Room A All CAN members invited to attend

3:30 – 5:00 **Parallel symposia**

Symposium 9 *An unexpected roundtrip journey through the hippocampal trisynaptic excitatory network*
Breakout Room A Sponsored by **Institut universitaire en santé mentale de Québec**
Chair: **Jean-Claude Béïque**, University of Ottawa
Speakers:
Katalin Toth, Laval University
Synaptic vesicle dynamics and the timing and efficacy of glutamate release at hippocampal mossy fibre terminals
Richard Robitaille, University of Montréal
Astrocytes detect and regulate basal synaptic transmission at single CA1 synapses
Jean-Claude Béïque, University of Ottawa
Developmentally-regulated spatiotemporal features of calcium signaling at CA1 glutamatergic synapses
Sylvain Williams, McGill University
New mechanisms for bidirectional communication in the trisynaptic glutamatergic circuit of the hippocampus

Symposium 10 *Novel Pharmacology of Ion-Channels & Transporters*

Breakout Room B

Sponsored by **The Research Institute of the McGill University Health Centre**

Chairs: **Derek Bowie**, McGill University &
Yu-Tian Wang, University of British Columbia

Speakers:

Yu-Tian Wang, University of British Columbia

Allosteric potentiation of synaptic inhibition by excitatory neurotransmitters

Brent Dawe, McGill University

Sodium ion On/Off switch for ionotropic glutamate receptors

Anne McKinney, McGill University

Na⁺/H⁺ exchanger NHE6, X-linked intellectual disability and autism

Yves De Koninck, Laval University

Chloride dysregulation; a culprit for several brain diseases

Symposium 11 *Alzheimer's disease molecular mechanisms and therapeutics*

Breakout Room C

Chairs: **Marco AM Prado**, Robarts RI &
Douglas P. Munoz, Queen's University

Speakers:

Weihong Song, University of British Columbia

The role of BACE1 in Alzheimer's Disease Pathogenesis

Marco AM Prado, Robarts RI

Chaperoning neurotoxicity in Alzheimer's disease

Douglas P. Munoz, Queen's University

Role of beta oligomers in triggering Alzheimer's like pathology and the role of insulin receptor signalling in neuroprotection

R. Jane Rylett, University of Western Ontario

Multiple roles of cholinergic neurons in the modulation of amyloid production

Symposium 12 *Comfort feeding: Functional interplay between feeding behaviour, stress and emotionality*

Breakout Room D

Sponsored by **the Douglas Mental Health University Institute**

Chair: **Barbara Woodside**, Concordia University

Speakers:

Alfonso Abizaid, Carleton University

Ghrelin signaling drives social stress - mediated obesity

Matthew Hill, Hotchkiss Brain Institute, University of Calgary

Glucocorticoid hormones recruit endocannabinoid signaling to promote obesity and metabolic syndrome

Claire-Dominique Walker, McGill University

Early life exposure to high fat diet modulates the development and maturation of stress responses

Stephanie Fulton, University of Montréal

Nutritional, metabolic and neural signals connecting obesity and depression

– END OF MEETING –

PLENARY SYMPOSIA AND KEYNOTE SESSIONS

Sunday, May 25

Presidential Lecture:

Lynn Raymond, University of British Columbia

Mechanisms and neuroprotective strategies in neurodegeneration: Huntington disease can lead the way

Evidence indicates that NMDA-type glutamate receptor (NMDAR)-induced synaptic loss and neuronal dysfunction/death contributes to mechanisms underlying certain neurodegenerative diseases and acute neurological insults. Yet, cell signaling downstream of NMDARs can promote cell survival and plasticity as well as excitotoxicity, which may help explain why general NMDAR inhibitors have failed in clinical trials. A new paradigm developed over the past decade suggests that over-stimulation of extrasynaptic NMDARs triggers stress/death pathways whereas physiological activation of those inside the synapse contributes to cell survival, raising the possibility of neuroprotection based on subcellular localization. This idea has been tested in the inherited, predominantly adult onset, neurodegenerative disorder Huntington disease (HD), which manifests as progressive motor, mood and cognitive impairment. Caused by a polymorphic CAG repeat expansion in the *HD* gene that encodes an enlarged polyglutamine tract in the protein huntingtin, HD is associated with selective neurodegeneration, principally of striatal GABAergic spiny projection neurons (SPN) and cortical pyramidal neurons. Genetically accurate mouse models have facilitated understanding of HD pathogenesis. In one HD mouse model (YAC128), we have shown an increase in number, activity, and downstream signaling of extrasynaptic NMDARs on SPN beginning in the early postnatal period; selective inhibition of these receptors from an early age ameliorates later stage cell death signaling and also improves motor learning and coordination. Moreover, we and others have identified additional synaptic alterations that occur prior to overt motor manifestations. In particular, we have characterized morphological and electrophysiological changes in cortical-striatal co-cultures from HD mice, a simple model system that can serve as a platform for testing therapeutics. Since HD gene mutation carriers can be identified decades before clinical diagnosis, targeting early changes in cortical-striatal synaptic transmission may significantly delay onset of manifest disease.

Supported by the CIHR, Huntington Society of Canada, Cure Huntington Disease Initiative, and Michael Smith Foundation for Health Research.

Monday, May 26

Featured Plenary Speaker:

Edward S. Boyden, MIT

Tools for mapping brain computations

The brain is a densely and precisely wired circuit made of heterogeneous cells, which themselves are complex computational devices made of an incredible repertoire of molecules. Our group develops tools for mapping, recording from, controlling, and building brain circuits, in order to reveal how they work, as well as to open up new therapeutic avenues. We have developed genetically-encoded reagents that, when expressed in

specific neurons, enable their electrical activities to be precisely driven or silenced in response to millisecond timescale pulses of light. I will give an overview of these optogenetic tools, adapted from natural photosensory and photosynthetic proteins, and discuss new tools we are developing, including molecules that enable multiplexed, noninvasive, and ultraprecise optical neural control. We are also developing optogenetic tools that enable activation of endogenous protein and signaling pathways (e.g., limitoxins). Often working in interdisciplinary collaborations, we are developing microfabricated hardware to enable complex and distributed neural circuits to be controlled and recorded in a fully 3-D fashion, new kinds of microscopes capable of whole-nervous system neural activity imaging, robots that can automatically record neurons intracellularly and integratively in live brain, and strategies for building 3-D brain circuits in vitro. We aim to provide these tools to the neuroscience community in order to open up new fundamental as well as clinically relevant explorations of how to observe and repair brain circuits.

Plenary Symposium:

Development and application of optogenetic tools

Chair: **Robert Campbell**, University of Alberta

Timothy H Murphy, University of British Columbia

In vivo optogenetic assessment and control of mouse cortical circuits

Optogenetics employs light to measure brain activity by assessing the effect of membrane voltage, intracellular calcium, or even extracellular neurotransmitter concentration on recombinant protein sensors. A second class of recombinant proteins-light-activated actuators, alter circuit function by activating excitatory or inhibitory ion channels or pumps. Relatively non-invasive through-skull in vivo imaging and optical manipulation of cortex will be discussed. To assess changes in functional connectivity after stroke, we have developed an automated approach to monitor intrahemispheric and interhemispheric relationships by the activation of ChR2-expressing cortical neurons. To monitor regional cortical activity we employ organic voltage sensitive dyes or genetically encoded sensors. In vivo imaging of functional connectivity is extended genetically-encoded indicators of intracellular calcium using GCaMPs, glutamate iGluSNFR, and voltage sensitive fluorescent protein butterfly (VSPF-butterfly). We apply network analysis to connection matrices derived from functional maps to elucidate reciprocal connections between primary and secondary sensory areas, identify network hubs, and determine symmetries within intracortical connectivity. Comparisons of functional connectivity maps to the cortical structural connectome (Allen Institute) indicate that intracortical monosynaptic structural connections predict hemisphere-wide patterns of spontaneous and sensory-evoked depolarization. A new approach to stroke damage is to treat it as a disorder of connectivity and loss of function. The talk will provide an introduction into circuit-level optogenetic actuators and sensors, circuitry database such as the Allen Institute Mouse Brain Connectivity Atlas, and how these approaches can be applied to stroke damage.

Andrew Woolley, University of Toronto

Optogenetic control using photoactive yellow protein

Numerous processes, in addition to the firing of action potentials, that are of interest to neuroscientists exhibit complex spatiotemporal patterns of activity. Optogenetic tools for manipulation of these processes could offer new ways to probe the function in vivo. In addition to channelrhodopsins, a number of other photoswitchable domains exist that may be harnessed to control function. Strategies for achieving this have thus far relied mainly on control of protein localization. Photoactive yellow protein, a small, cytosolic domain, undergoes a particularly large change in conformation and dynamics upon exposure to blue light. This feature has allowed us to develop strategies to couple to PYP isomerization to changes in target protein function with affecting protein localization. In particular we have developed an approach to the optogenetic control of CREB activity by linking PYP to a dominant negative CREB inhibitor. Approaches to the photo-control of this and other targets of interest to neuroscientists will be discussed.

Tuesday, May 27

Featured Plenary Speaker:

Eric Neslter, Mt Sinai, NYC

Transcriptional and epigenetic mechanisms of drug addiction

Sponsored by:

Fonds de recherche du Québec – Santé



Drug addiction can be viewed as a stable form of drug-induced neural plasticity, whereby long-lasting changes in gene expression mediate some of the stable behavioral abnormalities that define an addicted state. Our laboratory has focused on two main transcriptional pathways in addiction. Chronic exposure to cocaine or opiates causes the prolonged activation of the transcription factor CREB within the brain's reward circuits and several other brain regions, and this adaptation mediates aspects of drug tolerance and dependence. In contrast, induction of another transcription factor, DeltaFosB, in brain reward regions by virtually all drugs of abuse exerts the opposite effect and contributes to sensitized responses to drug exposure. Studies are underway to explore the detailed molecular mechanisms by which CREB and DeltaFosB regulate target genes and thereby contribute to the complex state of addiction. One way to approach such molecular mechanisms of drug action in vivo is through the study of chromatin remodeling, that is, changes in the acetylation or methylation of histones that bind to certain drug-regulated gene promoters, or changes in methylation of the genes themselves, as revealed by chromatin immunoprecipitation (ChIP). We are utilizing ChIP to examine chromatin changes at specific candidate genes for CREB and DeltaFosB, as well as genome-wide measures to gain a more global view of target genes for these transcription factors. Prominent among

these targets are those that regulate synaptic function and plasticity as well as the morphology of drug-regulated neurons. We have also demonstrated drug regulation of some of the enzymes that catalyze chromatin modifications, which indicates that chromatin remodeling mechanisms are themselves important targets of drug action. These findings establish chromatin remodeling as an important regulatory mechanism underlying drug-induced neural and behavioral plasticity, and provide fundamentally new insight into how CREB and DeltaFosB, and several other drug-regulated transcription factors, contribute to addiction by regulating the expression of specific target genes in the brain's reward circuitry. These advances can now be mined to develop improved diagnostic tests and treatments for addictive disorders.

Plenary Symposium:

Mechanisms in learning reward value

Sponsored by:

The Canadian Institutes of Health Research (CIHR)



Chair: **Stephanie Borgland**, Hotchkiss Brain Institute, University of Calgary

Jonathan Britt, McGill University

Dissecting the neural circuits underlying motivated behaviours relevant to reward learning and drug addiction

The nucleus accumbens plays a major role in the generation of motivated behaviour. It integrates dopaminergic reinforcement signals with glutamate-encoded environmental stimuli. Prominent glutamate afferents to the nucleus accumbens come from the hippocampus, amygdala, thalamus, and prefrontal cortex. Pathway-specific activation of these inputs is known to produce distinct behavioral responses, but mechanistic explanations for these pathway-specific effects are lacking. This talk examines the pathway-specific differences in synaptic properties and innervation patterns between these glutamatergic inputs to the nucleus accumbens. While there are important distinctions between these afferent connections, optogenetic stimulations targeted to any of them can reinforce instrumental behaviour. This finding challenges the idea that these inputs encode motivationally-neutral information. Mice will also work to obtain optical manipulations to projections neurons throughout the striatum as well as downstream structures, but, regardless of which basal ganglia nuclei are targeted for self-stimulation, the behaviour is always sensitive to dopamine receptor blockade. This work characterizes some of the fundamental organizing principles of basal ganglia information processing.

PLENARY SYMPOSIA AND KEYNOTE SESSIONS

Stan Floresco, University of British Columbia

Dopaminergic circuits mediating risk/reward decision biases

Choosing between smaller, assured rewards or larger, uncertain ones requires reconciliation of competing biases towards more certain or riskier options. These conflicting urges reflect an interplay between distributed neural circuits linking the frontal lobes to subcortical regions processing emotional and reward-related information that in turn influence response selection. Each of these regions is interconnected with the dopamine system. Our studies have used a probabilistic discounting task to probe the interactions between these systems in regulating risk/reward decision making. Data will be reviewed showing that subcortical circuitry linking the amygdala and the ventral striatum appears to promote a more visceral bias towards larger, uncertain rewards, whereas prefrontal regions serve to temper these urges when riskier options become less profitable via top-down control over the amygdala. Dopamine D1/D2 transmission within these regions also makes dissociable, yet complementary, contributions to risk/reward judgments, promoting either exploitation of current favorable circumstances or exploration of more profitable ones when conditions change. Dynamic fluctuations in prefrontal and accumbens tonic dopamine transmission appear to encode distinct types of information related to decision making related to changes in reward availability, uncertainty and choice biases. On the other hand, phasic increases and decreases in dopamine activity, regulated in part by the lateral habenula, appear to play a key role in providing short-term information about recent outcomes that bias subsequent choice. These findings provide insight into the dynamic competition between cortical/subcortical circuits that shape decision biases and underlie conflicting urges when evaluating options that vary in terms of potential risks and rewards.

Keynote Lecture:

Michael E. Greenberg, Harvard Medical School

Signaling networks that regulate synapse development and cognitive function

Our interactions with the outside world trigger changes at synapses that are critical for proper brain development and higher cognitive function. Research in the Greenberg laboratory has focused on the identification of a genetic program that is activated by neuronal activity, the mechanisms of signal transduction that carry the neuronal activity-dependent signal from the membrane to the nucleus, and the identification of regulators of this experience-dependent process that affect synapse development and plasticity. Our recent studies using global screening techniques have identified activity-dependent genes that control 1) the complexity of the dendritic arbor, 2) the formation and maturation of excitatory and inhibitory synapses, 3) the composition of protein complexes at the pre- and post-synaptic sites, and 4) the production and secretion of neuropeptides that control neural circuit development. These activity-regulated processes are critical for normal brain development and function, and defects in the activity-dependent gene program contribute to disorders of human cognition such as Rett Syndrome (RTT) and Angelman Syndrome (AS), two

neurological disorders associated with syndromic autism. Understanding how the neuronal activity-dependent gene program functions may provide insight into how the dysregulation of this process leads to neurological diseases and, ultimately, may suggest therapies for treatment of disorders of cognitive function.

Wednesday, May 28

Featured Plenary Speaker:

Jay Gottfried, Northwestern University

All roads lead to smell: What odors can teach us about brain function

An essential function of the brain is to encode and interpret the behavioral salience of stimuli encountered in the environment. Throughout much of the animal kingdom, odors are essential for directing animals toward a wide array of salient stimuli, including foods, friends, and friends with benefits (mates) -- it follows that the olfactory system should share intimate anatomical overlap with limbic brain regions involved in the control of emotion, decision making, and goal-directed behavior. Research in our lab combines sensory psychophysics with functional MRI, multivariate pattern-based analysis, and intracranial EEG recordings to investigate olfactory functional organization in the human animal, whose ability to talk and provide ratings of their experiences offers a highly tractable way to relate brain activity patterns directly to perception. This presentation will include an overview of recent studies examining the impact of attentional states on olfactory predictive coding, and the interactions of smells and sleep in modulating fear memory. I will also focus on new data that address the mechanisms by which olfactory perceptual experience and associative learning drive the de novo formation of object categories in entorhinal cortex and orbitofrontal cortex. Finally, I will discuss how the mere act of odor sampling, i.e., sniffing, can profoundly shape network dynamics and oscillations in the human brain, with relevance for memory and behavior.

Plenary Symposium

The cognitive neuroscience of the senses

Sponsored by:

The Canadian Institutes of Health Research (CIHR)



Chair: **Shayna Rosenbaum**, York University

Morris Moscovitch, University of Toronto

Spatial (and event) memory in humans and rodents

Since the discovery of place cells, it has been believed the hippocampus in both rodents and humans is needed for representing spatial layouts

PARALLEL SYMPOSIA

Please note: the individual abstracts of all symposium presentations listed below are available on the CAN Conference App, and on the CAN-ACN website.

If you haven't already downloaded the conference app - you can scan the QR code on the back of your name badge.

Monday, May 26

Symposium 1: Functional and dysfunctional regulation of brain blood flow

Sponsored by **Hotchkiss Brain Institute**

Chair: **Grant R. Gordon**, Hotchkiss Brain Institute, University of Calgary



Overview:

Blood flow must be precisely regulated for optimal moment-to-moment functioning of the brain. Controlling the perfusion of brain tissue is a complex process involving numerous systems, cell types and signaling cascades that instruct the micro-vasculature to change diameter to alter flow. These intricate processes are finely tuned to the metabolic need for oxygen and glucose, yet they are also susceptible to dysregulation when brain activity, glucose homeostasis or circulation itself is altered by chronic disease or acute pathology. Using optical approaches to monitor cerebral circulation, cell Ca²⁺ dynamics and tissue oxygenation in the intact animal, the assembled speakers will present new information on the fundamental mechanisms of blood flow control by local brain cells and describe how flow becomes disrupted or adapts to common pathological states such as diabetes, ischemic stroke and epilepsy.

Speakers:

1. **Grant Gordon**, Hotchkiss Brain Institute, University of Calgary:
Tonic activity-independent blood flow control by astrocytes
2. **Bijoy Menon**, Hotchkiss Brain Institute, University of Calgary:
Pial Collaterals in humans: Imaging, hemodynamics, determinants and effect on clinical outcomes in patients with acute ischemic stroke
3. **Ian R. Winship**, University of Alberta:
Imaging and augmenting collateral blood flow in the brain during acute ischemic stroke
4. **Campbell Teskey**, Hotchkiss Brain Institute, University of Calgary:
Seizures induce a severe ischemic/hypoxic episode

Symposium 2: Genetic and environmental regulation of gene expression and development of vulnerability to psychiatric disorders

Sponsored by **Institut universitaire en santé mentale de Québec**

Chair: **Michael Meaney**, McGill University



Overview:

Genetic and environmental risk factors for psychiatric disorder converge at the level of transcriptional regulation, which integrates genetic and epigenetic control of gene expression. These regulatory mechanisms influence the development of psychiatric disorders, and are implicated in both basic animal models and in human populations from early life to adulthood. We argue that transcriptional regulation mediates vulnerability and resilience to psychiatric disorder and is integral to therapeutic interventions.

This symposium will present data from rodent studies of chronic social stress and vulnerability to depressive-like behavior as well as rodent studies of anxiety disorders, complemented by clinical data profiling early life stress effects on vulnerability to develop later pathology. This symposium brings together junior and senior researchers from clinical and basic neuroscience to stimulate new discussion on the role of transcriptional regulation in vulnerability, and ultimately resilience, to develop various neuropsychopathologies.

Speakers:

1. **Rosemary C Bagot**, Mount Sinai, NY:
Circuit-wide transcriptional profiling in a mouse model of depression
2. **Timothy W. Bredy**, University of Queensland:
Role of DNA hydroxylation in regulating memory associated with fear-related anxiety disorder
3. **Kieran J O'Donnel**, McGill University:
Epigenetics and early intervention: A study of DNA methylation in the nurse family partnership
4. **Michael S. Kobor**, University of British Columbia:
Genomic embedding of early life experiences

Symposium 3: Synaptic adhesion molecules: From synapse development to complex behavior

Sponsored by **The Research Institute
of the McGill University Health Centre**

Chairs: **Valérie Mongrain**, Université de Montréal &
Hideto Takahashi, Université de Montréal



Overview:

Blood flow must be precisely regulated for optimal moment-to-moment functioning of the brain. Controlling the perfusion of brain tissue is a complex process involving numerous systems, cell types and signaling cascades that instruct the micro-vasculature to change diameter to alter flow. These intricate processes are finely tuned to the metabolic need for oxygen and glucose, yet they are also susceptible to dysregulation when brain activity, glucose homeostasis or circulation itself is altered by chronic disease or acute pathology. Using optical approaches to monitor cerebral circulation, cell Ca²⁺ dynamics and tissue oxygenation in the intact animal, the assembled speakers will present new information on the fundamental mechanisms of blood flow control by local brain cells and describe how flow becomes disrupted or adapts to common pathological states such as diabetes, ischemic stroke and epilepsy.

Speakers:

1. **Hideto Takahashi**, Université de Montréal:
Synaptogenic adhesion complexes for excitatory and inhibitory synapse development
2. **Jason Lerch**, SickKids Hospital:
Variable effects on brain and behaviour in mouse models featuring loss of function mutations in Neuroligin3, Neurexin1, and Cntnap2
3. **Valérie Mongrain**, Université de Montréal:
Role of Neuroligins and Eph receptors in sleep regulation
4. **Nahum Sonenberg**, McGill University:
Translational control of autism and Fragile-X syndrome

Symposium 4: Moving toward an understanding of brain functioning using computational approaches

Sponsored by **the Montreal Neurological Institute
and Hospital – The Neuro**

Chairs: **Frances K Skinner**, University of Toronto &
Maurice Chacron, McGill University



Overview:

Today, we realize that to gain insight into the mechanism underlying function and dysfunction of our nervous system, we need to develop and use theoretical, computational and mathematical modeling approaches. Furthermore, to achieve an understanding, these modeling approaches need to take advantage of insights gained from using different species, systems and experimental techniques. The fields of Computational Neuroscience and Neuroinformatics are not merely concerned with the application of computers in biology per se but rather, they use mathematical models, statistics and analyses as powerful tools to

PARALLEL SYMPOSIA

help understand brain function. Models, analyses and experiments have to go hand in hand and it is clear that much interaction is needed for us to succeed. In this symposium, we highlight work being done on different systems and levels where such interactions are occurring and where computational tools are being taken advantage of, leading to substantial progress in understanding brain functioning.

Speakers:

1. **Eve Marder**, Brandeis University:
Variability, homeostasis and modulation in neural circuits
2. **Tara Klassen**, University of British Columbia:
Multi-scale in silico modeling of personal ion channel gene mutations as a cause of epilepsy and brain mediated sudden death
3. **Jesse Gillis**, Cold Spring Harbor Lab:
Gene networks for understanding brain function and dysfunction
4. **Gunnar Blohm**, Queen's University:
Understanding sensory-to-motor transformations through network models

Tuesday May 27, 1PM

Symposium 5: Large-scale brain dynamics: combining insights from intracranial EEG and fMRI

Sponsored by **Tucker-Davis Technologies**

Chairs: **Karim Jerbi**, Université de Montréal &
Christopher Honey, University of Toronto



Overview:

Functional neuroimaging studies provide a precise spatial characterization of large-scale brain networks. However, understanding the neuronal mechanisms at play in these networks requires electrophysiological investigation. This symposium will focus on recent findings from human and monkey intracranial electrophysiology that explore local and long-range dynamics of multi-site neural signals recorded during active tasks and resting states. Speakers will present recent work comparing the results from neuroimaging and electrophysiological methodologies, with the aim of bridging these parallel literatures on functional brain networks. These comparative studies provide critical insights into the neurophysiological basis of large-scale network changes observed with fMRI during task states (e.g. attention, perception, memory) as well as in spontaneous activity (e.g. default mode). Together, these presentations provide converging evidence for the putatively distinct roles of high frequency broadband activity and lower frequency oscillations in cortico-cortical and cortico-subcortical communication, and illustrate how this communication may be manifest in the BOLD signal.

Speakers:

1. **Yuri Saalman**, University of Wisconsin:
Thalamic control of cortical dynamics
2. **Christopher Honey**, University of Toronto:
Large-scale patterns of rhythmic suppression in human cerebral cortex
3. **Thilo Womelsdorf**, York University:
How single cell activity in prefrontal and anterior cingulate cortex contributes to large-scale network dynamics: State specific burst synchronization at beta and gamma band activity
4. **Karim Jerbi**, Université de Montréal:
The neurophysiological basis of the default-mode network

Symposium 6: Novel cellular and molecular mechanisms in the pathophysiology of parkinsonism

Sponsored by **Department of Neurology and Neurosurgery at McGill University**

Chair: **Austen J Milnerwood**, University of British Columbia



Overview:

Parkinson's disease (PD), the second most common neurodegeneration, affects 1-2% of the population by 65 years, increasing to 4-5% by 85. Thus, PD is a major health care burden and is becoming more prevalent in our aging society. Traditional investigations have centered on chemical lesions and symptom mitigation, while the underlying etiology was largely unknown. Recent advances in cell biology and genetics have provided insights into the etiology of parkinsonism and production of genetic models to study mutation effects. By investigating proteins linked to PD several important neuronal functions have been implicated; importantly, the processes required for axonal / synaptic maintenance and mitochondrial function appear regulated by the same PD-linked interacting proteins. Here, four talks will showcase cutting-edge insights into PD pathophysiology derived from mammalian genetic and epigenetic models, highlighting the links between mitochondrial, metabolic and synaptic dysfunction that may underlie protracted neuronal dysfunction and eventual cell death in PD.

Speakers:

1. **Edward Fon**, McGill University:
Function of Parkin and PINK1 in mitochondrial Quality-Control
2. **Louis-Eric Trudeau**, Université de Montréal:
Axonal arborization and energetic metabolism of nigral dopamine neurons: a window into selective vulnerability
3. **Martin Lévesque**, Université Laval:
Multiple roles of Lmx1a and Lmx1b in dopaminergic axonal connectivity and maintenance
4. **Austen J Milnerwood**, University of British Columbia:
Multiple Parkinson's disease-linked proteins regulate synaptic transmission and neurotransmitter receptor trafficking

Symposium 7: New cuts by calpain to remodel the nervous system

Sponsored by **Institut universitaire en santé mentale de Québec**

Chair: **Wayne Sossin**, McGill University



Overview:

This symposium will present exciting newly discovered roles for calpains, a family of cytosolic proteases, in the plasticity of the nervous system. First, Tim O'Connor will show that calpain is constitutively active in the axons of mature neurons where it serves to suppress sprouting. Next, Mandana Amini, a doctoral student in David's Park lab, will show that the classical Calpains 1 and 2 play important roles in the nervous system both for LTP and for cell death. Paul De Koninck will then discuss how the cleavage of GluN2B by calpain promotes CaMKII-dependent synaptic plasticity. Finally, Carole Abi Farah, a research associate in the Sossin lab, will show the role of typical and atypical calpains at cleaving PKCs into PKMs in the Aplysia system using a live FRET-based assay for cleavage. Together, these talks will provide new perspectives into the diverse roles of calpain in the remodeling of the brain.

Speakers:

1. **Tim O'Connor**, University of British Columbia:
Calpain activity maintains the stability of neurite morphology in Vivo
2. **Mandana Amini**, University of Ottawa:
Dual nature of calpain in the CNS: Plasticity and injury
3. **Paul De Koninck**, Université Laval:
A tail to memorize: cleavage of synaptic GluN2B by calpain to support synaptic plasticity
4. **Carole Abi Farah**, McGill University:
Role of typical and atypical calpains in cleavage of PKCs into PKMs for memory formation

PARALLEL SYMPOSIA

Symposium 8: Linking neural circuit dynamics to cognition and behaviour

Chairs: **Masami Tatsuno**, University of Lethbridge &
Paul Frankland, University of Toronto

Overview:

Neural interactions and neural circuit dynamics are the basis for cognition and behaviour. However, due to the complexity of their dynamics and the vast number of neurons involved, it is still not clear how the microscopic neuronal properties can be related to the macroscopic behavioural functions. Taking advantage of the recent development of molecular and electrophysiological technologies, this symposium will highlight latest advances in linking neural circuit dynamics to cognition and behaviour. The symposium topics include optogenetic investigation of REM sleep circuit (Adamantidis), sensory information processing in mouse hippocampus (Young) and rat hippocampus (van der Meer) and oscillatory neural activity and cognition in humans and primates (Hoffman).

Speakers:

1. **Masami Tatsuno**, University of Lethbridge:
Role of sleep for motor skill learning
2. **Jennie Young**, MIT:
Processing objects and space in the hippocampus
3. **Matthijs van der Meer**, University of Waterloo:
Segmentation of spatial experience by theta oscillations
4. **Kari Hoffman**, York University:
Hippocampal oscillations in monkey and humans during memory-guided visual search

Wednesday May 28

Symposium 9: An unexpected roundtrip journey through the hippocampal trisynaptic excitatory network

Sponsored by **Institut universitaire en santé mentale de Québec**



Chair: **Jean-Claude Béique**, University of Ottawa

Overview:

This symposium seeks to provide an integrated view on how the dynamical and plastic properties of hippocampal excitatory synapses lead to the establishment of this network during development and how they ultimately subserve the unique information processing features of this structure. Towards this end, Dr Tóth will begin in the CA3 region by describing how calcium dynamics in mossy fiber terminals decisively influence key features of vesicular release. Dr Robitaille will then discuss the participation of glial cells in detecting and regulating basal synaptic transmission at CA1 synapses. Dr Béique will follow with a description of local spatio-temporal coincidence detection of inputs by amplification of calcium signals in developing CA1 dendrites. We will end with a macroscopic investigation by Dr Williams who will describe unsuspected backward routings of information from the subiculum and CA1 that actively modulate spike timing and local network rhythms back in our departure region, the CA3.

Speakers:

1. **Katalin Toth**, Université Laval:
Synaptic vesicle dynamics and the timing and efficacy of glutamate release at hippocampal mossy fibre terminals
2. **Richard Robitaille**, Université de Montréal:
Astrocytes detect and regulate basal synaptic transmission at single CA1 synapses
3. **Jean-Claude Béique**, University of Ottawa:
Developmentally-regulated spatiotemporal features of calcium signaling at CA1 glutamatergic synapses
4. **Sylvain Williams**, McGill University:
New mechanisms for bidirectional communication in the trisynaptic glutamatergic circuit of the hippocampus

Symposium 10: Novel Pharmacology of Ion-Channels & Transporters

Sponsored by **The Research Institute
of the McGill University Health Centre**

Chairs: **Derek Bowie**, McGill University &
Yu-Tian Wang, University of British Columbia



Overview:

A major challenge for modern medicine is to develop better therapeutic approaches to treat the many disease states of the human brain. Despite the significant progress in recent years, a perennial problem has been to develop drugs that lack side-effects; an issue that is often cited to why so many patients stop taking prescribed medicine. Ion-channels and transporters are a family of signalling proteins in the brain that are implicated in many CNS disorders; from early childhood development (e.g. autism) to the aging brain (e.g. Alzheimer's disease, Parkinsonism). Recent work on the structure and function of this broad family of proteins has brought renewed interest in targeting them for the development of therapeutic compounds. The proposed Symposium on "Novel Pharmacology of Ion-Channels & Transporters" will focus on this rapidly developing field of Neuroscience that has broad implications for our understanding of the normal and diseased brain.

Speakers:

1. **Yu-Tian Wang**, University of British Columbia:
Allosteric potentiation of synaptic inhibition by excitatory neurotransmitters
2. **George Dawe**, McGill University:
Sodium ion On/Off switch for ionotropic glutamate receptors
3. **Anne McKinney**, McGill University:
Na⁺/H⁺ exchanger NHE6, X-linked intellectual disability and autism
4. **Yves De Koninck**, Université Laval:
Chloride extrusion enhancers as novel therapeutics for neurological diseases

Symposium 11: Alzheimer's disease molecular mechanisms and therapeutics

Chairs: **Marco AM Prado**, Robarts RI &
Douglas P Munoz, Queen's University

Overview:

Alzheimer's disease (AD) is a complex syndrome in which several metabolic and circuit changes take place. Unfortunately, we still lack a comprehensive understanding of AD. This timely proposal will fill an important gap of knowledge on the neurobiological basis of AD covering from molecular mechanisms to novel therapeutics. The selected speakers have contributed to the understanding of molecular, cellular and circuit changes in AD. We will cover novel mechanisms and signaling pathways of neuronal toxicity in AD. We will also discuss evidence for global changes in RNA processing in AD. The role of insulin, physical exercise and metabolic changes will be explored in complementary animal models. Finally, new approaches to the deliver therapeutics will be presented. These contributions are poised to improve the translational success of new therapies to clinical practice. We expect to instigate new and established scientists to think outside the box in Alzheimer's disease.

Speakers:

1. **Weihong Song**, University of British Columbia:
The role of BACE1 in Alzheimer's Disease Pathogenesis
2. **Marco AM Prado**, Robarts RI:
Chaperoning neurotoxicity in Alzheimer's disease
3. **Douglas P Munoz**, Queen's University:
Role of beta oligomers in triggering Alzheimer's like pathology and the role of insulin receptor signalling in neuroprotection
4. **R. Jane Rylett**, University of Western Ontario:
Multiple roles of cholinergic neurons in the modulation of amyloid production

PARALLEL SYMPOSIA

Symposium 12: **Comfort feeding: functional interplay between feeding behaviour, stress and emotionality**

Sponsored by **Douglas Mental Health University Institute**

Chair: **Barbara Woodside**, Concordia University



Overview:

Everyone recognizes that there is an emotional component to eating, although in recent years research investigating the interactions between feeding behavior, stress responsivity and emotionality have found that there is a surprising degree of reciprocal interplay in these processes such that stress may alter feeding patterns and obesity, but in return the foods we eat may influence emotion circuits in the brain and influence how we subsequently respond to stress. This symposium focuses on cutting edge research in this area which delves into the mechanistic aspects of this interaction. Drs. Abizaid and Hill will discuss recent data from their labs identifying the roles of ghrelin and endocannabinoids in mediating the effects of stress and stress hormones on obesity and feeding behaviour, while Drs. Walker and Fulton will explore data from their groups on how the composition of food, and the development of obesity, impacts stress responses and emotional behaviour.

Speakers:

1. **Alfonso Abizaid**, Carleton University:
Ghrelin signaling drives social stress – mediated obesity
2. **Matthew Hill**, Hotchkiss Brain Institute, University of Calgary:
Glucocorticoid hormones recruit endocannabinoid signaling to promote obesity and metabolic syndrome
3. **Claire-Dominique Walker**, McGill University:
Early life exposure to high fat diet modulates the development and maturation of stress responses
4. **Stephanie Fulton**, Université de Montréal:
Nutritional, metabolic and neural signals connecting obesity and depression

POSTER AUTHOR INDEX

Poster Sessions

- Session 1: Monday May 26**
10:00 – 11:00 & 3:00 – 5:30
- Session 2: Tuesday May 27**
10:00 – 11:00 & 3:00 – 5:00
- Session 3: Wednesday May 28**
10:00 – 11:00 & 1:00 – 3:00

Posters in bold represent first author

The poster board numbers work in the following way:

Session – Theme – Board number (E.g 2-A-85)

Location of the individual poster boards indicated on poster board floor plans at the back of the handbook.

All abstracts are available to view online at can-acn.org, or on the

CAN Conference App – scan the QR code on the back of your badge to download the app or search for ‘Podium Conferences’ in the App Store

Themes

- A Development**
- B Neural Excitability, Synapses, and Glia: Cellular Mechanisms**
- C Disorders of the Nervous System**
- D Sensory and Motor Systems**
- E Homeostatic and Neuroendocrine Systems**
- F Cognition and Behavior**
- G Novel Methods and Technology Development**
- H History, Teaching, Public Awareness and Societal Impacts in Neuroscience**
- I Neuroengineering**
- IBRO International Brain Research Organization**

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Aarts, M	3-B-51	Alomawi, N	2-D-111 , 1-D-127	Aubé, B	2-C-95, 2-G-182, 3-C-72	Banaroori, M	3-F-157
Abdel-Messih, E	2-C-84	Al-Onaizi, M	1-F-170, 2-B-39	Aubert, I	2-G-180, 3-G-186	Banasikowski, T	2-F-169
Abi Farah, C	1-B-45	Alquier, T	1-E-134, 1-E-138, 2-F-146, 3-B-22	Audet, B	2-B-41	Bansal, V	2-E-138
Abizaid, A	1-E-133, 1-E-140, 1-E-142, 2-E-137	Alrazi, T	1-F-144	Auguste, S	2-F-146	Barat, M	2-D-134
Aboukassim, T	3-F-160	Altier, C	1-B-20, 1-D-123	Auroousseau, M	1-G-177 , 1-B-23, 3-B-26, 3-B-27, 3-C-73	Barcelona, P	1-C-83
Aboushousha, R	1-B-20	Altirimi, H	2-E-135 , 1-B-49	Avoli, M	1-C-97, 2-B-35, 2-B-37, 2-B-56, 3-C-107, 3-C-67	Bargallo, N	1-F-151
Abrahamsson, T	1-B-19	Alvis, L	2-G-179	Avramescu, S	1-B-61	Bari, M	1-C-85
Accardi, M	2-B-20	Amegandjin, A	2-B-21 , 3-F-157	Awad, P	2-A-1	Barker, P	2-B-33, 3-C-73
Acharjee, S	3-B-19	Amilhon, B	3-B-28, 3-B-30, 3-B-33	Awasthi, A	1-C-66	Barnea, R	3-C-91
Achour, I	1-C-63	Anacker, C	2-C-65	Ayala, M	3-D-109	Bar-Or, A	1-C-66, 1-C-84
Acton, B	1-B-51	Anagnostou, E	2-C-78	Azogu, I	3-E-133	Barra de la Tremblaye, P	2-F-147 , 3-E-133, 3-E-141
Adamantidis, A	1-E-139, 2-F-149, 3-B-28	Anand, S P	2-A-2	Babineau, B	2-C-78	Barrett, C	2-I-190
Adams, M	2-B-54	Andrew, C	1-B-56	Backen, T	3-F-144	Barrios, M	1-F-151
Aggad, D	3-C-94	Andrew, D	2-C-69, 3-C-95	Badeaux, F	2-B-21	Barthélemy, D	2-D-112, 3-D-125
Agostinone, J	2-C-64	Andrew, G	1-H-186	Baenziger, J	1-B-36, 2-B-59	Bartlett, R	3-C-66
Aguilar-Valles, A	2-C-87	Angulo, J	1-G-179	Baetz, K	3-C-85	Bastide, M	2-C-76
Ahmed, N	2-C-68	Ansari, A	1-G-184	Bahari-Kashani, G	3-D-127	Bastien, D	1-C-67
Aidelbaum, R	1-F-143	Antel, J	2-C-86	Baharnoori, M	2-B-21	Bateman, A	3-C-84
Aitken, S	2-F-145 , 3-F-167	Antle, M	2-C-79	Baho, E	3-A-1 , 2-A-1	Baxi, K	3-C-101
Aitoubah, J	3-G-180	Arbour, D	3-C-64 , 2-C-92, 3-C-104	Bailey, C	1-E-141	Bazán, P	3-F-147
Akens, M	3-G-186	Arbour, N	3-C-88	Bailey, K	2-A-15	Beaudoin, A	3-F-145 , 1-F-143, 3-F-148, 3-F-151
Akira, S	1-F-156, 3-E-135	Arel-Dubeau, A	1-C-65 , 1-C-63	Bailey, M	1-F-145	Beaulieu, J	1-C-95, 1-D-129
Akude, E	1-C-97	Argaw, A	2-A-3	Bailey, N	2-E-135	Beaumont, É	2-B-22
Al Dahhan, N	3-F-143	Armstrong, G	2-C-66 , 3-C-94	Baimoukhametova, D	3-E-138	Beauseigle, D	3-C-88
Alain, C	2-F-163	Arsenault, J	3-C-65	Bains, J	1-E-137, 3-E-138	Beazely, M	2-C-68
Alchini, R	2-A-9	Artinian, L	1-B-54	Baker-Andresen, D	1-B-35	Beccano-Kelly, D	3-C-87
Aldayel, A	2-G-181	Ase, A	1-D-109, 2-D-118	Bakir, R	1-F-173	Bedford, F	2-A-4
Alex Parker, J	3-C-102	Aspler, J	1-H-185	Balena, T	2-C-67	Beekharry, C	1-B-21
Alexander, J	2-B-45	Assadzada, S	3-B-31	Balog, R	1-F-161	Beggs, S	2-B-45
Alizadeh, A	3-C-63 , 1-B-29	Asselin, E	1-F-146	Baltaretu, B	1-D-110	Behr, C	3-C-67 , 1-C-98
Alkhani, H	1-D-109	Attard, E	1-C-63, 1-C-65			Beique, J	3-B-31
Allain, F	1-C-64	Atwi, S	1-E-141			Bélanger, E	1-C-105
Allemang-Grand, R	1-A-1						

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Bélanger-Nelson, E	2-B-22 , 1-F-168, 2-F-159	Boughner, E	2-F-162	Campbell, B	2-B-24	Chauvette, S	2-B-57, 2-F-153
Belforte, N	1-C-68	Bougie, J	1-B-35	Campbell, M	2-C-72 , 1-C-100	Chee, S	1-F-154
Bell, E	1-H-186 , 1-H-185, 1-H-190	Boulanger, J	1-G-178, 2-B-23	Campbell, R	1-G-181	Chen, B	1-A-3, 3-G-179
Bellec, P	1-F-153	Bourojeni, F	3-B-20	Campbell, S A	1-B-55	Chen, Gang	1-C-104
Benediktsson, A	2-G-179	Bourque, C	3-B-50, 3-C-100, 3-E-142	Cancedda, L	2-A-1	Chen, Gary	1-C-103
Beninger, R	1-F-147, 2-F-169, 2-F-177, 3-F-158	Bourque, J	2-F-166	Cao, D	3-C-87	Chen, J	1-F-160
Benini, R	1-C-98, 3-C-107	Bouskila, J	2-D-113 , 3-D-120	Cao, R	2-C-87	Chen, L	1-C-72
Bennett, B	2-C-69	Bouvard, S	1-D-121	Cappadocia, D	1-D-112	Chen, R	2-B-26 , 3-B-47
Bennett, H	3-C-84	Bouvier, D	3-C-69	Carbonetto, S	2-B-52, 2-I-191	Chen, T	3-B-54
Bennett, S	3-C-85	Bouyakdan, K	3-B-22 , 1-E-134	Carceller, F	1-G-179	Chen, Y	3-D-113
Ben-Zvi, A	2-A-10	Bowie, D	1-B-23, 1-G-177, 2-B-20, 3-B-26, 3-B-27, 3-C-73	Cardinali, L	2-D-114	Chen, Yani	3-E-132 , 2-E-144
Berger, N D	3-D-110	Boyce, R	2-F-149 , 1-E-139	Carlén, M	1-G-183	Chen, Ying	1-D-111, 1-D-127
Bergeron, R	3-B-31	Boye, S	2-C-108	Carlen, P	1-C-70, 1-C-86, 2-C-102, 3-B-23, 3-C-75	Cheng, D	2-D-121
Bergeron, Y	1-F-146 , 2-F-148	Bramall, A	1-A-6	Carlin, J	2-F-174	Chennu, S	1-F-159
Bernard, V	1-B-30	Brecha, N	2-C-108	Carmant, L	1-C-87, 1-F-158, 2-A-1	Cherif, H	2-A-3
Bernier, L	3-B-21	Breton, V	1-C-70	Carriot, J	3-D-112 , 2-D-128, 2-D-132, 3-D-115	Chiasseu, M	2-C-73
Berrier, M	1-A-4	Bretzner, F	1-C-104	Carter, C	1-B-24	Chierzi, S	3-B-38, 3-F-157
Berryer, M	3-F-146	Breuillaud, L	1-C-75	Carvalho, C	3-C-101	Childs, D	3-E-136
Beudjekian, L	1-D-113	Bridges, A	1-G-182	Casanova, C	1-D-113, 1-D-129, 2-D-113, 2-D-124, 3-D-120, 3-G-184	Chin, S	2-E-137
Beuk, J	1-F-147	Bridgwater, E	1-B-62	Casatti, C	3-E-134	Chiodo, V	2-C-108
Bezard, E	2-C-76	Brien, D	1-F-148, 2-C-101, 3-F-143	Casola, C	2-C-77	Chitramuthu, B	3-C-84
Bezeau, F	3-C-68 , 3-C-80	Brien, M	2-F-148	Castonguay, A	2-B-47	Cho, M	3-A-3
Bialecki, J	3-B-61	Brignall, A	3-A-2	Cavallet, M	3-F-147	Choi, H	1-G-184, 3-B-53
Bialystok, E	2-F-163	Brodie, S	1-C-71	Cavanagh, C	3-C-71	Chong, Y	3-A-8
Biazoli, C	3-F-147	Brooks, J	3-D-123	Cavina-Pratesi, C	2-D-134	Chopra, R	3-G-186
Biggin, P	3-B-27	Brown, C	1-C-102	Cechetto, D	1-C-106	Chou, P	3-C-87
Bilodeau-Mercure, M	1-F-163	Brown, P	1-B-23 , 1-G-177	Cecyre, B	1-D-113 , 2-A-3	Chou, Y C	1-B-41
Bin, J	1-A-2 , 1-B-28	Brown, R	1-C-100, 2-C-72, 2-E-139, 2-F-171, 3-C-78, 3-F-156	Cela, E	1-C-72	Choudhury, M	1-A-4
Binsted, G	2-D-121	Brudzynski, S	2-F-168	Celejewski, A	3-F-154	Choueiry, J	3-F-148 , 1-F-143, 3-F-145, 3-F-151
Bird, J	1-A-14	Buchanan, K	1-B-19	Cerazy, T	3-A-14	Chouinard, P	2-D-126
Bissonnette, S	3-C-68	Buckingham, G	2-D-126	Chacron, M	1-D-120, 1-D-125, 1-D-131, 2-D-129, 2-D-132, 3-D-124	Choutova, A	1-F-149
Bito, H	2-G-187	Buckley, S	2-B-33	Chaigniel, L	2-F-148	Chow, C	1-F-174
Black, E	1-B-22	Budry, L	1-E-134 , 3-B-22	Chaim, T	3-F-147	Chrétien, C	1-E-136 , 3-B-22
Blackman, A	1-B-19	Bureau, G	2-F-148	Chaîneau, M	1-C-99	Christopher, L	2-F-151 , 3-C-86
Blakely, R	2-C-78	Burgess, A	2-G-180	Chamberland, S	2-B-25	Chrusch, M	3-F-149
Blanchet, P J	1-C-88	Burnett, T	2-D-121	Chamoun, M	2-D-115	Chudley, A	1-H-186
Blandford, V	3-B-44	Burns, S	1-A-6	Chan, A	1-A-18, 2-C-71	Chung Tse, Y	1-F-175
Blandford, V	3-B-57	Bussières, L	3-G-184	Chan, R	2-C-71	Chung, A	1-B-41, 1-C-72
Bloksgaard, M	1-E-134	Bye, C	1-F-161	Chand, D	2-E-144, 3-E-134	Cisek, P	1-F-150
Blum, I	2-C-70	Bye, H	3-D-111	Chang, B	1-F-148	Ciumas, C	1-D-121
Blunck, R	1-B-23	Cabana, T	1-D-117, 2-A-8, 3-D-122	Chang, P	3-B-24	Clayton, H	1-D-114
Blundell, J	2-C-89	Caceres, C	1-F-151	Chapados Noreau, C	2-F-150	Cleland, T	2-D-133
Boehm, J	2-B-50	Cadieux-Dion, C	3-C-88	Chapman, C	3-B-32	Clément, M	2-F-152
Bonin, R	1-D-111, 2-I-188 , 2-B-63	Cairns, J	2-C-71	Chapman, E	1-D-122	Clemente, I	1-F-151
Bonneville, M	2-F-147	Cajanding, J	3-C-70 , 2-C-94	Chapman, K	1-B-20, 1-D-123, 3-D-110	Cloke, J	3-F-150
Booth, S	1-C-90	Calderon, M	2-A-19	Chapman, W	1-B-55	Cloutier, J	3-A-15, 3-A-2
Bories, C	1-D-111	Caliaperumal, J	1-C-71	Charfi, I	1-B-25 , 2-B-48	Cluff, T	2-D-116
Borovac, J	3-G-177	Callaghan, S	2-C-84	Chattopadhyaya, B	2-A-1, 3-A-1	Coderre, T	1-B-26
Bouchard, A	2-A-3	Calon, F	3-C-68	Chawana, R	3-IBRO-189	Coe, B	1-F-148, 1-F-167
Bouchard, J	1-D-112, 2-A-3, 2-D-113, 3-D-120	Calvez, J	2-E-136 , 3-E-139			Colangelo, G	2-F-164
Boucher, J	2-A-2 , 3-A-5					Colbourne, F	1-C-71
Boudreau, D	2-I-190					Colino, F	2-D-121
Bouet, R	1-D-120					Collins, D	2-G-181
						Comin, C	2-A-10
						Condamine, S	3-B-25
						Cook, D	1-B-49

POSTER AUTHOR INDEX

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Cook, E	2-D-120, 3-D-111, 3-F-170	Dawe, B	3-B-27	Dickson, P	2-C-71	El Mestikawy, S	1-B-30, 1-F-164, 3-C-105
Cooper, E	1-C-97, 3-A-8	Dawe, G	3-B-27 , 3-B-26	Diering, G	2-B-29	El Mounzer, W	1-B-43
Cornea, V	1-B-26	Dazai, J	2-G-187	Diez, B	2-F-155	El Youssef, M	1-G-179
Correia, J	2-I-193	D'Cunha, T	1-C-74	Dikshtein, Y	3-C-91	Elazzouzi, F	1-B-43
Cortez, M	2-C-85, 3-C-89	de Faria Jr., O	1-B-28	Dinh-Williams, L	2-F-166	El-Baba, M	2-F-164
Cossette, P	1-C-87	de Franca, B M	2-F-153	Dion, P	2-C-104, 3-C-99	Elgar, D	1-B-19
Costa, L	2-A-10	De Koninck, P	2-B-30, 2-B-41, 2-I-195, 3-B-37, 3-B-41	Diorio, J	1-A-15, 1-B-58, 1-E-135, 2-A-14, 2-A-16, 2-A-17, 2-C-65	Elharram, A	2-C-69
Costa, R	1-B-19, 1-B-41	De Koninck, Y	1-D-111, 2-I-188, 2-I-191, 3-G-185	DiPietro, N	1-H-186	Ellegood, J	2-C-78
Côté, D	1-C-105, 2-I-195	de la Salle, S	3-F-151 , 1-F-143, 3-F-145, 3-F-148	Dissing-Olesen, L	3-B-21	Ellens, N	3-G-186
Cote, M	3-C-72 , 2-G-182	de Vega, W	3-F-163	Do Carmo, S	1-C-75	Elliott, B	2-B-31
Cote, N	2-B-30	De Villers-Sidani, É	1-D-126	Dong, X	3-F-153	Ellis, J	3-B-62
Cotnoir-White, D	2-G-183	Dea, M	2-D-131, 3-D-117	D'Onofrio, P	2-C-100	Emran, F	3-G-179
Courcot, B	3-C-81	Debant, A	2-A-4	Dorris, M	1-F-167, 3-F-152	Epp, J	2-G-187
Crappier, L	1-C-73	Debruille, B	2-F-158, 2-F-167, 3-F-161	dos Santos, R	2-C-88, 2-C-110	Erb, S	2-E-144
Crawford, J D	1-D-110, 1-D-112, 1-D-127, 2-D-111, 3-D-113	Dedovic, K	1-F-152	Doucet, G	2-B-21, 2-F-161, 3-F-157	Ernst, C	1-C-104, 1-C-72, 2-C-74
Crawley, J	2-C-78	Deffeyes, J	2-D-131	Doucette, T	2-C-98	Escobedo Avila, I	3-IBRO-190
Cressman, E	2-D-123, 3-D-127	DeGeer, J	2-A-4	Downs, T	2-F-165	Espinosa-Becerra, F	2-C-78
Crevecoeur, F	3-D-114	DeKoninck, Y	2-B-47, 2-I-190	Doyon, N	3-G-178, 3-G-185	Estey, C	2-C-84
Crowder, N	1-D-115, 3-D-121	Deliviet-Mongrain, H	1-D-124	Drapeau, P	2-C-66, 3-C-94	Evstratova, A	2-B-25
Cruceanu, C	2-C-74 , 1-C-103	Della Santina, C	3-D-126	Dringenberg, H	1-F-154, 3-B-56, 3-F-159	Fabi, F	1-F-146
Cruse, D	1-F-159	Dell'Unto, O	1-H-188	Drolet, G	2-B-21, 3-F-157	Fahnestock, M	3-C-93, 3-C-97
Cuello, A	1-C-75	Delrobaei, M	2-C-80	D'Souza, Y	2-C-69	Falcon, C	1-F-151
Cuevas, B	1-G-179	Demers, M	1-C-79 , 2-C-81	Dube, L	1-F-155	Fame, R	2-A-12
Cuevas, P	1-G-179	Demers-Lamarche, J	2-C-75	Dubey, S	2-G-180	Fan, Xiaotang	1-B-35
Cueva-Vargas, J	3-C-73 , 1-C-68	Dergham, P	2-C-100	Dubljevic, V	1-H-187 , 1-H-189	Fan, Xuelai	3-C-77
Culham, J	2-D-114	Déry, N	3-C-97	Ducharme, G	3-B-28 , 3-B-33	Farmer, K	1-C-77
Cullen, K	1-D-116, 2-D-128, 2-D-132, 3-D-112, 3-D-115, 3-D-126	Desaulniers, M	1-C-82, 1-C-94	Duchesneau, J	2-C-77	Farmer, W	1-B-49
Cullis, P	1-G-184	Deschamps, I	2-F-154	Duff-Canning, S	2-F-151	Farnè, A	2-D-114
Cunningham, C	2-B-27	Desgent, S	1-F-158, 2-A-1, 2-A-3	Dufour, S	3-B-23	Farooqi, N	3-A-4
Cvetkovska, V	1-A-3 , 3-G-179	DesGroseillers, L	2-B-21, 3-F-157	Dumont, E	2-B-36, 2-C-76, 2-F-169, 3-B-48, 3-F-158	Farrant, M	1-B-41
Cynader, M	1-A-18	Desjardins, J	2-I-189 , 2-B-47	Dumontier, E	3-A-15	Farrell, J	2-C-79
Cyr, M	1-F-146, 2-F-148	Deska-Gauthier, D	3-D-116	Dunbar, M	3-E-133	Farrer, M	3-C-87
Czitron, J	2-G-181	Desmarais, M	1-D-117	Dunkley, B	1-D-110	Fasano, C	1-B-30 , 1-F-169
da Silva, M	3-F-147	Dessing, J	2-D-111	Dunn, J	2-C-79	Fatemi, H	1-F-155
Dabdoub, A	2-D-117	Devorak, J	1-A-12	Dunn, T	3-C-85	Fenech, C	1-E-136
Dacosta-Aguayo, R	1-F-151	Dewan, N	1-E-134	Durcan, T	3-C-76	Ferdinand, J	2-F-157
Dal-Bo, G	3-A-3	Déziel, R	3-C-74	Durham, H	3-C-103	Ferguson, A	1-B-22, 2-B-40, 2-E-143
Dale, A	1-D-116 , 3-D-115	Dhir, S	1-E-135 , 2-A-16, 2-E-141	During, M	2-C-84	Ferguson, K	3-B-30 , 1-B-55
Damaj, L	2-F-172	Di Cristo, G	1-A-4, 2-A-1, 3-A-1, 3-F-146	Duss, S	2-A-1	Ferland, G	3-F-150 , 1-F-164
Damodaran, T	3-F-159	Di Pietro, N	1-H-185	Dyck, S	3-F-149	Fernandes, M	1-F-156 , 3-E-135 , 2-F-146
Dancause, N	2-D-131, 3-D-117	Di Polo, A	1-C-68, 2-C-108, 2-C-64, 3-C-73	Dyck, R	1-B-29 , 3-C-63	Fernandez Cruz, A	2-F-158 , 2-F-167, 3-F-161
Daniels, B	3-B-26 , 3-B-27	Di Prospero, C	2-C-76 , 3-B-48	Eaton, F	1-C-107	Fernández-Andújar, M	1-F-151
Daniels, S	2-F-165	Diallo, A	1-C-104, 1-C-73	Edwards, A	2-E-137	Fernandez-Ruiz, J	2-C-91
Danik, M	1-C-75	Diamond, J	3-F-152	Eid, L	2-D-119	Fertan, E	3-C-78
Daou, I	2-D-118	Dian, J	3-C-75 , 1-C-70	Eikelboom, R	2-F-156, 3-F-154	Fiander, M	3-F-156
Daoud, E	1-C-74	Diaz, P	3-D-110	Eisenberger, N	1-F-152	Filho, G	3-F-147
Darabid, H	1-B-27 , 1-B-50	DiCicco-Bloom, E	2-C-78	El Gaamouch, F	2-B-30	Finkelstein, J	3-G-186
Dargaei, Z	2-B-28	Dickinson, P	1-F-153	El Hage, C	1-C-76	Finnie, P	1-F-157
Davalos, A	1-F-151	Dickson, C	1-C-108	El Helou, J	3-B-29 , 2-F-159, 3-F-157	Fioramonti, X	1-E-134, 1-E-136, 3-B-22
Davalos, A	3-G-180					Fiore, L	1-IBRO-194
David, L	3-G-180					Fisher, T	2-E-138
David, S	1-C-80, 2-C-110, 2-C-88					Fisk, J	3-F-167
Davoli, M A	1-A-12						

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Fjeld, K	2-D-121	Gaudreault, P	3-C-98	Greenhalgh, A	1-C-80 , 2-C-88	Hébert, S	3-C-68
Flanagan, J	3-F-152	Gawryszewski, L	3-F-147	Gregory, J G	3-F-158	Hebert, T	2-B-48
Flanagan, R	3-D-131	Geddes, S	3-B-31	Grenier, G	2-C-81	Hebert-Seropian, S	3-B-35
Flores, C	3-F-168	Gendron, W	2-E-139	Grenier, K	2-C-82	Heera, J	1-F-143, 3-F-145, 3-F-148, 3-F-151
Florez, C	2-C-102	Genestine, M	2-C-78	Gris, D	2-C-83, 3-C-90	Hellstrom, I	2-A-17
Flynn, R	1-B-20 , 1-D-123	Geng, S	1-B-32	Gris, P	2-C-86	Herning, E	1-D-119
Fogarty, L	1-A-5	Gengatharan, A	2-A-6	Grondin, M	2-C-75	Hénault, C	1-B-36
Fok, P	1-B-32	Germain, M	1-C-63, 1-C-65, 2-C-75, 2-C-75	Grotten, C	2-B-34	Henkelman, M	2-G-187
Fomitcheva, V	2-A-5	Geschwind, D	2-C-78	Grutter, P	2-I-190	Henkelman, R	2-C-78
Fon, E	2-C-82 , 1-C-101, 1-C-99, 2-C-93, 3-C-76	Gholizadeh, S	3-C-65	Gu, C	2-A-10	Hennighausen, L	1-A-5
Fontaine, C	1-B-47	Gibson, J	2-B-33	Gu, N	3-B-33	Henriques, D	1-D-114, 3-D-109, 3-D-127
Fontaine-Lavallée, C	2-G-182	Gibson, R	1-F-159	Guévrement, G	2-E-136, 3-B-46, 3-E-139	Henry, M	3-G-182
Forbes, H	3-A-5 , 2-A-2	Gigek, C	1-C-73	Guittou, D	2-D-130, 3-D-129	Hermosillo, R	2-D-121 , 3-D-119
Fores Sas, R	1-F-151	Giguere, N	1-C-78, 3-C-105	Guittou, M	1-F-163, 2-F-152	Hernandez-Castillo, C	2-C-91
Fortin, G	2-G-186, 3-C-105	Gill, N	3-A-6	Gullif, R	2-F-161	Herrera, C	1-E-139
Foster, J	2-C-78	Gillmore, G	2-C-80	Guma, E	3-C-81 , 1-F-169	Herrington, R	2-B-37 , 2-B-56
Fournier, A	1-C-84, 2-A-4, 2-A-9, 2-I-190, 3-A-16, 3-C-79	Giner, X	2-G-183	Gupta, B	1-F-171	Hill, M	3-D-130, 3-F-149
Fournier, C	3-F-155	Gingras, D	3-F-157	Gustina, A	2-B-29	Hince, P	3-C-99
Fournier, S	3-C-108	Girling, K	1-C-79	Guzman, M	1-F-170	Hindalong, E	2-B-61
Foust, K	3-G-186	Giros, B	1-C-82, 1-C-92, 1-F-169, 2-C-70, 2-C-97, 3-C-81	Ha Tran, C	1-B-59	Ho, E	2-C-101
Frade, J	2-C-100	Girouard, M	3-C-79	Hachinski, V	1-C-106	Holloway, A	2-A-2, 3-A-5
Frankland, P	2-G-187, 3-F-175	Gjerde, E	3-E-137	Haghighi, P	1-B-43	Hong, N	1-F-161
Freibauer, A	1-A-12	Gkogkas, C	2-C-87	Haj-Dahmane, S	3-B-31	Horev, G	2-C-78
French, L	3-G-181	Glasgow, S	1-E-139, 2-B-60, 2-F-149, 3-B-28	Hamadjida, A	3-D-117 , 2-D-131	Hou, Q	1-B-47
Freyburger, M	2-F-159 , 1-C-91, 1-F-168, 2-B-22, 3-F-157	Glovaci, I	3-B-32	Hamani, C	3-C-82	Houde, M	3-C-98
Frieser, E	1-C-108	Glowatzki, E	1-D-130	Hamdan, F	1-C-87, 3-F-146	Houle, S	2-F-151, 3-C-86
Froese, C	2-B-27	Gobert, D	1-A-7 , 1-A-13, 2-B-47, 2-I-190	Hamed, S	3-IBRO-192	Hour, N	2-A-8
Fry, M	1-B-37, 2-E-140, 3-E-136	Godin, A	2-I-191	Hamel, V	2-B-30	Howard, D	3-B-36
Fuchs, G	3-A-14	Goldberger, K	1-F-159	Hamidi, S	2-B-35	Hryhorczuk, C	1-E-138
Fulton, S	1-E-138, 1-F-156, 2-F-146, 3-E-135	Goldowitz, D	2-C-71, 3-F-173	Hampson, D	2-C-78, 3-C-65, 3-C-83	Hsu, K	1-A-17
Furth, D	1-G-183	Gondora, N	2-C-68	Hamson, D	1-F-174	Hsueh, N	1-B-31
Fux, J	1-B-31	Gong, K	1-B-35	Hanin, G	2-B-39	Huang, C	1-D-120
Füzesi, T	1-E-137 , 3-E-138	Gong, L	3-B-44	Hanna, E	1-B-49	Huang, S	1-B-37 , 2-E-140
Gable, K	3-C-85	Gonzalez, C	3-IBRO-191	Hanssens, A	2-I-190	Huganir, R	2-B-29
Gadotti, V	3-D-110	Gonzalez-Salinas, S	3-IBRO-194	Harding, E	3-B-34	Huh, C	3-B-30
Gagné, J	1-F-158	Goodale, M	2-D-126, 2-D-134	Hardt, O	2-F-178	Hundert, A	3-F-174
Gagnon, D	1-C-95	Gopalakrishnan, G	2-I-192	Hardy, D	3-A-7	Huntgeburth, S	1-F-160
Gagnon, J	2-A-3	Gordon, G	1-B-59, 3-B-52	Harley, C	1-B-47	Huppé-Gourgues, F	2-D-115, 3-D-128
Gaines, K	1-G-182	Gordon, K	1-D-115	Harrison, G	1-F-176	Hutchings, S	1-C-81
Galan, A	2-C-100 , 1-C-83	Gotman, J	1-C-98	Harvey-Girard, E	1-D-118	Hynynen, K	2-G-180, 3-G-186
Galea, L A M	1-F-174	Götz, M	2-A-6	Hasan, S M	1-A-5	Hyun Ko, J	3-C-86
Gallagher, D	1-A-6	Grabert, T	1-B-33 , 3-B-35	Hashemi, A	2-D-120 , 3-D-111	Ikuta, N	3-B-61
Gallant, S	2-F-160	Graham, M	1-E-142	Hashemi, Z	3-F-159	Ilie, A	2-B-46
Gamache, K	3-F-162	Graham, R	1-C-79, 2-C-81	Hasson, U	2-F-154	Ilivitsky, V	1-F-143, 3-F-145, 3-F-148, 3-F-151
Gao, C	1-B-35	Grall, S	1-E-136	Hastings, M	1-B-35	Illes, J	1-H-186
Gao, X	1-B-53	Graña, M	1-F-151	Hauswirth, W	2-C-108	Imbeault, E	2-C-83 , 3-C-90
Garcia, A	2-C-91, 3-D-131	Grant, R	1-D-109	Hawken, E	2-B-36 , 2-C-76, 2-F-169, 3-B-48, 3-F-158	Impey, D	1-F-143, 3-F-145, 3-F-148, 3-F-151
Gardezi, S	2-B-32	Gratton, A	1-C-82, 1-C-89, 1-C-94, 2-C-70, 3-F-168	Hawkins, C	1-A-8	Inoue, W	3-E-138
Gatto, G	3-A-13	Gratuze, M	3-C-80	Hayashi, Y	1-B-38	Insel, N	3-C-82
Gaudreau, P	1-F-164	Green, A	3-D-123	Hayley, S	1-C-77	Inyang, L	1-F-143, 3-F-145, 3-F-148, 3-F-151
		Green, C	1-H-185, 1-H-186	He, H	3-D-118	Irvine, E	3-A-8
				He, L	1-A-17	Irwin, M	1-F-152
				Hebert, M	2-C-89	Isacu, D	3-F-157

POSTER AUTHOR INDEX

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Isingrini, E	1-C-82 , 1-C-94	Kaspar, B	3-G-186	Labbé, S	1-D-122	Lemieux, M	3-B-41 , 2-B-30, 3-B-37
Iulita, M F	1-C-75	Katz, P	1-B-54	L'Abbée Lacas, K	3-F-161	Lemyre, E	1-C-87
Iworima, D	1-C-96	Kays, I	3-G-179	Labonté, M	1-F-150	Lenglos, C	3-E-139 , 2-E-136, 3-B-46
Iyirhiaro, G	2-C-84	Keeley, R	1-F-161	Labrecque, S	2-B-41	Lennox, R	2-I-192
Jacklin, D	2-F-162 , 2-F-174	Keller, G	1-A-6	Lacaille, J	1-B-40, 1-B-52, 2-C-87, 2-F-172, 3-B-35	Lepage, C	2-G-185
Jackman, M	1-G-180, 2-G-184, 3-G-183	Kennedy, M	3-C-85	Lachance, A	3-D-117	Lerch, J	1-A-1, 2-C-78, 2-G-187
Jackson, J	3-B-33	Kennedy, T	1-A-2, 1-B-28, 2-A-9, 2-B-60, 2-C-86, 2-I-193, 2-I-194, 3-A-10	Lachance, M	1-C-87, 3-B-40	Leri, F	2-F-157, 2-F-164, 2-F-165, 3-F-164
Jacobs, M	1-C-75	Kent, C	2-A-9	Lacoste, B	2-A-10	Lesage, F	2-B-22, 3-G-184
Jalloul, A	2-B-38	Kent, K	2-F-165	Lacroix, S	1-C-105, 1-C-67, 2-C-95, 2-G-182	Lesperance, S	1-A-11
Jamali, M	2-D-128, 2-D-132	Kerr, T	2-C-78	Laforest, S	2-B-21, 3-F-157	Lessard, M	1-C-67, 2-C-95
Jammow, W	2-B-21, 3-F-157	Khalaj, S	3-C-101	Lagace, D	1-F-175, 2-C-89	Lessard-Beaudoin, M	2-C-81
Jantz, J	2-D-122	Khan, M	1-B-38 , 1-B-44, 3-G-177	Lai Wing Sun, K	3-A-10	Leung, C	1-B-42
Javadi, P	3-D-120 , 2-D-113	Khan, S	1-C-85	Lai, Jimmy	2-D-124	Levesque, D	1-C-88, 1-F-165, 2-B-43, 2-G-183
Jayabal, S	3-C-106	Khanafer, S	2-D-123	Lai, Jonathan	2-C-78	Levesque, M	1-C-98, 2-B-37, 3-C-67
Jego, S	1-E-139	Khazall, R	1-E-140	Lakhanpal, G	1-B-38	Lévesque, S	2-C-95
Jia, D	3-B-55	Khoja, Z	1-C-107, 3-C-107	Lakhi, S	3-E-136	Levitan, R	1-F-155
Jia, Z	1-B-42, 1-B-53, 3-C-89	Khoutorsky, A	2-C-87 , 3-B-50	Laliberté, C	2-C-78	Levy, A	2-F-164
Jiang, D	3-C-83	Kielar, A	2-F-163	Lam, D	2-B-42	Levy, R	2-D-122
Jiang, J	2-B-42	Kim, J	2-C-94, 2-F-176, 3-C-70	Lam, M	2-A-18	Lewitus, G	3-B-38
Jiang, X	1-B-52	Kim, K	1-B-38	Lamarche-Vane, N	2-A-4	Li Fraine, S	3-B-42
Jin, A	3-C-95	King, J	3-D-121 , 1-D-115	Lamoureux, B	1-B-50	Li, A	1-E-137
Jinadasa, T	3-B-37	Kirby, J	3-F-143	Landry, J	1-A-10 , 1-A-8	Li, Q	2-B-32
Jmaeff, S	1-C-83	Klein, Ronald	2-C-103	Lang, A	2-F-151, 3-C-86	Li, Y	1-G-184
Joel Ross, P	3-B-62	Klein, Ruediger	3-A-13	Langille, E	1-A-1	Liao, E	1-B-43
Jog, M	1-G-180, 2-C-80, 2-G-184, 3-G-183	Kmeid, M	2-E-141 , 2-A-16, 2-C-65	Lanthier, F	3-D-122	Lieblisch, S	1-F-174
Jolin, M L	3-A-1	Knott, V	1-F-143, 3-F-145, 3-F-148, 3-F-151	Laplante, I	1-B-40	Liebsch, F	2-C-90
Jollant, F	2-C-74	Koeberle, P	2-C-100	Lapointe, T	1-D-123	Limebeer, C	2-F-164
Jones, E	1-B-49, 3-C-69	Kokoeva, M	2-C-70	Larcher, J	1-B-46	Lin, L	2-C-78
Jones, S	1-D-114	Kolisnyk, B	2-B-39	Lardizabal, J	1-C-96	Lin, T	3-G-179
Jong, Y	1-B-26	Kolta, A	3-B-25	Laroche, M	2-C-81	Liou, J	2-B-44
Jonz, M	2-B-24	Konefal, S	3-B-38	Larson, E	1-D-125	Lissemore, J	1-F-175
Joseph-Hernández, S	3-F-160 , 1-C-83	Konkle, A	2-A-2, 2-A-5, 3-A-5, 3-A-6	Lau, C	2-C-89	Liu, G	2-B-38
Joshi, K	2-C-85	Korgan, A	3-A-9 , 3-F-174	Lauzon, M	3-F-157	Liu, H (Lucy)	2-C-68
Josselyn, S	3-F-175	Koshimori, Y	3-C-86 , 2-F-151	Lavallée, C	3-C-72	Liu, J	3-C-89
Joyal, C	3-G-182	Koski, L	1-C-92	Lavoie, R	3-B-25	Lively, S	3-B-43
Ju, B	1-H-188	Kouser, M	2-C-78	Law, C	2-A-11	Lo, C	3-G-179
Julien, C	3-C-84	Krawczyk, M	1-C-86	Lawrence, J	3-B-54	Long, H	3-A-3, 3-E-137
Julien, J	1-C-93	Krief, N	1-B-39	Leavitt, M	1-F-162	Longpre, F	1-C-65
Juncker, D	2-I-193, 2-I-194	Krieglstein, K	3-IBRO-187	LeBlanc, A	2-C-96	Lopez, J	3-F-162
Jung, J	1-D-121	Kroner-Milsch, A	2-C-88	Lebrun-Julien, F	3-A-11	López-Cancio, E	1-F-151
Juranka, P	1-B-36	Kruglikov, I	3-B-40	Lecaigard, F	1-D-121	Lorenzo, L	2-I-191
Juzwik, C	1-C-84	Kuhlmann, N	3-C-87	Lecker, I	1-B-61, 3-B-49	Lortie, A	1-C-86
Kaartinen, V	2-B-33	Kujala, J	1-D-121	Leckie, C	1-A-16	Lortie, C	1-F-163
Kabashi, E	3-C-94	Kuksis, M	2-B-40 , 2-E-143	Leduc-Pessah, H	2-B-55	Lou, J	2-G-181
Kaeser, P	2-A-10	Kunwar, A	3-IBRO-187	LeDue, J	1-A-18	Loužá, M	3-F-147
Kalisch, B	3-B-45	Kupferschmidt, D	3-B-39	Lee, Aaron	1-A-10, 1-A-8	Lovejoy, D	2-E-144, 3-E-134
Kallivalappil, S	3-C-63	Kushner, S	3-F-175	Lee, Andy	3-B-60	Lovinger, D	3-B-39
Kamran-Disfani, R	3-D-127	Kutsarova, E	1-G-181	Lee, J	3-G-183 , 1-G-180, 2-G-184	Lowrey, C	2-D-125
Kang, J	2-D-115	Kwan, V	1-A-9 , 3-A-17	Lee, S	3-E-136	Lu, J	3-C-77
Kania, A	2-A-11, 3-A-13	La Fontaine, A	1-B-40	Legrand, M	1-C-63	Luczynski, P	1-C-89
Kaplan, A	2-A-9 , 2-A-4			Legroux, L	3-C-88	Luedke, A	2-C-91
Kaplan, D	1-A-6, 2-A-7			Leloup, C	1-E-136	Lukacs, G	2-B-46
Kar, S	2-C-107						
Karim, J	1-D-121						
Karimi-Abdolrezaee, S	1-B-29, 3-C-63						

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Lupien-Meilleur, A	2-F-172 , 1-B-52, 3-B-40	Martinez, M	1-D-124	Metzen, M	3-D-124 , 1-D-125, 2-D-129	Mori, M	2-I-190
Luyben, T	1-B-44 , 3-G-177	Martinez, R	1-G-182	Mezher, K	3-A-6	Morin, F	1-C-93, 3-C-80
Ma, Y	1-C-71	Martínez-Salamanca, E	1-G-179	Michaud, J	1-C-87 , 3-F-146	Morisse, G	1-C-66
Mabit, A	3-F-155	Martínez-Trujillo, J	1-F-162, 2-F-161, 2-F-175, 3-F-144	Mielke, J	2-A-13	Morrison, G	1-B-47
Mabrouk, R	3-C-86	Martinoli, M	1-C-63, 1-C-65, 3-C-96	Millecamps, M	2-D-127	Morrissey, M	1-F-166 , 1-F-173, 2-C-103, 3-F-172
MacDonald, J	2-A-12	Martone, P	2-F-160	Miller, F	1-A-17, 1-A-6, 2-A-7	Mostafa, A	3-D-127
MacDougall-Shackleton, S	2-F-155, 2-F-170	Marzban, H	2-A-15	Millot-Rousseau, P	3-C-80	Mu Nar Saw, N	1-B-53
Machnes, Z	1-C-91	Mash, D	1-C-104	Milloy, K	2-G-179	Mukherjee, B	1-B-47
MacIsaac, A	3-A-12	Massart, R	1-C-91, 3-C-91	Mills, A	2-C-78	Muller, C	2-C-78, 3-F-159
MacKay, H	1-E-140	Massicotte, R	2-E-142	Milner, A	2-D-134	Multhaup, G	2-C-90
MacKis, J	2-A-12	Mataró, M	1-F-151	Milnerwood, A	3-C-87	Mulvihill, K	2-F-168
MacLusky, N	1-E-141, 3-B-45	Mathieu, A	1-F-175, 2-D-127, 3-C-81	Milo, C	3-F-162	Munoz, D	1-D-132, 1-F-148, 1-F-167, 2-C-101, 2-D-122, 3-D-114, 3-F-143
MacPherson, J	3-C-101	Mattina, K	3-C-103	Mimee, A	2-E-143	Munz, M	1-A-13
MacVicar, B	1-G-184, 3-B-21, 3-B-53	Maussion, G	1-C-73	Minhas, M	3-F-164	Murai, K	1-B-49, 3-B-38, 3-C-69, 3-F-157
Mader, S	2-G-183	Mayers, L	2-C-77	Minogianis, E	1-F-165	Muratot, S	3-C-68
Madwar, C	2-I-192	Maysinger, D	3-B-24	Miranda, Z	3-D-125 , 2-D-112	Murphy, T	1-A-18, 2-C-71
Magdesian, M	2-I-190	McAdam, R	3-B-44	Miracourt, L	1-G-181, 2-B-47 , 2-I-189	Muscatell, K	1-F-152
Magharious, M	2-C-100	McCamphill, P	1-B-45	Mirédin, K	1-D-126	Musgaard, M	3-B-27
Magnin, E	3-B-59	McDonald, R	1-F-161	Mishra, R	1-F-171	Mylvaganam, S	1-C-86
Magoski, N	1-B-21, 1-B-24, 1-B-57, 2-B-28, 2-B-34	McGowan, P	3-F-163	Misljencevic, N	2-C-76	Nadeau, G	3-B-41
Mahadevan, V	1-B-51, 2-C-94, 3-F-175, 3-G-178	McGuire, H	1-B-23	Mitchell, D	2-D-128, 3-D-126	Nader, K	1-F-157, 2-C-87, 2-F-178, 3-F-162
Mahar, I	3-A-12	Mckie, K	2-A-3	Mitra, A	3-B-46 , 2-E-136, 3-E-139	Naderian, A	3-G-184
Mahendram, S	3-C-97	McKinney, A	1-C-91	Mittleman, G	2-C-71	Naeini, R	2-B-51
Maheu, M	1-A-12	McKinney, R	2-B-46 , 3-B-24	Miyahara, Y	2-I-190	Nagini, K	2-B-48
Mahgoub, N	3-D-130	McLaughlin, R	3-E-140	Mizrahi, R	3-C-86	Nakai, N	2-C-78
Mahmoudi, S	1-C-88	McLelland, G	2-C-93	Mogil, J	2-B-45, 2-D-118, 3-C-99	Nakatani, J	2-C-78
Mahvelati, T	3-C-90	McMahon, D	1-E-141	Mohajerani, M	1-A-18	Nalbantoglu, J	1-B-32
Mahvelati, T M	2-C-83	McPherson, P	1-C-99, 3-B-44	Mohamed Ali, O	2-F-167 , 2-F-158	Nantes, J	1-C-92
Maios, C	3-C-94	McVea, D	1-A-18	Mohebiany, A N	3-C-88	Nashed, J	1-D-128 , 2-D-125
Maira, M	3-F-160	Meaney, M	1-A-15, 1-B-48, 1-B-58, 1-E-135, 2-A-14, 2-A-16, 2-A-17, 2-C-65, 2-E-141, 2-E-142	Monaco, S	1-D-127 , 1-D-110, 1-D-112, 2-D-111	Nath, A	3-B-47 , 2-B-26, 2-B-54
Majer, A	1-C-90	Mechawar, N	1-A-12, 1-C-103, 3-A-12, 3-C-69	Mondragon	3-F-165	Naughton, M	2-C-76
Mak, G	3-F-173	Mechevske, E	1-F-147	Rodriguez, S		Navaratnam, V	3-F-159
Maler, L	1-D-118	Meftah, E	1-D-122	Ronette, M	1-D-113	Nelson, D	1-B-49
Mallet, P	1-A-16, 3-F-166	Meier, O	3-C-91	Mongrain, V	1-C-91, 1-F-168, 2-B-22, 2-F-159, 3-B-29, 3-C-98, 3-F-157	Nelson, R	1-F-143, 3-F-145, 3-F-148, 3-F-151
Mandrup, S	1-E-134, 3-B-22	Meletis, K	1-G-183	Monnor, T	2-D-129	Nemargut, J	3-C-73
Manseau, F	2-B-53	Meltzer, J	2-F-163	Monserrat, P	1-F-151	Neuber-Hess, M	3-B-20
Mapplebeck, J	2-B-45	Ménard, C	1-F-164 , 3-F-160	Monserratt Lopez	2-I-190	Neupane, S	2-D-130
Marchal, N	2-IBRO-196	Menard, J	1-F-154, 1-F-176, 2-A-18, 3-B-56	Ayon, G		Newell, E	2-B-42
Marcher, A	1-E-134	Mendell, A	3-B-45	Monteil, A	1-B-54	Nguyen, D	3-C-63
Marcoux, L	3-B-40	Mendrek, A	2-F-166	Montoya, I	1-F-175	Nguyen, Hoang	3-D-128
Marcus-Sells, M	1-B-30	Meng, Y	1-B-53	Moon, M	2-F-162	Nguyen, Huy-Binh	1-B-48
Marin, A	2-C-101	Mercaldo, V	3-F-175	Moonen, G	3-C-92	Nguyen, P	3-D-111
Markham, K	3-G-186	Merhi, L	1-C-83	Moquin, L	1-C-82, 1-C-89, 1-C-94, 2-C-70, 3-F-168	Nguyen, R	2-C-94
Marras, C	2-F-151	Merritt, K	2-D-126	Morabito, M	2-A-4	Nhan, T	2-G-180
Marshall, P	2-F-165 , 2-F-157	Messa, I	2-A-13	Morales, D	3-A-13	Nicolini, C	3-C-93
Marsh-Amstrong, N	2-B-47	Messekher, M	2-C-97	Moreau, J	2-G-185	Nieman, B	2-G-187
Martin, C	3-D-123	Messier, C	1-B-46, 1-G-178, 2-B-23	Moreno, S	2-F-163	Nishimura, K	2-D-117
Martin, H	1-A-5					Niu, Y	1-C-90
Martin, L	2-B-45					Njap, F	1-B-55
Martineau, É	2-C-92 , 3-C-104, 3-C-64					Nobrega, J	3-C-82
Martínez-Lozada, Z	3-IBRO-195						

POSTER AUTHOR INDEX

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Noel, A	1-C-93 , 3-C-80	Parker, L	2-F-164	Pokinko, M	3-F-168	Riad, M	2-B-21
Nolin, P	3-G-182	Parr, A	1-F-167	Pollak Dorocic, I	1-G-183	Ribe, I	2-F-172
Nona, C	2-B-49	Parrill, A	1-A-5	Pompeiano, M	1-A-10, 1-A-14, 1-A-8, 3-A-14	Ribeiro-da-Silva, A	1-B-26, 2-I-191
Normandeau, C	2-C-76, 3-B-48	Parsanejad, M	2-C-84	Poquérusse, J	1-A-13	Richards, B	3-F-175, 3-G-178
Norris, C	3-F-166	Pasquale, E	2-B-21, 3-F-157	Potluri, P	2-C-71	Rickmann, M	3-IBRO-187
Nunes Carrico, J	1-A-4	Pastor-Bernier, A	1-F-150	Potvin, S	2-F-166	Ricoult, S	2-I-193 , 2-I-194
Nuro, E	1-B-49	Patel, Payal	3-F-149	Pouliot, P	2-B-22	Rintoul, G	1-C-96
Oakden, W	3-G-186	Patel, Pinkal	3-C-81	Powell, C	2-C-78	Robbins, M	2-C-98
O'Donnell, D	1-D-109	Patoli, I	1-C-85	Prado, M	1-F-170, 2-B-39	Robertson, G	1-C-69
Ognjanovic, K	2-C-80	Patten, S	3-C-94	Prado, V	1-F-170, 2-B-39	Robertson, R	2-C-109, 2-B-58
Ogundele, O	3-IBRO-188	Patterson, Z	1-E-133 , 1-E-140	Prager-Khoutorsky, M	3-B-50 , 3-C-100	Robins, D	2-C-78
O'Hara, M	2-F-174	Paul, W	2-I-190	Prescott, S	3-B-58	Robinson, J	2-B-53
O'Hara, M	2-C-84	Pavlidis, P	2-B-61, 3-G-181	Pressey, J	1-B-51 , 3-F-175, 3-G-178	Robitaille, R	1-B-27, 1-B-39, 1-B-50, 2-C-92, 3-C-104, 3-C-64
Okamoto, K	1-B-38, 1-B-44, 3-G-177	Pêgo, J M	3-B-48	Pribrig, H	2-B-52	Rocchetti, J	1-F-169 , 3-C-81
Okuno, H	2-G-187	Pelletier, A	1-F-146	Prince, J	3-A-2	Rochefort, D	3-C-99
Olguin-Albuerne, M	3-IBRO-196	Penagarikano, O	2-C-78	Protopoulos, M	1-F-157	Rochford, J	1-B-49
Oliveira Ferreira de Souza, B	1-D-129	Peng, H	2-B-52	Proulx, E	1-B-29, 3-C-63	Roddick, K	2-F-171 , 1-F-172
Oliver, D	2-I-190	Pénicaud, L	1-E-134, 1-E-136, 3-B-22	Prowse, N	1-C-77	Rodier, S	3-B-56
O'Malley, K	1-B-26	Penna, A	3-B-49	Pruessner, J	1-F-153	Rodríguez, E	2-B-58
Omrani, M	1-D-128	Perez, A	1-B-50	Pruszyński, J A	1-F-128	Roehrich-Gascon, D	3-F-169
Ongo, G	2-I-193	Perreault, O	2-B-43 , 1-C-88	Ptito, A	1-F-160	Roes, M	1-F-174
Opferman, J	1-A-5	Perret, L	1-C-94 , 1-C-82	Ptito, M	2-D-113, 3-D-120	Roome, R	3-C-66
O'Reilly, M	1-C-107, 3-G-186	Perrot, T	3-A-18, 3-A-9, 3-F-167	Pyott, S	1-D-130	Rosa, E	3-C-97
Orlowski, J	2-B-46	Peters, S	2-C-96	Qadeer, M	1-C-85	Rosales, A	1-F-144
Orser, B	1-B-61, 1-B-62, 2-B-20, 2-B-63, 3-B-49	Peterson, N	3-C-95	Qessy, S	2-D-131 , 3-D-117	Rosborough, K	1-F-170
Osborne, L	2-C-78	Petitjean, H	2-B-51	Quirion, R	1-F-164, 3-C-69, 3-C-71, 3-F-160	Rose, P K	3-B-20
Osswald, I	3-C-73	Petrides, M	1-F-160, 2-F-150, 3-F-176	Qun Shi, X	3-C-108	Rosen, S	2-B-45
Oswald, K	2-E-140	Petrin, D	3-C-95	Rachalski, A	3-A-12	Rosenbaum, S	1-E-142 , 2-E-137
Otchengco, A	3-E-134	Petrov, R	3-D-110	Racine, E	1-H-185, 1-H-186, 1-H-187, 1-H-189, 1-H-190	Rosenecker, D	3-B-52
Ouellet, C	1-F-163	Petryszyn, S	1-C-95	Ragan, T	2-G-187	Rosignol, E	1-B-52, 1-C-87, 2-F-172, 3-B-40
Owen, A	1-F-159	Peyrard, S	3-C-84	Rahimi Balaei, M	2-A-15	Rosignol, S	1-D-124
Oyler, J	1-B-19, 1-B-41	Pezarro Schimmel, L	2-F-169	Rahimi, F	2-G-184 , 1-G-180, 3-G-183	Roth, R	3-C-107
Pablo, VL	3-IBRO-193	Pfäus, J	1-E-142	Rahmani, S	2-C-83, 3-C-90	Rouleau, G	1-C-87, 2-C-104, 3-C-99
Pacelli, C	1-C-78	Pflieger, J	1-D-117, 2-A-8, 3-D-122	Rainer, Q	2-C-97	Rousse, I	1-B-50
Pacey, L	2-C-78, 3-C-65, 3-C-83	Pham, A	2-D-112	Rainone, A	3-C-108	Routh, V	1-E-138
Pack, C	2-D-130	Phillmore, L	3-F-167 , 2-F-145	Raja, R	3-A-15	Roy, A	2-D-114
Palacios, D	1-E-142	Pidakala, J	1-A-14	Rakai, B	3-B-61	Rozanski, G	2-B-54 , 2-B-31
Pan Wong, T	1-B-48, 1-F-169, 1-F-175, 3-C-71	Pie, B	3-A-8	Ramani, M	1-C-86	Rudchenko, A	1-C-97
Pang, G	2-B-61	Pieper, F	1-F-162, 2-F-175	Ramsey, E	1-G-184	Rudyk, C	1-C-77
Paquet, M	2-A-11	Pierre, A	1-F-168	Rankin, C	3-C-101	Rungta, R	3-B-53
Paquette, G	1-F-168	Pilkiw, M	3-C-82	Rashid, A	3-F-175	Rupasinghe, H	1-C-69
Paquin, A	1-A-6	Pineyro, G	1-B-25, 2-B-48	Rastegar, N	1-A-15	Rusjan, P	3-C-86
Paradis-Isler, N	2-B-50	Pinto, C	1-IBRO-192	Rath-Wilson, K	3-D-129	Russo, M	1-C-74
Paré, A	2-C-95 , 2-G-182	Piraino, A	2-F-170	Ratnam, M	3-B-51	Ruthazer, E	1-A-13, 1-A-7, 1-G-181, 2-B-47, 2-B-60, 2-B-62, 2-I-189, 2-I-190, 3-A-4, 3-B-55
Paré, M	1-F-147	Pirvulescu, I	3-F-160	Raymond, J	3-E-141	Ryan, C	2-C-98
Parent, A	1-C-95, 2-D-119	Pittet, C	3-C-88	Raznahan, A	2-C-78	Ryan, R	2-A-16 , 2-A-17, 2-C-65
Parent, C	2-A-14 , 2-A-16	Pittman, Q	3-B-19, 3-E-138	Reed, S	1-E-139	Ryan, S	2-C-99
Parent, M	1-C-95, 2-D-119	Plamondon, H	2-F-147, 3-E-133, 3-E-141	Reginold, W	2-B-27	Ryan, T	2-C-99
Parfitt, G	2-B-39	Planel, E	1-C-93, 3-C-80	Rehder, V	1-B-54	Ryvlin, P	1-D-121
Park, D	2-C-84	Plourde, M	3-C-96	Reid, J	2-B-46		
Parker, A	2-C-104, 2-C-106, 3-C-84, 3-C-94	Podgorski, K	1-A-13	Renaud, J	3-C-96		
		Poitout, V	2-F-146				
		Poitras, I	1-C-93				

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Saadat, N	3-A-14	Seok, B	1-A-14	Spong, K	2-B-58	Therrien, M	2-C-104
Saarma, M	1-C-83	Serrano, E	1-D-124	Spratt, P	1-A-13, 2-B-47	Thevenot, E	3-G-186
Sabbagh, M	1-F-145	Shah, W	2-B-52	Sproule, M	1-D-131	Thiry, L	1-C-105
Sabharwal, V	1-G-182	Shahrokh, D	2-A-17 , 2-C-65	Squires, J	3-F-167	Thivierge, J	1-F-149
Sabir, M	3-C-98	Shalev, U	1-C-74, 2-C-77, 2-F-160	Srivastava, S	3-F-171 , 2-F-173	Thomas, S	1-D-113, 1-D-129, 2-D-124, 3-B-44, 3-G-184
Sachs, A	1-F-162, 2-F-175	Sharif-Naeini, R	3-B-42, 3-D-118	Staley, K	2-C-67	Thompson, R	3-B-61
Sadeghi, N	3-F-170	Sharma, S	1-F-156, 3-E-135	Standage, D	3-B-57	Thompson, S	2-D-127
Sadeghi, S	1-D-130	Sharshar, T	3-C-100	Stanley, E	2-B-26, 2-B-31, 2-B-32, 2-B-54, 3-B-47	Thompson-Steckel, G	2-B-60 , 2-I-193
Sadikot, A	2-B-60	Shen, L	2-C-85	Stare, J	3-C-100	Tian Wang, Y	1-C-79
Safarpour, F	2-C-84	Sheng, Z	1-E-138	Stellwagen, D	1-B-49, 2-B-52, 2-E-135, 3-B-38	Tibshirani, M	3-C-103
Saffi, G	2-C-68	Sherry, D	2-F-170	Stephens, L	1-C-107	Timofeev, I	2-B-57, 2-F-153
Saghatelyan, A	2-A-6, 3-A-7	Shiri, Z	2-B-56	Stephens, R	1-B-34	Timofeeva, E	2-E-136, 3-B-46, 3-E-139
Saigle, V	1-H-189 , 1-H-187	Shlik, J	1-F-143, 3-F-145, 3-F-148, 3-F-151	Sterea, A	1-F-172	Tong, M	2-D-133
Saint-Amour, A	1-B-39	Shore, A	2-F-165	Stern, S	3-B-23	Topolnik, L	3-B-59
Saint-Louis, M	2-I-191	Shrivastava, s	2-F-173 , 3-F-171	Stiver, M	2-F-174	Torres-Platas, S	1-C-103
Salam, S	1-F-171	Shuo, H	3-E-136	Stochaj, U	2-A-4	Toth, C	1-F-144
Salami, P	1-C-98	Siami, S	3-C-100	Stone, L	2-D-127	Tóth, K	2-B-25
Salander, V	1-G-183	Sidorova, Y	1-C-83	Storch, K	2-C-70	Tran, L	1-F-173
Salter, M	2-B-45, 2-B-55, 3-B-34, 3-C-92	Sild, M	3-B-55	Stover, K	1-C-100 , 1-D-115 , 2-C-72	Tran, M	3-F-175
Samadi, P	3-C-68, 3-C-80	Silveira, P	1-F-155	Strafella, A	2-F-151, 3-C-86	Trappenberg, T	3-B-57
Samaha, A	1-C-64, 1-C-76, 1-F-165	Simon, M	3-F-153	Sturgeon, R	1-B-57	Treit, D	1-C-108
Samarova, E	1-B-52 , 2-F-172	Simpson, M	1-B-60	Suderman, M	3-C-91	Tremblay, C	3-C-96
Samotus, O	1-G-180 , 2-G-184, 3-G-183	Singh Bhullar, K	1-C-69	Sugumar, S	2-C-102	Tremblay, E	3-C-104 , 2-C-92, 3-C-64
Sánchez, M G	2-C-105	Singh, A	3-C-96	Sun, J	2-B-59	Tremblay, M	2-C-105
Saneei, Z	2-G-186	Singh, K	1-A-9, 3-A-17	Surujballi, J	1-B-36	Tremblay, P	1-F-163, 2-F-154, 3-F-169
Sanon, N	1-F-158, 2-A-1	Sinova, A	2-C-71	Suter, U	3-A-11	Tremblay, Sebastien	2-F-175
Sanz, R	3-A-16 , 2-I-190	Sivanathan, S	3-F-163	Szczurkowska, J	2-A-1	Tremblay, Sophie	3-F-173
Saragovi, H	3-F-160	Sjöström, J	1-B-19, 1-B-41, 1-C-72	Szczygiel, L	1-C-83	Trempe, J	1-C-101
Saragovi, U	1-C-83, 2-C-100	Skinner, F	1-B-55, 3-B-30, 3-B-54	Szyf, M	1-C-74, 1-C-91, 3-C-91	Treue, S	3-F-144
Sarunic, M	1-C-83	Skrzypczak, S	1-A-16	Taghibiglou, C	3-C-101	Trewartha, K	3-D-131
Sasaki, A	3-F-163	Slack, R	1-C-78, 2-C-84	Taib, B	1-E-134, 3-B-22	Trimble, W	2-B-27
Saucier, M A	3-G-185	Slavich, G	1-F-152	Takehara-Nishiuchi, °K	3-F-172 , 1-F-166, 1-F-173, 2-C-103, 3-C-82	Tripathy, S	2-B-61
Scanlon, D	2-B-55	Small, S L	3-F-169	Takkala, P	3-B-58	Trudeau, L	1-C-78, 2-G-186, 3-C-105
Schellinck, H	1-F-172, 2-F-171	Smith, D	1-F-143, 3-F-145, 3-F-148, 3-F-151	Takumi, T	2-C-78	Trudel, E	3-C-100
Schlichter, L	2-B-42 , 1-C-81, 3-B-43	Snead, O	2-C-85	Tam, E	2-C-78	Tsang, A	2-C-93
Schmouh, J	3-C-99	Snutch, T	3-B-53	Tamvacakis, A	1-B-54	Tse, A	3-B-60 , 1-B-60
Schneider, A	2-D-132	Sokolovski, A	3-B-31	Tan, J	1-H-188, 2-F-176	Tse, F	1-B-60
Schnetkamp, P	2-B-38	Soltani, S	2-B-57	Tan, L	2-E-144	Tselichtchev, P	1-H-188
Schohl, A	1-A-13, 1-A-7	Soncin, S	2-C-101	Tang, M	1-C-101 , 3-C-76	Tsui, F	2-B-42
Scholtz, A	2-B-47	Sonenberg, N	2-C-87	Tanninen, S	2-C-103 , 1-F-173	Tsui, J	2-B-47
Scholz, J	1-A-1	Song, B	1-A-5	Tardif, C	2-I-195 , 2-B-41	Tsurudome, K	1-B-43
Schreij, A	1-C-99	Song, L	3-E-134	Tasker, R	3-C-74	Tudor-Jones, A	1-B-19
Schwabe, L	1-F-153	Soreq, H	2-B-39	Tatarnikov, I	3-C-87	Turecki, G	1-A-12, 1-C-103, 1-C-103, 1-C-73, 2-C-74
Scott, S	1-D-119, 1-D-128, 2-D-116, 2-D-125, 3-D-114, 3-D-132	Sorge, R	2-B-45	Tator, C	3-C-92	Tyson, J	3-B-53
Scullion, K	3-D-130	Sossin, W	1-B-33, 1-B-35, 1-B-45, 3-B-35, 3-B-44	Tauffmanberger, A	3-C-102 , 3-C-84	Unda, B	3-A-17
Séguéla, P	1-D-109, 2-B-33, 2-D-118	Soulet, D	2-G-182, 3-C-72	Taylor, J	1-G-184	Unsain, N	2-B-33, 3-C-73
Seigneur, J	2-B-57, 2-F-153	Soutar, C	3-B-56	Tennant, K	1-C-102	Vaccaro, A	3-C-94
Sekulic, V	3-B-54	Spafford, D	1-B-34	Teskey, G	2-C-79, 3-B-61, 3-D-130	Vaillancourt, K	1-C-104
Selvaganapathy, P R	1-F-171	Spafford, J	1-B-31, 1-B-54	Thambirajah, A	1-B-58	Valiante, T	1-C-70, 3-C-75
Senator, A	1-B-54 , 1-B-34	Spanswick, S	3-F-149	Thebaud, B	1-C-107	Vallée, J	1-B-39
Senthinathan, G	1-A-16	Sparks, D	1-B-56				

POSTER AUTHOR INDEX

Author	Poster Number	Author	Poster Number	Author	Poster Number	Author	Poster Number
Vallières, N	1-C-105	Wang, S	2-C-84	Wong, A	1-F-175	Yuan Zhang, T	2-A-16
Valyear, M	2-F-156 , 3-F-154	Wang, T	1-C-72	Wong, F	2-B-32	Yuan, Q	1-B-47
van den Brink, C	1-F-174	Wang, Yanlin	2-C-107	Wong, S	3-E-136	Yuan, T	1-B-46
van Donkelaar, P	2-D-121, 3-D-119	Wang, Yongquian	3-B-62	Wong, Y	1-D-116	Zaelzer, C	3-E-142
van Eede, M	2-C-78, 2-G-187	Wang, Yu Tian	1-G-184	Woodin, M	1-B-51, 2-C-94, 3-F-175, 3-G-178	Zamponi, G	3-D-110
Van Horn, M	2-B-62 , 3-B-55	Wang, Yun	3-C-77, 3-C-85	Wright, L	3-A-18	Zarruk, J	2-C-110 , 2-C-88
van Rossum, M	1-B-19	Waqas, M	1-C-85	Wu, J	1-G-181	Zhang, J	2-F-178 , 2-B-45, 3-C-108
Van Winsen, C	1-C-100, 2-C-72	Wasserman, D	2-F-176	Xiang Wang, L	1-C-105	Zhang, Shouping	1-B-42, 1-B-53
Vanderluit, J	1-A-5, 3-C-66	Watanabe, M	2-D-122	Xiao, C	2-C-109	Zhang, Shu	1-C-79
Vanni, M	1-A-18	Watt, A	3-C-106	Xing, P	1-D-124	Zhang, T	1-E-135, 2-A-14, 2-A-17
Varela, D	1-B-20	Weaver, I	3-F-174	Xiong, J	1-A-5, 3-C-66	Zhang, W	3-B-62
Vasefi, M	2-C-68	Weber-Adrian, D	3-G-186	Xu, H	3-C-85	Zhang, Yi	2-C-84
Vaucher, E	2-D-115, 3-D-128	Weilinger, N	3-B-61	Xu, K	2-F-177	Zhang, Ying	3-D-116
Vecchiarelli, H	3-F-149	Weishaupt, N	1-C-106	Xu, L	2-I-194	Zhao, E	3-B-20
Veenstra- VanderWeele, J	2-C-78	Welch, L	2-C-77, 2-F-160	Xu, M	3-E-134	Zhao, W	1-B-60
Ventura-Silva, A	3-B-48	Wellman, M	1-E-133	Xu, X	2-A-10	Zhu, L	2-C-70
Verhage, M	2-A-11	Wen, X	2-A-14, 2-A-16, 2-A-17	Xuan, Y	1-G-183	Zizzo, N	1-H-190 , 1-H-185
Vérièpe, J	2-C-106 , 3-C-84	Whissell, P	1-B-61	Xuan, Z	2-C-78	Zlatkina, V	3-F-176
Vernoux, N	3-C-68	Whitehead, S	1-C-106	Yadid, G	3-C-91	Zoidl, G	2-C-102
Vicic, N	2-F-174	Whitwell, R	2-D-134 , 2-D-126	Yalnizyan-Carson, A	3-G-178 , 3-G-178	Zurek, A	1-B-62
Vidal, G	1-G-182	Whyne, C	3-G-186	Yan, C	3-F-175	Zwaenepoel, D	1-G-184
Vigneault, E	1-B-30, 1-F-164	Wieskopf, J S	2-D-118	Yan, X	2-D-111	Zhang, L	1-C-72, 1-C-73, 1-C-86, 2-C-79, 3-B-31, 3-C-91
Voisin, A	3-C-105	Wiesner, T	3-B-41	Yang Jin, W	3-C-77	Zhang, P	1-B-15
Von Mollard, G F	3-IBRO-187	Wijekoon, N	1-IBRO-191	Yang Wang, L	1-A-11	Zhang, Shu	1-C-85
Voronova, A	1-A-6	Wilkin, M	2-A-18 , 3-B-56	Yang Xuan, I	3-C-65	Zhang, S	2-B-25, 3-B-36
Vousden, D	2-G-187	Willems, G	1-A-16	Yang, G	2-A-7	Zhang, W	2-C-59
Voyer, D	2-B-43	William, S	1-B-30	Yang, K	1-A-18	Zhao, L	1-C-94
Waheed, S	1-C-85	Williams, S	2-B-53, 2-F-149, 3-B-28, 3-B-30, 3-B-33, 3-F-165	Yang, M	3-C-108	Zhou, M	1-G-192
Walker, C	3-A-3, 3-E-137, 3-E-140	Wilson, Alan	3-C-86	Yang, V	2-C-101	Zhou, Z	1-B-18
Walling, S	2-C-89	Wilson, Ariel	2-C-108	Yee, A	3-G-186	Zhu, C	3-C-74
Walsh, C	1-G-184	Wilson, N	3-D-132	Yeomans, J	2-C-94, 2-F-176	Zhu, J	2-F-183
Wamsteeker	1-E-137	Winship, I	3-B-62	Yeung, M	1-C-108	Zochodne, D	3-A-10
Cusulin, J		Wintermark, P	1-C-106, 1-C-107, 3-C-107	Ying Chua, X	2-I-190	Zoidl, C	1-B-42
Wang, C	1-D-132	Winters, B	2-F-162, 2-F-174, 3-F-150	Yip, A	1-A-14	Zoidl, G	1-B-42 , 1-B-39, 2-C-82, 2-F-182
Wang, D	3-B-49	Wiseman, P	2-B-47, 2-I-189, 2-I-191	Yiu, A	3-F-175	Zoubarev, A	3-C-83
Wang, F	2-I-191	Woelfle, R	2-E-144	Yoon, S	1-F-176	Zurek, A	2-B-50 , 3-C-97 , 3-B-45
Wang, Jing	1-A-17	Wolpert, D	3-D-131, 3-F-152	Young, F	3-B-44		
Wang, John	2-B-42	Wondisford, F	1-A-17	Young, K	2-A-19		
Wang, Lihua	3-B-23			Yu, J	1-B-62 , 2-B-63 , 3-B-49		
Wang, Lu-Yang	2-B-27, 3-B-36, 3-G-180			Yu, K	3-C-87		
Wang, R	2-C-79			Yu, X	1-F-173		
				Yu, Z	1-D-130		

POSTER SESSION 1 – MONDAY, MAY 26, 2014

A – Development

1-A-1 Perinatal environmental enrichment alters the trajectory of mouse brain development

Rylan Allemang-Grand¹, Jan Scholz¹, Ellen Langille², Jason Lerch²

¹Mouse Imaging Centre, ²University of Toronto

1-A-2 Paranode Maintenance Requires Netrin-1 Expression by Oligodendrocytes

Jenea Bin¹, Timothy Kennedy¹

¹McGill University

1-A-3 Ten-m regulates precise synaptic targeting in Drosophila mechanosensory neurons

Vedrana Cvetkovska¹, Brian Chen¹

¹Research Institute of the McGill University Health Centre

1-A-4 Role of mTOR pathway in GABAergic maturation in the mouse neocortex

Mayukh Choudhury¹, Josianne Nunes Carrico², Martin Berrier², Graziella Di Cristo²

¹CHU Ste-Justine, ²Universite de Montreal

1-A-5 Mcl-1 and Bcl-x survival signaling through neurogenesis

Lauren Fogarty¹, Hiliary Martin¹, Beibei Song¹, Allison Parrill¹, S. M. Mahmudul Hasan¹, Jieying Xiong¹, Joseph Opferman², Lothar Hennighausen³, Jacqueline Vanderluit¹

¹Memorial University of Newfoundland, ²St. Jude Children's Research Hospital, ³NIDDK

1-A-6 Autism-Associated Ankrd11 is a Novel Epigenetic Regulator of Neurogenesis

Denis Gallagher¹, Anastassia Voronova¹, Sarah Burns¹, Alexa Bramall¹, Annie Paquin¹, Gordon Keller², David Kaplan¹, Freda Miller¹

¹The Hospital for Sick Children, ²McEwen Centre for Regenerative Medicine

1-A-7 TORC1 regulates excitatory synaptic maturation and dendritic development in vivo in the retinotectal system of *Xenopus laevis*

Delphine Gobert¹, Anne Schohl¹, Edward Ruthazer¹

¹Montreal Neurological Institute – McGill University

1-A-8 Response of Medullary Catecholaminergic Heme-Oxygenase-2 Coexpressing Neurons to Hypoxia in Chick Embryos

Connor Hawkins¹, Aaron Lee¹, Jeremy Landry¹, Maria Pompeiano¹

¹McGill University

1-A-9 Regulation of Neural Connectivity by DISC1 through a novel Dixdc1-Actin Cytoskeleton Pathway

Vickie Kwan¹, Karun Singh¹

¹McMaster University

1-A-10 The distribution of cFos-immunoreactive neurons in the brainstem and hypothalamus of late gestation chicken embryos in response to acute hypoxia

Jeremy Landry¹, Aaron Lee¹, Maria Pompeiano¹

¹McGill University

1-A-11 Activity Induced Plasticity in AMPAR composition at the Developing Calyx of Held/MNTB Synapse

Stephen Lesperance¹, Lu Yang Wang¹

¹The Hospital for Sick Children

1-A-12 Evidence for impaired migration of SVZ-derived neuroblasts in suicide

Marissa Maheu¹, Julia Devorak¹, Alexander Freibauer¹, Maria Antonietta Davoli¹, Gustavo Turecki¹, Naguib Mechawar¹

¹McGill Group for Suicide Studies, Douglas Mental Health University Institute

1-A-13 Patterned activity instructs axon refinement: a revision of Hebb's rules

Martin Munz¹, Delphine Gobert¹, Anne Schohl¹, Jessie Poquérousse², Kaspar Podgorski³, Perry Spratt¹, Edward Ruthazer¹

¹McGill University, ²Geisel School of Medicine, ³University of British Columbia

1-A-14 Development of melanin-concentrating hormone neurons in the chicken hypothalamus

Alissa Yip¹, John Pidakala¹, Bong Seok¹, Jaimie Bird¹, Maria Pompeiano¹

¹McGill University

1-A-15 Maternal care influences susceptibility to anxiety-type behaviours mediated by neurogenesis-dependent mechanisms.

Naghme Rastegar¹, Josie Diorio², Michael Meaney¹

¹Douglas Mental Health University Institute, McGill University

1-A-16 Precipitated cannabinoid withdrawal in the rat brain: Mapping c-fos gene expression in adolescent and adult rats.

Gehan Senthinathan¹, Gabrielle Willems¹, Sylvia Skrzypczak¹, Carolyn Leckie¹, Paul Mallet¹

¹Wilfrid Laurier University

1-A-17 Atypical PKC-CBP Pathway Regulates Murine Adult Neurogenesis

Jing Wang¹, Karolynn Hsu¹, Ling He², Fredric Wondisford², Freda Miller³

¹Ottawa Hospital Research Institute, ²Johns Hopkins Hospital, ³Hospital for Sick Children

1-A-18 Functional connectivity changes induced by monocular deprivation during the critical period

Kaiyun Yang¹, Allen Chan¹, Jeffrey LeDue¹, Matthieu Vanni¹, David McVea¹, Majid Mohajerani¹, Timothy Murphy¹, Max Cynader¹

¹Brain Research Centre

B - Neural Excitability, Synapses, and Glia: Cellular Mechanisms

1-B-19 Control of vesicle release by cortical presynaptic NMDA receptors

Therese Abrahamsson¹, Rui Costa², Kate Buchanan³, Dale Elgar³, Arne Blackman³, Julia Oyrer³, Adam Tudor-Jones³, Mark van Rossum², Jesper Sjostrom¹

¹The Research Institute of the McGill University Health Centre, ²Institute for Adaptive and Neural Computation, ³University College London

POSTER SESSION 1 – MONDAY, MAY 26, 2014

1-B-20 Targeting the TRPV1 assembly domain attenuates inflammation-induced hypersensitivity

Robyn Flynn¹, Reem Aboushousha¹, Kevin Chapman¹, Diego Varela², Christophe Altier¹

¹University of Calgary, ²CEMC & ICBM, Facultad de Medicina, Universidad de Chile

1-B-21 Pharmacological characterization of electrical coupling between identified peptidergic neurons

Christopher Beekharry¹, Neil Magoski¹

¹Queen's University

1-B-22 The Subfornical Organ: A new target for melanocortins

Emily Black¹, Alastair Ferguson¹

¹Queen's University

1-B-23 Pore properties of heteromeric kainate receptors

Patricia Brown¹, Mark Arousseau¹, Hugo McGuire², Rikard Blunck², Derek Bowie¹

¹McGill University, ²Université de Montréal

1-B-24 Electrical coupling in Aplysia: identification of innexin genes.

Christopher Carter¹, Neil Magoski¹

¹Queen's University

1-B-25 Molecular determinants of recycling of delta-opioid receptor

Iness Charfi¹, Graciela Pineyro¹

¹Université de Montréal

1-B-26 Involvement of spinal nuclear metabotropic glutamate 5 receptors (mGluR5) in persistent pain: anatomical and biochemical evidence

Virginia Cornea¹, Yuh-Jiin Jong², Alfredo Ribeiro-da-Silva¹, Karen O'Malley², Terence Coderre¹

¹McGill University, ²Washington University

1-B-27 Glial cells govern synaptic plasticity of competing nerve terminals at the mammalian neuromuscular junction

Houssam Darabid¹, Richard Robitaille¹

¹Université de Montréal

1-B-28 Myelin-specific ablation of UNC5B improves motor function in mice

Omar de Faria Jr.¹, Jenea Bin¹, Timothy Kennedy¹

¹Montreal Neurological Institute

1-B-29 Chondroitin Sulfate Proteoglycan negatively regulate the properties of Adult Spinal Cord Neural Precursor Cells through LAR and PTP σ receptors and activation of the Rho/ROCK pathway
Scott Dyck¹, Arsalon Alizadeh¹, Evan Proulx¹, Soheila Karimi-Abdolrezaee¹

¹University of Manitoba

1-B-30 Anatomical characterization of VGLUT3-POSITIVE gabaergic basket cell terminals in the hippocampus

Caroline Fasano¹, Maya Marcus-Sells¹, Veronique Bernard², Erika Vigneault¹, Sylvain William¹, Salah El Mestikawy¹

¹McGill University, ²Université Pierre et Marie Curie UM CR18

1-B-31 Accessory beta subunits for molluscan Nav1 sodium channels are members of a novel CUB domain containing protein family

Julia Fux¹, Neil Hsueh¹, J. David Spafford¹

¹University of Waterloo

1-B-32 Transmembrane Protein Coxsackievirus and Adenovirus Receptor (CAR) Promotes Neurite Outgrowth: Role of Translation Regulation

Songsong Geng¹, Patrick Fok¹, Josephine Nalbantoglu¹

¹McGill University

1-B-33 Investigating the role of Staufen 2 and the nonsense-mediated decay factor Upf1 in regulating stalled neuronal polyribosomes.

Tyson Graber¹, Wayne Sossin¹

¹Montreal Neurological Institute

1-B-35 Investigating Formation and Substrates of Protein Kinase M During Synaptic Plasticity in Aplysia

Margaret Hastings¹, Katrina Gong¹, Cherry Gao¹, Xiaotang Fan¹, Joanna Bougie¹, Danay Baker-Andresen¹, Wayne Sossin¹

¹McGill University

1-B-36 Sequence variability leads to distinct roles for M4 as an allosteric regulator of pentameric ligand-gated ion channels

Camille Hénault¹, Peter Juranka¹, Julian Surujballi¹, John Baenziger¹

¹University of Ottawa

1-B-37 Electrophysiological properties of rat subfornical organ neurons expressing calbindin d28K

Shuo Huang¹, Mark Fry¹

¹University of Manitoba

1-B-38 The role of CaMKII beta in regulating structural plasticity of dendritic spines

Mustafa Khan¹, Gurpreet Lakhanpal¹, Karam Kim², Yasanori Hayashi², Kenichi Okamoto¹

¹Lunenfeld-Tanenbaum Research Institute, ²RIKEN Brain Institute

1-B-39 Altered neuron-glia interactions at the neuromuscular synapse during normal aging

Noam Krief¹, Alexandre Saint-Amour¹, Joanne Vallée¹, Richard Robitaille¹

¹University of Montreal

1-B-40 Synaptic inputs to somatostatin interneurons display transcription- and translation-dependent long-term synaptic plasticity

Alexandre La Fontaine¹, Isabel Laplante¹, Jean-Claude Lacaille¹

¹Université de Montréal

1-B-41 Synapse-specific plasticity in the neocortical layer 5 microcircuit

***Txomin Lalanne*¹, *Julia Oyrer*², *Rui Costa*³, *Andrew Chung*¹, *You Chien Chou*¹, *Mark Farrant*², *Jesper Sjöström*¹**

¹McGill University, ²University College London, ³University of Edinburgh

1-B-42 The role of PAK signaling in synaptic transmission and plasticity using a tetracycline inducible system in mice

***Celeste Leung*¹, *Shouping Zhang*², *Zhengping Jia*²**

¹University of Toronto, ²Hospital for Sick Children

1-B-43 The Kinesin Khc-73 regulates BMP signaling and Synaptic Homeostasis at the Neuromuscular Junction

***Edward Liao*¹, *Kazuya Tsurudome*¹, *Wassim El Mounzer*¹, *Fatima Elazzouzi*¹, *Pejmun Haghighi*¹**

¹McGill University

1-B-44 Two-photon optogenetic control of cAMP dynamics in dendritic spines for studying synaptic plasticity

***Thomas Luyben*¹, *Mustafa Khan*¹, *Kenichi Okamoto*¹**

¹Samuel Lunenfeld Research Institute

1-B-45 eEF2 acts as a biochemical sensor during synaptic plasticity, coupling diverse activity patterns to translational control

***Patrick McCamphill*¹, *Carole Abi Farah*¹, *Wayne Sossin*¹**

¹McGill University

1-B-46 Extracellular glucose and lactate rapidly increase in the motor cortex after initiation of movement

***Jeremy Larcher*¹, *Tina Yuan*¹, *Claude Messier*¹**

¹University of Ottawa

1-B-47 Unlearning: NMDA receptor mediated metaplasticity in the anterior piriform cortex following early odor preference training in rats

***Bandhan Mukherjee*¹, *Gillian Morrison*¹, *Christine Fontaine*², *Qinlong Hou*¹, *Qi Yuan*¹, *Carolyn Harley*¹**

¹Memorial University Of Newfoundland & Labrador, ²University Of Victoria

1-B-48 Variations in Early Life Maternal Care Program Molecular Determinants of Hippocampal Plasticity and Intrinsic Excitability

***Huy-Binh Nguyen*¹, *Michael Meaney*¹, *Tak Pan Wong*¹**

¹Douglas Mental Health University Institute

1-B-49 Investigating the Role of the mRNA Binding Protein FXR1P in Brain Plasticity

***Erin Nuro*¹, *Denise Cook*², *Emma V. Jones*³, *Edith Hanna*¹, *Haider Altimimii*¹, *W. Todd Farmer*¹, *David Nelson*⁴, *Joseph Rochford*⁵, *David Stellwagen*³, *Keith Murai*¹**

¹Centre for Research in Neuroscience, ²University of Ottawa, ³Centre for Research in Neuroscience, ⁴Department of Molecular and Human Genetics, Baylor College of Medicine, ⁵Douglas Institute Research Centre

1-B-50 Immature phenotype in Perisynaptic Schwann cells after denervation and during reinnervation

***Anna Perez*¹, *Isabelle Rousse*¹, *Houssam Darabid*¹, *Benoit Lamoureux*¹, *Richard Robitaille*¹**

¹Universite de Montreal

1-B-51 The role of KCC2 interacting partners in maintaining stability and function at the membrane

***Jessica Pressey*¹, *Vivek Mahadevan*¹, *Brooke Acton*¹, *Melanie Woodin*¹**

¹University of Toronto

1-B-52 Age-dependant plasticity of cortical GABAergic innervation lessens seizure severity in Cacna1a mutants.

***Elena Samarova*¹, *Alexis Lupien-Meilleur*¹, *Xiao Jiang*¹, *Jean-Claude Lacaille*², *Elsa Rossignol*¹**

¹CHU Ste-Justine, Université de Montréal, ²Université de Montréal

1-B-53 The role of Disrupted-in-Schizophrenia 1 (DISC1) in synaptic plasticity

***Ner Mu Nar Saw*¹, *Shouping Zhang*¹, *Yanghong Meng*¹, *Xinuo Gao*¹, *Zhengping Jia*¹**

¹Hospital for Sick Children

1-B-54 The T-type calcium channel from basal eumetazoan *Trichoplax adhaerens* highlights the evolutionary history and fundamental features of the Cav3 channel family

***Adriano Senatore*¹, *Wendy Guan*², *Arnaud Monteil*³, *Arainna Tamvacakis*¹, *Liana Artinian*¹, *Vincent Rehder*¹, *Paul Katz*¹, *J. David Spafford*²**

¹Georgia State University, ²University of Waterloo, ³Institut de Génomique Fonctionnelle CNRS

1-B-55 Population bursts in large excitatory network models of hippocampus with biological constraints

***Felix Njap*¹, *Wilten Nicola*², *Katie Ferguson*¹, *Sue Ann Campbell*², *Frances Skinner*¹**

¹Toronto Western Research Institute, University Health Network, ²University of Waterloo

1-B-56 Cholinergic effects on temporal summation of theta and gamma-frequency synaptic inputs in the parasubiculo-entorhinal pathway

***Daniel Sparks*¹, *C. Andrew Chapman*¹**

¹Concordia University

1-B-57 Fine-tuning of cation channel function by TRP channel modulators in *Aplysia* bag cell neurons

***Raymond Sturgeon*¹, *Neil Magoski*¹**

¹Queen's University

1-B-58 Hippocampal development and neural excitation modulate H2A histone variant epigenetic responses

***Anita Thambirajah*¹, *Josie Diorio*¹, *Michael Meaney*¹**

¹Ludmer Centre for Neuroinformatics and Mental Health, Douglas Mental Health University Institute (McGill)

1-B-59 Astrocyte Ca²⁺ transients respond to changes in blood flow: Revealed by two-photon imaging in awake mice

***Cam Ha Tran*¹, *Grant Gordon*¹**

¹University of Calgary

1-B-60 Fructose feeding increases catecholamine release from rat adrenal chromaffin cells

***Frederick Tse*¹, *Michael Simpson*¹, *Weixiao Zhao*¹, *Amy Tse*¹**

¹University of Alberta

1-B-61 δ GABAA receptors facilitate long-term potentiation in the CA3 subfield of the hippocampus

***Paul Whissell*¹, *Sinziana Avramescu*¹, *Irene Lecker*¹, *Beverly Orser*¹**

¹University of Toronto

POSTER SESSION 1 – MONDAY, MAY 26, 2014

1-B-62 General anesthetics cause memory deficits after drug elimination by increasing a tonic inhibitory current in the hippocampus

Agnieszka Zurek¹, Jieying Yu¹, Erica Bridgwater¹, Beverley Orser¹

¹University of Toronto

C - Disorders of the Nervous System

1-C-63 Involvement of autophagy in the neuroprotective properties of Oleuropein against 6-hydroxydopamine-induced neuronal death

Imene Achour¹, Manon Legrand¹, Anne-Marie Arel-Dubeau¹, Marc Germain¹, Everaldo Attard², Maria-Grazia Martinoli¹

¹Université du Québec à Trois-Rivières, ²University of Malta

1-C-64 How fast cocaine is delivered to the brain is decisive in determining the motivation to take the drug

Florence Allain¹, Anne-Noël Samaha¹

¹UdeM

1-C-65 Cucurbitacin E is a novel neuroprotective phytosterol with autophagy-modulating activities on dopaminergic neurons

Anne-Marie Arel-Dubeau¹, Fanny Longpre¹, Marc Germain¹, Everaldo Attard², Maria-Grazia Martinoli¹

¹Université du Québec à Trois-Rivières, ²University of Malta

1-C-66 Neurons Regulate the Cell Surface Proteome of Central Nervous System Glia

Anshul Awasthi¹, Gregoire Morisse¹, Amit Bar-Or¹

¹Montreal Neurological Institute

1-C-67 Deletion of the IL-1 α gene upregulates expression of the survival factor TOX3 in neurons and oligodendrocytes and protects these cells from death after spinal cord injury

Dominic Bastien¹, Martine Lessard¹, Steve Lacroix¹

¹Université Laval-CRCHUL

1-C-68 The phosphodiesterase inhibitor Ibudilast attenuates glial cell reactivity, production of proinflammatory cytokines and neuronal loss in experimental glaucoma

Nicolas Belforte¹, Jorge Cueva-Vargas¹, Adriana Di Polo¹

¹University of Montreal Hospital Research Center

1-C-69 Evaluation of wild partridgeberry polyphenols as potential natural health product to reduce the risk of Alzheimer's disease

Khushwant Singh Bhullar¹, H.P.Vasanth Rupasinghe¹, George Robertson¹

¹Dalhousie University

1-C-70 Excitatory and inhibitory contributions to seizure like events in in vitro human neocortical tissue

Vanessa Breton¹, Joshua Dian¹, Peter Carlen¹, Taufik Valiante¹

¹Toronto Western Hospital, University of Toronto

1-C-71 Intracerebral thrombin infusion causes acute neuronal atrophy and cell death, but does not lead to chronic degeneration: implications for hemorrhagic stroke

Jayalakshmi Caliaperumal¹, Sonia Brodie¹, Yonglie Ma¹, Frederick Colbourne¹

¹University of Alberta

1-C-72 A novel optogenetic kindling model of epilepsy

Elvis Cela¹, Andrew Chung², Taiji Wang², Li-Yuan Chen², Jesper Sjöström³

¹Integrated Program in Neuroscience, McGill University, ²Montreal General Hospital, ³McGill University

1-C-73 HPRT Deficiency in Human Neural Progenitor Cells

Liam Crapper¹, Gilles Maussion¹, Carolina Gigek², Alpha Diallo¹, Gustavo Turecki¹, Carl Ernst¹

¹Douglas Mental Health University Institute, ²Universidade Federal de São Paulo

1-C-74 The role of leptin in the augmentation of heroin seeking induced by chronic food restriction.

Tracey D'Cunha¹, Melissa Russo¹, Emilie Daoud¹, Uri Shalev¹

¹Concordia University

1-C-75 S-adenosylmethionine reduces amyloid pathology severity in the McGill-Thy1-APP mouse model of Alzheimers disease

Sonia Do Carmo¹, Marie Jacobs¹, Marc Danik¹, M Florencia Iulita¹, Lionel Breuillaud¹, Moshe Szyf¹, A Claudio Cuello¹

¹McGill University

1-C-76 Chronic haloperidol enhances amphetamine-induced conditioned reward: altered reward circuits?

Cynthia El Hage¹, Anne-Noel Samaha¹

¹Université De Montreal

1-C-77 Granulocyte macrophage-colony stimulating factor and erythropoietin influence striatal regeneration in a prodromal model of Parkinson's disease.

Kyle Farmer¹, Christopher Rudyk¹, Natalie Prowse¹, Shawn Hayley¹

¹Carleton University

1-C-78 Axonal arborization and mitochondrial metabolism as key contributors to the selective vulnerability of substantia nigra dopamine neurons.

Consiglia Pacelli¹, Nicolas Giguère¹, Ruth Slack², Louis-Éric Trudeau¹

¹Université de Montréal, ²University of Ottawa

1-C-79 Activation of caspase-6 and cleavage of STK3 in an early event in an in vitro model of stroke.

Marie-Josée Demers¹, Kim Girling², Shu Zhang², Yu Tian Wang², Rona Graham¹

¹University of Sherbrooke, ²University of British Columbia

1-C-80 Differences in the phagocytic response of microglia and peripheral macrophages after spinal cord injury and its effects on cell death

Andrew Greenhalgh¹, Sam David¹

¹McGill University

1-C-81 Recombinant IL-4 injection into the brain alters the inflammatory response and grey matter injury in a rat model of ischemic stroke

Sarah Hutchings¹, Lyanne Schlichter¹

¹University Health Network

1-C-82 Dissociating dopamine functions with new models of dopamine depletion specific to the mesocorticolimbic or nigrostriatal pathways

Elsa Isingrini¹, Lea Perret¹, Marie-Eve Desaulniers¹, Luc Moquin¹, Alain Gratton¹, Bruno Giros¹

¹McGill University, Douglas Institut

1-C-83 GDNF Mimetics for Neuroprotection in the Retina

Sean Jmaeff¹, Pablo Barcelona¹, Sylvia Josephy¹, Alba Galan², Lukas Merhi³, Lukasz Szczygiel³, Marinko Sarunic³, Yulia Sidorova⁴, Mart Saarma⁴, Uri Saragovi¹

¹McGill University, ²Pharmacology, ³Simon Fraser University, ⁴University of Helsinki

1-C-84 Identifying microRNA regulators of neuronal viability and repair in multiple sclerosis

Camille Juzwik¹, Amit Bar-Or¹, Alyson Fournier¹

¹McGill University

1-C-85 The Frequency of Coagulopathy And Its Significance In An Emergency Neurotrauma Facility.

Salman Khan¹, Muhammad Waqas¹, Mohsin Qadeer¹, Shahan Waheed¹, Iqra Patoli¹, Muhammad Bari¹

¹Aga Khan University

1-C-86 Pathological sharp waves and hyperexcitability in a mouse model of fetal alcohol spectrum disorder (FASD)

Michal Krawczyk¹, Meera Ramani¹, Shanthini Mylvaganam¹, Peter Carlen²

¹Toronto Western Hospital, ²Toronto Western Hospital and University of Toronto

1-C-87 The genetic landscape of infantile spasms

Jacques Michaud¹, Mathieu Lachance¹, Fadi Hamdan¹, Patrick Cossette¹, Lionel Carmant¹, Anne Lortie¹, Emmanuelle Lemyre¹, Guy Rouleau², Elsa Rossignol¹

¹CHU Ste-Justine Research Center, ²Montreal Neurological Institute

1-C-88 Haloperidol-induced dopamine D3 receptor upregulation in the direct pathway correlates with tardive dyskinesia in non-human primates

Souha Mahmoudi¹, Olivier Perreault¹, Pierre J. Blanchet², Daniel Levesque¹

¹University of Montreal, ²University of Montreal, Faculty of Dentistry

1-C-89 The hemisphere-specific effect of chronic stress on the dendritic morphology of rat prefrontal cortical callosal neurons

Pauline Luczynski¹, Luc Moquin¹, Alain Gratton¹

¹McGill University

1-C-90 Characterizing upregulated miRNAs during preclinical prion disease: possible roles in neuroprotection

Anna Majer¹, Yulian Niu¹, Stephanie Booth¹

¹Public Health Agency of Canada

1-C-91 Overlap in transcriptional and epigenetic signatures between sleep deprivation and epilepsy

Renaud Massart¹, Ziv Machnes¹, Marlene Freyburger², Anne McKinney¹, Valerie Mongrain², Moshe Szyf¹

¹McGill University, ²Montreal University

1-C-92 Atrophy and cortical demyelination predict the severity of depressive symptoms among people with relapsing-remitting multiple sclerosis

Julia Nantes¹, Lisa Koski¹

¹McGill University

1-C-93 Involvement of ERK1/2 in Tau phosphorylation

Anastasia Noel¹, Isabelle Poitras¹, Jacinthe Julien¹, Françoise Morin¹, Emmanuel Planel¹

¹Centre de Recherche du Centre Hospitalier de l'Université de Laval

1-C-94 Unraveling the function of norepinephrine in anxiety and depression with a new NE depletion model: the conditional VMAT2 knockout mouse

Lea Perret¹, Elsa Isingrini¹, Marie-Eve Desaulniers¹, Luc Moquin¹, Alain Gratton¹, Bruno Giros¹

¹Douglas Hospital Research Center – McGill University

1-C-95 Calretinin striatal interneurons: characterization and distribution in a murine model of Parkinson's disease

Sarah Petryszyn¹, Dave Gagnon¹, Jean-Martin Beaulieu¹, André Parent¹, Martin Parent¹

¹Centre de recherche de l'Institut universitaire en santé mentale de Québec

1-C-96 Impact of molecular motor disruption on mitochondrial dynamics and function

Diepiriye Iworima¹, Justin Lardizabal¹, Gordon Rintoul¹

¹Simon Fraser University

1-C-97 Synaptic Transmission is Depressed in Sympathetic but not Parasympathetic Ganglia of Diabetic Mice due to Different Susceptibility to Oxidative Stress

Alona Rudchenko¹, Eli Akude¹, Ellis Cooper¹

¹McGill University

1-C-98 Dynamics of interictal spikes and high-frequency oscillations during epileptogenesis in temporal lobe epilepsy

Pariya Salami¹, Maxime Lévesque¹, Ruba Benini¹, Charels Behr¹, Jean Gotman¹, Massimo Avoli¹

¹McGill University

1-C-99 The Parkinson disease gene LRRK2 works in concert with clathrin-light chains to limit activation of Rac1

Andrea Schreij¹, Mathilde Chaineau¹, Edward Fon¹, Peter McPherson¹

¹McGill University

1-C-100 Characterization of cognitive function in the 3xTg-AD mouse model of Alzheimer's disease at 6 months of age

Kurt Stover¹, Mackenzie Campbell¹, Christine Van Winsen¹, Richard Brown¹

¹Dalhousie University

POSTER SESSION 1 – MONDAY, MAY 26, 2014

1-C-101 Deciphering the mechanisms of action of parkin during mitophagy using a structure-based FRET-reporter system

Matthew Tang¹, Jean-Francois Trempe¹, Edward Fon¹

¹Montreal Neurological Institute

1-C-102 Longitudinal imaging of thalamocortical projections after stroke

Kelly Tennant¹, Craig Brown¹

¹University of Victoria

1-C-103 Increased microglial priming and perivascular macrophage density in the dorsal anterior cingulate white matter of depressed suicides

Susana Torres-Platas¹, Cristiana Cruceanu¹, Gary Chen¹, Gustavo Turecki¹, Naguib Mechawar¹

¹McGill University – Douglas Hospital

1-C-104 DNA Methylation in the Striatum of Dependent Cocaine Abusers

Kathryn Vaillancourt¹, Gang Chen¹, Alpha Diallo¹, Carl Ernst¹, Deborah Mash², Gustavo Turecki¹

¹McGill Group for Suicide Studies, McGill University, ²University of Miami School of Medicine

1-C-105 Betacellulin regulates the formation of myelin incisures and conduction of nerve impulses in the regenerating peripheral nerve

Linda Xiang Wang¹, Nicolas Vallières¹, Erik Bélanger², Louise Thiry¹, Daniel Côté², Frédéric Bretzner¹, Steve Lacroix¹

¹Centre de recherche du CHU de Québec – CHUL, ²Institut universitaire de santé mentale de Québec

1-C-106 The quest for early reversible changes in Alzheimer's disease: mass spectrometric imaging of gangliosides in a novel transgenic rat model of prodromal AD

Nina Weishaupt¹, David Cechetto¹, Vladimir Hachinski², Shawn Whitehead¹

¹University of Western Ontario, ²London Health Sciences Centre, University of Western Ontario

1-C-107 Impact of Bronchopulmonary Dysplasia on Brain Development

Laurel Stephens¹, Zehra Khoja¹, Megan O'Reilly², Farah Eaton², Bernard Thebaud³, Pia Wintermark¹

¹McGill University, ²University of Alberta, ³University of Ottawa

1-C-108 The effects of intra-hippocampal histamine on dorsal and ventral hippocampal theta rhythm

Michelle Yeung¹, Emma Frieser¹, Clayton Dickson¹, Dallas Treit¹

¹University of Alberta

D - Sensory and Motor Systems

1-D-109 Contribution of TRPC3 to calcium homeostasis and inflammatory nociceptive pathways in DRG sensory neurons

Hazim Alkhani¹, Ariel Ase¹, Rebecca Grant², Dajan O'Donnell², Philippe Séguéla¹

¹McGill University, ²AstraZeneca R&D Montreal

1-D-110 Cortical mechanisms for transaccadic feature integration in spatiotopic vs. Retinotopic coordinates: an fMRI study.

Bianca-Ruxandra Baltaretu¹, Ben Dunkley¹, Simona Monaco¹, J. Douglas Crawford¹

¹York University

1-D-111 A simplified up-down (SUDO) method for measuring mechanical nociception in rodents using von Frey filaments

Robert Bonin¹, Cyril Bories¹, Yves De Koninck¹

¹CR-IUSMQ

1-D-112 Cortical mechanisms for reaching to a remembered visual location during target memory and motor planning periods: an fMRI study

David Cappadocia¹, Simona Monaco¹, Ying Chen¹, J. Douglas Crawford¹

¹York University

1-D-113 Expression of endocannabinoid enzymes diacylglycerol lipase alpha (DAGLα) and monoacylglycerol lipase (MGL) during postnatal retinal development

Bruno Cecyre¹, Marjorie Monette¹, Liza Beudjekian¹, Sebastien Thomas¹, Christian Casanova¹, Jean-Francois Bouchard¹

¹Université de Montreal

1-D-114 Proprioceptive Precision is Impaired in Ehlers-Danlos Syndrome

Holly Clayton¹, Stephanie Jones², Denise Henriques¹

¹York University, ²Dalhousie University

1-D-115 Optogenetic modulation of GABAergic activity in mouse primary visual cortex affects contrast adaptation

Kurt Stover¹, Jillian King¹, Kaitlyn Gordon¹, Nathan Crowder¹

¹Dalhousie University

1-D-116 Loss of alpha-9 nAChR in the efferent vestibular pathway affects vestibulo-ocular reflex responses to horizontal rotation in mice

Yi Shan Wong¹, Kathleen Cullen¹

¹McGill University

1-D-117 Snout mechanosensory influence on arm extensor response in newborn opossums, *Monodelphis domestica*

Marie-Josée Desmarais¹, Therese Cabana¹, Jean-Francois Pflieger¹

¹Université de Montréal

1-D-118 SK channels convert burst NMDAR-dependent LTD to LTP in communication sensory neurons

Len Maler¹

¹University of Ottawa

1-D-119 Primary motor cortical neurons reflect torque-related activity from ipsilateral limb

Ethan Heming¹, Stephen Scott¹

¹Queen's University

1-D-120 Differential neural responses to naturally occurring envelopes in the electrosensory system

Chengjie Huang¹, Maurice Chacron¹

¹McGill University

1-D-121 MEG gamma oscillations in primary visual cortex are correlated with resting GABA-A receptor density

Jan Kujala¹, Julien Jung², Sandrine Bouvard³, Carolina Ciumas², Françoise Lecaignard², Romain Bouet², Philippe Ryvlin², Jerbi Karim⁴

¹O.V. Lounasmaa Lab, Aalto University, ²Lyon Neuroscience Research Center, INSERM-CNRS-University of Lyon I, ³CERMEP imaging center Lyon, ⁴Université de Montréal

1-D-122 Effects of transcranial direct current stimulation, tDCS, of primary somatosensory cortex, S1, on tactile detection.

Sara Labbé¹, El Mehdi Meftah¹, Elaine Chapman¹

¹Université de Montréal

1-D-123 TRPV1 sensitization is essential for the development of chronic, but not acute pain following colonic inflammation

Tamia Lapointe¹, Robyn Flynn¹, Kevin Chapman¹, Christophe Altier¹

¹University of Calgary

1-D-124 Role of residual dorsolateral pathways in locomotor recovery after spinal hemisection in cats

Marina Martinez¹, Eleonore Serrano², Paul Xing², Hugo Delivet-Mongrain², Serge Rossignol²

¹University of Calgary, ²University of Montreal

1-D-125 Serotonin modulates electrosensory processing and behavior via 5-HT2 receptors

Erik Larson¹, Michael Metzen¹, Maurice Chacron¹

¹McGill University

1-D-126 Training induced dynamic filtering of auditory distractors in the rat primary auditory cortex

Kim Mirédin¹, Étienne De Villers-Sidani¹

¹McGill University

1-D-127 Neural substrates involved in the integration of object properties and intended actions

Simona Monaco¹, Ying Chen¹, Noura AlOmawi¹, John Crawford¹

¹York University

1-D-128 The sensitivity of primary motor cortex to pre-perturbation muscle activity suggests knowledge of the inherent properties of motoneurons

Joseph Nashed¹, Mohsen Omrani¹, J. Andrew Pruszynski², Stephen Scott¹

¹Queen's University, ²University of Umea

1-D-129 Retinotopic maps and functional properties of V1 in D2 dopamine receptor knockout mice

Bruno Oliveira Ferreira de Souza¹, Sebastien Thomas¹, Jean Martin Beaulieu², Christian Casanova¹

¹Université de Montreal, ²Institut Universitaire de Sante Mentale de Quebec

1-D-130 Properties of synaptic inputs from hair cells and efferents onto the vestibular afferent calyx terminals

Soroush Sadeghi¹, Zhou Yu², Sonja Pyott³, Elisabeth Glowatzki²

¹University at Buffalo, ²Johns Hopkins School of Medicine, ³University of North Carolina Wilmington

1-D-131 Investigating the transformation from a dense to a sparse neural code

Michael Sproule¹, Maurice Chacron¹

¹McGill University

1-D-132 Modulation of stimulus saliency on human pupil orienting response

Chin-An Wang¹, Douglas Munoz¹

¹Queens University

E - Homeostatic and Neuroendocrine Systems

1-E-133 Novel putative GOAT Inhibitor, CF801, Reduces Acylated Ghrelin & Body Weight in C57/BL6J Male Mice

Zack Patterson¹, Martin Wellman¹, Alfonso Abizaid¹

¹Carleton University

1-E-134 Role of Acyl-CoA Binding Protein (ACBP) in Hypothalamic Control of Energy Homeostasis

Lionel Budry¹, Khalil Bouyakdan¹, Bouchra Taib¹, Nusrat Dewan¹, Ann-Britt Marcher², Maria Bloksgaard², Susanne Mandrup², Luc Pénicaud³, Xavier Fioramonti³, Thierry Alquier¹

¹CHUM research center, ²Syddansk Universitet, ³Université de Bourgogne

1-E-135 Transgenerational transmission of maternal care via the regulation of estrogen receptor alpha

Sabine Dhir¹, Tie Yuan Zhang¹, Josie Diorio¹, Michael Meaney¹

¹Douglas Mental Health University Institute

1-E-136 Involvement of Reactive Oxygen Species (ROS) and Transient Receptor Potential Canonical (TRPC) in glucose sensitivity of hypothalamic neuron.

Chloé Chrétien¹, Claire Fenech¹, Sylvie Grall¹, Luc Pénicaud¹, Corinne Leloup¹, Xavier Fioramonti¹

¹UMR 6265 CNRS, 1324 INRA-uB

1-E-137 A novel circuit for stress termination

Tamás Füzesi¹, Jaclyn Wamsteeker Cusulin¹, Amy Li¹, Jaideep Bains¹

¹University of Calgary

1-E-138 The monounsaturated fatty acid oleate in the ventral tegmental area inhibits food intake and dopamine neurotransmission

Cecile Hryhorczuk¹, Zhenyu Sheng², Vanessa Routh², Thierry Alquier¹, Stephanie Fulton¹

¹University of Montreal, ²Rutgers New Jersey Medical School

1-E-139 Optogenetic dissection of the MCH system: implications for sleep-state modulation.

Sonia Jégo¹, Stephen Glasgow¹, Carolina Gutierrez Herrera¹, Richard Boyce¹, Sean Reed¹, Antoine Adamantidis¹

¹McGill University

1-E-140 Alterations in Hypothalamic Feeding Circuitry and Leptin Response in CD-1 Mice Perinatally Exposed to the Endocrine Disruptor Bisphenol-A (BPA)

Harry MacKay¹, Zachary Patterson¹, Rim Khazall¹, Alfonso Abizaid¹

¹Carleton University

1-E-141 The effects of gonadectomy on hippocampal dendritic spine density and branching in adult male mice

Dallan McMahon¹, Sarah Atwi¹, Craig Bailey¹, Neil MacLusky¹

¹University of Guelph

POSTER SESSION 1 – MONDAY, MAY 26, 2014

1-E-142 Infusions of ghrelin into the medial preoptic area inhibits appetitive sexual behaviour and shortens copulatory behaviours in the male rat

Stephanie Rosenbaum¹, Daniel Palacios², Matthew Graham², James Pfaus², Alfonso Abizaid¹

¹Carleton University, ²Concordia University

F - Cognition and Behavior

1-F-143 Acute Effects of Nabilone on Sensory Gating in Healthy Participants: A Brain Event-Related Potential Study

Robert Aidelbaum¹, Dylan Smith¹, Joelle Choueiry¹, Sara de la Salle¹, Danielle Impey¹, Jasmit Heera¹, Renee Nelson¹, Lawrence Inyang¹, Ashley Beaudoin¹, Vadim Ilivitsky¹, Jakov Shlik¹, Verner Knott¹

¹Royal Ottawa Mental Health Centre

1-F-144 Investigation of the role of insulin deficiency and loss of PI3K-AKT downstream regulators GSK3 β -CREB signaling in the pathogenesis of diabetic brain

Tazrina Alrazi¹, Alma Rosales¹, Cory Toth¹

¹University of Calgary

1-F-145 The Neurobiology of Adult Attachment

Martha Bailey¹, Mark Sabbagh¹

¹Queen's University

1-F-146 Genetic deletion of Akt3 in mice altered motor learning

Yan Bergeron¹, Amélie Pelletier¹, François Fabi¹, Eric Asselin¹, Michel Cyr¹

¹Université du Québec à Trois-Rivières

1-F-147 Changes in rat inhibitory control and response adjustment with aging and time-out penalty

Jonathan Beuk¹, Richard Beninger¹, Elysia Mechevske¹, Martin Paré¹

¹Queen's University

1-F-148 Neural correlates of temporally and spatially predictive saccades

Benedict Chang¹, Donald Brien¹, Brian Coe¹, Douglas Munoz¹

¹Queen's University

1-F-149 Validity and application of the modulation index in assessing cross-frequency coupling

Anna Choutova¹, Jean-Philippe Thivierge¹

¹University of Ottawa

1-F-150 Premotor cortical activity reflects value and effort biases during reach decisions

Alexandre Pastor-Bernier¹, Marie-Claude Labonté², Paul Cisek²

¹Cambridge University, ²University of Montreal

1-F-151 Metabolic Imbalance, Default Mode Network Activity, White Matter Integrity and Cognitive Outcome in Stroke Patients

Rosalía Dacosta-Aguayo¹, Manuel Graña², Carles Falcon¹, Marina Fernández-Andújar¹, Elena López-Cancio³, Cynthia Caceres³, Nuria Bargallo⁴, Maite Barrios¹, Imma Clemente¹, Pere Toran Monserrat⁵, Rosa Fores Sas⁵, Antoni Davalos³, Maria Mataró¹

¹University of Barcelona, ²University of the Basque Country, ³Hospital Germans Trias i Pujol, ⁴Hospital Clínic, ⁵Institut Universitari de Investigació en Atenció Primària (-IDIAP) Jordi Gol

1-F-152 Neural response to social evaluation in previously depressed compared to healthy young women: Differential engagement of dorsal anterior cingulate over time

Katarina Dedovic¹, George Slavich², Keely Muscatell³, Michael Irwin², Naomi Eisenberger²

¹UCLA/Douglas Mental Health University Institute, ²UCLA, ³UCSF

1-F-153 The effect of memory reconsolidation blockade on functional connectivity

Philip Dickinson¹, Pierre Bellec², Lars Schwabe³, Jens Pruessner¹

¹McGill University, ²Université de Montréal, ³Ruhr-Universität Bochum

1-F-154 Behavioral anxiolysis without reduction of hippocampal theta frequency after histamine application in the lateral septum of rats

San-San Chee¹, Janet Menard¹, Hans Dringenberg¹

¹Queen's University

1-F-155 Dopamine "Plasticity" genes- A review of the theory and its potential relevance for understanding overeating and obesity

Laurette Dube¹, Hajar Fatemi², Patricia Silveira³, Robert Levitan⁴

¹McGill University, McGill Centre for Convergence of Health and Economics (MCCHE), ²McGill University, ³Faculdade de Medicina, Hospital de Clínicas de Porto Alegre, Universidade Federal do Rio Grande do Sul, ⁴University of Toronto

1-F-156 Loss of Stat3 signalling in midbrain dopamine neurons enhances anxiety-like behaviour in female mice

Maria Fernanda Fernandes¹, Sandeep Sharma¹, Shizuo Akira², Stephanie Fulton¹

¹Université de Montréal, ²Osaka University

1-F-157 Amyloid-beta regulates memory stability

Peter Finnie¹, Maria Protopoulos¹, Karim Nader¹

¹McGill University

1-F-158 Behavioral adverse effect profile of Brivaracetam versus Levetiracetam in the rat kainic acid (KA) model of temporal lobe epilepsy (TLE).

Jonathan Gagné¹, Nathalie Sanon², Sébastien Desgent², Lionel Carmant¹

¹University of Montreal, ²Centre de recherche du CHU Sainte-Justine

1-F-159 Detection of bottom-up and top-down attentional control mechanisms using a vibro-tactile Brain-Computer Interface (BCI)

Raechelle Gibson¹, Kyle Goldberger¹, Srivas Chennu², Adrian Owen¹, Damian Cruse¹

¹Western University, ²University of Cambridge

1-F-160 Local Morphology Predicts Functional Organization for the Cognitive Map Task within Parahippocampal Cortex in the Human Brain

Sonja Huntgeburth¹, Jen-Kai Chen¹, Alain Ptito¹, Michael Petrides¹

¹Montreal Neurological Institute; McGill University

1-F-161 The effects of beta-amyloid administration in an animal model of diabetes

Robin Keeley¹, Nhung Hong¹, Robert Balog¹, Cameron Bye¹, Robert McDonald¹

¹University of Lethbridge

1-F-162 Correlated spiking during spatial working memory in macaque prefrontal area 8r

Matthew Leavitt¹, Florian Pieper², Adam Sachs³, Julio Martinez-Trujillo¹

¹McGill University, ²University of Hamburg-Eppendorf, ³Ottawa Hospital Research Institute, University of Ottawa

1-F-163 The loss of a generation: the accelerating decline of hearing acuity among healthy adults

Catherine Lortie¹, Mylène Bilodeau-Mercure¹, Claudie Ouellet¹, Pascale Tremblay¹, Matthieu Guitton¹

¹Laval University

1-F-164 Glutamate presynaptic vesicular transporter and postsynaptic receptor levels correlate with spatial memory in aging rat models

Caroline Ménard¹, Erika Vigneault², Guylaine Ferland³, Pierrette Gaudreau⁴, Salah El Mestikawy⁵, Remi Quirion⁵

¹Université de Montréal, Centre hospitalier Université de Montreal Research Center, McGill University, ²Douglas Mental Health University Institute, ³Université de Montréal, Hôpital du Sacré-Coeur de Montréal Research Center, ⁴Université de Montréal, Centre hospitalier Université de Montreal Research Center, ⁵McGill University, Douglas Mental Health University Institute

1-F-165 Increasing the speed of cocaine delivery augments the motivation to take the drug and promotes regulation of corticostriatal BDNF and TrkB mRNA

Ellie-Anna Minogianis¹, Daniel Levesque¹, Anne-Noel Samaha¹

¹Université de Montréal

1-F-166 Linking memory-related firing of prefrontal neurons to the strength of their entrainment to theta oscillations in the rhinal cortex and ventral hippocampus

Mark Morrissey¹, Kaori Takehara-Nishiuchi¹

¹University of Toronto

1-F-167 A brain network for strategic decision-making

Ashley Parr¹, Brian Coe¹, Douglas Munoz¹, Michael Dorris²

¹Queen's University, ²Institute of Neuroscience, Chinese Academy of Sciences

1-F-168 Analysis of the sleep - wake cycle in EphA4 knockout mice

Audrey Pierre¹, Marlène Freyburger¹, Gabrielle Paquette¹, Erika Bélanger-Nelson¹, Valérie Mongrain¹

¹Hopital sacré coeur de Montréal

1-F-169 Hyperdopaminergia induced by DAT blockade alters synaptic plasticity, learning and memory in the temporal hippocampus.

Jill Rocchetti¹, Caroline Fasano¹, Elisa Guma¹, Tak Pan Wong¹, Bruno Giros¹

¹Douglas Research Center

1-F-170 The Role of Cholinergic Tone in Depression

Kaie Rosborough¹, Monica Guzman¹, Mohammed Al-Onaizi¹, Vania Prado¹, Marco Prado¹

¹University of Western Ontario

1-F-171 Role of dopamine signaling in electrotactic swimming behavior of the nematode *Caenorhabditis elegans*

Sangeena Salam¹, Ram Mishra¹, P Ravi Selvaganapathy¹, Bhagwati Gupta¹

¹McMaster University

1-F-172 Sex differences in olfactory discrimination learning in mice

Andra Sterea¹, Kyle Roddick¹, Heather Schellinck¹

¹Dalhousie University

1-F-173 Trace eyeblink conditioning depends on neural activity, but not NMDA or muscarinic acetylcholine receptors, in the lateral entorhinal cortex

Xiao Yu¹, Stephanie Tanninen¹, Lina Tran¹, Rami Bakir¹, Mark Morrissey¹, Kaori Takehara-Nishiuchi¹

¹University of Toronto

1-F-174 The hormone replacement therapy Premarin differentially affects spatial memory and hippocampal plasticity dependent on reproductive experience in middle age female rats.

Christina van den Brink¹, Meighen Roes¹, Stephanie Lieblich¹, Carmen Chow¹, Dwayne Hamson¹, Liisa A.M. Galea¹

¹University of British Columbia

1-F-175 A longitudinal study of stress-induced hippocampal volume changes in mice that are susceptible or resilient to chronic social defeat

Yiu Chung Tse¹, Ixchel Montoya¹, Alice Wong¹, Axel Mathieu¹, Jennifer Lissemore¹, Diane Lagace², Tak Pan Wong¹

¹Douglas Mental Health University Institute, ²University of Ottawa

1-F-176 Infusions of Neuropeptide Y into the ventral hippocampus decrease rats' defensive behaviour in the shock-probe burying test of anxiety

Samuel Yoon¹, Geoffrey Harrison¹, Janet Menard¹

¹Queen's University

G - Novel Methods and Technology Development

1-G-177 A bright genetically-encoded sensor to determine protein expression at the cell surface in live cells

Mark Arousseau¹, Patricia Brown¹, Derek Bowie¹

¹McGill University

1-G-178 A simple procedure to improve immunohistochemistry co-labelings with BrdU

Jenna Boulanger¹, Claude Messier¹

¹University of Ottawa

1-G-179 In vivo inhibition of sUniversity of British Columbiautaneous glioma progression by oral 2,5-dihydroxy-phenyl sulfonate in rats through reduction of tumoral angiogenesis and apoptosis induction

Mohamad El Youssef¹, Pedro Cuevas¹, Begoña Cuevas¹, Eduardo Martínez-Salamanca¹, Fernando Carceller², Javier Angulo¹

¹Departamento Investigación - Hospital Universitario Ramón y Cajal,

²Servicio de Neurocirugía - Hospital Universitario La Paz

POSTER SESSION 1 – MONDAY, MAY 26, 2014

1-G-180 Objective kinematic assessment of torticollis using motion sensors

Olivia Samotus¹, Fariborz Rahimi¹, Jack Lee¹, Mallory Jackman¹, Mandar Jog¹

¹Western University

1-G-181 Characterization of a new red genetically encoded calcium indicator optimized for 2-photon imaging

Lois Miracourt¹, Elena Kutsarova¹, Jiahui Wu², Robert Campbell², Edward Ruthazer¹

¹Montreal Neurological Institute, McGill University, ²Department of Chemistry, University of Alberta

1-G-182 Neurointensivist as the main providers of care for Tele-stroke transfers: Our 4-year experience.

Raisa Martinez¹, Vivek Sabharwal², Gabriel Vidal², Aaron Bridges², Kenneth Gaines²

¹Louisiana State University Health Sciences Center, ²Ochsner Medical Center

1-G-183 Whole-brain mapping of direct inputs to serotonergic neurons of the dorsal and median raphe nucleus

Iskra Pollak Dorocic¹, Daniel Furth¹, Yang Xuan¹, Victor Salander¹, Marie Carlén¹, Konstantinos Meletis¹

¹Karolinska Institute

1-G-184 Lipid nanoparticle delivery of RNA for loss- and gain-of-function studies in neurons in vitro and in vivo.

David Zwaenepoel¹, Aysha Ansari¹, Colin Walsh¹, James Taylor¹, Euan Ramsey¹, Pieter Cullis¹, Brian MacVicar², Hyun Beom Choi², Yu Tian Wang², Yuping Li²

¹Precision NanoSystems Inc., ²Brain Research Center University of British Columbia Hospital University of British Columbia

H - History, Teaching, Public Awareness and Societal Impacts in Neuroscience

1-H-185 Canadian Media Discourse about Fetal Alcohol Spectrum Disorder

John Aspler¹, Natalie Zizzo¹, Emily Bell¹, Nina Di Pietro², Courtney Green³, Eric Racine¹

¹Institut de recherches cliniques de Montréal, ²University of British Columbia, ³Canadian FASD Research Network

1-H-186 For shame! Stigma against fetal alcohol spectrum disorder: Examining the ethical implications for healthcare practices and policies

Emily Bell¹, Gail Andrew², Albert Chudley³, Nina DiPietro⁴, Courtney Green⁵, Judy Illes⁴, Eric Racine¹

¹Institut de recherches cliniques de Montréal, ²University of Alberta, ³University of Manitoba, ⁴University of British Columbia, ⁵Canadian FASD Research Network

1-H-187 The rising tide of transcranial direct current stimulation (tDCS) in the media and peer review literature

Veljko Dubljevic¹, Victoria Saigle¹, Eric Racine¹

¹Institut de recherches cliniques de Montréal (IRCM)

1-H-188 Extending the neuroscience classroom: Approaches to enhance student learning and specific learning outcomes

Pavel Tselichtchev¹, Olivia Dell'Unto¹, Joel Tan¹, Bill Ju¹

¹University of Toronto

1-H-189 The impact of a landmark paper on the concept of free will: Reconsidering the legacy of the Libet EEG experiments

Victoria Saigle¹, Veljko Dubljevic¹, Eric Racine¹

¹Institut de recherches cliniques de Montréal

1-H-190 "Everyday ethics" in neurodegenerative conditions: Examining salient challenges in Parkinson's disease research and health care

Natalie Zizzo¹, Emily Bell¹, Eric Racine¹

¹Institut de recherches cliniques de Montréal

IBRO - International Brain Research Association

1-IBRO-191 Duchenne Muscular Dystrophy in Probable Monozygotic Twins: Seventh Report Worldwide.

Nalaka Wijekoon¹, Pyara Ratnayake², Vindika Suriyakumara¹, Beneeta Hettiarachchi¹, Lakmal Gonawala¹, Ashwin Dalal³, Sebahattin Cirak⁴, Javad Nazarian⁵, Eric Hoffman⁵, Ranil de Silva¹

¹Faculty of Medical Sciences, University of Sri Jayewardenepura, ²Lady Ridgway Children's Hospital, ³Center for DNA Fingerprinting and Diagnostics, ⁴Children's National Medical Center, ⁵George Washington University School of Medicine and Health Sciences

1-IBRO-192 Characterization of Wnt/b-catenin and BMP/Smad signaling pathways in an in vitro model of amyotrophic lateral sclerosis

Cristina Pinto¹, Pilar Cardenas², Nelson Osses³, Juan Pablo Henriquez¹

¹Universidad de Concepción, ²Pontificia Universidad Católica de Valparaíso

1-IBRO-193 Intracerebroventricular IGF-I gene therapy for cognitive deficit in the senile rat

Joaquin Pardo¹, Gustavo Morel¹, Paula Reggiani¹, Claudia Hereñó¹, Rodolfo Goya¹

¹INIBIOLP

1-IBRO-194 Tectal EphA3 guides nasal retinal ganglion cells axons during retinotectal mapping by competing with axonal EphA4 for axonal ephrin-As binding.

Luciano Fiore¹, Mara Medori², Nicolas Di siervi², Lisandro Anton², Luisa Teruel², Melina Rapacioli³, Viviana Sanchez², Nestor Carri⁴, Gabriel Scicolone²

¹Instituto de Biología Celular y Neurociencias, Prof. Eduardo De Robertis (IBCN-UBA-CONICET). Facultad de Medicina. Universidad de Buenos Aires, ²Instituto de Biología Celular y Neurociencias, Prof. Eduardo De Robertis (IBCN-UBA-CONICET). Facultad, ³Grupo Interdisciplinario de Biología Teórica, Universidad Favaloro., ⁴Instituto Multidisciplinario de Biología Celular, (IMBICE-CIC-CONICET).

A – Development

2-A-1 Status epilepticus-induced precocious expression of KCC2 impairs excitatory synapse formation

Patricia Awad¹, Bidisha Chattopadhyaya¹, Nathalie Sanon¹, Joanna Szczurkowska², Elie Baho¹, Sandra Duss¹, Sébastien Desgent¹, Laura Cancedda², Lionel Carmant¹, Graziella Di Cristo¹

¹Université de Montréal/CHU Sainte-Justine, ²Istituto Italiano di Tecnologia

2-A-2 ERα immunoreactivity in the rat brain as a consequence of developmental exposure to nicotine

Julie Boucher¹, Hayley R. Forbes¹, Sai Priya Anand¹, Alison C. Holloway², Anne TM. Konkle¹

¹University of Ottawa, ²McMaster University

2-A-3 Role of GPR55 in the development of the central nervous system.

Hosni Cherif¹, Anteneh Argaw¹, Bruno Cécyre¹, Sébastien Desgent², Alex Bouchard¹, Jonathan Gagnon³, Ken Mckie³, Jean-Francois Bouchard¹

¹University of Montreal, ²St. Justine Hospital research center, ³University of Indiana

2-A-4 The molecular chaperone Hsc70 is a modulator of Trio Rac1 GEF activity, critical for netrin-1/DCC-dependent cortical axon outgrowth and guidance

Jonathan DeGeer¹, Andrew Kaplan¹, Morgane Morabito¹, Ursula Stochaj¹, Fiona Bedford¹, Anne Debant², Alyson Fournier¹, Nathalie Lamarche-Vane¹

¹McGill University, ²CNRS

2-A-5 The effects of reducing early life estradiol on Morris water maze performance in rats

Valeria Fomitcheva¹, Anne Konkle¹

¹University of Ottawa

2-A-6 Calcium imaging in the neural stem cell of the adult brain
Archana Gengatharan¹, Magdalena Götz², Armen Saghatelian¹

¹CRIUSMQ - Université Laval, ²Institute for Stem Cell Research Helmholtz Zentrum München - National Research Center for Environment

2-A-7 The translational regulators eIF4E and eIF4E-T form a repressive protein:mRNA complex that determines neural stem cell self-renewal versus differentiation

Guang Yang¹, David Kaplan¹, Freda Miller¹

¹Hospital for Sick Children and University of Toronto

2-A-8 Anatomical study of the relationship between neurons releasing gonadotrophin hormone and the terminal nerve in neonatal opossum (Monodelphis domestica)

Naussicca Hour¹, Jean - Francois Pflieger¹, Therese Cabana¹

¹Université de Montreal

2-A-9 14-3-3 proteins regulate commissural neuron responses to netrin

Andrew Kaplan¹, Ricardo Alchini¹, Christopher Kent¹, Timothy Kennedy¹, Alyson Fournier¹

¹McGill University

2-A-10 Neuronal activity drives vascular network formation in layer IV of the mouse somatosensory cortex

Baptiste Lacoste¹, Cesar Comin², Ayal Ben-Zvi¹, Pascal Kaeser¹, Xiaoyin Xu³, Luciano Costa², Chenghua Gu¹

¹Harvard Medical School, ²IFSC, University of Sao Paulo, ³Brigham and Women's Hospital

2-A-11 Spinal Neuron Identity and Survival in the Absence of Neurosecretion

Chris Law¹, Michel Paquet¹, Matthijs Verhage², Artur Kania¹

¹Institut de recherches cliniques de Montréal, ²Center for Neurogenomics and Cognitive Research

2-A-12 The Transcriptional Co-Regulator Cited2 functions at Two Distinct Stages of Precise Neocortical Callosal Projection Neuron Development

Jessica MacDonald¹, Ryann Fame¹, Jeffrey Macklis¹

¹Harvard University

2-A-13 High-Fat Diet-Induced Obesity Disrupts Hippocampal Synaptic Plasticity in both Female Rats and their Offspring

Isabelle Messa¹, John Mielke¹

¹University of Waterloo

2-A-14 The effects of environmental enrichment on transcriptional regulation in the hippocampus are associated with early life maternal care in rats.

Carine Parent¹, Xianglan Wen¹, Josie Diorio¹, Michael Meaney¹, Tiejuan Zhang¹

¹Douglas Mental Health University Institute

2-A-15 Defining a novel subset of mesencephalic derived cerebellar nuclei neurons

Maryam Rahimi Balaie¹, Karen Bailey¹, Hassan Marzban¹

¹University of Manitoba

2-A-16 Medial preoptic morphology in the lactating rat and the effects of pCREB

Richard Ryan¹, Carine Parent¹, Sabine Dhir¹, Xianglan Wen¹, Josie Diorio¹, Tie Yuan Zhang¹, Michael Meaney¹

¹Douglas Mental Health University Institute

2-A-17 Brain-derived neurotrophic factor (BDNF) in the nucleus accumbens mediates individual differences in behavioral responses to a natural, social reward

Dara K. Shahrokh¹, Tie Yuan Zhang¹, Richard Ryan¹, Xianglan Wen¹, Josie Diorio¹, Michael J Meaney¹

¹Douglas Mental Health University Institute - McGill University

2-A-18 Exposure to water immersion stress in mid-adolescence increases risk-taking behaviour and sensitivity to amphetamine in adult rats.

Meaghan Wilkin¹, Matthew Lam¹, Janet Menard¹

¹Queen's University

2-A-19 Nemo kinase modulates bmp signaling in synaptic growth

Kimberly Young¹, Mario Calderon¹

¹McGill University

B - Neural Excitability, Synapses, and Glia: Cellular Mechanisms

2-B-20 GABAergic transmission in cerebellar granule cells is regulated through mitochondrial metabolism

*Michael Accardi*¹, *Beverley Orser*², *Derek Bowie*¹

¹McGill University, ²University of Toronto

2-B-21 EphA7 in adult rodent brain: regional distribution and ultrastructural localization in hippocampus and cerebellum

*Akofa Amegandjin*¹, *Wafaa Jammow*¹, *Sylvie Laforest*², *Mustapha Riad*¹, *Moogeh Baharnoori*¹, *Frédérique Badeaux*¹, *Luc DesGroseillers*¹, *Elena Pasquale*³, *Guy Drolet*², *Guy Doucet*¹

¹Université de Montréal, ²Centre de recherche du CHU de Québec, Université Laval, ³Sanford Burnham Medical Research Institute

2-B-22 Brain hemodynamic response to somatosensory stimulation in Neuroligin-1 knockout mice

*Erika Bélanger-Nelson*¹, *Marlène Freyburger*², *Éric Beaumont*³, *Phillippe Pouliot*⁴, *Frédéric Lesage*⁴, *Valérie Mongrain*⁵

¹Center for Advanced Research in Sleep Medicine and Research Center, Hôpital du Sacré-Coeur de Montréal, ²Université de Montréal, ³East Tennessee State University, ⁴Ecole Polytechnique de Montréal and Research Center, Montreal Heart Institute, ⁵Université de Montréal

2-B-23 GABAA receptor antagonist promotes oligodendrocyte precursor cell proliferation in adult mice

*Jenna Boulanger*¹, *Claude Messier*¹

¹University of Ottawa

2-B-24 Ion channel regulation and internal calcium flux of retinal horizontal cells under hypoxic conditions in the goldfish (*Carassius auratus*)

*Benjamin Campbell*¹, *Michael Jonz*¹

¹University of Ottawa

2-B-25 Interplay between synchronization of multivesicular release and recruitment of additional release sites support short-term facilitation at hippocampal mossy fiber to CA3 pyramidal cells synapses

*Simon Chamberland*¹, *Alesya Evstratova*¹, *Katalin Tóth*¹

¹Université Laval

2-B-26 Imaging synaptic vesicle tethers at the presynaptic terminal

*Robert Chen*¹, *Arup Nath*¹, *Elise Stanley*¹

¹Toronto Western Research Institute

2-B-27 Mechanisms of septin 5-mediated inhibition of neurotransmitter release

*Ceiliadh Cunningham*¹, *William Reginold*¹, *Carol Froese*¹, *Lu-Yang Wang*¹, *William Trimble*¹

¹The Hospital for Sick Children

2-B-28 PKC and Ca²⁺ suppress electrical signaling between neuroendocrine cells of Aplysia

*Zahra Dargaei*¹, *Neil Magoski*¹

¹Queen's University

2-B-29 PKA-GluA1 coupling via AKAP5 controls AMPA receptor phosphorylation and cell-surface targeting during bidirectional homeostatic plasticity

*Graham Diering*¹, *Ahleah Gustina*¹, *Richard Huganir*¹

¹Johns Hopkins University

2-B-30 Role of calpain-mediated cleavage of NMDA receptor GluN2B subunit on synaptic potentiation

*Farida El Gaamouch*¹, *Mado Lemieux*¹, *Nancy Cote*¹, *Veronique Hamel*¹, *Paul De Koninck*¹

¹CRISMQ

2-B-31 Characterization of drg sandwich synapse neuron pairs: involvement of TRPV1-POSITIVE sensory neuron types

*Brittany Elliott*¹, *Gabriela Rozanski*¹, *Elise Stanley*¹

¹University of Toronto/Toronto Western Research Institute

2-B-32 The role of CAV2.2 DISTAL C-Terminus in synaptic vesicle tethering

*Sabiha Gardezi*¹, *Fiona Wong*², *Qi Li*², *Elise Stanley*²

¹Krembil Discovery Tower at Toronto Western Research institute, ²Toronto Western Research Institute

2-B-33 ProBDNF and p75NTR regulate excitability and firing of pyramidal neurons

*Julien Gibon*¹, *Nicolas Unsain*¹, *Shannon Buckley*¹, *Vesa Kaartinen*², *Philip Barker*¹, *Philippe Séguéla*¹

¹McGill University, Montreal Neurological Institute, ²The Saban Research institute of Children's hospital Los angeles

2-B-34 The characterization and role of mitochondrial Ca²⁺ dynamics in Aplysia neuroendocrine cells

*Neil Magoski*¹

¹Queen's University

2-B-35 Effects of a KCC2 blocker on network activity in piriform and entorhinal cortices

*Shabnam Hamidi*¹, *Massimo Avoli*¹

¹McGill University

2-B-36 Post-synaptic Long-Term Potentiation of GABA Synapses in the Oval Bed Nucleus Stria Terminalis

*Emily Hawken*¹, *Eric Dumont*¹

¹Queen's University

2-B-37 Neurosteroids modulate interictal activity and high frequency oscillations in the CA3 subfield

*Rochelle Herrington*¹, *Maxime Levesque*¹, *Massimo Avoli*¹

¹Montreal Neurological Institute

2-B-38 Residues Important for Ca²⁺ Transport in the Neuronal Na⁺/Ca²⁺ and K⁺ Exchanger (NCKX2)

*Ali Jalloul*¹, *Guohong Liu*¹, *Paul Schnetkamp*¹

¹University of Calgary

2-B-39 Cholinergic regulation of cognitive function and underlying molecular mechanisms

*Benjamin Kolisnyk*¹, *Mohammed Al-Onaizi*¹, *Gustavo Parfitt*¹, *Maxine Kish*¹, *Jason Xu*¹, *Geula Hanin*², *Hermona Soreq*², *Marco Prado*¹, *Vania Prado*¹

¹University of Western Ontario/Robarts Research Institute, ²The Hebrew University of Jerusalem

2-B-40 Hydrogen sulfide influences sodium channels in subfornical organ neurons

Markus Kuksis¹, Alastair Ferguson¹

¹Queen's University

2-B-41 Roles of alpha and betaCaMKII in exocytosis and synaptic trapping of AMPA receptors

Simon Labrecque¹, Benoit Audet¹, Christian Tardif¹, Paul De Koninck¹

¹Université Laval

2-B-42 hERG and hEAG1 K⁺ channels are regulated by Src kinase and by SHP-1 tyrosine phosphatase via an active ITIM region in the cyclic nucleotide binding domain

Lyanne Schlichter¹, Jiahua Jiang¹, John Wang¹, Evan Newell², Florence Tsui³, Doris Lam⁴

¹Krembil Discovery Tower, Toronto Western Hospital, ²Singapore Immunology Network (SigN), ³University of Toronto, ⁴Krembil Discovery Tower, Toronto Western Hospital/ University of Toronto

2-B-43 Identification of gene targets for Nur77, a transcription factor associated with dopamine-related neuroadaptation

Olivier Perreault¹, David Voyer¹, Daniel Levesque¹

¹University of Montreal

2-B-44 Developmental regulation of synaptic function by hydrogen peroxide at developing *Xenopus* neuromuscular synapse.

Jau-Cheng Liou¹

¹National Sun Yat-Sen University

2-B-45 Sex differences in the spinal mechanisms underlying neuropathic pain in mice

Josiane Mapplebeck¹, Robert Sorge², Loren Martin³, Jessica Alexander¹, Simon Beggs¹, Sarah Rosen³, Ji Zhang³, Jeffrey Mogil³, Michael Salter¹

¹University of Toronto, ²University of Alabama at Birmingham, ³McGill University

2-B-46 Christianson Syndrome-Linked Mutation in the Na⁺/H⁺ Exchanger SLC9A6 Disrupts Recycling Endosomes and Synaptic Structures

Rebecca McKinney¹, Johnathan Reid¹, Alina Ilie¹, Gergely Lukacs¹, John Orłowski¹

¹McGill University

2-B-47 Endocannabinoid signaling enhances visual responses through modulation of intracellular chloride levels in retinal ganglion cells.

Lois Miracourt¹, Jennifer Tsui², Jean-François Desjardins¹, Delphine Gobert¹, Perry Spratt¹, Annie Castonguay³, Nicholas Marsh-Amstrong⁴, Anne Scholtz¹, Yves DeKoninck³, Paul Wiseman¹, Edward Ruthazer¹

¹McGill University, ²Marygrove College, ³Institut Universitaire en Santé Mentale de Québec, ⁴John Hopkins University

2-B-48 Beta-Arrestin2 modulates the signalling complexes formed by the inward rectifying potassium channels KIR3 and delta opioid receptors

Karim Nagi¹, Iness Charfi¹, Terence Hebert², Graciela Pineyro¹

¹University of Montreal and Sainte-Justine Hospital Research Center, ²McGill University

2-B-49 Examination of TrkB-receptor signalling and accumbal dendritic spine density in the sensitization response to ethanol

Christina Nona¹

¹University of Toronto

2-B-50 Activity-dependent localization and turnover of Argonaute proteins in hippocampal neurons.

Nicolas Paradis-Isler¹, Jannic Boehm¹

¹Université de Montréal

2-B-51 Quantification of the frequency of spontaneous synaptic currents in the dorsal horn of the spinal cord using non stationary analyses.

Hugues Petitjean¹, Reza Sharif Naeini¹

¹McGill University

2-B-52 Homeostatic synaptic plasticity at GABAergic synapses requires dystroglycan

Horia Pribiag¹, Huashan Peng¹, Waris Shah¹, David Stellwagen¹, Sal Carbonetto¹

¹McGill University

2-B-53 Optogenetic activation of glutamatergic neurons in the medial septum drive activity within the septum and across the hippocampal network.

Jennifer Robinson¹, Frederic Manseau¹, Sylvain Williams²

¹McGill University, Douglas Mental Health University Institute, ²McGill University, Douglas Research Center

2-B-54 Low voltage-activated calcium channels gate transmitter release at the dorsal root ganglion Sandwich Synapse

Gabriela Rozanski¹, Arup Nath¹, Michael Adams², Elise Stanley³

¹Toronto Western Research Institute/University of Toronto, ²University of California Riverside, ³Toronto Western Research Institute

2-B-55 Identifying the interacting regions between GluN1 & ND2 in the Src-NMDAR pathway.

David Scanlon¹, Heather Leduc-Pessah¹, Michael Salter¹

¹SickKids

2-B-56 Neurosteroid modulation of synchronous activity in the piriform and entorhinal cortices of pilocarpine-treated and non-epileptic control rats

Zahra Shiri¹, Rochelle Herrington¹, Massimo Avoli¹

¹McGill University

2-B-57 Seizure patterns induced by cortical deafferentation in adult mice

Sara Soltani¹, Josée Seigneur¹, Sylvain Chauvette¹, Igor Timofeev¹

¹Institut universitaire en santé mentale de Québec (IUSMQ)

2-B-58 Spreading depression in the brain of *Drosophila melanogaster*

Kristin Spong¹, Esteban Rodríguez¹, R. Meldrum Robertson¹

¹Queen's University

2-B-59 Structural Insight into the Uncoupled Conformation of the Nicotinic Acetylcholine Receptor

Jiayin Sun¹, John Baenziger¹

¹University of Ottawa

POSTER SESSION 2 – TUESDAY, MAY 27, 2014

2-B-60 Selective post-synaptic deletion of DCC from CA1 pyramidal neurons alters dendritic spine morphology and impairs spatial memory in aging mice

Greta Thompson-Steckel¹, Stephen Glasgow¹, Abbas Sadikot¹, Edward Ruthazer¹, Timothy Kennedy¹

¹McGill University

2-B-61 Predicting brain-wide electrophysiological diversity of mammalian neurons from genome-wide expression atlases

Shreejoy Tripathy¹, Emily Hindalong¹, Garvin Pang¹, Paul Pavlidis¹

¹University of British Columbia

2-B-62 The importance of D-serine in circuit refinement in the developing visual system of the *Xenopus* tadpole

Marion Van Horn¹, Edward Ruthazer¹

¹Montreal Neurological Institute

2-B-63 δ GABAA receptors: A novel target for gabapentin actions

Jieying Yu¹, Robert Bonin², Beverley Orser¹

¹University of Toronto, ²Centre de Recherche Université

C - Disorders of the Nervous System

2-C-64 Activation of the mammalian target of rapamycin promotes dendritic regeneration after axonal injury.

Jessica Agostinone¹, Adriana Di Polo¹

¹Université de Montréal

2-C-65 Persistent individual differences in stress susceptibility and antidepressant treatment response following chronic social stress in mice

Christoph Anacker¹, Michael Kmeid¹, Dara Shahrokh¹, Richard Ryan¹, Josie Diorio¹, Michael Meaney¹

¹McGill University

2-C-66 Aberrant glutamatergic synaptic connectivity with motoneurons in the spinal cord of zebrafish expressing mutant human TARDBP (TDP-43) with a mutation causing ALS and FTL.

Gary Armstrong¹, Pierre Drapeau¹

¹Université de Montréal

2-C-67 Acute and chronic increases in neuronal sodium concentrations during post-traumatic epileptogenesis

Trevor Balena¹, Kevin Staley¹

¹Massachusetts General Hospital

2-C-68 Beta-amyloid inhibits PDGFbeta receptor activation and prevents PDGF-BB-induced neuroprotection

Michael Beazely¹, Hui (Lucy) Liu¹, Golam Saffi¹, Maryam Vasefi¹, Nawaz Ahmed¹, Nyasha Gondora¹

¹University of Waterloo

2-C-69 Characterization of aldehyde dehydrogenase 2 (ALDH2) null mice as a model of age-related cognitive impairment with Alzheimer's Disease-like pathologies

Yohan D'Souza¹, Ahmed Elharram¹, David Andrew¹, Brian Bennett¹

¹Queen's University

2-C-70 It's time to move: a dopaminergic oscillator driving rhythms of arousal.

Ian Blum¹, Lei Zhu², Luc Moquin², Maia Kokoeva³, Alain Gratton¹, Bruno Giros⁴, Kai-Florian Storch¹

¹Douglas Mental Health University Institute - McGill University, ²Douglas Mental Health University Institute, ³McGill University, ⁴Douglas Mental Health University Institute - McGill University

2-C-71 Systems Neurobiology of Autism Spectrum Disorders (ASD)

James Cairns¹, Daniel Goldowitz¹, Timothy Murphy¹, Allen Chan¹, Price Dickson², Guy Mittleman², Anna Sinova¹, Ronny Chan¹, Praneetha Potluri¹

¹University of British Columbia, ²University of Memphis

2-C-72 Characterizing Motor Performance in the 3xTg-AD Mouse Model of Alzheimer's Disease

Mackenzie Campbell¹, Kurt Stover¹, Christine Van Winssen¹, Richard Brown¹

¹Dalhousie University

2-C-73 Increased expression of retinal Tau in experimental glaucoma is neurotoxic

Marius Chiasseu¹

¹CR-CHUM/University of Montreal

2-C-74 Translocation breakpoint sequencing for the identification of pathogenic genes in psychiatry

Cristiana Cruceanu¹, Fabrice Jollant¹, Gustavo Turecki¹, Carl Ernst¹

¹McGill University

2-C-75 LKB1-regulated adaptive mechanisms are essential for clearance of protein aggregates and neuronal survival following mitochondrial dysfunction

Julie Demers-Lamarque¹, Martine Grondin¹, Marc Germain², Marc Germain¹

¹UQTR, ²Ottawa university

2-C-76 Neurophysiological traces of L-DOPA-induced dyskinesia in the bed nucleus of the stria terminalis of 6-OHDA-lesioned rats

Cynthia Di Prospero¹, Matthieu Bastide², Emily Hawken¹, Michael Naughton¹, Catherine Normandeau¹, Nikola Misljencevic¹, Erwan Bezard², Eric Dumont¹

¹Queen's University, ²University de Bordeaux

2-C-77 Role of exogenous oxytocin on heroin self-administration in male Long-Evans rats: A time factor effect

Janie Duchesneau¹, Loïc Welch¹, Cristina Casola¹, Leon Mayers¹, Uri Shalev¹

¹Concordia University

2-C-78 Clustering autism - using neuroanatomical differences in 27 mouse models to gain insight into the heterogeneity.

Jacob Ellegood¹, Evdokia Anagnostou², Brooke Babineau³, Jacqueline Crawley⁴, Lulu Lin⁵, Matthieu Genestine⁵, Emanuel DiCicco-Bloom⁵, Jonathan Lai⁶, Jane Foster⁶, Olga Penagarikano⁷, Daniel Geschwind⁷, Laura Pacey⁸, David Hampson⁸, Christine Laliberte¹, Guy Horev⁹, Alea Mills⁹, Elaine Tam⁸, Lucy Osborne⁸, Mehreen Kouser¹⁰, Felipe Espinosa-Becerra¹⁰, Zhong Xuan¹⁰, Craig

Powell¹⁰, Armin Raznahan¹¹, Diane Robins¹², Nobuhiro Nakai¹³, Jin Nakatani¹³, Toru Takumi¹³, Matthijs van Eede¹, Travis Kerr¹⁴, Chris Muller¹⁴, Randy Blakely¹⁴, Jeremy Veenstra-VanderWeele¹⁴, Mark Henkelman¹, Jason Lerch¹

¹Hospital for Sick Children, ²Bloorview Research Institute, ³UCSF School of Medicine, ⁴UC Davis MIND Institute, ⁵UMDNJ - Robert Wood Johnson Medical School, ⁶McMaster University, ⁷UCLA, ⁸University of Toronto, ⁹Cold Spring Harbor Laboratory, ¹⁰UT Southwestern, ¹¹NIH, ¹²University of Michigan, ¹³RIKEN, ¹⁴Vanderbilt University

2-C-79 Sustained Ischemia/Hypoxia Follows Cessation of Seizures and Results in Todd's Paralysis

Jordan Farrell¹, Rachel Wang¹, Jeff Dunn¹, Michael Antle¹, G. Campbell Teskey¹

¹Hotchkiss Brain Institute/University of Calgary

2-C-80 Optimization of Deep Brain Stimulation Parameters for PD Patients Using Objective Measures

Greydon Gilmore¹, Kristina Ognjanovic¹, Mehdi Delrobaei¹, Mandar Jog²

¹Western University, ²Western University Hospital

2-C-81 Age-related changes in brain region weights are associated with caspase activation in wild type C57Bl6 mice.

Melissa Lessard-Beaudoin¹, Marie-Josée Demers¹, Melissa Laroche¹, Guillaume Grenier¹, Rona Graham¹

¹University of Sherbrooke

2-C-82 Mitochondrial Processing Peptidase Regulates PINK1 Processing, Import and Parkin Recruitment : Insights into mechanism

Edward Fon¹, Karl Grenier¹

¹Montreal Neurological Institute

2-C-83 The role of the NOD-like receptor, NLRX1, in neuronal cell death

Emilie Imbeault¹, Salah Rahmani¹, Tara M. Mahvelati¹, Denis Gris¹

¹CRC Université de Sherbrooke

2-C-84 Regulation of ischemic neuronal death by E2F4/p130 complexes.

Grace Iyirhiaro¹, Yi Zhang¹, Carmen Estey¹, Michael O'Hare¹, Farzaneh Safarpour¹, Mohammad Parsanejad¹, Suzi Wang¹, Elizabeth Abdel-Messih¹, Steve Callaghan¹, Matthew During², Ruth Slack¹, David Park¹

¹University of Ottawa, ²The Ohio State University

2-C-85 Delineating the role of the GIRK2 channel in the generation of Behavioral Spasms and Electrodecremental events in Infantile Spasms

Krutika Joshi¹, Lily Shen¹, Miguel Cortez¹, O.Carter Snead¹

¹The Hospital for Sick Children

2-C-86 FTY720 induces transcription of neuroprotective genes to regulate Ca²⁺ homeostasis in human astrocytes

Pavel Gris¹, Jack Antel¹, Timothy Kennedy¹

¹McGill University

2-C-87 Pharmacogenetic inhibition of eIF4E-dependent Mmp9 mRNA translation reverses Fragile-X syndrome-like phenotypes

Arkady Khoutorsky¹, Christos Gkogkas¹, Ruifeng Cao¹, Argel Aguilar-Valles¹, Karim Nader¹, Jean-Claude Lacaille², Nahum Sonenberg¹

¹McGill University, ²Université de Montréal

2-C-88 Macrophage polarization after spinal cord injury is influenced by TNF- α and iron

Antje Kroner-Milsch¹, Andrew Greenhalgh¹, Juan Zarruk¹, Rosmarini Passos dos Santos¹, Samuel David¹

¹McGill University

2-C-89 Robust stress response does not alter adult hippocampal neurogenesis after acute predator stress

Catherine Lau¹, Mark Hebert¹, Susan Walling¹, Diane Lagace², Jacqueline Blundell¹

¹Memorial University, ²University of Ottawa

2-C-90 Determining the oligomeric state of the beta-site APP-cleaving enzyme 1 (BACE1) in natural membranes and detergents

Filip Liebsch¹, Gerhard Multhaup¹

¹McGill University

2-C-91 Changes in functional connectivity correlate with attentional deficits in Alzheimer's disease

Angela Luedke¹, Carlos Hernandez-Castillo², Juan Fernandez-Ruiz², Angeles Garcia¹

¹Queen's University, ²Universidad Nacional Autonoma de Mexico

2-C-92 Glial cells at the NMJ are maladapted for reinnervation in the SOD1G37R ALS mouse model.

Éric Martineau¹, Elsa Tremblay¹, Danielle Arbour¹, Richard Robitaille¹

¹Université de Montréal

2-C-93 Lysosomal targeting of mitochondrial vesicles requires components of the endocytic system: implications for Parkinson's disease

Gian-Luca McLelland¹, Adrianna Tsang¹, Edward Fon¹

¹McGill University

2-C-94 GABA Neuron Inhibition in the Ventral Hippocampus Induces Behavioural Models of Schizophrenia

Robin Nguyen¹, Vivek Mahadevan¹, Janine Cajanding¹, Melanie Woodin¹, John Yeomans¹, Junchul Kim¹

¹University of Toronto

2-C-95 Early effects of neutrophils and IL-1 β in experimental autoimmune encephalomyelitis.

Alexandre Paré¹, Sébastien Lévesque¹, Benoit Aubé¹, Martine Lessard¹, Steve Lacroix¹

¹Université Laval

2-C-96 Familial Prion protein mutants inhibit HRD1-mediated retrotranslocation of misfolded proteins

Sarah Peters¹, Andrea LeBlanc¹

¹Lady Davis Institute, McGill University

2-C-97 Regional role of D1 receptor in responses to psychostimulants in new conditional D1 dopamine receptor knockout mice

Quentin Rainer¹, Merouane Messekher¹, Bruno Giros¹

¹Douglas hospital research centre

2-C-98 Altered Dopamine Transporter and Caspase-3 Staining in the Prefrontal Cortex in Rats Following Neonatal Treatment With Domoic Acid

Mark Robbins¹, Catherine Ryan¹, Tracy Doucette¹

¹University of Prince Edward Island

POSTER SESSION 2 – TUESDAY, MAY 27, 2014

2-C-99 Transcriptional Deficits in an Isogenic Stem Cell Model of Parkinson's

Tammy Ryan¹, Scott Ryan¹

¹The University of Guelph

2-C-100 Injury to distant neuronal fibers activates retinal glia, followed by neuronal cell cycle re-entry and DNA hyperploidy, and neuronal death.

Alba Galan¹, Pauline Dergham¹, Philippe D'Onofrio², Mark Magharious², Paulo Koeberle², José Frade³, Uri Saragovi¹

¹McGill University, ²University of Toronto, ³Cajal Institute

2-C-101 Effects of Task-Irrelevant Emotional Face Processing on Bipolar Disorder and Attention-Deficit Hyperactivity Disorder Patients on an Antisaccade Task

Stephen Soncin¹, Don Brien¹, Victoria Yang¹, Edwin Ho¹, Alina Marin², Doug Munoz¹

¹Queen's University, ²Hotel Dieu Hospital

2-C-102 The Neuroprotective Role of Gap Junctions in Brain Glucose Deprivation

Sonia Sugumar¹, Carlos Florez¹, George Zoidl², Peter Carlen¹

¹Toronto Western Research Institute, ²York University

2-C-103 The overexpression of mutated tau in the entorhinal cortex: its effects on local neurons, cortical theta oscillations, and memory

Stephanie Tanninen¹, Mark Morrissey¹, Ronald Klein², Kaori Takehara-Nishiuchi¹

¹University of Toronto, ²Louisiana State University Health Sciences Center

2-C-104 Deletion of C9ORF72 results in motor neuron degeneration and stress sensitivity in *C. elegans*

Martine Therrien¹, Guy Rouleau², Patrick Dion¹, J. Alex Parker¹

¹Université de Montréal-CHUM, ²Montréal Neurological Institute

2-C-105 Differential changes in microglial ultrastructure in the APPswe-PS1 mouse model of amyloid- β deposition

Maria Gabriela Sánchez¹, Marie-Eve Tremblay¹

¹Axe Neurosciences, CHU de Québec and Département de médecine moléculaire, Université Laval

2-C-106 The role of the innate immune system in neuronal toxicity in *C. elegans* models of ALS

Julie Vérièpe¹, Alex Parker¹

¹Université de Montréal

2-C-107 Overexpression of the insulin-like growth factor-II receptor increases β -amyloid production in fibroblast

Yanlin Wang¹, Satyabrata Kar¹

¹University of Alberta

2-C-108 Inhibitor of Apoptosis Stimulating Protein of p53 (iASPP) is required for retinal ganglion cell survival after axonal injury

Ariel Wilson¹, Vince Chiodo², Sanford Boye², Nicholas Brecha³, William Hauswirth², Adriana Di Polo¹

¹Université de Montréal, ²University of Florida, ³University of California Los Angeles

2-C-109 5HT receptor neurons differentially modulate locomotor recovery from anoxia in *Drosophila*

Chengfeng Xiao¹, R Meldrum Robertson¹

¹Queen's University

2-C-110 Role of ceruloplasmin on iron accumulation after permanent experimental brain ischemia.

Juan G. Zarruk¹, Rosmarini Pasos dos Santos¹, Samuel David¹

¹McGill University Health Centre

D - Sensory and Motor Systems

2-D-111 Influence of Visual Feedback on Gaze-Dependent and Location-Dependent Errors in Grasping Movements

Noura AlOmawi¹, Joost Dessing², Simona Monaco¹, Xiaogang Yan¹, J. Douglas Crawford¹

¹Centre for Vision Research, York University, ²Queen's University

2-D-112 Involvement of foot afferents in corrective postural reactions

Annie Pham¹, Zoe Miranda¹, Dorothy Barthélemy¹

¹Université de Montréal

2-D-113 Expression of CB1, CB2, and GPR55 in the monkey retina

Joseph Bouskila¹, Pasha Javadi¹, Christian Casanova¹, Maurice Ptito¹, Jean-François Bouchard¹

¹University of Montreal

2-D-114 The Toolish Hand Illusion: Motor experience facilitates incorporation of a tool.

Lucilla Cardinali¹, Alice Roy², Jody Culham¹, Alessandro Farnè³

¹The Brain and Mind Institute, Western University, ²L2C2 - Institut des Sciences, UMR 5230 CNRS/UCBL ³Lyon Neuroscience Research Center, ImpAct Team

2-D-115 The effect of training and cholinergic stimulation on visual capacities in healthy rats.

Mira Chamoun¹, Jun-II Kang¹, Frédéric Huppé-Gourgues¹, Elvire Vaucher¹

¹University of Montreal

2-D-116 Local Adaptation of Feedback Responses and Voluntary Reaching Movements

Tyler Cluff¹, Stephen Scott¹

¹Queen's University

2-D-117 Direct conversion of endogenous cells into functional neurons in the mammalian inner ear using defined transcription factors

Alain Dabdoub¹, Koji Nishimura²

¹University of Toronto / Sunnybrook Research Institute, ²Sunnybrook Research Institute

2-D-118 Optical inhibition of peripheral pain pathways in freely moving optogenetic mice

Ihab Daou¹, Ariel R. Ase¹, Jeffrey S. Wieskopf¹, Jeffrey S. Mogil¹, Philippe Séguéla¹

¹McGill University

2-D-119 Pallidal neurons and their afferent projections are influenced by volume transmission of acetylcholine in primates
Lara Eid¹, André Parent¹, Martin Parent¹

¹Université Laval

2-D-120 White Noise Visual Motion Reconstruction From MEG
Alireza Hashemi¹, Erik Cook¹

¹McGill University

2-D-121 TMS-induced plasticity causes changes in cerebral blood flow

Robert Hermsillo¹, Tanis Burnett¹, Krista Fjeld¹, Francisco Colino¹, Darian Cheng¹, Gordon Binsted¹, Paul van Donkelaar¹

¹University of British Columbia

2-D-122 Functional connectivity of the subthalamic nucleus and substantia nigra pars reticulata depends on behavior

Jay Jantz¹, Masayuki Watanabe¹, Ron Levy¹, Douglas Munoz¹

¹Queen's University

2-D-123 The influence of remembered sensory information on sensory integration

Sajida Khanafer¹, Erin Cressman¹

¹University of Ottawa

2-D-124 Changes in contrast responses of cells in the primary visual cortex after deactivation of the pulvinar

Jimmy Lai¹, Sébastien Thomas¹, Christian Casanova¹

¹Université de Montréal

2-D-125 Rapid whole-body postural responses following mechanical perturbations to the upper limb.

Catherine Lowrey¹, Joseph Nashed¹, Stephen Scott¹

¹Queen's University

2-D-126 The Debate Is Over: Action and Perception Dissociate Using a 3D Variant of the Sanders Parallelogram Illusion While Controlling for Visual and Haptic Feedback

Kate Merritt¹, Robert Whitwell¹, Gavin Buckingham², Philippe Chouinard¹, Melvyn Goodale¹

¹The University of Western Ontario, ²Heriot-Watt University

2-D-127 Moderate to Severe Degenerative Intervertebral Discs identified by T2-RARE MRI in alive SPARC-null mice.

Magali Millecamps¹, Axel Mathieu², Scott Thompson¹, Laura Stone¹

¹McGill University, ²Douglas Mental Health University Institute

2-D-128 Investigating the neural encoding of linear self-motion
Mohsen Jamali¹, Jerome Carriot¹, Kathleen Cullen¹

¹McGill University

2-D-129 Neural Correlations in the Electrosensory Lateral Line Lobe of the Weakly Electric Fish, *Apteronotus leptorhynchus*: Analysis of Multi-Channel Recordings

Teerawat Monnor¹, Michael Metzen¹, Maurice Chacron¹

¹McGill University

2-D-130 Dynamics of peri-saccadic receptive fields in monkey area V4

Sujaya Neupane¹, Daniel Guitton¹, Christopher Pack¹

¹McGill University

2-D-131 Interhemispheric modulation of primary motor cortex outputs by the ventral premotor cortex in Capuchin monkeys (*Cebus apella*)

Stephan Quessy¹, Joan Deffeyes¹, Adjia Hamadjida¹, Melvin Dea¹, Numa Dancause¹

¹Université de Montréal

2-D-132 Statistics of natural vestibular stimuli in primates: Implications for nonlinear coding.

Adam Schneider¹, Jerome Carriot¹, Mohsen Jamali¹, Maurice Chacron¹, Kathleen Cullen¹

¹McGill University

2-D-133 TrkB receptor activity in the olfactory bulb is needed for long-term memory of odour-reward learning

Michelle Tong¹, Thomas Cleland¹

¹Cornell University

2-D-134 DF's Visual Brain in Action: The Role of Tactile and Visual Feedback

R Whitwell¹, A Milner², C Cavina-Pratesi², M Barat¹, M Goodale¹

¹The University of Western Ontario, ²Durham University

E - Homeostatic and Neuroendocrine Systems

2-E-135 The Involvement Of Tumor Necrosis Factor Alpha In The Neurophysiological Response Of CA1 Synapses To Acute Stress

Haider Altimimi¹, Nicole Bailey¹, David Stellwagen¹

¹McGill University

2-E-136 Chronic intracerebroventricular administration of relaxin-3 induces sex-specific effects on food intake and body weight in rats

Juliane Calvez¹, Christophe Lenglos¹, Geneviève Guèvremont¹, Arojit Mitra¹, Elena Timofeeva¹

¹Laval University

2-E-137 Rimonabant peripheral injections attenuate the orexigenic effect of ghrelin infused into the VTA

Alexander Edwards¹, Stephanie Rosenbaum¹, Samantha Chin¹, Alfonso Abizaid¹

¹Carleton University

2-E-138 Osmotic activation of phospholipase C in osmosensitive supraoptic neurons

Vimal Bansal¹, Thomas Fisher¹

¹University of Saskatchewan

2-E-139 Feeding and Hormonal abnormalities in 5xFAD mice
William Gendron¹, Stephanie Pelletier¹, Younes Anini¹, Richard Brown¹

¹Dalhousie University

2-E-140 Morphological and electrophysiological plasticity of tyrosine hydroxylase neurons in mouse arcuate nucleus
Shuo Huang¹, Mark Fry¹, Karen Oswald¹

¹University of Manitoba

2-E-141 Methyl-CpG-binding domain protein 2 (MBD2) is associated with levels of maternal care in C57/BL6 mice

Sabine Dhir¹, Michael Kmeid¹, Michael Meaney¹

¹Douglas Mental Health University Institute

POSTER SESSION 2 – TUESDAY, MAY 27, 2014

2-E-142 Chronic social stress influences maternal behavior in rats

Rachel Massicotte¹, Michael Meaney¹

¹Douglas Mental Health University Institute

2-E-143 alpha-MSH exerts direct postsynaptic excitatory effects on NTS neurons and enhances GABAergic signaling in the NTS

Andrea Mimee¹, Markus Kuksis¹, Alastair Ferguson¹

¹Queen's University

2-E-144 Modulation of corticotropin-releasing factor (CRF)-mediated stress and anxiety-related behaviours by teneurin C-terminal associated peptide (TCAP)-1

Rebecca Woelfle¹, Yani Chen¹, Dhan Chand¹, Laura Tan¹, Suzanne Erb², David Lovejoy¹

¹University of Toronto, ²University of Toronto-Scarborough

F - Cognition and Behavior

2-F-145 Effects of housing conditions on neurogenesis in black-capped chickadees (*Poecile atricapillus*)

Sean Aitken¹, Leslie Phillmore¹

¹Dalhousie University

2-F-146 Central GPR120 activation inhibits food intake, food reward and anxiety-like behavior

Stéphanie Auguste¹, Maria Fernandes¹, Vincent Poitout¹, Thierry Alquier¹, Stephanie Fulton¹

¹University of Montreal

2-F-147 Pre-ischemia CRH receptor 1 blockade attenuates hippocampal cell death and prevents spatial memory impairments in rats.

Patricia B. de la Tremblaye¹, Marika Bonneville¹, Hélène Plamondon¹

¹University of Ottawa

2-F-148 Early memory processes are altered by Lithium administration

Laure Chagniel¹, Mélanie Brien¹, Yan Bergeron¹, Geneviève Bureau¹, Michel Cyr¹

¹Université du Québec à Trois-Rivières

2-F-149 Optogenetic investigation of septal GABAergic modulation of hippocampal theta rhythm.

Richard Boyce¹, Stephen Glasgow¹, Sylvain Williams¹, Antoine Adamantidis¹

¹McGill University

2-F-150 Utilization Behaviour after Lesions Restricted to the Prefrontal Cortex

Catherine Chapados Noreau¹, Michael Petrides¹

¹Montreal Neurological Hospital and Institute

2-F-151 Aberrant dopamine in the salience network and parahippocampal gyrus contributes to memory impairment in Parkinson's disease

Leigh Christopher¹, Connie Marras², Sarah Duff-Canning², Yuko Koshimori¹, Anthony Lang², Sylvain Houle¹, Antonio Strafella²

¹Research Imaging Centre, Centre for Addiction and Mental Health, University of Toronto, ²Toronto Western Hospital (Movement Disorders Centre) & Research Institute (Division of Brain, Imaging)

2-F-152 Interacting with bots online: users reactions to actions of automated programs in the virtual community of Wikipedia

Maxime Clément¹, Matthieu Guitton¹

¹Université Laval

2-F-153 Slow oscillations augmentation during sleep increases object recognition performance in mice

Bibiana Maria de Franca¹, Sylvain Chauvette¹, Josée Seigneur¹, Igor Timofeev¹

¹University Laval

2-F-154 Correlations between brain and behavior: insights into the processing of statistical information.

Isabelle Deschamps¹, Uri Hasson², Pascale Tremblay¹

¹Université Laval, ²University of Trento

2-F-155 Memory or attention? The effect of early auditory experience on neural immediate-early gene expression in female zebra finch (*Taeniopygia guttata*) auditory forebrain areas.

Beatriz Diez¹, Scott MacDougall-Shackleton¹

¹University of Western Ontario

2-F-156 Quinine adulteration allows for an access-induced consumption difference to emerge with higher sucrose concentrations

Milan Valyear¹, Roelof Eikelboom¹

¹Wilfrid Laurier University

2-F-157 The effect of JD_{1c} on stress-induced reinstatement of sugar seeking

Justin Ferdinand¹, Paul Marshall¹, Francesco Leri¹

¹University of Guelph

2-F-158 The relationship between schizotypy and willingness to play social roles

Ana Fernandez Cruz¹, Ola Mohamed Ali¹, J. Bruno Debruille¹

¹McGill University

2-F-159 Effect of sleep deprivation on EphA4 and response to sleep deprivation in EphA4 knockout mice

Marlene Freyburger¹, Janine El Helou¹, Erika Belanger-Nelson¹, Valérie Mongrain¹

¹Université de Montreal

2-F-160 Effects of chronic prenatal MK-801 treatment on cognitive flexibility in the adult rat offspring

Stephanie Gallant¹, Loic Welch¹, Patricia Martone¹, Uri Shalev¹

¹Concordia University

2-F-161 Decision-related eye movement patterns during virtual navigation in non-human primates (Macaca mulatta)

Roberto Gulli¹, Guillaume Doucet¹, Julio Martinez-Trujillo¹

¹McGill University

2-F-162 Investigating the role of orbitofrontal cortex in crossmodal object recognition in rats

Derek Jacklin¹, Emily Boughner¹, Michelle Moon¹, Boyer Winters¹

¹University of Guelph

2-F-163 Oscillatory responses to sentence embedded semantic and syntactic violations: Effect of bilingualism

Aneta Kielar¹, Jed Meltzer¹, Sylvain Moreno¹, Claude Alain¹, Ellen Bialystok²

¹Baycrest Hospital, ²York University

2-F-164 Intraoral self-administration of sweeteners in laboratory rats

AnneMarie Levy¹, Gabrielle Colangelo¹, Mazen El-Baba¹, Cheryl Limebeer¹, Linda Parker¹, Francesco Leri¹

¹University of Guelph

2-F-165 Differences of fructose/glucose ratios on operant self-administration and c-fos expression in the hypothalamus and nucleus accumbens

Paul Marshall¹, Katrina Kent¹, Stephen Daniels¹, Ari Shore¹, Tiana Downs¹, Francesco Leri¹

¹University of Guelph

2-F-166 Lack of sex differences but menstrual cycle phase dependent modulation of craving for cigarettes in female smokers: An fMRI study

Adrianna Mendrek¹, Laurence Dinh-Williams², Josiane Bourque², Stéphane Potvin³

¹Bishop's University, ²Université de Montreal, ³1. Centre de recherche de l'Institut universitaire en santé mentale de Montréal

2-F-167 The effect of atypical antipsychotics on an index of semantic processing

Ola Mohamed Ali¹, Ana Lucia Fernandez Cruz¹, Bruno Debrulle¹

¹McGill University

2-F-168 Profile differences in 50 kHz vocalizations induced by systemic or intraaccumbens application of amphetamine

Kevin Mulvihill¹, Stefan Brudzynski¹

¹Brock University

2-F-169 Haloperidol-Environment Interaction Mediates Expression of c-Fos Proteins in the Ventral Pallidum of Rats

Lexy Pezarro Schimmel¹, Emily Hawken¹, Eric Dumont¹, Tomek Banasikowski², Richard Beninger¹

¹Queen's University, ²University of Pittsburgh

2-F-170 Sex Differences In Myelination Of The Song Control System

Adam Piraino¹, David Sherry¹, Scott MacDougall-Shackleton¹

¹Western University

2-F-171 Set, reversal, and long-term olfactory learning in the 3xTG-AD mouse model of Alzheimer's disease.

Kyle Roddick¹, Heather Schellinck¹, Richard Brown¹

¹Dalhousie University

2-F-172 Synaptic impairment of cortical and hippocampal fast-spiking basket cells induces cognitive deficits in Cacna1a mutants.

Alexis Lupien-Meilleur¹, Ilse Ribe², Elena Samarova¹, Lena Damaj³, Jean-Claude Lacaille², Elsa Rossignol¹

¹CHU Ste-Justine, Université de Montréal, ²Université de Montréal, ³CHRU Rennes

2-F-173 Dorso lateral corticoid area and its neuronal classes: possible role in vocal learning and cognition in Indian Ring Neck parrot (Psittacula krameri)

Sudhi Shrivastava¹, Shubha Srivastava²

¹Barkatullaha University Bhopal, ²KNPG college, Sant ravidas nagar

2-F-174 Muscarinic cholinergic receptor activation destabilizes object memories, possibly via proteasome-mediated protein degradation

Mikaela Stiver¹, Derek Jacklin¹, Nevena Vacic¹, Justine Carlin¹, Matthew O'Hara¹, Boyer Winters¹

¹University of Guelph

2-F-175 Decoding the focus of visual attention from prefrontal ensemble activity

Sebastien Tremblay¹, Florian Pieper², Adam Sachs³, Julio Martinez-Trujillo¹

¹McGill University, ²University Medical Center Hamburg-Eppendorf (UKE), ³University of Ottawa

2-F-176 Muscarinic Control of Rostromedial Tegmental Nucleus GABA Neurons and Morphine-induced Locomotion

David Wasserman¹, Joel Tan¹, Junchul Kim¹, John Yeomans¹

¹University of Toronto

2-F-177 Sensitization of the Activity-Decreasing Effects of Haloperidol in Rats: Preliminary Results

Kathleen Xu¹, Richard Beninger¹

¹Queen's University

2-F-178 The Nature of Forgetting: Storage or Retrieval Impairment in Experimental Amnesia

Jie Jane Zhang¹, Oliver Hardt², Karim Nader¹

¹McGill University, ²University of Edinburgh

G - Novel Methods and Technology Development

2-G-179 Examining astrocyte morphology using DiOlistic labeling with the PDS-1000/He Particle Delivery System

Lindsay Alvis¹, Kristin Milloy¹, Adrienne Benediktsson¹

¹Mount Royal University

2-G-180 Focused ultrasound-mediated blood-brain barrier opening in a mouse model of Alzheimer's disease

Alison Burgess¹, Tam Nhan¹, Sonam Dubey¹, Isabelle Aubert¹, Kullervo Hynynen¹

¹Sunnybrook Research Institute

2-G-181 A novel method of electrical stimulation to reduce tibialis anterior contraction fatigue

Jenny Lou¹, Abdulaziz Aldayel¹, Jennifer Czitron¹, David Collins¹

¹University of Alberta

POSTER SESSION 2 – TUESDAY, MAY 27, 2014

2-G-182 A new standalone software for interactive filtering of movement artifacts generated during multiphoton intravital imaging of neuroinflammation

Catherine Fontaine-Lavallée¹, Benoît Aubé¹, Méliissa Côté¹, Alexandre Paré¹, Steve Lacroix¹, Denis Soulet¹

¹CRCHUL (Laval University)

2-G-183 Development of BRET-based biosensors for nuclear receptors associated with dopamine neurotransmission

Xavier Giner¹, David Cotnoir-White¹, Sylvie Mader¹, Daniel Lévesque¹

¹University of Montreal

2-G-184 Kinematic Assessment Effectively Guide Botulinum Neurotoxin Type A Injections for Essential Tremor Treatment

Fariborz Rahimi¹, Olivia Samotus¹, Jack Lee¹, Mallory Jackman¹, Mandar Jog¹

¹Western University

2-G-185 BrainDir: A Public Online Repository for Healthy Control Neuroimaging Data

Jeremy Moreau¹, Chris Lepage¹

¹University of Ottawa

2-G-186 Optimization of SYBR Green real time quantitative PCR for single neurons

Zahra Saneei¹, Guillaume Fortin², Louis Eric Trudeau²

¹ Université de Montréal, ² Université de Montréal

2-G-187 Whole-brain mapping of neural activation in mice

Dulcie Vousden¹, Jonathan Epp², Hiroyuki Okuno³, Brian Nieman², Matthijs van Eede², Jun Dazai², Tim Ragan⁴, Haruhiko Bito⁵, Paul Frankland², Jason Lerch², Mark Henkelman²

¹University of Toronto, ²Hospital for Sick Children, ³Kyoto University, ⁴TissueVision, Inc., ⁵University of Tokyo

I - Neuroengineering

2-I-188 A spinal analogue of memory reconsolidation enables the reversal of hyperalgesia

Robert Bonin¹, Yves De Koninck¹

¹CR-IUSMQ

2-I-189 In Vivo 2-Photon calcium imaging of the brain : active neurons revealed by spatio-temporal correlation analysis and region-growing segmentation.

Jean-Francois Desjardins¹, Lois Miracourt², Edward Ruthazer², Paul Wiseman¹

¹McGill University, ²Montreal Neurological Institute, McGill University

2-I-190 Creating Artificial Neuronal Connections

G Monserratt Lopez Ayon¹, Margaret Magdesian¹, Megumi Mori¹, Xue Ying Chua¹, Alexis Goulet Hanssens¹, David Oliver¹, William Paul¹, Dominic Boudreau², Delphine Gobert¹, Ricardo Sanz¹, Yoichi Miyahara¹, Alyson Fournier¹, Edward Ruthazer¹, Chris Barrett¹, Yves DeKoninck¹, Peter Grutter¹

¹McGill University, ²Laval University

2-I-191 Gephyrin clusters are absent from small diameter primary afferent terminals despite the presence of GABA(A) receptors

Louis-Etienne Lorenzo¹, Antoine Godin², Feng Wang¹, Manon Saint-Louis³, Salvatore Carbonetto⁴, Paul Wiseman³, Alfredo Ribeiro-da-Silva³, Yves De Koninck¹

¹CRUSMQ/Laval University, ²CRUSMQ, ³McGill University, ⁴Montreal General Hospital Research Institute/McGill University

2-I-192 Interfacing synthetic and native membranes: model lipid membrane domains for evaluating specific cellular responses

Carolin Madwar¹, Gopakumar Gopalakrishnan², R. Bruce Lennox¹

¹McGill University, ²Université Paris-Sud

2-I-193 Digital Nanodot Gradients with Adjustable Reference Surfaces to Explore Growth Cone Navigation on Gradients of Nanopatterned Protein Cues

Greta Thompson-Steckel¹, Grant Ongo¹, James Correia¹, Timothy Kennedy¹, David Juncker¹

¹McGill University

2-I-194 Quantification of Cellular Mechanotransduction Force with Micropillar Array Detectors

Liangcheng Xu¹, Sebastien Ricoult¹, Timothy Kennedy¹, David Juncker¹

¹McGill University

2-I-195 A novel Fluorescence Lifetime Nanoscopy approach to resolve protein interactions inside dendritic spines.

Christian Tardif¹, Daniel Côté¹, Paul De Koninck¹

¹CRUSMQ

IBRO - International Brain Research Association

2-IBRO-196 Purinergic receptor activation induces Ca²⁺ waves in a stem cell niche of the rat spinal cord.

Nicolas Marichal¹, Gabriela Fabbiani¹, Omar Trujillo-Cenú¹, Ra' I Russo¹

¹Instituto de Investigaciones Biológicas Clemente Estable

A - Development

3-A-1 Role of the precursor form of the brain-derived neurotrophic factor, proBDNF, and its receptor p75NTR on GABAergic synapse maturation in neocortex

Elie Baho¹, Bidisha Chattopadhyaya¹, Marisol Lavertu Jolin¹, Graziella Di Cristo¹

¹Université de Montréal/CHU Ste-Justine

3-A-2 Expression of Kirrels in vomeronasal sensory neuron axons controls their coalescence into glomeruli of the AOB

Alexandra Brignall¹, Janet Prince¹, Jean-Francois Cloutier¹

¹Montreal Neurological Institute, McGill University

3-A-3 Early changes in the offspring mesolimbic dopaminergic system induced by perinatal maternal high-fat diet

MinGi Cho¹, Greg Dal-Bo², Hong Long², Claire-Dominique Walker²

¹McGill university, ²Douglas Mental Health University Institute

3-A-4 Inflammation elevates the rate of axonal structural remodeling in a developing neural circuit

Nasr Farooqi¹, Edward Ruthazer¹

¹McGill University

3-A-5 Effects of prenatal and neonatal nicotine exposure on the 3beta- hydroxysteroid dehydrogenases (3β-HSD) enzymes of steroidogenesis in the rat hippocampus

Hayley Forbes¹, Julie Boucher¹, Allison Holloway², Anne TM. Konkle¹

¹University of Ottawa, ²McMaster University

3-A-6 Pre-pubertal rats behaving badly: Assessing behaviour in the Morris water maze

Nitasha Gill¹, Karen Mezher¹, Anne Konkle²

¹Carleton University, ²University of Ottawa

3-A-7 Integration and functional role of different sub-populations of newborn granule cells in the adult olfactory bulb.

Delphine Hardy¹, Vincent Breton-Provencher¹, Armen Saghatelian¹

¹Le Centre de recherche de l'Institut universitaire en santé mentale de Québec, Université Laval.

3-A-8 Controlling postsynaptic receptors expression as a model to investigate synaptic refinement

Emily Irvine¹, Yumaine Chong¹, Brigitte Pie¹, Ellis Cooper¹

¹McGill University

3-A-9 Prenatal paternal stress and postnatal enhanced home cage affect maternal care and anxiety like behaviour in juvenile rats

Austin Korgan¹, Tara Perrot¹

¹Dalhousie University

3-A-10 The Rho guanine nucleotide exchange factor beta-Pix is required for netrin-1 mediated chemoattraction

Karen Lai Wing Sun¹, Timothy Kennedy¹

¹Montreal Neurological Institute

3-A-11 mTOR signaling in oligodendrocytes

Ueli Suter¹

¹ETH Zürich

3-A-12 Effects of exogenous neuregulin-1 on maturing adultborn neurons in the hippocampus

Ian Mahar¹, Angus MacIsaac¹, Adeline Rachalski¹, Naguib Mechawar¹

¹McGill University

3-A-13 Characterization of a cleavage-resistant EphA4 receptor in spinal motor neurons

Graziana Gatto¹, Daniel Morales², Artur Kania², Ruediger Klein¹

¹Max Planck Institute of Neurobiology, ²McGill University

3-A-14 Hypocretin/Orexin receptors in the chick embryo brain

Tom Cerazy¹, Nazanin Saadat¹, Gillian Fuchs¹, Maria Pompeiano¹

¹McGill University

3-A-15 AMIGO-1 regulates the targeting of olfactory sensory neuron axons

Reesha Raja¹, Emilie Dumontier², Jean-Francois Cloutier²

¹Montreal Neurological Institute, McGill University, ²McGill University

3-A-16 Proteolytic cleavage of IGLON adhesion proteins by MMPs promotes neurite outgrowth

Ricardo Sanz¹, Alyson Fournier¹

¹McGill University

3-A-17 Investigating the role of Disrupted in Schizophrenia 1 (DISC1) in cortical inhibitory interneuron development

Brianna Unda¹, Vickie Kwan¹, Karun Singh¹

¹McMaster University

3-A-18 Repeated predator odour stress across the adolescent period alters γ2 GABAA receptor subunit levels in hippocampus of male and female rats

Lisa Wright¹, Tara Perrot¹

¹Dalhousie University

B - Neural Excitability, Synapses, and Glia: Cellular Mechanisms

3-B-19 Emotional and cognitive behaviour changes are associated with increased glutamatergic transmission in the early stages of Experimental Allergic Encephalomyelitis (EAE)

Shaona Acharjee¹, Quentin Pittman¹

¹University of Calgary

3-B-20 The distribution of cytoplasmic and membrane-associated TrkB in the dendrites of adult spinal motoneurons

Farin B. Bourojeni¹, Ethan Zhao², Monica Neuber-Hess², P Ken Rose²

¹Institut de recherches cliniques de Montréal, ²Queen's University

3-B-21 Microglia respond to brain anoxia with rapid morphological changes

Louis-Philippe Bernier¹, Lasse Dissing-Olesen¹, Brian MacVicar¹

¹University of British Columbia

POSTER SESSION 3 – WEDNESDAY, MAY 28, 2014

3-B-22 Dual Role of Acyl-CoA Binding Protein (ACBP) in the Hypothalamus: Regulator of Astrocytes Fatty Acid (FA) Metabolism and Gliotransmitter Targeting Pro-opiomelanocortin (POMC) Neurons.

Khalil Bouyakdan¹, Bouchra Taib¹, Lionel Budry¹, Chloé Chrétien², Susanne Mandrup³, Luc Pénicaud², Xavier Fioramonti², Thierry Alquier¹

¹CRCHUM, ²Université de Bourgogne, ³University of South Denmark

3-B-23 Increasing extracellular potassium excites and then depresses cortical seizure activity in vitro and in vivo

Lihua Wang¹, Suzie Dufour¹, Simon Stern¹, Peter Carlen¹

¹University of Toronto

3-B-24 Omega-3 fatty acid prevents pro-inflammatory induced dendritic spine loss and synaptic deficits in the mature hippocampus

Philip Chang¹, Dusica Maysinger¹, Rebecca McKinney¹

¹McGill university

3-B-25 Importance of astrocytic coupling for rhythmogenesis in neurons of the masticatory central pattern generator.

Steven Condamine¹, Raphaël Lavoie², Arlette Kolta¹

¹Université de Montréal, ²Douglas Mental Health Research Institute

3-B-26 Functional consequences of cysteine mutations at the kainate receptor dimer interface

Bryan Daniels¹, Mark Arousseau¹, George Dawe¹, Derek Bowie¹

¹McGill University

3-B-27 Glutamate receptor activation involves stabilization at the apex of the ligand-binding domain

Brent Dawe¹, Maria Musgaard², Bryan Daniels¹, Mark Arousseau¹, Philip Biggin², Derek Bowie¹

¹McGill University, ²University of Oxford

3-B-28 Weakly coupled oscillators interactions between the medial septum and the hippocampus mediated by the septum long-range GABAergic projections.

Guillaume Ducharme¹, Bénédicte Amilhon¹, Stephen Glasgow¹, Antoine Adamantidis¹, Sylvain Williams¹

¹McGill University

3-B-29 Sleep deprivation impacts on Neuroligin-2 and -3 protein levels in the mouse brain

Janine El Helou¹, Valérie Mongrain¹

¹Hôpital du Sacré-Coeur de Montréal

3-B-30 Network models provide insight into how oriens-lacunosum-moleculare (OLM) and bistratified cell (BSC) interactions influence local CA1 theta oscillations

Katie Ferguson¹, Carey Huh², Bénédicte Amilhon², Sylvain Williams², Frances Skinner¹

¹Toronto Western Research Institute and University of Toronto, ²Douglas Mental Health University Institute, McGill University

3-B-31 Functional Dissection of Descending Medial Prefrontal Cortex Inputs to the Dorsal Raphe Nucleus

Sean Geddes¹, Saleha Assadzada¹, Alexandra Sokolovski¹, Richard Bergeron¹, Samir Haj-Dahmane², Jean-Claude Beique¹

¹University of Ottawa, ²University of New York at Buffalo

3-B-32 D1-receptor activation facilitates synaptic transmission in the lateral entorhinal cortex via activation of the cAMP-PKA pathway and elevation of intracellular calcium

Iulia Glovac¹, C. Andrew Chapman¹

¹Concordia University

3-B-33 Intrinsic theta-gamma coupling properties in the mouse CA1/subiculum area in the complete hippocampus in vitro

Ning Gu¹, Bénédicte Amilhon¹, Jesse Jackson¹, Guillaume Ducharme¹, Sylvain Williams¹

¹Douglas Mental Health University Institute, McGill University

3-B-34 Action Potential Induced Dendritic Calcium Responses in Spinal Cord Lamina I Neurons

Erika Harding¹, Michael Salter¹

¹The Hospital for Sick Children

3-B-35 Translational control downstream of initiation during mGluR LTD in cultured hippocampal neurons

Sarah Hebert-Seropian¹, Tyson Graber², Wayne Sossin², Jean-Claude Lacaille¹

¹Université de Montréal, ²Montreal Neurological Institute, McGill University

3-B-36 Activity induced changes in neuronal excitability in a developing central synapse

Derek Howard¹, Lu-Yang Wang¹

¹The Hospital for Sick Children

3-B-37 Role of synaptically-induced intracellular acidification on synaptic plasticity

Tushare Jinadasa¹, Mado Lemieux¹, Paul De Koninck¹

¹University of Laval

3-B-38 Adaptive role for TNF α -mediated plasticity in cocaine addiction

Sarah Konefal¹, Gil Lewitus¹, Sabrina Chierzi¹, Keith Murai¹, David Stellwagen¹

¹McGill University

3-B-39 Active zone proteins RIM1ab are required for normal corticostriatal transmission and striatal-dependent behaviours

David Kupferschmidt¹, David Lovinger¹

¹National Institutes of Alcohol Abuse & Alcoholism

3-B-40 Cacnb4 regulates cortical fast-spiking basket cells synaptic efficiency: implications for epilepsy and cognitive impairment.

Lydia Marcoux¹, Ilyia Kruglikov², Alexis Lupien-Meilleur¹, Mathieu Lachance¹, Elsa Rossignol¹

¹CHU Ste-Justine Research Center, ²NYUMC

3-B-41 Imaging of miniature synaptic Ca²⁺-transients as a readout of synaptic potentiation

Mado Lemieux¹, Theresa Wiesner¹, Gabriel Nadeau¹, Paul De Koninck¹

¹Université Laval/CRIUSMQ

3-B-42 Dynamic regulation of TREK-1 gating by polycystin-2 via a Filamin A-mediated cytoskeletal mechanism.

Steven Li Fraine¹, Reza Sharif-Naeini¹

¹McGill University

3-B-43 The microglial activation state regulates migration and invasion

Starlee Lively¹, Lyanne Schlichter¹

¹Toronto Western Research Institute

3-B-44 Role of the Synaptotagmin-Dynamin interaction in synaptic vesicle recycling

Robyn McAdam¹, Fiona Young¹, Vanessa Blandford¹, Sebastien Thomas¹, Peter McPherson¹, Liang-Wei Gong², Wayne Sossin¹

¹McGill University, ²University of Illinois at Chicago

3-B-45 Activation of the ERK/MAPK pathway by dimethyl sulfoxide is ameliorated by the 5 α -reduced testosterone metabolite 3 α -androstenediol via GABAergic modulation in SH-SY5Y neuroblastoma cells.

Ari Mendell¹, Bettina Kalisch¹, Neil MacLusky¹

¹University of Guelph

3-B-46 Decreased activity of the lateral septum in sucrose-over-eating rats with a history of repeated food restriction and stress

Arojit Mitra¹, Christophe Lenglos¹, Geneviève Guevrémont¹, Elena Timofeeva¹

¹University Laval

3-B-47 Functional Analysis of Calcium Channel-Synaptic Vesicle Tethering in Live Cryoloaded Synaptosomes.

Arup Nath¹, Robert Chen¹, Elise Stanley¹

¹Toronto Western Hospital

3-B-48 Neurotensin And Anxiety In The Oval Bed Nucleus Of The Stria Terminalis

Ana Paula Ventura-Silva¹, Emily Hawken², Cynthia Di Prospero², José Miguel Pêgo¹, Éric Dumont², Catherine Normandeau²

¹University of Minho, ²Queen's University

3-B-49 Hydrogen peroxide potentiation of a tonic GABA current in hippocampal neurons requires extracellular oxidation and the Fenton reaction

Antonello Penna¹, Dian-Shi Wang¹, Jieying Yu¹, Irene Lecker¹, Beverley Orser¹

¹University of Toronto

3-B-50 Unique interweaved microtubule scaffold mediates osmosensory transduction via physical interaction with TRPV1

Masha Prager-Khoutorsky¹, Arkady Khoutorsky², Charles Bourque¹

¹Research Institute of the McGill University Health Centre, ²McGill University

3-B-51 TRPM2 regulates migration of primary microglia cells

Melanie Ratnam¹, Michelle Aarts¹

¹University of Toronto Scarborough

3-B-52 Astrocytes provide steady-state, activity independent control of cerebral blood vessel diameter

David Rosenegger¹, Grant Gordon¹

¹University of Calgary

3-B-53 The cellular mechanisms of neuronal swelling underlying cytotoxic brain edema

Ravi Rungta¹, Hyun Choi¹, John Tyson¹, Terrance Snutch¹, Brian MacVicar¹

¹University of British Columbia

3-B-54 Non-uniform dendritic distributions of Ih channels in experimentally-derived multi-compartment models of oriens-lacunosum/moleculare hippocampal interneurons

Vladislav Sekulic¹, Tse-Chiang Chen², John Lawrence³, Frances Skinner¹

¹Toronto Western Research Institute/University of Toronto, ²University of Toronto, ³University of Montana

3-B-55 Radial glia filopodial motility is required for the normal development of excitatory synapses in the optic tectum of *Xenopus laevis*

Mari Sild¹, Marion Van Horn¹, Dantong Jia¹, Edward Ruthazer¹

¹McGill University

3-B-56 Role of Early Acoustic Experience in Development of the Rat Primary Auditory Cortex

Chloe Soutar¹, Simon Rodier¹, Meaghan Wilkin¹, Janet Menard¹, Hans Dringenberg¹

¹Queen's University

3-B-57 Calcium-dependent calcium decay explains STDP in a dynamic model of hippocampal synapses

Dominic Standage¹, Thomas Trappenberg², Gunnar Blohm¹

¹Queen's University, ²Dalhousie University

3-B-58 Using dynamic clamp to quantify changes in somatosensory afferent excitability associated with neuropathic pain

Petri Takkala¹, Steven Prescott¹

¹University of Toronto

3-B-59 Synapse-specific expression of the alpha5 GABAA receptor subunit in hippocampal interneurons and its rapid decline in the pilocarpine model of temporal lobe epilepsy

Elise Magnin¹, Lisa Topolnik¹

¹Université Laval

3-B-60 The adrenocorticotrophin (ACTH) secretagogue, arginine vasopressin (AVP) reduces the background TREK-1 current in mouse pituitary corticotropes

Amy Tse¹, Andy Lee¹

¹University of Alberta

3-B-61 Non-canonical signaling of NMDARs to pannexin-1 in ischemia

Nicholas Weilinger¹, Jennifer Bialecki¹, Brooke Rakai¹, Nathan Ikuta², Ian Winship², G. Campbell Teskey¹, Roger Thompson¹

¹University of Calgary, ²University of Alberta

3-B-62 Regulation of NMDA receptors by tyrosine-protein kinase Fyn in human induced pluripotent stem cell-derived neurons

Wenbo Zhang¹, P. Joel Ross¹, Yongqian Wang¹, James Ellis¹, Michael Salter¹

¹The Hospital for Sick children

C - Disorders of the Nervous System

3-C-63 Neuregulin-1 Attenuates Astroglial Scar Formation after Spinal Cord Injury

Arsalan Alizadeh¹, Scott Dyck¹, Dung Nguyen¹, Santhosh Kallivalappil¹, Evan Proulx¹, Soheila Karimi-Abdolrezaee¹

¹University of Manitoba

POSTER SESSION 3 – WEDNESDAY, MAY 28, 2014

3-C-64 Altered muscarinic activation in Perisynaptic Schwann Cells of SOD1G37R mice; implication for the fate of the neuromuscular junction.

Danielle Arbour¹, Éric Martineau¹, Elsa Tremblay¹, Richard Robitaille¹

¹Université de Montréal

3-C-65 Adeno-Associated Virus Gene Delivery of Fmr1 in Fragile X Knockout Mice

Jason Arseneault¹, Shervin Gholizadeh¹, Ingrid Yang Xuan¹, Laura Pacey¹, David Hampson¹

¹University of Toronto

3-C-66 Identification of the optimal time window to enhance NPC survival after a focal ischemic injury.

Robert Bartlett¹, R. Brian Roome¹, Jieying Xiong¹, Jacqueline Vanderluit¹

¹Memorial University of Newfoundland

3-C-67 Temporal evolution of different limbic seizure onset types in the pilocarpine rat model of mesial temporal lobe epilepsy

Charles Behr¹, Maxime Levesque¹, Massimo Avoli¹

¹McGill University

3-C-68 The effect of striatal pre-enkephalin overexpression in MPTP mouse model of Parkinson's disease

François Bezeau¹, Stéphanie Bissonnette¹, Nathalie Vernoux¹, Sophie Muratot¹, Frédéric Calon¹, Sébastien Hébert S.¹, Pershia Samadi¹

¹CHUL (Université Laval)

3-C-69 The interplay between astrocytes and microglia shapes the progression of Alzheimer's disease.

Bouvier David¹, Emma Jones¹, Rémi Quirion², Naguib Mechawar¹, Keith Murai¹

¹McGill University, ²Douglas Mental Health University Institute

3-C-70 Characterizing the effect of maternal immune activation on perisomatic GABA neurons using a dual recombinase-mediated gene activation strategy.

Janine Cajanding¹, Junchul Kim¹

¹University of Toronto

3-C-71 Investigation of TNFalpha signaling before amyloid overproduction in a mouse model of Alzheimer's disease

Chelsea Cavanagh¹, Remi Quirion¹, Tak Pan Wong¹

¹Douglas Hospital Research Center

3-C-72 Depletion in pro-inflammatory monocytes/macrophages is neuroprotective in the myenteric plexus but not in the basal ganglia in a MPTP mouse model of Parkinson's disease

Melissa Cote¹, Catherine Lavallée¹, Benoit Aube¹, Denis Soulet¹

¹CHUQ Research Center (CHUL), Québec

3-C-73 Glia-derived tumor necrosis factor alpha promotes retinal ganglion cell death through overexpression of phorbol-toxin-sensitive calcium permeable AMPA receptors.

Jorge Cueva-Vargas¹, Joseph Nemargut², Ingrid Osswald², Mark Arousseau², Nicolas Unsain², Phil Barker², Derek Bowie², Adriana Di Polo¹

¹Research Centre of the University of Montreal Hospital Centre (CRCHUM),

²McGill University

3-C-74 The effects of focal ischemic lesions of the prefrontal cortex on attentional set-shifting behaviour in the rat

Robert Déziel¹, R. Tasker¹

¹University of Prince Edward Island

3-C-75 Spatial characterization of optogenetically induced seizures

Joshua Dian¹, Peter Carlen¹, Taufik Valiante¹

¹University of Toronto

3-C-76 USP8 Regulates Mitophagy by Removing K6-linked Ubiquitin Conjugates from Parkin

Thomas Durcan¹, Matthew Tang¹, Edward Fon¹

¹Montreal Neurological Institute, McGill University

3-C-77 Peptide-mediated degradation of a death-inducing kinase as a therapy for stroke

Xuelai Fan¹, Wu Yang Jin¹, Jie Lu¹, Yu Tian Wang¹

¹University of British Columbia

3-C-78 Age-Related Changes in Working Memory in the Hebb-Williams Maze in the Triple Transgenic Mouse Model of Alzheimer's Disease

Emre Fertan¹, Richard Brown¹

¹Dalhousie University

3-C-79 RhoA proteolysis: A novel mechanism for RhoA regulation and its possible applications for CNS regeneration

Marie-Pier Girouard¹, Alyson Fournier¹

¹Montreal Neurological Institute

3-C-80 Age-dependent tau hyperphosphorylation and deregulation of PP2B in Huntington mice models

Maud Gratuze¹, Anastasia Noel¹, Philippe Millot-Rousseau², François Morin¹, François Bezeau¹, Pershia Samadi¹, Emmanuel Planel¹

¹CHUL (Université Laval), ²Université Laval

3-C-81 Effects of chronic typical and atypical antipsychotic treatment on mouse brain volume: a longitudinal magnetic resonance imaging study

Elisa Guma¹, Jill Rocchetti¹, Axel Mathieu², Blandine Courcot², Pinkal Patel¹, Bruno Giros¹

¹Douglas Research Center, ²Douglas Brain Imaging Center

3-C-82 Reduction of 2-4 Hz coherence between the hippocampus and prefrontal cortex following chronic prefrontal cortex stimulation

Maryna Pilkiw¹, Nathan Insel², Jose Nobrega², Kaori Takehara-Nishiuchi¹, Clement Hamani²

¹University of Toronto, ²Centre for Addiction and Mental Health

- 3-C-83 Abnormal Myelination during Brain Development in Fragile X Mice**
David Jiang¹, Laura Pacey¹, David Hampson¹
¹University of Toronto
- 3-C-84 Endoplasmic reticulum stress, TDP-43, FUS and progranulin involvement in models of Huntington's disease**
Carl Julien¹, Arnaud Tauffenberger¹, Julie Veriepe¹, Sarah Peyrard¹, Babykumari Chitramuthu², Andrew Bateman², Hugh Bennett², Alex Parker¹
¹CRCHUM; Université de Montréal, ²Endocrine Research Laboratory, Royal Victoria Hospital and Department of Medicine, McGill University
- 3-C-85 Ceramidase Activity is Required for the Neurotoxic Effects of a Lipid Second Messenger Molecule Elevated in Alzheimer's Disease**
Michael Kennedy¹, Yun Wang¹, Hongbin Xu¹, Kenneth Gable², Teresa Dunn², Kristin Baetz¹, Steffany Bennett¹
¹University of Ottawa, ²Uniformed Services University of the Health Sciences
- 3-C-86 Elevated microglial activation in PD patients expressing a polymorphism for high-affinity binding for [18F]-FEPPA in striatal and extra-striatal regions: A PET study**
Yuko Koshimori¹, Ji Hyun Ko², Rostom Mabrouk¹, Leigh Christopher¹, Romina Mizrahi¹, Pablo Rusjan¹, Anthony Lang³, Alan Wilson¹, Sylvain Houle¹, Antonio Strafella¹
¹Centre for Addiction and Mental Health, University of Toronto, ²Feinstein Institute for Medical Research, ³Toronto Western Hospital, UHN, University of Toronto
- 3-C-87 Investigation of neurotransmission and synapse maintenance in cultures from G2019S knock-in mice**
Naila Kuhlmann¹, Igor Tatarnikov¹, Dayne Beccano-Kelly¹, Patrick Chou¹, Daisy Cao¹, Katherine Yu¹, Matthew Farrer¹, Austen Milnerwood¹
¹University of British Columbia
- 3-C-88 Elevated NKG2D and NKG2D ligands expression in a mouse model of multiple sclerosis (EAE)**
Laurine Legroux¹, Camille Pittet¹, Chanel Cadieux-Dion¹, Alma Nazlie Mohebiany¹, Diane Beauseigle², Nathalie Arbour¹
¹Université de Montréal CRCHUM
- 3-C-89 The role of neuroligins in the generation of abnormal rhythmic theta discharges in EEG recordings**
Jackie Liu¹, Miguel Cortez², Zhengping Jia²
¹University of Toronto, ²Hospital for Sick Children
- 3-C-90 The role of NOD-like Receptor Nlrp12 in Multiple Sclerosis**
Tara M. Mahvelati¹, Emilie Imbeault¹, Salah Rahmani¹, Denis Gris¹
¹Sherbrooke University
- 3-C-91 Nucleus accumbens DNA methylation states determine cocaine craving**
Renaud Massart¹, Royi Barnea², Yahav Dikshtein², Matthew Suderman¹, Oren Meier², Moshe Szyf¹, Gal Yadid¹
¹McGill University, ²Bar-Ilan University
- 3-C-92 Development of a Novel Lumbar Spinal Cord Injury Model to Examine the Therapeutic Potential of Transplanting Neuronally Induced Neural Stem/Progenitor Cells.**
Gray Moonen¹, Charles Tator¹
¹University of Toronto
- 3-C-93 Decreased mTOR signaling via p70S6K/eIF4B is associated with loss of the excitatory postsynaptic marker PSD-95 in autism**
Chiara Nicolini¹, Margaret Fahnestock¹
¹McMaster University
- 3-C-94 Chemical genetic screens of TARDBP modifiers in C. elegans and zebrafish**
Shunmoogum Patten¹, Gary Armstrong¹, Claudia Maios¹, Dina Aggad¹, Alexandra Vaccaro¹, Edor Kabashi², J Alex Parker¹, Pierre Drapeau¹
¹Université de Montréal, ²L'Institut du Cerveau et de la Moelle Épineuse
- 3-C-95 Alteration of Spreading Depolarization During Infarct Maturation**
Dylan Petrin¹, David Andrew¹, Nichole Peterson¹, Albert Jin¹
¹Queen's University
- 3-C-96 Effect of 6-hydroxydopamine and resveratrol on Nur77 nuclear to cytoplasmic translocation in PC12 cells**
Justine Renaud¹, Mélodie Plourde¹, Cindy Tremblay¹, Aparna Singh¹, Maria-Grazia Martinoli¹
¹Université de Québec in Trois-Rivières
- 3-C-97 Tau-induced down-regulation of BDNF in transgenic mouse models of tauopathy**
Elyse Rosa¹, Nick Déry¹, Sujeivan Mahendram¹, Margaret Fahnestock¹
¹McMaster University
- 3-C-98 Effect of mild traumatic brain injury on sleep structure and sleep molecular markers in mice**
Meriem Sabir¹, Pierre-Olivier Gaudreault¹, Michèle Houde¹, Valérie Mongrain¹
¹University of Montreal
- 3-C-99 Generation of a novel mouse model of the neuronal isoform Kif1a/25b to study hereditary sensory & autonomic neuropathy type II**
Jean-Francois Schmouth¹, Daniel Rochefort², Pascale Hince², Jeffrey Mogil³, Patrick Dion¹, Guy Rouleau²
¹Université de Montréal, ²McGill University
- 3-C-100 The Effects of Sepsis on the Neurons of the Osmoregulatory Pathway**
Jerneja Stare¹, Shidasp Siami², Eric Trudel¹, Masha Prager-Khoutorsky³, Tarek Sharshar⁴, Charles Bourque³
¹McGill University, ²Sud Essonne Hospital, ³McGill University Health Center, ⁴Raymond Poincaré teaching Hospital and University of Versailles Saint-Quentin en Yvelines
- 3-C-101 Role of the lipid transcription factor SBP-1 and its down-stream genes in dopaminergic neurons degeneration in C. elegans**
Siavash Khalaj¹, Kunal Baxi¹, James MacPherson¹, Carlos Carvalho¹, Catherin Rankin², Changiz Taghibiglou¹
¹University of Saskatchewan, ²University of British Columbia
- 3-C-102 Glucose influences aging, proteotoxicity and stress response in C. elegans**
Arnaud Tauffenberger¹, J. Alex Parker¹
¹Université de Montréal

POSTER SESSION 3 – WEDNESDAY, MAY 28, 2014

3-C-103 Changes in the histone code - a loss of function mechanism resulting from cytoplasmic redistribution and aggregation of FUS

Michael Tibshirani¹, Katie Mattina¹, Heather Durham¹

¹Montreal Neurological Institute

3-C-104 Motor unit specific synaptic changes at the neuromuscular junction in an ALS mouse model

Elsa Tremblay¹, Éric Martineau¹, Danielle Arbour¹, Richard Robitaille¹

¹Université de Montréal

3-C-105 Vesicular glutamate transporter 3 expression in Raphe serotonin neurons: evidence for transmitter phenotype segregation and for a role in serotonin neurons survival

Aurore Voisin¹, Nicolas Giguère¹, Guillaume Fortin¹, Salah El Mestikawy², Louis-Éric Trudeau¹

¹Université de Montréal, ²Douglas Institut universitaire en santé mentale, McGill University

3-C-106 Developmental abnormalities in the cerebellum of spinocerebellar ataxia type 6 mice

Sriram Jayabal¹, Alanna Watt¹

¹McGill University

3-C-107 Role of angiogenesis in the development of hippocampal atrophy in the pilocarpine rat model of temporal lobe epilepsy

Raquel Roth¹, Ruba Benini¹, Zehra Khoja¹, Massimo Avoli¹, Pia Wintermark¹

¹McGill University

3-C-108 A new animal model of spontaneous autoimmune peripheral polyneuropathy: implications for Guillain-Barré syndrome

Mu Yang¹, Anthony Rainone¹, Xiang Qun Shi¹, Sylvie Fournier¹, Ji Zhang¹

¹McGill University

D - Sensory and Motor Systems

3-D-109 The role of intrinsic contextual cues and extended training in facilitating concurrent reach adaptation to opposing visuomotor rotations

Maria Ayala¹, Denise Henriques¹

¹York University

3-D-110 Analgesic effect of NMP-7, a novel mixed T-type calcium channel/cannabinoid receptor ligand

N. Daniel Berger¹, Kevin Chapman², Ravil Petrov³, Philippe Diaz³, Vinicius Gadotti¹, Gerald Zamponi¹

¹Hotchkiss Brain Institute, University of Calgary, ²Snyder Institute for Chronic Diseases, University of Calgary, ³University of Montana

3-D-111 Frequency Response Of Correlated Motion Discrimination In Humans

Hayden Bye¹, Philippe Nguyen¹, Alireza Hashemi¹, Erik Cook¹

¹McGill University

3-D-112 Differential encoding of self-generated and externally produced head tilt by the vestibular and fastigial nuclei.

Jerome Carrier¹, Kathleen Cullen¹

¹McGill University

3-D-113 Neural substrates for allocentric-to-egocentric conversion of remembered target location for reach

Ying Chen¹, John Crawford¹

¹York University

3-D-114 Multi-Sensory Integration following Mechanical Perturbations

Frederic Crevecoeur¹, Douglas Munoz¹, Stephen Scott¹

¹Queen's University

3-D-115 Vestibular neuronal ensemble coding during self-motion

Alexis Dale¹, Jerome Carrier¹, Kathleen Cullen¹

¹McGill University

3-D-116 The characterization of Calretinin expressing V3 interneurons in the mouse spinal cord

Dylan Deska-Gauthier¹, Ying Zhang¹

¹Dalhousie University

3-D-117 Topographic analysis of cortical connections of the primary motor cortex (M1) in a New World monkey (*Cebus apella*).

Adjia Hamadjida¹, Melvin Dea¹, Audree Lachance¹, Stephan Quesy¹, Numa Dancause¹

¹University of Montreal

3-D-118 Role of Mechanosensitive Channels in Osteoarthritis Pain

Haitian He¹, Reza Sharif-Naeini¹

¹McGill University

3-D-119 Repetitive Transcranial Magnetic Stimulation Disrupts Prediction of Spatial Location of the Limb

Robert Hermosillo¹, Paul van Donkelaar¹

¹University of British Columbia

3-D-120 The role of cannabinoid receptors in monkey retina

Pasha Javadi¹, Joseph Bouskila¹, Christian Casanova¹, Jean-François Bouchard¹, Maurice Ptito¹

¹Université de Montréal

3-D-121 Orientation Plasticity in Mouse Primary Visual Cortex

Jillian King¹, Nathan Crowder¹

¹Dalhousie University

3-D-122 C-fos study of vestibular activity in neonatal opossums, *Monodelphis domestica*, a marsupial model for sensorimotor development

Frederic Lanthier¹, Therese Cabana¹, Jean-Francois Pflieger¹

¹Université de Montréal

3-D-123 Comparison of the reference frames for encoding translational self-motion in the vestibular and rostral fastigial nuclei

Christophe Martin¹, Jessica Brooks¹, Andrea Green¹

¹Université de Montréal

3-D-124 Changes in stimulus envelope reveal two classes of peripheral electrosensory neurons

Michael Metzner¹, Maurice Chacron¹

¹McGill University

3-D-125 Contribution of presynaptic inhibition to balance control reactions in healthy subjects

Zoe Miranda¹, Dorothy Barthélemy¹

¹Université de Montréal

3-D-126 Characterization of central vestibular neuron activity during electrical stimulation delivered by a vestibular prosthesis

Diana Mitchell¹, Charles Della Santina², Kathleen Cullen¹

¹McGill University, ²Johns Hopkins

3-D-127 Generalization of Reach Adaptation and Proprioceptive Recalibration to Different Distances of the Workspace

Ahmed Mostafa¹, Rozbeh Kamran-Disfani¹, Golsa Bahari-Kashani¹, Erin Cressman¹, Denise Henriques¹

¹York University

3-D-128 Activation pattern of the primary visual cortex elicited by electrical stimulation of the prefrontal cortex in mice

Hoang Nam Nguyen¹, Frédéric Huppé-Gourgues¹, Elvire Vaucher¹

¹Université de Montréal

3-D-129 Visual remapping is more impaired in patients with unilateral parietal lesion than in hemidecorticate patients as revealed by novel version of the double step task

Kate Rath-Wilson¹, Daniel Guitton¹

¹McGill University

3-D-130 The effects of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) inhibition on motor map expression in rats

Kathleen Scullion¹, Nadine Mahgoub¹, Matthew Hill¹, G. Campbell Teskey¹

¹University of Calgary - Hotchkiss Brain Institute

3-D-131 Modelling Altered Adaptive Processes for Motor Learning in Aging

Kevin Trewartha¹, Daniel Wolpert², Angela Garcia¹, Randall Flanagan¹

¹Queen's University, ²University of Cambridge

3-D-132 Stereological analysis of spinal cord neurons involved in primate forelimb motor control

Nolan Wilson¹, Stephen Scott¹

¹Queen's University

E - Homeostatic and Neuroendocrine Systems

3-E-133 Effects of the cannabinoid receptor 1 antagonist, AM251, on vGluT2 and CRH expression, neuronal injury and anxiety following global cerebral ischemia

Idu Azogu¹, Megan Dunbar¹, Patricia Barra de la Tremblaye¹, Helene Plamondon¹

¹University of Ottawa

3-E-134 A novel peptide-based mechanism for the regulation of glucose homeostasis in hypothalamic neurons

Yani Chen¹, Mei Xu¹, Autumn Otchengco¹, Lifang Song¹, Dhan Chand¹, Claudio Casatti², David Lovejoy¹

¹University of Toronto, ²Sao Paulo State University

3-E-135 Loss of STAT-3 Signaling in Dopamine Neurons Enhances Locomotor Activity and Running Reward

Maria Fernanda Fernandes¹, Sandeep Sharma¹, Shizuo Akira², Stephanie Fulton¹

¹Université de Montréal, ²Osaka University

3-E-136 Na⁺ channel expression in rat subfornical organ is regulated by fasting and AMP kinase

Huang Shuo¹, Suman Lakhi¹, Samantha Lee¹, Sylvia Wong², Darcy Childs¹, Mark Fry¹

¹University of Manitoba, ²University of Toronto

3-E-137 Developmental responses of the lateral hypothalamus to leptin and ghrelin in rat pups.

Eva Gjerde¹, Hong Long¹, Claire-Dominique Walker¹

¹McGill University, Douglas Mental Health University Institute

3-E-138 Brainstem noradrenergic afferents excite hypothalamic neurons through glutamate co-release

Wataru Inoue¹, Tamás Füzesi¹, Diana Baimoukhametova¹, Quentin Pittman¹, Jaideep Bains¹

¹Hotchkiss Brain Institute

3-E-139 Acute intracerebroventricular administration of relaxin-3 induces sex-specific effects on food intake in rats

Christophe Lenglos¹, Juliane Calvez¹, Geneviève Guèvremont¹, Arojit Mitra¹, Elena Timofeeva¹

¹CRUUCPQ

3-E-140 Repeated Maternal Separation and Fragmented Maternal Care Differentially Modulate Neonatal Neuroendocrine Activation in Response to a Novel Psychological Stressor

Ryan McLaughlin¹, Claire-Dominique Walker¹

¹McGill University

3-E-141 Central blockade of type 1 CRH receptors prior to transient forebrain ischemia attenuate delayed basal and stress-induced corticosterone secretion in male rats.

Julie Raymond¹, Patricia Barra de la Tremblaye¹, Hélène Plamondon¹

¹University of Ottawa

3-E-142 Conservation of dN-TRPV1 osmosensitive channel in osmoregulating animals.

Cristian A Zaelzer¹, Charles Bourque¹

¹McGill University Health Centre

F - Cognition and Behavior

3-F-143 Saccadic eye movements in children with and without dyslexia performing a letter naming speed task

Noor Al Dahhan¹, Donald Brien¹, John Kirby¹, Douglas Munoz¹

¹Queen's University

3-F-144 Noise correlations in macaque areas 46/8a reflect target selection and strength of distractors

Theda Backen¹, Stefan Treue², Julio Martinez-Trujillo¹

¹McGill University, ²German Primate Center

3-F-145 The Effects of Acute Nabilone Administration on Resting State EEG in Healthy Participants

Ashley Beaudoin¹, Sara de la Salle¹, Joelle Choueiry¹, Dylan Smith¹, Danielle Impsey¹, Renee Nelson¹, Jasmit Heera¹, Lawrence Inyang¹, Vadim Ilivitsky¹, Jakov Shlik¹, Verner Knott¹

¹University of Ottawa Institute of Mental Health Research

POSTER SESSION 3 – WEDNESDAY, MAY 28, 2014

3-F-146 Strategies to rescue cognitive deficits due to SYNGAP1 haploinsufficiency

Martin Berryer¹, Fadi Hamdan¹, Graziella Di Cristo¹, Jacques Michaud¹

¹Université de Montréal/Hôpital Sainte-Justine

3-F-147 Response selection to emotional stimuli in adults with ADHD: a fMRI study using the Affective Spatial Compatibility task.

Mikael Cavallet¹, Claudinei Biazoli Junior¹, Paulo Bazán¹, Tiffany Chaim¹, Maria da Silva¹, Mário Louzã¹, Luiz Gawryszewski², Geraldo Filho¹

¹University of São Paulo, ²Universidade Federal Fluminense

3-F-148 Acute Effects of Nabilone on Attentional Processing in Healthy Participants: A Brain Event-Related Potential Study

Joëlle Choueiry¹, Renee Nelson¹, Jasmit Heera¹, Lawrence Inyang², Sara de la Salle¹, Dylan Smith¹, Danielle Impey¹, Ashley Beaudoin³, Vadim Ilivitsky⁴, Jakov Shlik⁴, Verner Knott³

¹University of Ottawa, ²Carleton University ³University of Ottawa Institute of Mental Health Research, ⁴The Royal Ottawa Mental Health Centre

3-F-149 The Benefits of Environmental Enrichment on Hippocampal Neurogenesis and Behavior Require Synaptic Zinc Signaling.

Michael Chrusch¹, Simon Spanswick¹, Payal Patel¹, Haley Vecchiarelli¹, Matthew Hill¹, Richard Dyck¹

¹University of Calgary

3-F-150 GABAA receptor blockade prevents nicotinic reversal of crossmodal object recognition impairment in ketamine-treated rats: implications for cognitive deficits in schizophrenia

Jacob Cloke¹, Boyer Winters¹

¹University of Guelph

3-F-151 Acute Effects of Nabilone on Sensory Memory in Healthy Participants: A Brain Event-Related Potential Study

Sara de la Salle¹, Lawrence Inyang¹, Danielle Impey¹, Dylan Smith¹, Joëlle Choueiry¹, Renee Nelson¹, Jasmit Heera¹, Ashley Beaudoin¹, Jakov Shlik², Vadim Ilivitsky², Verner Knott³

¹University of Ottawa, ²The Royal Ottawa Mental Health Care Centre, ³Institute of Mental Health Research

3-F-152 Rewards and movement-related costs shape fast decision-making in a human target foraging task

Jonathan Diamond¹, Michael Dorris², Daniel Wolpert³, J Flanagan¹

¹Queen's University, ²Institute of Neuroscience, Shanghai Institutes for Biological Sciences, ³University of Cambridge

3-F-153 Decline in Cognitive Function and Risk of Elder Self-Neglect: Finding from the Chicago Health Aging Project

Melissa Simon¹

¹Northwestern University

3-F-154 Escalated sucrose intake is accompanied by increased value

Adam Celejewski¹, Milan Valyear¹, Roelof Eikelboom¹

¹Wilfrid Laurier University

3-F-155 The action of vitamin K in brain during aging is linked to the pAKT/AKT and apoptotic caspases-3, -8, -12 signaling pathways.

Guylaine Ferland¹, Alexandra Mabit¹, Chantal Fournier¹

¹Hopital du Sacré-Coeur de Montréal

3-F-156 Validation and comparison of 2-day and standard-length MWM protocols: Analysis of procedural sensitivity to detect visuo-spatial learning and memory in the 5XFAD mouse model of Alzheimer's disease.

Maximillian Fiander¹, Richard Brown¹

¹Dalhousie University

3-F-157 The supraoptic nucleus neuron-glia structural plasticity and the social behavior responses to salt loading in rodents are regulated by EphA4

Daniella Isacu¹, Marlene Freyburger¹, Sylvie Laforest², Akofa Clara Amegandjin¹, Diane Gingras¹, Janine El Helou¹, Moogeh Banaroori¹, Wafaa Jammow¹, Michel Lauzon¹, Luc DesGrosseillers¹, Sabrina Chierzi³, Keith Murai³, Elena Pasquale⁴, Guy Drolet², Valerie Mongrain¹, Guy Doucet¹

¹Université de Montreal, ²Université de Laval, ³McGill University, ⁴Sanford-Burnham Medical Research Institute

3-F-158 Acquisition of schedule-induced polydipsia: hippocampal and striatal dissociation in the Y maze

James Gardner Gregory¹, Emily Hawken¹, Eric Dumont¹, Richard Beninger¹

¹Queen's University

3-F-159 The development of a rat model of chronic cerebral ischemia: effects on motor and cognitive functions

Zurina Hassan¹, Thenmoly Damodaran¹, Visweswaran Navaratnam¹, Hans Dringenberg², Christian Muller³

¹Universiti Sains Malaysia, ²Queen's University, ³Friedrich-Alexander-University of Erlangen-Nuremberg

3-F-160 Identifying TrkA receptor mediated mechanisms affecting hippocampal-dependent memory

Sylvia Josephy-Hernández¹, Tahar Aboukassim², Mario Maira², Iulia Pirvulescu¹, Caroline Menard³, Rémi Quirion¹, Horacio Uri Saragovi¹

¹McGill University, ²Lady Davis Institute for Medical Research, ³Université de Montréal

3-F-161 What prevents us from engaging in self-unfit behaviors: the putative role of the frontal N400 event-related potential in their preconscious inhibition

Katherine L'Abbée Lacas¹, Ana Fernandez Cruz¹, J. Bruno Debrulle¹

¹McGill University

3-F-162 Systems consolidation and reconsolidation in the thalamus

Joëlle Lopez¹, Karine Gamache¹, Carmelo Milo¹, Karim Nader¹

¹McGill University

3-F-163 Developmental high fat diet exposure induces long-term changes in anxiety behaviour and glucocorticoid signaling in the brain

Wilfred de Vega¹, Aya Sasaki¹, Shathveekan Sivanathan¹, Patrick McGowan¹

¹University of Toronto Scarborough

3-F-164 Effects of heroin dependence on yohimbine-induced reinstatement of heroin seeking and startle reflex in rats

Meenu Minhas¹, Francesco Leri¹

¹University of Guelph

3-F-165 Optogenetic modulation of cholinergic neurons in the medial septum-vertical limb of the diagonal band of Broca (MSvDB) and its effect on hippocampal activity

Siddhartha Mondragon-Rodriguez¹, Sylvain Williams¹

¹McGill University

3-F-166 Endocannabinoid System Involvement in Impulsivity and Decision-Making

Christopher Norris¹, Paul Mallet¹

¹Wilfrid Laurier University

3-F-167 Effects of parent removal on parents and offspring in a typically biparental songbird, *Taeniopygia guttata*

Leslie Phillimore¹, Jordan Fisk¹, Jill Squires¹, Sean Aitken¹, Tara Perrot¹

¹Dalhousie University

3-F-168 Mesocortical dopamine depletion reverses blunted responses to amphetamine in dcc haploinsufficient mice

Matthew Pokinko¹, Luc Moquin², Alain Gratton¹, Cecilia Flores¹

¹McGill University, ²Douglas Mental Health University Institute

3-F-169 Structural correlates of language abilities: surface-based region-of interest morphometry study

Didier Roehrich-Gascon¹, Steven L. Small², Pascale Tremblay¹

¹Centre de recherche de l'institut universitaire en santé mentale de Québec, ²University of California

3-F-170 Attentional oscillation as a clocking mechanism for timing rhythm intervals

Navid Sadeghi¹, Erik Cook¹

¹McGill University

3-F-171 Von Economo neurons may be responsible for vocal acquisition and language

Shubha Srivastava¹, Sudhi Shrivastava²

¹K N Government Post Graduate College Gyanpur S R N Bhadohi, ²Barkat Ulla University Bhopal

3-F-172 Awake reactivation of association-related neuronal ensemble patterns in rat medial prefrontal cortex

Kaori Takehara-Nishiuchi¹, Mark Morrissey¹

¹University of Toronto

3-F-173 Unilateral cerebellar haemorrhage combined with early systemic inflammation alters neonatal mouse sensorimotor reflex development

Sophie Tremblay¹, Gloria Mak¹, Daniel Goldowitz¹

¹University of British Columbia

3-F-174 Maternal care effects on ATRX expression and long-term neurobehavioural development

Austin Korgan¹, Amos Hundert¹, Ian Weaver¹

¹Dalhousie University

3-F-175 Neurons are recruited to a memory trace based on relative neuronal excitability at the time of training

Adelaide Yiu¹, Valentina Mercaldo¹, Chen Yan¹, Blake Richards², Asim Rashid¹, Hwa-Lin (Liz) Hsiang¹, Jessica Pressey², Vivek Mahadevan², Matthew Tran², Steven Kushner³, Melanie Woodin², Paul Frankland¹, Sheena Josselyn¹

¹Hospital for Sick Children, ²University of Toronto, ³Erasmus Medical Center

3-F-176 Morphology and patterns of the anterior intermediate parietal sulcus of Jensen in the human brain

Veronika Zlatkina¹, Michael Petrides¹

¹Montreal Neurological Institute, McGill University

G - Novel Methods and Technology Development

3-G-177 Two-photon optogenetics and FRET sensors for studying the role of cGMP in living neurons

Jelena Borovac¹, Thomas Luyben¹, Mustafa Khan¹, Kenichi Okamoto¹

¹University of Toronto

3-G-178 A Dynamic Model of the Potassium Chloride Co-transporter KCC2 in Regulating Efficacy of Inhibitory Neurotransmission

Annik Yalnizyan-Carson¹, Jordan Guerguiev¹, Nicolas Doyon², Jessica Pressey¹, Vivek Mahadevan¹, Blake Richards³, Melanie Woodin¹

¹University of Toronto, ²Laval University, ³University of Toronto Scarborough

3-G-179 Quantification of Protein Levels in Single Cells *Chiu-An Lo¹, Ibrahim Kays¹, Farida Emran¹, Tsung-Jung Lin¹, Vedrana Cvetkovska¹, Brian Chen¹*

¹Research Institute of the McGill University Health Centre

3-G-180 Efficient gene delivery into the mouse hindbrain using in utero electroporation

Laurence David¹, Jamila Aitoubah¹, Lu-Yang Wang¹

¹The Hospital for Sick Children

3-G-181 Excross: a tool multigene expression mapping in the mouse brain

Leon French¹, Paul Pavlidis²

¹University of Toronto, ²University of British Columbia

3-G-182 The Virtual Reality Stroop: Impulsivity and Attention Assessment

Mylene Henry¹, Pierre Nolin¹, Christian Joyal¹

¹Université du Québec à Trois-Rivières

3-G-183 Effective Long-term Upper-Limb Tremor Treatment in Parkinson Disease Patients

Jack Lee¹, Fariborz Rahimi², Olivia Samotus², Mallory Jackman², Mandar Jog²

¹Lawson Research Institute, ²Western University

3-G-184 Functional optical imaging of the retina through intrinsic signals

Azadeh Naderian¹, Laurent Bussières¹, Sebastien Thomas¹, Frederic Lesage², Christian Casanova¹

¹University of Montreal, ²Ecole polytechnique Montreal

POSTER SESSION 3 – WEDNESDAY, MAY 28, 2014

3-G-185 A Computer model of neuron swelling and shrinkage under synaptic activity. How much can we expect from holographic microscopy?

Marie Annie Saucier¹, Nicolas Doyon¹, Yves De Koninck¹

¹Centre de recherche de l'institut universitaire en santé mentale de Québec

3-G-186 Gene Delivery to the Spinal Cord using MRI-guided Focused Ultrasound

Danielle Weber-Adrian¹, Emmanuel Thevenot¹, Meaghan O'Reilly², Wendy Oakden¹, Margarete Akens³, Nicholas Ellens¹, Kelly Markham², Joel Finkelstein², Albert Yee², Cari Whyne², Kevin Foust⁴, Brian Kaspar⁴, Rajiv Chopra⁵, Kullervo Hynynen², Isabelle Aubert²

¹University of Toronto, ²Sunnybrook Research Institute, ³University Health Network, ⁴Ohio State University and Center for Gene Therapy, ⁵University of Texas Southwestern Medical Center

IBRO – International Brain Research Association

3-IBRO-187 Absence of endosomal SNAREs vti1a and vti1b led to significant neuronal degeneration in central as well as peripheral nervous system.

Ajaya Kunwar¹, Micheal Rickmann², Gabriele Fischer Von Mollard³, Kerstin Kriegelstein⁴

¹Nepalese Army Institute of Health Sciences - College of Medicine, ²Georg August University of Goettingen, ³University of Bielefeld, ⁴University of Freiburg

3-IBRO-188 NMDA-R Affects Cellular Process Formation in Tilapia Melanocytes; a Model for Pigmented Adrenergic Neurons in Process Formation and Retraction

Olalekan Ogundele¹, Philip Adeniyi¹

¹Afe Babalola University

3-IBRO-189 Microbats appear to have adult hippocampal neurogenesis, but post-capture stress causes a rapid decline in the number of neurons expressing doublecortin

Richard Chawana¹

¹University of the Witwatersrand

3-IBRO-190 Histamine impairs midbrain dopaminergic development in vivo by activating histamine type 1 receptors

Itzel Escobedo Avila¹, Fernanda Vargas-Romero¹, Anayansi Molina-Hernandez², Rodrigo Lúpez-González³, Daniel Cortés¹, Juan De Carlos⁴, Iván Velasco¹

¹Instituto de Fisiología Celular-Neurociencias, UNAM, ²Instituto Nacional de Perinatología, ³University of Massachusetts, ⁴Instituto Cajal

3-IBRO-191 A novel role for medial prefrontal cortex in taste aversion memory

Carolina Gonzalez¹, Maria Villar¹, Micol Tomaiuolo¹, Haydee Viola¹, Jorge Medina¹

¹IBCN - School of Medicine - University of Buenos Aires

3-IBRO-192 Enriched environment and neuronal plasticity in the hippocampus of adolescent and adult mice

Salma Hamed¹, Alice Guyon²

¹Alexandria university, ²Institut de Pharmacologie Moléculaire et Cellulaire CNRS, Valbonne, France

3-IBRO-193 Supernumerary formation of olfactory glomeruli and morphological recovery following continuous exposure to ligands of specific olfactory receptors

Valle-Leija Pablo¹, René Drucker-Colín²

¹Instituto de Investigaciones Biomédicas, UNAM, ²Instituto de Fisiología Celular, UNAM

3-IBRO-194 Memory reactivation and gene expression in striatum, hippocampus and amygdala

Sofía Gonzalez-Salinas¹, Eduardo Alvarado Ortiz¹, Andrea Cristina Medina¹, Anaid Antaramian¹, Gina Lorena Quirarte¹, Roberto Agustín Prado-Alcala¹

¹Universidad Nacional Autónoma de México

3-IBRO-195 Na⁺-dependent glutamate/aspartate transporter (GLAST/EAAT-1) signalosome in Bergmann glia

Zila Martínez-Lozada¹, Alain Guillem¹, Luisa Clara Hernández-Kelly¹, Jose Aguilera², Arturo Ortega¹

¹Cinvestav del IPN, ²Universitat Autònoma de Barcelona

3-IBRO-196 Regulation of the glutathione and reactive oxygen species during cerebellar granule neurons development

Mauricio Olguin-Albuerno¹, Mauricio Olguin-Albuerno¹, Julio Moran¹

¹National Autonomous University of Mexico / Institute of Cellular Physiology

CAN-ACN EXHIBITORS

CAN-ACN receives support from a number of companies providing services to our community. Please show your appreciation for their support by learning about their products and services, by making the time to visit their exhibit booths while you are at the Conference.

ABCAM Booth 23

Abcam, the leading supplier and manufacturer of protein research tools to life scientists. Discover more from a range of 127,000 antibodies, kits, proteins and other reagents.

Email ca.orders@abcam.com

ADInstruments Booth 7

ADInstruments makes Industry-leading software solutions and data acquisition systems for life science research and education. Our PowerLab data acquisition hardware and LabChart software continue to lead the lab bench revolution with tools made for scientists to record, visualize, analyze and publish their experimental data without the typical headaches of computer-based data recording.

Email info.na@adinstruments.com

Web www.adinstruments.com

Twitter twitter.com/ADInstruments

Facebook www.facebook.com/adinstrumentslt

Alzet Osmotic Pumps / Durect Corp Booth 15

ALZET® Osmotic Pumps are small infusion devices for continuous administration of agents to unrestrained laboratory animals as small as mice. They are a convenient and reliable alternative to frequent injections and other repetitive dosing methods. Once implanted, drug administration is automatic with no animal handling or external connections required during the infusion period. They are easily attached to a catheter or brain cannula for administration to the spinal cord, cerebral ventricles or brain tissue. ALZET pumps have been used in over 14,500 published studies for delivery of neurotrophic factors, neuropeptides, oligonucleotides, and more. DURECT also distributes the iPrecio pumps.

Email alzet@durect.com

Web www.alzet.com

Biopac Systems Canada Inc. Booth 32

Biopac Systems offers data acquisition systems and amplifiers for life science applications, including 32 channel mobile EEG system, small animal implantable EEG wireless transmitter and receiver, new rat EEG seizure detection algorithm. The B-Alert wireless EEG system includes cognitive state detection software to monitor level of attention. The FNIR functional optical brain imaging systems measure connectivity with 2, 4, 16 channel sensor and a 2 channel wireless sensor for pediatric use.

Email info@biopac.ca

Web www.biopac.com

Twitter [@BiOPACSystems](https://twitter.com/BiOPACSystems)

Facebook [BiOPAC-Systems-Inc/10150101837665252](https://www.facebook.com/BiOPAC-Systems-Inc/10150101837665252)

Blackrock Microsystems Booth 5

Blackrock Microsystems designs and engineers digital and analog neural data acquisition systems and implantable microelectrodes for researchers and clinicians requiring electrophysiology in-vivo or in-vitro lab settings. Blackrock also designs and develops active headstages, passive adapters, neural stimulator hardware, and video tracking software capable of syncing to optical stimulation devices. All Blackrock tools are accompanied with premium in-house designed software containing a multitude of data parameters, allowing researchers to optimize and accurately evaluate data depending on experiment set-up.

Email lalagha@blackrockmicro.com

Web www.blackrockmicro.com

Twitter [BlackrockMicro](https://twitter.com/BlackrockMicro)

Facebook [Blackrock Microsystems, LLC](https://www.facebook.com/BlackrockMicrosystems,LLC)

Brain Vision LLC Booth 25

Brain Vision LLC offers full service solutions for neuro science research on infants and adults that include EEG, ERP, fNIRS tDCS, TMS, eye tracking software and hardware. Talk to us about the latest news on wireless, dry EEG or fMRI compatible EEG systems and about mobile EEG fNIRS hyper-scanning.

Email sales@brainvision.com

Web www.BrainVision.com

CIHR Institute of Neurosciences, Mental Health and Addiction Booth 2

The CIHR Institute of Neurosciences, Mental Health and Addiction (CIHR-INMHA) fosters research into the functioning and disorders of the brain and the mind, the spinal cord, the sensory and motor systems and mental health, mental illness and all forms of addiction. CIHR-INMHA aims to translate new knowledge into improved health outcomes and quality of life for all Canadians.

Email diane.parsons@cihr.gc.ca

Web www.cihr-irsc.gc.ca

Clever Sys Inc. Booth 9

Clever Sys Inc., is a bioinformatics company specializing in software and hardware for automated behavioral testing. Our video based technology provides comprehensive tools for data acquisition and analysis. Clever Sys Inc., brings behavioral testing into the twenty-first century, enhancing video tracking with our patented next generation Behavior Recognition technology.

Email sales@cleversysinc.com

Web www.cleversysinc.com

Twitter [@CleverSysInc](https://twitter.com/CleverSysInc)

Douglas Hospital Research Center Booth 8

The Douglas Brain Imaging Centre, inaugurated in the spring of 2012, is a new state-of-the-art facility dedicated to conducting preclinical and clinical brain imaging research in the field of mental health. The Neurophenotyping Centre, founded in 2006 with the support of the Quebec Transgenic Research Network (QTRN), consists of a team of internationally recognized investigators. It provides, to the scientific community of Quebec and Canada, the expertise required to meet all of the challenges related to behavioral analysis.

Email axel.mathieu@douglas.mcgill.ca

Web www.douglas.qc.ca/research

EMD Millipore Booth 14

EMD Millipore is the Life Science division of Merck KGaA of Germany, supporting research, development and production of biotech and pharmaceutical drug therapies. We support our customers with solutions for insightful cellular analysis, multianalyte network elucidation and functional genomics. Our platforms and technologies for dynamic neural cell culture and imaging, together with new solutions for purifying challenging, hard-to-isolate proteins, complement our highly published antibodies, assays, kits and stains for studying developing, differentiated and degenerating neural systems.

Email emdinfo@merckgroup.com

Web www.emdmillipore.com

Fine Science Tools Booth 1

Fine Science Tools offers more than 900 high quality European surgical and microsurgical instruments for research scientists and other professionals. Whatever you need - spring scissors, forceps, surgical accessories, scalpels, retractors, clamps, and more - we carry only the best.

Email edy@finescience.com

Web www.finescience.com

Harvard Apparatus Canada Booth 18

We supply life science equipment for research on cells, organs or whole animals. We offer anaesthesia systems, surgical instruments, products relative to electrophysiology, electroporation, behavioural research, microdialysis, cell and organ perfusion systems, vibration isolation solutions, consumable labware, PCR reagents, and much more.

Email sales@harvardapparatus.ca

Web www.harvardbioscience.ca

HEKA Electronics Inc. Booth 24

For over 45 years, HEKA has been among the market leaders in patch clamp systems and major players in electrochemistry equipment. Throughout these years there have been many changes in research, instrumentation and software. HEKA's goal has always been to foster progress and shape those changes, while committing to our most important business partner, our customer. Recent product launches include the Imaging Extension Software, ElProScan Advanced Scanning Electrochemistry Microscopes, and iTEV 90 Computerized Two-electrode Clamp Amplifier. HEKA's established portfolio of patch clamp and electrochemistry systems, interfaces and software enjoys increasing popularity in the scientific community.

Email marketing@heka.com

Web www.heka.com

Hotchkiss Brain Institute, University of Calgary Booth 22

The Hotchkiss Brain Institute at the University of Calgary consists of more than 100 physicians and scientists who are dedicated to advancing neurological and mental health research and education. The Institute's research strengths in foundational neuroscience (axon biology and regeneration, cerebral circulation, neural systems and behaviour) are leading to new treatments for neurological and psychiatric disorders, aimed at improving quality of life and patient care.

Email hbi@ucalgary.ca

Web hbi.ucalgary.ca

Huron Technologies International Inc. Booth 3

Huron Technologies is a global leader in providing imaging solutions for digital pathology. Since 1994, Huron Technologies has been providing laboratories and pathology departments with advanced microscopy instruments and solutions for the confocal fluorescence and brightfield market. Based in Waterloo, Ontario, Canada, Huron Technologies is a privately held company that was founded at the University of Waterloo's Physics department (established in 1994 as Biomedical Photometrics Inc.). Our team has a wealth of expertise and more than 100 years of combined experience in developing imaging instrumentation. Our products and services are used for research and educational purposes.

Email info@huron-technologies.com

Web www.huron-technologies.com

Lafayette Campden Neuroscience Booth 16

Lafayette Campden Neuroscience will feature cutting edge products for Behavioral and Translational Neuroscience including the Bussey-Saksida Touch Chambers for Rats and Mice and the CANTAB IntelliStationstm for non-human primates. Additional products for animal activity, exercise and behavioral testing will also be displayed. Product literature and technical information will also be available on Vibrating Microtomes and Tissue Slice Chambers.

Email Matt@lafayetteinstrument.com

Web www.lafayetteinstrument.com

Leica Microsystems (Canada) Inc Booth 4

Leica Microsystems offers a comprehensive product range backed by expert advice, so you can spend less time on equipment, and more time focused on ground-breaking science! Visit our booth to learn about new solutions for 3D super-resolution image acquisition and visualization of nanoscale fluorescence structures. The Leica suite of products also includes advanced stereotaxic instruments and EM Specimen Prep instruments. Our advanced sample preparation instruments allow you to always have fresh and paraffin-embedded biological specimens. From Stereotaxic and Sample Preparation through to Electrophysiology and Imaging, Leica Microsystems is your ideal Total Neuroscience partner!

Email canada@leica-microsystems.com

Web www.leica-microsystems.com

CAN-ACN EXHIBITORS

Metris B.V Booth 31

Metris is a trendsetter in Animal Behavior & Ultrasonic Vocalization (USV) Research. Our products are used in over 35 countries around the world. LABORAS: Automated behavior scoring of mice & rats. LABORAS tracks position and detects more than 18 normal & stereotypical behaviors! Non-invasive and doesn't use video or infra-red beams! SONOTRACK: Full spectrum ultrasonic vocalization recording, analysis & playback system. Automatic USV counting & analysis from 15kHz to 125kHz. Suited for research in pain, anxiety, stress, schizophrenia, autism, sexual & social interaction tests! SmartChamber: Advanced & thoughtfully designed sound-attenuation chamber suited for USV studies!

Email info@metris.nl

Web www.metris.nl

Mouse Specifics, Inc. Booth 26

Mouse Specifics provides laboratory animal personnel instrumentation for in vivo study of animal models of human neurodegenerative diseases, CNS disorders, and pain. The DigiGait Imaging System, automated treadmill gait analysis, identifies and quantifies motor dysfunction. Applications include nerve injury, ALS, and arthritis - anything that affects locomotion. The ECGenie monitors the heart in conscious rodents at baseline, during surgery, and during recovery. Applications include newborn pups beginning 1-day of life. These friendly tools to monitor laboratory animal models are advancing the understanding and treatment of human diseases. Better data from every mouse.

Email smccue@mousespecifics.com

Web www.MouseSpecifics.com

MyCROSite LLC Booth 33

MyCROSite is a comprehensive preclinical solutions provider that customizes studies to match project and company need. Services include:

- Pain (neuropathic, mechanical, post-surgical, inflammatory)
- Anxiety and Depression (suicide potential)
- Cognition
- Neurodegeneration (Alzheimer's/Parkinson's Disease)
- Epilepsy
- Stroke/Hemorrhage and peripheral arterial disease
- Safety pharmacology, both non-GLP and GLP
- In vivo imaging and FACS abilities to support services

Email dpmenard@mcsp.com

Web www.mcsp.com

Nikon Canada Inc. Booth 28

Nikon will showcase the market leading Ti-"Perfect Focus" research inverted microscope, increasing the power and flexibility of Nikon's imaging systems and the FN1 upright microscope, which meets the rigorous demands of electrophysiological research. Also discover the N-SIM and N-STORM Super Resolution, the flagship A1Rsi confocal with Multi-Photon and the latest NIS-Elements imaging software.

Email schivers@nikon.ca

Web www.nikoninstruments.com

Noldus Information Technology Inc.

Booth 21

Noldus develops, markets, and supports professional software and instrumentation for behavioral research. These products enable the collection, analysis, management, and presentation of data. Scientists all over the world use them to study behavioral processes, automate experiments, and improve the quality and efficiency of their research. Noldus offers packages that include software, mazes, and other equipment - all you need to perform your experiment. Services include consulting, training, and technical support. EthoVision® XT is the most widely applied video tracking software. Included in several package deals, such as for high-throughput screening of zebrafish larvae in 96-well plates.

Email yvonne@noldus.com

Olympus Canada Inc. Booth 20

Olympus Canada Scientific Equipment Group provides innovative microscope and image analysis solutions to researchers, doctors, clinicians, educators as well as to most industrial market sectors such as Petrochemical, University Departments (Earth Sciences and Geology), private companies and organizations. Olympus microscope systems offer unsurpassed optics, superior construction and system versatility to meet the ever-changing needs of microscopists, paving the way for future advances in life science. Please visit us at www.olympuscanada.com for more information on all our products.

Email laura.boccia@olympus.com

Web www.olympuscanada.com

Parkinson Society Canada - Soci t  Parkinson Canada Booth 27

Parkinson Society Canada's National Research Program funds innovative research by established and promising investigators committed to scientific excellence. Funded projects test new ideas and explore the causes, complications, biomarkers, prevention, improved treatment and/or understanding of Parkinson's disease. Research spans related disorders including: Multiple System Atrophy (MSA), Progressive Supranuclear Palsy (PSP), other Parkinson's conditions and the impact these diseases have on society.

Email research@parkinson.ca

Web www.parkinson.ca/research

Twitter [@ParkinsonCanada](https://twitter.com/ParkinsonCanada)

Facebook [Parkinson Society Canada](https://www.facebook.com/ParkinsonSocietyCanada)

PeproTech, Inc. Booth 17

Supporting Life Science Research since 1988, PeproTech is the trusted source for the developing and manufacturing of high quality cytokine products for the life-science and cell therapy market. Over the past 25 years the company has grown into a global enterprise with state-of-the-art manufacturing facilities in the US, and offices around the world. With over 2,000 products PeproTech has developed and refined innovated protocols to ensure quality, reliability and consistency. Comprehensive line of Cytokines and Antibodies GMP-Compliant products for Cell, Gene and Tissue Therapy - Animal Free Cytokine Range ELISA kits / Media Kits / Supplements

Email marketing@peprotech.com
Web www.peprotech.com
Facebook www.facebook.com/pages/PeproTech

Plexon Inc. Booth 11

Plexon is a pioneer and leading innovator of custom, high performance data acquisition, behavior and analysis solutions specifically designed for scientific research. We collaborate with and supply thousands of customers including the most prestigious neuroscience laboratories around the globe driving new frontiers in areas including basic science, brain-machine interfaces (BMI), neurodegenerative diseases, addictive behaviors and neuroprosthetics. Plexon offers integrated solutions for in vivo neurophysiology, optogenetics and behavioral research -- backed by its industry-leading commitment to quality and customer support.

Email info@plexon.com
Web www.plexon.com

Precision NanoSystems Inc. Booth 13

Precision NanoSystems develops SUB9KITS to enable loss-of-function studies in your primary cells and in vivo models. Adapted from RNAi therapeutic technology currently in clinical trials, SUB9KITS prepare RNAi nanoparticles that interact with paracrine factors in serum to exploit an endogenous receptor-mediated pathway for efficient cell uptake and potent gene knockdown. The result is high uptake efficiency with high cell viability - ideal for functional genomics and target validation studies using "hard-to-transfect" primary cells and in vivo models. Find out more at www.sub9kits.com/products.

Email jtaylor@precision-nano.com
Web www.sub9kits.com

ROXON MEDI-TECH LTD. Booth 10

Founded in 1975, Roxon Medit-tech Ltd. is a 100% Canadian owned corporation dedicated to supplying the quality specialized equipment to medical facilities across Canada. Our focus is in Neurology, Cardiac and Respiratory equipment.

Email mviau@roxon.ca
Web www.roxon.ca

Stoelting Co. Booth 19

Stoelting Co. has been an innovator in producing superior neuroscience research equipment since 1886. We proudly offer a variety of behavioral testing equipment, including ANY-maze video tracking software, behavior apparatuses and stereotaxic equipment. Now, as the exclusive North American distributor of Ugo Basile products, Stoelting Co. is better able to serve customers, offering the finest, most extensive pain product line in the industry. At Stoelting, we have a strong commitment to support scientific research. We seek to offer only high quality, reliable instruments, with prompt, educated customer service from our staff of experienced science professionals.

Email Lauren@StoeltingCo.com
Web www.stoeltingco.com

StressMarq Biosciences Inc. Booth 29

StressMarq Biosciences Inc. is a life science company which supplies the worldwide research community with high quality reagents, primarily

specialized antibodies, proteins, kits and small molecules. It specializes in the cellular stress and neuroscience sectors, with a focus in the latter on ion channel research products. The company currently has the largest commercial monoclonal antibody offering in the world against ion channels. The main clients are Universities, hospitals, research foundations, pharmaceutical and biotechnology companies all around the world. StressMarq reaches these clients through a wide number of direct and international distribution arrangements worldwide.

Email info@stressmarq.com
Web www.stressmarq.com
Twitter twitter.com/stressmarq
Facebook www.facebook.com/Stressmarq

Tucker-Davis Technologies Booth 6

Tucker-Davis Technologies is a leading manufacturer of real-time acquisition and stimulus generation systems for neurophysiology, evoked potentials and more. TDT is the only company to provide high channel count systems (>256) with perfect synchronization between system devices and submillisecond precision between recording and stimulation. Core products include OpenEx software for experiment analysis and Z-Series BioAmp Systems for processing high channel count neural data. Most recently TDT unveiled the PZ5, the industry's first mixed modal amplifier, and our groundbreaking High-Density Cortical Arrays. Design custom configurations from 16 to 400 channels at a fraction of the price.

Email sales@tdt.com
Web www.tdt.com

VIEWPOINTLIFESCIENCES Booth 30

VIEWPOINTLIFESCIENCES is pioneer in behaviour analysis videotracking. Our main products are :

- VIDEOTRACK : rodents applications as Morris watermaze, elevated plus Maze, Object recognition,
- PHENORACK : rodents in their home cages for high throughput phenotyping experiments
- ZEBRALAB is a high throughput screening for larvae or adults zebrafish behaviour analysis, PMR, heartbeat, bloodflow
- GAITLAB is a turnkey solution for automated quantitative assessment of catwalk analysis,
- VIGIE PRIMATES enables to work on primates and dogs
- MARLAU Enrichment Cages : moving through a maze is motivated by the need to find food
- SLEEP DEPRIVATION SYSTEM

Email info@vplsi.com
Web www.vplsi.com

VPixx Technologies Inc. Booth 12

VPixx Technologies is happy to demonstrate its VIEWPixx /3D stimulus display which features true 120Hz refresh rate, high bit depth, synchronization with digital, analog and audio I/Os and on which dynamic stimuli are presented without ghosting. Come get information on our new PROPixx DLP LED projector, which can go up to 500Hz refresh rate and present stereoscopic stimuli at up to 400Hz. Stop by and see us!

Email sales@vpixx.com
Web www.vpixx.com

Still waiting on that great neuroscience paper to get through peer review?

Then you didn't submit it to  eLIFE.

Academic editors send clear, consolidated feedback after peer review – in less than a month.*

*Median time to post-review decision is 28 days (through November 2013).

eLife welcomes work across the full breadth of neuroscience – including systems neuroscience, cognitive neuroscience and cellular and molecular neuroscience. Consider us for your next great paper and benefit from an initial decision within 3 days. Plus, it's free to publish with us for the first few years.

ATTEND OUR CAN SESSION

Publishing 2.0 – Monday, May 26th at 5:30pm, Symposium 4

Publishing is in transition - open access, alt-metrics, megajournals, blogs, post-publication peer review are just some of the topics being discussed in the Publishing 2.0 session. We will have representatives from publishing, funding agencies and the research community to explore the territory and answer your questions. Please join us.

Visit eLIFEsciences.org/category/neuroscience to see some of our great papers.

Supported by

HHMI
HOWARD HUGHES MEDICAL INSTITUTE



MAX-PLANCK-GESellschaft

wellcometrust

 @eLife
 facebook.com/eLifesciences
 eLIFEsciences.org



The Canadian Association
for Neuroscience presents

8th Annual Canadian Neuroscience Meeting 2014

Thanks to our Sponsors,
supporters and Donors

Platinum Sponsor



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Gold Sponsors

**Brain
Research
Centre**



**Fonds de recherche
Santé**

Québec



Silver Sponsors

SickKids®
RESEARCH
INSTITUTE

Neurosciences
& Mental Health

SickKids® | Centre for Brain
& Mental Health



Institut universitaire
en santé mentale
de Québec



McGill

Faculty of
Medicine

Bronze Sponsors



McGill

Faculty of
Medicine Faculté de
médecine

Department of Neurology
and Neurosurgery



Parkinson Society Canada
Société Parkinson Canada



**HOTCHKISS
BRAIN INSTITUTE**
Improving brain and mental health
in your community for 10 years

TDT
Tucker-Davis Technologies

Douglas
INSTITUT
UNIVERSITAIRE EN
SANTÉ MENTALE

MENTAL HEALTH
UNIVERSITY
INSTITUTE

Institut de
recherche
Centre universitaire
de santé McGill



Research
Institute
McGill University
Health Centre

