

WCSN Annual General Meeting
Friday, November 30, 2007 11:45 am Theatre A

A. 2007 PRESIDENT'S REPORT:

1. Fundraising Campaign

In 2007, our Chapter was extremely fortunate to receive the following funding:

- University of Manitoba - VP Research - Conference Program (\$1,000)
- Society for Neuroscience Chapter Grant (\$2,289)
- CIHR - Neuroscience & Mental Health Institute (\$2,000)
- University of Manitoba – Department of Pharmacology (\$500)
- St. Boniface Hospital Research Centre (\$500)
- Society for Neuroscience Grass Traveling Scientist Award

2. SFN Grass Traveling Scientist Award – 2007

WCSN received a 2007 SFN GTS awarded to Dr. Steven Levison
(New Jersey Medical School)

Lecture is scheduled for Friday, November 30, 2007

12:00 PM - 1:00 PM, Theatre A, Bannatyne Campus

Research Lecture: "Signaling cascades that mediate the regenerative
responses of neuronal stem cells to brain injury."



3. SFN Presentations in San Diego (Nov/07)

[37th Society for Neuroscience Annual Meeting](#) was held November 3-7, 2007 in San Diego, CA, USA. 30 Winnipeg Presentations at SFN Meeting: Winnipeg neuroscientists will be responsible for 30 presentations at the [SFN 37th Annual Meeting](#) in San Diego CA, USA. [Please click here for the 2007 Schedule of Winnipeg Presenters and Abstracts.](#)

4. Brain Awareness Activities in 2007

Brain Awareness Week Lectures by Dr. William Catterall, May 16, 2007

BRAIN AWARENESS WEEK RESEARCH SEMINAR and PUBLIC LECTURE

Organized by the Winnipeg Chapter Society for Neuroscience (WCSN)

SPEAKER: Dr. William Catterall, PhD, Professor & Chair Department of Pharmacology,
University of Washington

Sponsors/participating organizations and supporters: University of Manitoba, St. Boniface Hospital Research Centre, Alzheimer's Society Manitoba, Canadian Institute of Health Research, Epilepsy Association Inc MB, Huntington Society of Canada, Manitoba

Schizophrenia Society, Mental Health Ed Resource Centre, Parkinson Society of Manitoba, Society for Neuroscience, WISE Kid-Netic Energy.

Overview of activities: The Winnipeg Chapter Society of Neuroscience held it's Brain Awareness Event on May 16th, 2007. Both a Public and Research Lecture were held, non-profit booths were on display, a Neuroscience Poster Day was held - approx. 20 posters were on display and prizes were awarded for participation.

1. **RESEARCH SEMINAR:** "Calcium channels and synaptic plasticity". Time & Venue: 12:00-1:00PM, Theatre C, 2nd floor, Basic Medical Sciences Building, University of Manitoba, Bannatyne Campus, 730 William Avenue For location of venue visit

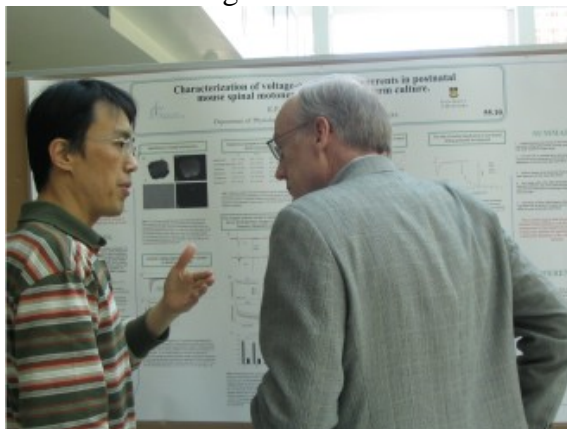
<http://www.hsc.mb.ca/parking/mapit2.asp?ID=56> Reception and neuroscience poster displays followed in the Brodie Centre Atrium. Approx. 125 local neuroscientists and their staff attended the research lecture. Additionally a poster display was held immediately following the lecture. Approx. 20 poster were registered. For photos of this event, please visit <http://www.SFN-manitoba.ca/baw2007/photos07.html>.



2. **PUBLIC LECTURE:** "Electrical signaling in the brain: Ion channels, epilepsy and more". Time & Venue: 6:00-7:00PM, Samuel Cohen Auditorium, St. Boniface Research Centre, 351 Tache Avenue Reception and non-profit organization displays to follow in the Atrium. Approximately 150 members of the public attended the lecture. There were also non-profit booths on display following the public lecture.

UPDATE ON BAW PREPARATION & ORGANIZATION

Publicity methods: Posters were created and poster on our website at <http://SFN-manitoba.ca/baw2007/BAW2007poster.pdf>. Additionally, emails were sent to approximately 200 neuroscientists and their trainees informing them of the activities and encouraging participation. Adverts were also placed in local newspapers, including a local seniors' paper advertising the public lecture. In past we have found this to be a very inexpensive method for advertising the event. Additionally, our non-profit partners did mail-outs to their contact listings.



Dr. Jun Liu presenting his poster to Dr. Catterall.

Event funding: We were fortunate to receive funding from: Society for Neuroscience, Canadian Institutes of Health, St. Boniface Hospital Research Centre, University of Manitoba (Dept. of Pharmacology & Office of Research Services).

Incorporated materials/publications:

We created our own posters & advertisements. However, we did visit SFN's website for logos, etc.

BAW PARTICIPANTS & OUTCOME(S)

The attendees and their reactions: Local neuroscientists and their staff attended our research lecture and poster displays. The event was very well received and participation was good. Our public lecture held later in the day was attended by about 150 people (mostly seniors). Approximately 12 non-profit organizations set up booths in our Atrium immediately outside the lecture hall.

Immediately following the public lecture, everyone visited the booths, each having lots of useful resource information on their

organization. We have had this in past BAW events as it is always very well received.

The organizers and staffers: There were three main individuals that organized the BAW activities. - Dr. Paul Fernyhough, President - Ms. Sharon McCartney - Membership Services - Ms. Kelly Jorundson - Coordinator Many others assisted throughout the day with setup, helping out at membership booth, etc. These individuals were chapter members mostly graduate students and postdoctoral fellows.

Benefits and immediate outcomes of BAW participation for the local community: There was lots of very positive feedback from Dr. Catterall's talk especially from the Epilepsy Foundation (who was on site with a display booth). Dr. Catterall spent a lot of time talking about epilepsy. Because of his superb basic knowledge of the disease and drugs, he was able to discuss important treatment aspects in lay terms to the members of the public which was greatly appreciated. We also had WISE Kid-netic Energy involved with the BAW event, which helped to support stronger links between neuroscience researchers at the University of Manitoba. Plans have now been setup to include a neuroscience component within this University of Manitoba- sponsored outreach program. This program reaches on average about 25,000 middle and high school students throughout Manitoba.



**Winnipeg Chapter Society for Neuroscience
Annual Income and Expense Report**

	Jan-Dec 2000	Jan-Dec 2001	Jan-Dec 2002	Jan-Dec 2003	Jan-Dec 2004	Jan-Dec 2005	Jan-Dec 2006	Jan -Dec 2007
Opening balance	\$ 391.93	\$ 2,376.96	\$ 2,985.00	\$ 2,699.31	\$ 3,640.65	\$ 3,279.24	\$ 3,722.20	\$ 4,882.47
REVENUE								
Brain Awareness Event								
Canadian Institutes for Health Research				2,000.00			2,000.00	2,000.00
AstraZeneca	300.00							
Epilepsy Manitoba	300.00	100.00						
Huntington's Society	100.00							
Institute for Biodiagnostics	300.00	300.00						
Manitoba Head Injury	100.00	100.00						
Manitoba Heart and Stroke Foundation	200.00	250.00						
Pfizer	300.00							
Smith Kline Beecham	300.00							
Sport Manitoba	300.00							
SBRC	300.00						500.00	1,000.00
U of M Dept Pharmacology	300.00	300.00						
Membership Dues	105.00	5.00		615.00	235.00	685.00	945.00	740.00
Society for Neurosciences							3,981.78	2,217.00
Bank Interest	11.46	3.04	1.41	2.15	1.87	1.72	2.39	2.17
TOTAL REVENUE	\$ 2,916.46	\$ 1,058.04	\$ 1.41	\$ 2,617.15	\$ 236.87	\$ 686.72	\$ 7,429.17	\$ 5,959.17
EXPENSES								
Brain Awareness Event								
Awards/Prizes	100.00			100.00	100.00	100.00	600.00	745.34
Bank Fees			5.00				10.00	0.00
Equipment Rental	73.90	129.42		362.10	60.00		413.95	106.00
Honorariums	200.00			200.00			590.45	570.70
SFN			203.62					0.00
Advertising							100.00	320.55
Grass Lecture								1,621.43
Honorarium							600.97	0.00
Accomodations for speaker							289.84	0.00
Centre on Aging speaker support							250.00	0.00
Meeting(s) Expenses	519.55	320.58	78.48	898.31	408.28	98.16	2,446.73	2,602.37
Office Expenses	37.98			115.40	30.00	45.60	966.96	20.28
TOTAL EXPENSES	\$ 931.43	\$ 450.00	\$ 287.10	\$ 1,675.81	\$ 598.28	\$ 243.76	\$ 6,268.90	\$ 5,666.12
CLOSING BALANCE	\$ 2,376.96	\$ 2,985.00	\$ 2,699.31	\$ 3,640.65	\$ 3,279.24	\$ 3,722.20	\$ 4,882.47	\$ 5,175.52

Notes for 2007

1. 'Statement reflects the bank account activity to Nov 27, 2007
2. Poster fees incurred during November have been included above although cheque not processed.

C. Membership Services

2007 WCSN Members

Regular Members (faculty, clinical and research associates). All are affiliated with the University of Manitoba unless otherwise stated.

63 Members in total

Benedict ALBENSI, Asst Prof. Div. Neurodegenerative Disorders
Chris ANDERSON, Asst Prof. Div. Neurodegenerative Disorders
Judy ANDERSON, Prof. Depts Pharmacology & Therapeutics; Human Anatomy & Cell Science
Hugo BERGEN, Assoc Prof. Human Anatomy & Cell Science
Brian BLAKLEY, Prof. & Head Dept. Otolaryngology
Ratna BOSE, Prof. Dept. Pharmacology & Therapeutics
Richard BUIST, Dept. Radiology
Kristine COWLEY, Res. Assoc. Dept Physiology
Yue DAI, Res. Assoc. Dept Physiology
Marc DEL BIGIO, Prof. Dept. Pathology
David EISENSTAT , Asst Prof. Dept Cell Biology/Pediatrics/Ophthalmology
Brent FEDIRCHUK , Asst Prof. Dept Physiology
Paul FERNYHOUGH , Assoc Prof. & Director Div. Neurodegenerative Disorders
Emma FROST, Asst Prof. Depts Pathology; Human Anatomy & Cell Science
Phillip GARDINER, Prof. HLHP Res Inst / Physiology
Kathy GOUGH, Prof. Dept Chemistry
Tammy IVANCO, Assoc Head/Assoc Prof. Depts. Psychology; Human Anatomy & Cell Science
Larry JORDAN, Prof. Dept Physiology
Gilbert KIROUAC, Assoc Prof. Dept Oral Biol
Jiming KONG, Assoc Prof. Dept Human Anatomy & Cell Science
David McCREA, Prof. Dept Physiology, Director Spinal Cord Research Centre
Donald MILLER, Assoc Prof. Dept Pharmacology & Therapeutics
Michael NAMAKA, Asst Prof. Faculty of Pharmacy
Jim NAGY, Prof. Dept Physiology
Carl OLSON, Res. Assoc., Dept. Physiology
Fiona PARKINSON, Prof. Dept Pharmacology & Therapeutics
Jean PATERSON, Prof. Dept Human Anatomy and Cell Science
Michelle PORTER, Prof. Fac. Phys. Ed.
Brian SCHMIDT, Prof. Depts Int. Med. / Physiology
Zongjun SHAO, Res. Assoc. Div. Neurodegenerative Disorders
Barbara SHAY, Asst. Prof. Dept Physical Therapy
Susan SHEFCHYK, Prof. Dept Physiology
Linda WILSON, Prof. Dept Psychology
Jie YUAN, Visiting Scholar, Dept Human Anatomy & Cell Science

Students, Trainees, technicians and other interested

Eli AKUDE, PhD student, Div. Neurodegenerative Disorders
Bathelemy BOLIVAR, PhD student

Duane BUTTON, PhD student, Dept Physiology
Susan CRAWFORD-YOUNG, MSc student, Dept Electrical & Computer Engineering
Brian DOLHUN, PhD student, Div. Neurodegenerative Disorders
Geoff GELLEY, MD, MSc student, School of Medical Rehabilitation
Catherine GLIDDON, Postdoc, Div. Neurodegenerative Disorders
Yang HE, PhD student, Div. Neurodegenerative Disorders
Waylon HUNT, Grad. student, Dept Pharmacology & Therapeutics
Colin KAZINA, MD, Neurosurgery Resident, Sec. Neurosurgery
Osaama KHAN, MSc student, Dept. Human Anatomy & Cell Science
William KUBAS, student, Dept. Psychology/Chemistry
Jillian LeMAISTRE, Tech. Div. Neurodegenerative Disorders
Lulu MARTINEZ-SILVA, PhD student, Dept. Physiology.
Sharon McCARTNEY, Lab Technician, Dept Physiology
Solmaz NAFEZ, MSc student, Div. Neurodegenerative Disorders
Gary ODERO, Tech. Div. Neurodegenerative Disorders
Kensuke OIKAWA, Postdoc, Div. Neurodegenerative Disorders
Kelly OLSON, PhD student, Dept Pharmacology & Therapeutics
Nicole PORITSANOS, PhD student, Dept Physiology
Yongyao TAN, MSc student, Dept Biochemistry & Med Genetics
Kim San TANG, Postdoc, Div. Neurodegenerative Disorders
Randy VAN DER PLOEG, Senior Technician, Div. Neurodegenerative Disorders
Zuocheng WANG, Postdoc, Div. of Neurodegenerative Disorders
Sandra WEBBER, PhD student, Fac. Phys. Ed
Qi ZHANG, PhD student, Dept Cell Biology
Elena ZHEREBITSKAYA, Postdoc, Div. of Neurodegenerative Disorders
Zhicheng ZHOU, MSc student, Dept Pathology
Wenjun ZHU, PhD student, Fac. Pharmacy

D. Outreach Activities in 2007

2007 Science Fair - Manitoba School Science Symposium:

As a part of the Brain Awareness Week, the Winnipeg Chapter of the Society for Neuroscience participated in the Manitoba School Science Symposium annual provincial science fair (Grade 5-12). Our Chapter awarded 3 prizes (totaling \$500) for the best neuroscience-related presentations. Approximately 40 presentations had a neuroscience subject matter and so it was a difficult job to select just 3 from such an array of talent. The judges, Drs Fernyhough, Glazner and Albensi, focused on innovation and evidence that the project was clearly the work of the student.

1st place (\$250 prize); JACLYN FLOM

2nd place (\$150 prize, shared); ANNA MOTNENKO

3rd place (\$100 prize); JULIANA PEREZ

2007 Science Fair (Sovantis) Symposium:

The Winnipeg Chapter Society for Neuroscience 2007 participated in the annual Sanofi-Aventis Biotechnology Challenge, High School Science Fair. An award was presented for the best neuroscience-related poster.

Neuroscience lessons.

Establishing partnership between WCSN, WISE Kinetics Program, University of Manitoba and Louis Riel School Division to develop Neuroscience Lessons: involving students in grade levels: 5 thru 8 (co-coordinated by Dr. Paul Fernyhough and Stephen Jones). Dr. Paul Fernyhough was awarded a \$7,000 grant from the University of Manitoba to work on this initiative further. Additionally, Dr. Paul Fernyhough and Stephen Jones were awarded a “2007 Society for Neuroscience Teacher-Neuroscientist Partnership Award” that allowed by Paul and Stephen to attend SFN’s national meeting in San Diego earlier in the month..

Program Overview: These lessons and activities have been developed by Dr Paul Fernyhough and Stephen Jones as a part of an outreach partnership between the St. Boniface General Hospital Research Centre, The Winnipeg Chapter of Society for Neuroscience and the Louis Riel School Division of Winnipeg, Manitoba. Our goal is to bring the cardiovascular, neuroscience and other work that we do at the Research Centre into schools through curriculum-based activities. These activities are designed to work within the Manitoba Schools Grade 8 *Cells and Systems* unit, but can be modified to suit Grade 5 *Maintaining a Healthy Body* unit with a reduced emphasis on cell function. Provincial curriculum outcomes are available here: <http://www.edu.gov.mb.ca/k12/cur/science/sci5-8.html>

Listing of Winnipeg Schools Visited

School	Classes (# of sections/classes)
<i>Early/Middle Years</i>	
H.S. Paul School	Grade 5 (3); Grade 8 (6); EcoKids
Victor Mager	Grades 5-S1 (2 classes of each level)
Nordale School	Grades K-8 (2 classes of each level)
Frontenac School	Grades 5-8 (2 classes of each level)
Niakwa Place School	Grade 5 (2); Grade 7/8 (2)
Samuel Burland School	Grade 5 (2); Grade 8 (2); Grade 9 (2)

Total – 55 Sessions

We visited all schools targeted as part of our planning sessions in Summer/Fall 2005 and Winter 2006. By our estimates, we worked with over 1500 students involving 55 *It's All About Me* sessions in 13 classes in the period from November 2005-June 2006.

Lesson Goals:

- Students will recognize the connection between neurons, the organs of the nervous system and the function of the nervous system in normal and disease conditions
- Students will investigate the cellular structure and function of neurons
- Students will connect the ideas of memory and motor control to neuron structure and function

Lesson Sequence:

Begin, as all researchers do, by asking questions. Students will have many ideas, questions and misconceptions about brain function; address these to get a sense of prior knowledge and to activate their interest.

*What do your students find interesting/confusing about the brain?
How many of your students have had some experience with brain disorders (stroke, epilepsy, Alzheimer's, ADHD, autism...). How do these things affect people?
What about pain, does that have something to do with the brain? Your senses?
What do you know about brain/spinal cord/nerves?
What is your nervous system doing right now? Do you control everything your brain is doing?*

Students should be familiar with the connection between cells, tissues, organs, organ systems and organisms. Have them decide or offer ideas to how the nervous system fits into the hierarchy. If students already have some understanding of cell specialization (muscle cells that contract, epithelial cells that secrete etc.), get them thinking of what a nerve cell might need to do.

Looking at the whole brain

Many of the workings of the brain are a mystery, but neuroscientists are working at figuring it out from many different angles, sometimes from the level of the whole brain, sometimes at the level of behaviour, sometimes from the level of the nerve cell.

Demonstrate a dissection of a mammalian brain (we use brains isolated from laboratory animals, preserved sheep brains are available from Fisher Scientific [here](#)). A very detailed manual for the dissection of a sheep brain is available from the University of Guelph

http://www.psychology.uoguelph.ca/learnmatl/sheep_labman/lab_manual_sheep_brain.pdf

Provide gloves to students and allow them to touch and describe the brain as you point out major structures.

Once students have seen the whole brain, direct them back to the idea of the cells involved with the brain. An important part of many areas of health science research is our understanding of organs from the level of cells. We can understand some of our nervous system function by thinking about the cells. A couple of examples of nerve cells at work:

What happens when you touch a hot stove? Are nerves involved? How?

Set up 10-20 of items on a table in the classroom (toys, books, etc.) and give students one minute to memorize all of the things that are there. Have them put their heads down on their desks and

then remove, change or add items on the table. Let them look again, and ask them to determine how many changes have taken place, seeing if the class can reach some consensus. *How are nerve cells involved here?*

What does a nerve cell have to do? Think about what your nervous system has to do (send messages over long distances etc.)

Design a neuron

In groups, have students think about what a nerve cell might look like. On chart paper, they can design their idea of a nerve cell, draw it out and present it to the class.

Show students some images of nerve cells (see accompanying PowerPoint presentation). What makes these cells able to do their job? Explain the parts of the neuron.

Show time-lapse video of neuron growth. This is linked to what is happening in their brains as they did the memory game. Cells are forming new connections by extending their processes.

Act out a neuron

Students will act out neuron function by modelling a giant neuron. This can be done simply with students and some rope, or you can design one that will better illustrate signal transmission, following the directions from page 8 of the Society for Neuroscience experiments and activities booklet: <http://web.SFN.org/BAW/SFNResources/files/experimentsactivities.pdf>

Simply, use the rope to represent the axon of the cell. Have one student hold each end: one will be the synaptic terminal and the other will be the cell body. Around the cell body student, have a few other students stand with their arms out. They are the dendrites, and their job is to receive chemical signals from other cells. Explain that a signal is passed down the axon (demonstrated by a quick shake of the rope from cell body to synaptic terminal. When that signal reaches the terminal, a chemical messenger is released to signal other cells. We like to use 1.5ml plastic tubes to represent 'chemicals', but anything (balls of paper, etc.) can work. Demonstrate the action of the single neuron, from the dendrites receiving the signal (tubes) to the cell body transmitting the signal, to the synaptic terminal releasing a chemical signal. Have other students form other neurons around the class, and get them to try and transmit a signal around the room. The teacher's desk might be the brain, sending a signal to another part of the room.

Overview:

Although neuroscience has given us many insights into the structure and function of our brain and nervous system, it represents a field in which much remains unknown. Although we have learned much about cell function in the nervous system, when it comes to billions of cells either working together to create memories and form consciousness or their function in disorders such as Alzheimer's or Autism, there is much research to be done. As part of their learning about body systems and health, students will be introduced to the relationship between nervous system structure and function. We typically implement this lesson following an investigation of heart disease from cells to system, allowing a contrast of cell specialization. By looking at the whole brain and demonstrating the function of neurons, students can investigate connections to memory, disease and current research.

Resources:

- An excellent resource for basic brain function, neuroscience and neurological disorders from the Society for Neuroscience can be downloaded in PDF format from: www.SFN.org/brainfacts
- The Society for Neuroscience also features a comprehensive section for educators: www.SFN.org/index.cfm?pagename=InformationForEducators
- Learn more about neuroscience at the St. Boniface Research Centre: www.sbrc.ca/dnd/

E. Elections.

Current Council Composition (elected Nov 24, 2006)

ELECTED

EXECUTIVE OFFICERS

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Vacant

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