Neuro Retreat 2015

“The Evolving Neuro: Opportunities and Challenges”
Abstract

The Neuro Retreat 2015 was held at Estérel, QC, on 13-15 November 2015. Approximately 110 delegates, representing the diverse professional groups making up The Neuro family, were in attendance.

The Retreat addressed organizational and operational issues at the core of the mission of our integrated Institute and Hospital. The Retreat program was based on a mix of plenary lectures, synergic interactions among several interdisciplinary groups (‘Teams’) bringing together members of different Neuro programs, and other group activities. The Teams worked collegially to address a number of issues (‘Questions’) related to the present and future activities of The Neuro. Teams presented their answers to the Questions in a public forum on the final day of the Retreat.

The first Question addressed by the Teams was: What is your vision of future clinical and research programs at The New Neuro? Teams gave presentations resulting in approximately 15 answers, often common to multiple Teams, including recommendations, suggestions and general comments (Chapter 8). One common thought was the need for The Neuro to expand its goals while continuing to be integrated and indivisible. To date, actions have been taken to address many of the points raised, including the recruitment of several new colleagues and development of new groups and new initiatives (Chapter 12).

The second Question was: What do you envision as the key actions necessary to ensure optimal integration of clinical care and research programs at The New Neuro? Teams provided about 20 recommendations, suggestions and comments, often common to several Teams (Chapter 9). To date, actions have been taken to address several of these points, including ongoing work on an integrated clinical and research functional plan for the Neuroscience mission, enhancement of internal communication at The Neuro, and promotion of integrated activities (Chapter 12).

The third Question was as follows: How do you envision The New Neuro building of the future? Teams provided approximately 20 answers that included general comments and recommendations, as well as practical suggestions on the design of The New Neuro (Chapter 10). These points are taken into consideration during ongoing discussions centred on the future of The Neuro, whether at its current site or at a new one.

The fourth and final Question addressed by the Teams was: What is your view of The Neuro as an Open-Science Institution? Teams provided more than 30 answers, including general comments on the initiative, requests for clarification on various aspects, praise, suggestions, and concerns (Chapter 11). To date, numerous actions have been taken to promote this new initiative, including increasing awareness of Open Science, establishing an Open Science Office, and identifying initial targets (Chapter 12).

In summary, The Neuro Retreat 2015 was a productive and engaging event that provided all in attendance with the opportunity to discuss together important aspects of the present and future of The Neuro.
Chapter 1
’In Memory’

When we gathered

The Retreat was held on 13-15 November 2015.

Too many stars black hole stole

13 November 2015
Chapter 2
‘A Beautiful Place’

Where we held retreat

We gathered at beautiful Estérel Resort, where we worked hard, competed with youthful enthusiasm, grieved on a sad Friday evening, watched blue waters from a distance, found warmth next to a beach fire, enucleated our thoughts together and raced amazingly toward the future.

Bonfire of waves illuminating forward path
Chapter 3
‘Looking Ahead’

Why we gathered

To address organizational and operational issues essential to the continued success of our integrated Institute and Hospital.

To hear Leaders of The Neuro present their vision of The Neuro of today and tomorrow.

To provide our faculty, staff and trainees in attendance with the chance to be directly involved in forward-looking discussions focused on key challenges and opportunities awaiting The Neuro as it evolves in the coming years.

Away from old new beauty unveiled
Chapter 4
‘Putting Parts Together’

How we worked together

The Retreat offered the opportunity to hear plenary lectures by Dr. Guy Rouleau and Ms. Teresa Mack (“The process of moving to the Glen”), Dr. Angela Genge (“The CRU of the Neuro; current status and future growth”), and Dr. Richard Gold (Faculty of Law) (“Open Science at the Neuro”).

The Retreat mainly involved synergic interactions among members of the diverse professional groups making up The Neuro. Nine groups worked collegially as Teams to address a number of Questions related to the present and future activities of The Neuro.

Members of The Neuro College of Physicians, Dentists and Pharmacists (CPDP) who were unable to attend the Retreat held meetings and consultations prior to the Retreat and deliberated separately on the same set of Questions.

Teams present at the Retreat deliberated collegially in camera and during various activities on Friday and Saturday.

Teams present at the Retreat also participated fiercely in the Amazing Race Neuro.

Seen you I have but met?

Different generations of Neuro colleagues hard at work together
Chapter 5
'The Manifestations of The Neuro'

Team Ambiguus (Amb)

Nancy Anoja
Jack Antel
Shamini Ayyadhury
Andrea Bernasconi
Ellinore Doroschenko
Marilyn Jones-Gotman
Anne-Louise Lafontaine
Anna Pietromonaco
Ed Ruthazer
Sandeep Vanamala

Team Basal (B)

Doug Arnold
Oliver Blanchard
Christine Bouchard
Jean-Francois Cloutier
Charles Couturier
Marie-Christine Guiot
Ken Hastings
Damla Khan
Catherine Legault
Dalinda Liazoghli
Fil Lumia
Emmanuelle Simony
Team Circular (Cir)

Sylvain Baillet
Bernard Brais
Joelle Crane
Paula Demerson
Thomas Durcan
Jessica Hutta
Jason Karamchandani
Lisa Nevitsky
Chris Pack
Marie-Noelle Hebert-Blouin

Team Gracile (Gr)

Steffen Albrecht
Ana Lucia Fernandez-Cruz
Edith Hamel
Allison Jacobson
Natasha Laliberte
Sridar Narayanan
Nadejda Nossova
Abbas Sadikot
Daria Trojan
Team Intercalated (In)

Fred Andermann
Angie Broccoli
Daniel Guitton
Lesley Fellows
Janette Green
Alexey Kostikov
Peter McPherson
Valerio Piscopo
Carlo Santaguida
Catherine Simard-Morissette
Genevieve Tousignant

Team Periformal (PeF)

Eva Andermann
Jean Gotman
Denise Klein
Min Liu
Carolina Makowski
Sandra McPherson
Michael Petrides
Jennifer Ramsay
Denis Sirhan
Lucy Wardell
Team Prepositus (Pr)

Marcus Arts  
Neda Bernasconi  
Helene Day  
Heather Durham  
Maya-Olivia Eyssen  
Karina Gonzalez  
Chanshuai Han  
Bratislav Misic  
Gregory Ringkamp  
Jeanne Teitelbaum

Team Solitary (Sol)

Mario Di Carlo  
Amanda Fritz  
Angela Genge  
Richard Hoge  
Gabriel Leonard  
Hui Ming Khoo  
Josephine Nalbantoglu  
Sujaya Neupane  
Rosanne Seguin  
Viviane Sziklas
**Team Supraoptic (SO)**

Elizabeth Bock  
Jelena Djordjevic  
Gassan Massarweh  
Keith Murai  
Ron Postuma  
David Rudko  
Kristina Salmon  
David Sinclair  
Wayne Sossin  
Thomas Stroh

**Team CPDP**

Members of this Team deliberated separately before the Retreat
Chapter 6

Questions

Questions we were asked to address together

1. What is your vision of future clinical and research programs at The New Neuro?

2. What do you envision as the key actions necessary to ensure optimal integration of clinical care and research programs at The New Neuro?

3. How do you envision The New Neuro building of the future?

4. What is your view of “The Neuro as an Open-Science Institution”?

Unfolding concepts wrapped up in sheaths

The current Neuro, as seen by Team Ambiguus
How we shared our thoughts

On Sunday morning, all Teams, including the CPDP, gave presentations to discuss the outcomes of their deliberations in front of all attendees.

A few laughs were shared too.
Chapter 8

Answers to Question 1

Question 1. What is your vision of future clinical and research programs at The New Neuro?

What our Teams answered

*Integrated and indivisible*

1.1. Clinical and research programs to continue to be indivisible

1.2. All current clinical programs to be maintained

1.3. All clinical programs to have a linked research program

1.4. Consideration to be given to establishing new research groups associated with clinical programs, eg:
   - Stroke and cerebrovascular diseases

*Patients increasingly involved in research*

1.5. Every patient to be a possible research participant

1.6. Increasingly important role of the Clinical Research Unit, eg:
   - To facilitate access and foster increased collaborative clinical research
   - To promote participation in industry sponsored clinical trials, non-funded studies (pilot studies) and grant applications
   - To develop best-in-class training in clinical trials

1.7. CRU mission and scopes to be better publicized and improved accessibility to CRU should be encouraged

*Expanding goals*

1.8. A wider spectrum of questions/initiatives to be considered, including
   - Care delivery
   - Patient-centred outcomes
   - Biobanking

1.9. Integrated clinical and research programs to strive to excel in clinical care and clinical outcome management
   - Information on quality of care leading to evidence-based decisions about clinical programs, staffing, volumes, etc
Answers to Question 1

1.10. Clinical programs that have specific provincial mandates or are unique because of their local strengths to be considered as priorities

Enhancing training programs

1.11. All training programs to be strengthened, eg by:
  • Establishing rotation programs for basic science trainees to spend time in clinics and for clinical trainees to spend time with basic scientists
  • Establishing joint round and teaching sessions (eg, weekly Rounds); joint shadowing/exchange schemes (eg, assign residents to research labs)
  • Increasing internal funding for studentships and fellowships
  • Creating common spaces (ie, lounges) designed to promote interactions among trainees
  • Introductory poster or digital poster for each lab/clinical group/platform

1.12. Consider the Neuroinflammation training program as a good model

A new look on things

1.13. The Neuro training/teaching mission to be reconciled with the increasingly hyperspecialized mission of the hospital

1.14. Brand our clinical activities as hyper-specialized procedures (could be good for research), eg:
  • “Refractory epilepsy management” rather than just “epilepsy”

A single napkin too many partitions

Where everything started
Chapter 9

Answers to Question 2

Question 2: What do you envision as the key actions necessary to ensure optimal integration of clinical care and research programs at The New Neuro?

What our Teams answered

*Enhance what we have now*

2.1. Act now: do not wait for The New Neuro to be built

2.2. Address issue of Neuro governance: do we have enough autonomy?

2.3. Continue to strengthen approach that every patient is a possible research participant

2.4. Strengthen our clinical outcomes/quality assurance efforts, eg:
   - The Neuro to demonstrably lead in clinical care
   - High-quality health outcomes research design and analytic support, efficient research-quality data collection that links with the clinical EHR
   - (Nearly) every patient a participant; data collected at ‘point of care’
   - Provide clinicians, including clinical trainees, with research tools

2.5. Reinforce The Neuro community/family spirit, eg:
   - Place focus on good things happening at The Neuro and share the good news with all staff
   - Improve internal communication at all levels

2.6. Create “virtual adjacencies” to stimulate interactions in the existing Neuro building, eg:
   - Maximize “our” space and minimize “my” space
   - Promote mixing of staff
   - Promote sharing of equipment
   - Ultimately promote sharing of ideas

2.7. Schemes to promote interactions among fundamental and clinical researchers to be developed

2.8. Bring back the “Brown Bag Lunch” seminar series


Answers to Question 2

Other perspectives

2.9. Most clinics to be multidisciplinary to include all facets of care

2.10. Create a Neuroscience Department, with specific Divisions

2.11. Increased resources are needed, eg:
   • Large multi-investigator grants, quality assurance funding, philanthropy
   • Establish an internal pilot grant program to fund joint clinician/researcher-driven projects

2.12. Strengthen efforts in Neuroprevention and Neurorestoration

2.13. Clinical psychologists to deal with specialized needs of neurological patients

2.14. Establish a big-data training program

2.15. Establish and maintain an updated Neuro trainee database

2.16. Better information on MUHC events/seminars needed

2.17. Database of research projects and patients who have agreed to participate in research to be considered

2.18. Listen to staff better (a suggestion box somewhere?)

Learn from experience

2.19. We already know what has worked and what has not: let’s build on this knowledge

2.20. Learn from other places, eg:
   • Glen; CHUM
   • Other examples around the globe
Answers to Question 2

Process

2.21. Keep process simple, dynamic and transparent, eg:
- A few nominated representatives of key constituencies, and detailed consultation only when vital
- Regular and detailed public information sessions; improve internal communication

We will share our ride together

Don't you love elephants?
Chapter 10

Answers to Question 3

Question 3: How do you envision The New Neuro building of the future?

What our Teams answered

Flexible, dynamic and accessible

3.1. Use of space to be flexible and adaptable to dynamic changes in space needs, services provided, staff and research funding

3.2. Architecture to maximize opportunities to meet, mix, and work together, and to facilitate access to the building, eg:
   • Space to be inviting to staff and patients
   • Atriums, natural light needed
   • Centrally located cafeteria needed

3.3. Architecture to offer interactive conduits for integrated activities from patients to discovery science to clinical research back to patients, eg:
   • Neuropathology a core facility with direct access from OR/Neurosurgery and links to research labs
   • CRU and biobanking at the core of clinical research

3.4. Easy to navigate for patients, research subjects, visitors

3.5. ‘High-throughput’ ambulatory clinic to be part of the complex together with patient-centered multidisciplinary complex care and integrated clinical/research pavilion

A functional home, well connected

3.6. A place that people can call their home

3.7. To be fully functional on its own

3.8. “Bridge” between Neuro and RVH/Glenn to be replicated (if) when we move at new site

3.9. Staff lounges, call rooms, family rooms to be available

3.10. Fast and frequent connection to McGill main campus essential
Answers to Question 3

*Leave nothing behind…*

3.11. All current clinical/support activities to be maintained and those at MGH to be added, eg:

- Neurology / Neurosurgery / ICU
- Neuro-radiology, Brain imaging
- Biomedical engineering
- Neuroanesthesia
- Neurocritical Care/RED unit/step down
- All OR rooms, day surgery and recovery, pre-admission
- Clinical Neurophysiology and intra-operative monitoring
- Neuro-palliative care
- Multi-disciplinary clinics day hospital
- Neurobehavioral psychiatry
- CRU and Ethics and IRB
- Neuronavigation
- Neuropsychology
- Neurogenetics
- Neuro ophthalmology
- Rehab services, Social services, Nutrition
- Media services
- Patient resources
- Neuro Library
- Neuroscience Nursing program and services
- Simulation center
- Friends of The Neuro
- Healing garden

3.12. Research activities to remain part of McGill and not to become part of MUHC-RI

3.13. Own animal care facility essential

3.14. The Neuro artistic patrimony to be protected and relocated *(if)* when we move

*… and add more*

3.15. Research activities to be expanded to include the Centre for Research in Neuroscience

3.16. A gym would be nice
Answers to Question 3

Plan it together

3.17. Planning process to be inclusive, fair, transparent and consultative

3.18. Input to be sought from patients about their specific needs

And please.....

3.19. No PPP

3.20. No office sharing

3.21. Cleaning/housekeeping to conform to acceptable standards

Unwrapping thoughts full of unambiguous ideas

The New Neuro, as envisioned by Team Ambiguus
Answers to Question 3

Circular floors wrapping around unsolitary thoughts

Team Circular vision of The New Neuro, as inspired by network neuroscience
Answers to Question 3

**Intercalated parts coming together in colours**

The New Neuro, as envisioned by Team Intercalated

**Propelling us together towards supranatural achievements**

The New Neuro, as envisioned by Team Supraoptic
Chapter 11

Answers to Question 4

Question 4: What is your view of “The Neuro as an Open-Science Institution”?

What our Teams answered

An attractive concept

4.1. It will move research ahead faster

4.2. It is a form of responsible use of public funds

4.3. Talking publicly about open science a good opportunity to do a better job at communicating science

Implementation will be the key

4.4. Data curation and entry/exit will need extensive work: not clear what infrastructure will support this initiative

4.5. An ‘office of open science’ and support team essential to successful implementation

4.6. Implementing open science in all areas will require significant resources, but benefits will likely not be equally distributed across areas

4.7. Investment should be separate from existing funding so as not to negatively impact current activities

4.8. Pilot projects to be defined to facilitate the initial implementation process

4.9. Periodic review of initiative essential: cost and cost recovery analysis needed

4.10. Launch an “MNI Open Science” Journal?

Concerns for patients

4.11. Not clear how to ensure protection of patient rights in open science

4.12. Impact on clinical activities to be carefully assessed and clarified
Answers to Question 4

4.13. Research involving human subjects carries issues of confidentiality, de-identification, sample traceability and ethics: these should be carefully considered.

4.14. It may not be possible to strip all identifying features from data donated on condition of anonymity: this is a concern. Related to this, relatives of patients need to be protected when their genomic data are included as part of the patient’s own data.

4.15. Open science could discourage patients from participating in clinical studies.

4.16. Should open science policy be retroactive? How would that work for clinical research involving patients?

Other important aspects to consider

4.17. Which data are shared? Raw data? Quality controlled data?

4.18. Data should not be made available after first publication, but rather after project completion and data curation.

4.19. Not clear what the legal implications are.

4.20. Ethics policies likely to require significant rewriting in an open science environment.

4.21. Separate sets of rules to be worked out for different sets of data and their application likely to be overseen separately.

4.22. Should not result in increased workload for researchers.

4.23. What about negative results? Making them openly available could be useful but how much work and funds would have to go into that?

4.24. Need to consider impact on current corporate research agreements.

4.25. Essential to address rate-limiting factors relating to data organization, ontologies, international standards.

4.26. Difference between philosophy of open-science and the instruments/platforms, biobank, imaging scanners, etc to be recognized.

4.27. Perhaps The Neuro should declare that it encourages open science projects instead of declaring itself an open science institution.
Answers to Question 4

4.28. The general idea is fine, but is this necessarily the best use of finite resources at the institutional level?

4.29. Not clear how would open science impact on the careers of young investigators

Mandatory?

4.30. Individual investigators must have final decision on whether to participate or not

4.31. There should be no disincentives for those who might opt out

Novelty?

4.32. Open science is already all around us, so it must be very clear what is really new in this initiative

4.33. What would make us different from other universities/institutes who have chosen to pursue open science?

Neuro minds and arms are open

Drs. Guy Rouleau and Richard Gold discussing Open Science
Chapter 12
Ongoing and Future Actions

1. Future clinical and research programs at The New Neuro

Several steps have been taken to a) maintain and strengthen our existing integrated programs while at the same time expanding our goals, b) encourage patients’ participation in research, c) strengthen the role of the Clinical Research Unit, and d) strengthen our training programs.

1.a. Recruitment

Considerable progress has been made in recruiting numerous new faculty members in both clinical and research programs in 2015-2016. The following individuals have joined, or have accepted offers to join, several of our groups.

Dr. Gary Armstrong  Neurodegenerative Diseases
Dr. Boris Bernhardt  Epilepsy
Dr. Roberto Diaz  Neurosurgery
Dr. Benjamin Lo  Neurosurgery
Dr. Austen Milnerwood  Neurodegenerative Diseases
Dr. Bratislav Misić  Neuroimaging and Neuroinformatics
Dr. Adrien Peyrache  Neural Circuits
Dr. David Rudko  Neuroimaging and Neuroinformatics
Dr. Madeleine Sharp  Neurology; Cognitive Neuroscience
Dr. Nathan Spreng  Cognitive Neuroscience
Dr. Carlo Santaguida  Neurosurgery
Dr. Christine Tardif  Neuroimaging and Neuroinformatics
Dr. Stuart Trenholm  Neural Circuits
Ms. Diane Lowden  (Clinical Nursing – Pain, ALS and Neurooncology)
Ms. Justine Gauthier  (Clinical Nursing – Neuro-palliative and Pain programs)

Additional recruiting efforts are ongoing to fill the following positions:

Director, Brain Imaging Centre

Neuropathologist and Director of Molecular Pathology
Ongoing and Future Actions

1.b. The NeurO C-BIG R Initiative

The Neuro’s Open-science Clinical, Biological, Imaging, and Genetic Repository initiative went live in June of 2016.

The C-BIG R initiative is a first of its kind. The goal of this ambitious initiative is to collect biological materials, curated clinical information, and imaging studies for cohorts of patients with neurological diseases. This data will be stored in a LORIS database – an in house databasing solution allowing for the implementation of the open-science aspect of this project. Through LORIS, de-identified data will be available to researchers around the world with scientifically and ethically valid research questions.

This initiative is starting with several pilot projects, chosen in part to work out logistics in collecting the various types of material the repository aims to store.

1) Québec Parkinson’s Network (QPN) project
   a. Aiming to collect fibroblasts from QPN patients for induced pluripotent stem cell (iPSC) generation
   b. 50 patients will undergo additional scanning at the Brain Imaging Center
   c. Clinical information will reside in the LORIS database
2) Cerebrospinal fluid (CSF)
   a. Developing SOPs to collect CSF in a manner that will permit biological interrogation of the cells in this very interesting and unique human biological fluid
   b. Aiming to collect 10 samples by the end of the 2016 calendar year
3) Skeletal muscle
   a. Aiming to collect skeletal muscle for a project employing next-generation RNA sequencing to identify genetic and pathway alterations in patients with neuromuscular disease
   b. Aiming to collect tissue from 15 patients by the end of 2016
4) Normal controls
   a. Collected skin and blood from two normal control patients
   b. In the process of generating iPSCs from one of these participants
5) Neurosurgical Materials
   a. Aiming to work with Neurosurgery to collect surgically obtained tissue and blood from patients undergoing neurosurgical intervention (goal is to have tissue from 10 such patients by the end of 2016)
Ongoing and Future Actions

1.c. Clinical Research Unit

Several steps have been taken to strengthen the activities of The Neuro CRU:

1) Oversight Committee created, with the mandate to review The Neuro CRU organizational structure and propose strategic directions for the continued growth and development of this Unit; Drs. Jacques Hendlisz, Marc Rivière, Bernard Brais, and Douglas Arnold are members of this committee
2) Document defining the mission and vision statement of The Neuro CRU prepared by Dr. Jacques Hendlisz
3) National training program on clinical trial management and readiness developed and offered by The Neuro CRU

1.d. iPSC-CRISPR platform

A new core platform for human induced pluripotent stem cells (hiPSCs) and CRISPR genome editing to enable derivation of hiPSCs from patients suffering from neurodegenerative diseases and subsequent derivation of disease-relevant neural cells including dopaminergic and motor neurons; also providing SOPs to apply CRISPR/CAS9-based genome editing techniques for correcting genetic mutations

1.e. Stroke Program

Regional (Montreal, Laval) pre-hospital and inter-hospital stroke care re-organization:
1. Active participation of the MUHC on work groups to secure appropriate role for the MNH (CH3) and MGH (CH2) in acute stroke management
2. Continued collaboration with rehabilitation partners
3. Continued collaboration with RUIS partners
Implementation of the regional plan for the re-distribution of stroke patients to begin at the end of September 2016; urgence sante to direct Cincinnati positive patients only to designated Tertiary, such as the Neuro
The MNH Receiving Area running well
MNH and MGH clinical teams continue to improve on processes at all phases, hyper-acute, acute and timely transfers to the Rehabilitation Centres and alternative levels of care
Development and implementation of the appropriate data management tools (quality indicators) required by the MSSS - neurovascular discharge summary (OACIS/Ö word document), stroke prevention clinical initial and follow-up clinical forms; future development includes stroke dashboard, thrombectomy indicator document, Quebec Stroke Registry
Ongoing and Future Actions

Stroke bed management at the MUHC - proposal to centralize bed management for the Neuroscience Mission to manage patient admissions from 3 institutions
Plans to recruit vascular trained neurologists
Continued adherence to best practices: consistent management of TIA in the MUHC ED (MGH, Glen) and the in the Stroke Prevention Clinic (Urgent TIA)
Clinical research projects and educational/academic aspects (trainees, stroke rounds, randomized trials)

1.f. Neurodevelopmental Disorders Group

New group established to bring together several investigators interested in the study of brain development and neurodevelopmental disorders, under the leadership of Dr. Edward Ruthazer

1.g. Palliative Care

A neuro-palliative care program is under development

1.h. Training

Several efforts are underway to strengthen our training programs.

1) Fundraising initiatives are underway to increase funding for internal studentships/fellowships
2) Joint Neurology Rounds sessions with presentations by both Clinicians and Fundamental Scientists
3) Enhance integration of clinical and research training: eg, CRU national training program mentioned above
4) Enacted new training initiatives: “MEG@McGill” (comprehensive training program in MagnetoEncephaloGraphy imaging); PET Training workshop
Ongoing and Future Actions

2. Optimal integration of clinical care and research programs at The New Neuro

Several steps have been taken to a) enhance what we have now, b) get patients more involved in research, c) enhance communication and reinforce The Neuro community, and d) address The Neuro governance.

2.a. Integrated clinical and research plan

Work is continuing on the formulation of the *Project clinique Neurosciences*, which includes plans for the relocation of The Neuro to the Glen site; this process will seek approval by the MUHC Comité de Direction, followed by submission to the Ministère de la Santé et des Services sociaux.

Update on Neuroscience Mission budget, inpatient plan, mandate and composition of Quality Team was provided to Neuro audience at The Neuro Information Session held on 31 March 2016.

2.b. Increased patients’ participation in research

Please refer to points 1b-1d above.

2.c. Promotion of integrated activities

1) Enacted steps to enhance integration of clinical and research trainees: eg, Neurology Grand Rounds
2) Enacted steps to enhance integration of clinical and research activities: eg, CRU national training mentioned above
3) Planned architectural improvements to enhance interactions: “Enhancement Project”: complete renovation of Jeanne Timmins Auditorium Foyer, to become an improved common space for increased cross-talk “NeuroEngineering Project”: renovation of part of Molson Pavilion to become space for interdisciplinary activities linking medicine, science and engineering

Update on construction and renovations at The Neuro provided at Information Session held on 31 March 2016.
Ongoing and Future Actions

2.d. Internal communication

Several steps have been taken to support the activities of The Neuro Communication Office to enhance internal communication, including new recruitments and implementation of a new web user group.

2.e. Neuro governance

The membership of The Neuro Advisory Board has been revised to better reflect current and future goals of our integrated institution.

3. The New Neuro building of the future

3.a. As discussed above, work is continuing on the formulation of the Project clinique Neurosciences including plans for the relocation of The Neuro to the Glen site.

4. Open Science

Several steps have been taken to a) increase awareness and understanding of this initiative, b) set up an Open Science Office that will oversee implementation, and c) identify initial targets. More specifically:

4.a. Concepts and goals of Open Science initiative further discussed publicly at Neuro Information Session held on 31 March 2016

4.b. Open Science guiding principles and best practises established (and presented to Neuro audience at 31 March 2016 Neuro Information Session)

4.c. Governance of Open Science initiative defined

4.d. Mrs. Annabel Seyller appointed Open Science Office Chief Operating Officer

4.e. Three main core initiatives identified: The Biobank; The Open Drug Discovery Platform; and The Open Science Monitoring and Evaluation Committee.
Structured actions of the dreaming minds

Forever young
Appendix 1

Retreat program

2015 Neuro Retreat
“The Evolving Neuro: Opportunities and Challenges”
Estérel, Quebec, Canada
November 13-15, 2015

Friday, November 13

12:00–13:00  Arrival and Registration (lunch available, Dupuis Hall)

13:00–13:30  Welcome Address (Salon Dupuis)
Dr. Guy Rouleau, Director, Montreal Neurological Institute and Hospital

Retreat Goals (Salon Dupuis)
Dr. Stefano Stifani, Chair, 2015 Neuro Retreat Planning Committee

13:30 – 14:15  “Open Science at the Neuro” (Salon Dupuis)
Dr. Richard Gold, Faculty of Law, McGill

14:15-16:00  Teams assemble and start deliberations (Du puis, Grenier, Du Nord and Sommet Rooms)

16:00-16:30  Break and opportunity for interactions among teams (Dupuis Hall & Bell Lobby)

16:45-17:45  Teamwork (Dupuis, Grenier, Du Nord, and Sommet)

17:45-18:15  “The process of moving to the Glen” (Salon Dupuis)
Dr. Guy Rouleau and Ms. Teresa Mack, Administrative Director, Neurosciences Mission MUHC

18:30   Cocktails (Dupuis & Bell)

19:30   Dinner (ROK Grill)

Saturday, November 14

8:00-9:00  Breakfast (L’Ultime Restaurant)
(Families – 7:00-10:30)

9:00-10:30  Teamwork (Dupuis, Grenier, Du Nord, Sommet, Executif, Masson)

10:30-11:00  Break and opportunity for interactions among teams (Dupuis & Bell)

11:00-12:00  Teamwork (Dupuis, Grenier, Du Nord, Sommet, Executif, Masson)
12:00-13:30  Lunch (L’Ultime Restaurant)  
(Families – 11:30-13:30)

13:30-17:00  Free time/Brainstorming/Liaising/Other Activities

17:00-18:15  Teamwork (Dupuis, Grenier, Du Nord, Sommet, Executif, Masson)

18:15–18:45  “The CRU of the Neuro; current status and future growth” (Salon Fridolin)  
Dr. Angela Genge, Director, Clinical Research Unit

18:45–20:00  Cocktails (Dupuis & Bell)

20:00  Banquet Dinner (Salon Dupuis)

22:00  Campfire

**Sunday, November 15**

7:30-8:30  Breakfast (L’Ultime Restaurant)  
(Families – 7:00-10:30)

8:30-10:00  Team Presentations Part 1 (Salon Dupuis)

10:00-10:15  Break (Dupuis & Bell)

10:15-12:00  Team Presentations Part 2 (Salon Dupuis)

12:00-12:45  Discussion/Q&A (Salon Dupuis)

13:00  Concluding Remarks (Salon Dupuis)  
Dr. Guy Rouleau

The Neuro Retreat will return