

# CIHR Canadian National Brain Bee

Funded Nationally by CIHR-IRSC

**Hosted by**

Department of Psychology, Neuroscience & Behaviour  
Faculty of Science, McMaster University

May 28<sup>th</sup>, 2011

## Welcome!

- We welcome you to the Fourth Annual CIHR Canadian National Brain Bee (CCNBB) and hope that you will enjoy your stay at McMaster University!
- If you have questions about anything, please do not hesitate to contact us!
  - Contact Matt Pachai – Phone 905-525-9140 x24489; Email: [pachaim@mcmaster.ca](mailto:pachaim@mcmaster.ca)

## Accommodations

- Competitors and other guests will stay in Les Prince. You can read about this fantastic new residence (built in 2006) here: [http://housing.mcmaster.ca/Residence\\_Admissions/Buildings/lesprince.html](http://housing.mcmaster.ca/Residence_Admissions/Buildings/lesprince.html).
- The CCNBB will pay for at least one night's accommodation for 2 people from each local brain bee.
  - Some of our competitors are travelling from distant locations and will likely have a departure date of Sunday. For those visitors we will pay for the 2<sup>nd</sup> night's accommodation for 2 people.
  - For those of you who have requested additional rooms/nights, we will discuss payment when you arrive
  - When you arrive at McMaster, you will check in at the Housing & Conference Service Centre in the Commons Building which is open 24 hours (see map on last page).
  - Check-in time is 4:00pm on Friday, May 27, and check-out time is 10:00am on Saturday or Sunday.

## Travel

- For those travelling from distant locations, you can fly into Hamilton International Airport or Toronto Pearson International Airport.
- For those driving or travelling from the airport, directions to McMaster and various maps can be found here: <http://www.mcmaster.ca/welcome/findus.cfm>.
- **Campus Map:** For your convenience, we have also included a campus map with important building locations indicated (see map on last page).

- Parking passes will be provided for those parking on campus. These will be received when you check in.
- We can provide a secure storage location in the Psychology Building. If required, let us know when you arrive.

## Food

- Visitors will experience an authentic undergraduate university experience, staying in residence and eating in the Commons Marketplace in the Commons Building.
- **Friday Dinner:** Pizza dinner will be available during the orientation in the Psychology Building. We will also provide some snacks to take back to your dorms for the night.
- **Saturday Breakfast:** A hot breakfast will be served at al Centro in the Commons Building at 7:00am on Saturday morning. We would like you to arrive at the Psych Building by 8:15am at the latest.
- **Saturday Lunch:** A lunch will be served in the Psychology Building Piano Lounge, on the 2<sup>nd</sup> floor of the Psychology Building (Room 205A and 205B), on Saturday at about 12:00 noon.
  - We offer this lunch to all Brain Bee guests (including the extra guests).
- **Other meals:** If you are staying longer, you will have to obtain your own meals. You can pay cash at the Commons Building buffet (open 4:15pm to 7:00pm; \$15.25/person), or visit a local restaurant. Ask us if you would like some suggestions!

## Contacts

### **Matt Pachai (event coordinator)**

Office: 905-525-9140 x24489

Cell: 905-902-5417

E-mail: pachaim@mcmaster.ca

During your stay in Hamilton, we will also have some additional volunteers on call to make sure your stay on campus goes smoothly. These names will be announced closer to the event.

# Schedule of Events

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## Friday May 27th

### Arrival of Contestants

- Check in at Housing & Conference Service Centre in the Commons Building, open 24 hours (building 28 on the provided map). They will direct you to Les Prince Hall (building 53).

### 6:00pm            Psychology Building

- Meet in the lobby of the psychology building
- Orientation and introductions, Lecture Hall 155 (just off the lobby)
- Back to the residences for a good night's sleep!
  - Volunteers will be present to escort you between the psychology building and the residence

## Saturday May 28<sup>th</sup> - Morning

### 7:00-8:00am    Breakfast buffet

- A hot breakfast will be served in the Commons Marketplace.
- Please try to finish breakfast as early as possible so that you will have time to walk across campus to the Psychology Building by 8:15am.
- Allow about 10 to 15 minutes to walk from Les Prince Hall to the Psychology Building

### 8:15am            Competition Starts

- Meet in the lobby of the Psychology Building.
- During the morning activities, family members and other visitors are invited to entertain themselves.
  - Snacks and coffee will be provided in the 2<sup>nd</sup> floor piano lounge (room 205).
  - Our computer cluster (PC/154) will be open for internet access.
  - Screenings of lectures from our Discover Psychology public lecture series will be played in our lecture hall (room 155), hosted by Dr. Joe Kim.
  - A campus tour will begin at 10:30am (see below)

### 8:30am            Written Test

- This session may involve written answer and/or multiple-choice questions.

- All questions will come from "Neuroscience: Science of the Brain", published by the European Dana Alliance for the Brain. It can be purchased from the website of the British Neuroscience Society: <http://www.bna.org.uk/publications>. It is also available for no cost in PDF format in 16 different languages from the IBRO web site at <http://www.ibro.org>. From that site, go to "Brain Campaign" where you will find links to all the language versions of the book. You can also try this link to access the Brain Campaign page: [http://www.braincampaign.org/Pub/Pub\\_Front.asp?](http://www.braincampaign.org/Pub/Pub_Front.asp?)
- At the Brain Campaign site, the book has to be downloaded chapter by chapter. For your convenience, we have made the English version available as one large PDF document (with all the chapters in one document). English version:
  - <http://brain.mcmaster.ca/BrainBee/Neuroscience.Science.of.the.Brain.pdf> (5 Mb)
  - <http://brain.mcmaster.ca/BrainBee/about.the.book.pdf> (900k)

### **9:00am                    Neuroanatomy Bell-ringer**

- Education Program in Anatomy, Health Sciences Centre
- The neuroanatomy bell-ringer competition consists of approximately 20 or 25 stations where brains, brain slices, or pictures of brains will be presented. The brains will have pins stuck in a particular part of the gross anatomy, and there will be questions posted at each station that ask for the name of the structure, or the function of that structure indicated by the pin. Students will have approximately 2 minutes at each station to write down their answers. When time is up, a bell will ring, and each student will move on.
  - To prepare for this competition, try studying a human brain atlas and/or a textbook covering basic gross neuroanatomy. You might also find several websites useful for study purposes; please see our web site (<http://brainbee.ca>) for suggestions.

### **10:30am                    Campus Tours (for guests of the competitors)**

- While the bell-ringer and patient diagnosis is ongoing, guests are invited on a one hour tour of the McMaster campus with a tour guide from the McMaster Student Liaison Office.
- Guests are asked to meet their tour guides in the lobby of the Psychology Building

### **10:45am                    Patient Diagnosis**

- The Centre for Simulation-Based Learning (CSBL), Health Sciences Centre
- There will be several actors who are professionally trained to portray neurological disorders. Each patient will be waiting in his or her own room in the clinic. Students will be required to diagnose the neurological disorders by asking the patients questions. Students will have about 5 minutes with each patient to ask questions. The questions must be of the type that can be answered by "yes", "no", or "I don't know".

The patients will not be allowed to provide any other answers than these. At the end of the 5 minutes, the student will record the diagnosis for that patient, and move on to the next room.

- The possible disorders are: bipolar disorder, epilepsy, Parkinson's disease, addiction, Alzheimer's disease, Huntington's disease, schizophrenia, stroke, Tourette Syndrome, neurological AIDS, chronic pain, and autism
- To study for this part of the competition, you can access information about these disorders from the Medical Encyclopedia of Medline Plus which can be found at the National Library of Medicine website: <http://www.nlm.nih.gov/medlineplus/encyclopedia.html>.

**12:00 Lunch**

- Psychology Building Piano Lounge, 2<sup>nd</sup> floor, Room 205A/B.
- Lunch will be served for brain bee competitors and all the brain bee guests.

## **Saturday May 29<sup>th</sup> - Afternoon**

**All afternoon events will take place in room 155**

**1:30pm Introductions**

- Video presentation of morning's patient diagnosis and neuroanatomy bell-ringer events.
- Awards for morning events.

**2:00pm Oral Competition**

- This phase of the competition will take place over several successive rounds in which competitors will be eliminated until only the winner remains.

**Phase 1: Open Multiple Choice**

- All competitors compete in this phase
- During this phase of the competition, a series of 20 multiple choice questions will be presented on the screen one at a time. The question will be read aloud and the competitors will have 5 seconds to select their response using 4 answer cards (a-d).
- After 20 questions, we will take a short break. Scores from this phase will be combined with the scores from the morning competitions to determine who will advance further. In the event of a tie, the tie-breaker completed during the Written Test will be used to determine advancement.

**Phase 2: Elimination**

- The top three placing competitors advance to this round. All of these students will win something!

- During this phase of the competition, a free-response question will be read aloud to the competitors, and they will have 15 seconds to write down their response. All three competitors will hold their responses up to be scored.
- After 5 such questions, the lowest placing competitor is eliminated from the competition. In the event of a tie, this phase will continue in sudden death format.

### **Phase 3: Final Showdown**

- The final two competitors face off to become 2011 CIHR Canadian National Brain Bee champion!
- The final showdown will proceed for 6 rounds. Each round consists of two questions, one asked to each competitor in turn. The asking order will alternate on each round.
- The question will be read aloud, and 10 seconds will be given to produce an oral response
- If at any time a competitor answers their question incorrectly, the other competitor will have an opportunity to steal the point. In this way, each round can result in 0, 1 or 2 points for a competitor.
- At the end of round 6, a winner will be declared. In the event of a tie, the competition continues in sudden death, using the same format until one competitor wins a round.
  - In the unlikely event that a winner is still not decided in sudden death, the entire day's performance will be used to determine a winner.

**3:30pm**

### **Awards Ceremony**

- Prizes and trophies will be awarded
- Congratulations from PNB, McMaster, and CIHR representatives
- Group photos will be taken in Room 155 and in the Lobby.

# We gratefully acknowledge the following groups for their support

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We are supported nationally by

CIHR-IRSC

<http://www.cihr-irsc.gc.ca/>

With additional support from

Faculty of Science, McMaster University

<http://www.science.mcmaster.ca/>

Department of Psychology, Neuroscience & Behaviour (PNB)

<http://www.science.mcmaster.ca/Psychology/>

McMaster Institute for Neuroscience Discovery and Study (MiNDS)

<http://neuroscience.mcmaster.ca/MiNDS%20Homepage.html>

The Centre for Simulation-Based Learning (CSBL), McMaster University

<http://simulation.mcmaster.ca/>

Educational Program in Anatomy, McMaster University

<http://fhs.mcmaster.ca/anatomy/index.html>

In addition, the Local Brain Bees across Canada are supported by their local institutions.

If you would like to support the CIHR Canadian National Brain Bee  
or any of our local brain bees across Canada, please let us know!

# CAMPUS MAP

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Alvin A. Lee Building (AAL)	10	Headen Hall	45	Moulton Hall	18
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A.M. Burns Science Building (ABB)	25	Information Technology Building (ITB)	49	Nuclear Research Building (NRB)	9
Applied Dynamics Laboratory (ADL)	33	Institute for Applied Health Sciences (IAHS)	48	President's Residence	7
Bates Residence	40	Ivor Wynne Centre (IWC)	24	Psychology Building (PC)	34
Biology Greenhouse	30	John Hodgins Engineering Annex	16a	Refectory (REF)	4
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Burke Science Building (BSB)	11	Kenneth Taylor Hall (KTH)	38	Togo Salmon Hall (TSH)	29
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Chester New Hall (CNH)	23	Life Sciences Building (LS)	39	University Hall (UH)	1
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Communications Research Lab (CRL)	43	Matthews Hall	26	Wenworth House (WH)	21
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Divinity College (DC)	17	McMaster University Student Centre (MUSC)	51		
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Gilmour Hall (GH)	20				
Hamilton Hall (HH)	2				
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## CNBB Buildings

Les Prince Hall: 53

Commons Building: 28

Psychology: 34

Health Sciences Center: 37

