The Canadian Neurosurgical Society Executive:

- President: Stephen P. Lownie MD FRCSC, Western University, London, Ontario
- Vice-President: Patrick McDonald MD FRCSC, University of British Columbia, Vancouver BC
- Secretary-Treasurer: Dhany Charest MD FRCSC, The Moncton Hospital, Moncton, New Brunswick
- Past President: Ian Fleetwood MD FRCSC, Vancouver Island Health Authority, Victoria BC

The Canadian Neurosurgical Society (CNSS) focuses on continuing education for Canadian neurosurgeons. Current membership numbers for 2016-2017 totals 308 members, including 160 Full/Active, 11 Retired; 14 Senior; 6 Associate; 17 1st-years; and 100 Junior. There is a strong academic collaboration with the other three neuroscience professionals (Neurology, Child Neurology and Clinical Neurophysiology) jointly forming the Canadian Neurological Sciences Federation (CNSF). In addition to the CNSS Executive listed above, the Board of Directors includes representatives from each Canadian province. For 2016-2017 these include: Dr. Ramesh Sahjpal – Director and BC representative; Dr. John Wong – Director and AB representative; Dr. Lissa Peeling – Director and SK representative; Dr. Colin Kazina – Director and MB representative; Dr. Eric Massicotte – Director and ON representative; Dr. David Mathieu – Director and QC representative; Dr. Robert Adams – Director and NB representative; Dr. Sean Christie – Director and NS representative; and Dr. Roger Avery – Director and NL representative. The Board also includes the neurosurgery resident representatives Dr. Bill Wang (Western) and Dr. Mark Bigder (Manitoba), and the CEO of the CNSF, Mr. Dan Morin.

Neurosurgeon representation at CNSF Executive level: With regard to the CNSF parent organization executive, Dr. Max Findlay serves as CNSF Past President, Dr. Kesh Reddy serves as CNSF Vice-President, and Dr. Ian Fleetwood serves as CNSF Member-At-Large. Dr. Joseph Megyesi and Dr. Tejas Sankar serve as Chairs of the Professional Development and Scientific Program Committees, respectively. Dr. Bill Wang is Senior Resident member of both committees. Dr. Lownie and Dr. McDonald serve as Member delegates to the CNSF Board.
Changes during spring, 2017: Dr. Tejas Sankar is transitioning out of the SPC this year. Congratulations to Dr. Sankar on his excellent work with SPC and the innovations brought to our annual meeting. Dr. Joseph Megyesi has graciously accepted a new role with the SPC. Congratulations to Dr. Megyesi on his first-rate work on the PDC. A search is currently underway for a neurosurgeon representative to the PDC to replace Dr. Megyesi. Dr. Bill Wang is also moving on from the senior resident rep role; a search for a new junior rep is currently nearing completion.

1. **Annual Canadian Neuroscience Conference**

The 2017 CNSF Penfield Lecturer is Dr. John Kestle. The CNSS courses will comprise sessions on: Hot Topics in Neurosurgery, including Dr. Peter Hutchinson lecturing on the recently NEJM-published Decompressive Craniectomy for Traumatic Intracranial Hypertension; a course on Study Design in Neurosurgery (chaired by Dr. Kestle and already overbooked!); and half-day courses in neuroradiology for neurosurgeons and current topics in spinal neurosurgery.

2. **Canadian Neurosurgical Society CNSS Financial Position / Activities:**

The CNSS’ Revenue is derived exclusively from membership dues (30-35K per annum). Expenditures include website, donations to causes such as Think First (Parachute Canada) and the PGY1 Rookie Camp for new neurosurgery trainees (now held in Edmonton AB); invited speakers’ expenses; and journal subscriptions (the Canadian Journal of Neurological Sciences). Office expenses are covered by the CNSF. Recent endeavors of the Society have included website development and the provision of adjudicated prizes for best posters in order to encourage resident involvement beyond the traditional McKenzie resident awards. The CNSS remains in a good financial position in 2017.

3. **Canadian Neurosurgical Society Membership:**

Less than 50% of practicing neurosurgeons in Canada are full/active CNSS Members. The Society is focused on strategies to retain existing members and recruit new ones. These include increased neurosurgical content at the CNSS; linking CNSS benefits to membership; and determining areas of deficiency or perceived deficiency through both our current members and non-members. A database has been created for internal analysis to look for factors which may be important, such as province of neurosurgical practice; stage of career; medical school location; and community vs. academic practice. Official CNSS receptions at the American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) meetings have also shown preliminary success at engaging members and non-members from Canada and the U.S. These included the 2016 CNS meeting in the fall and the AANS in Los Angeles in April. More direct efforts have also included communications with Canadian neurosurgery program directors who were not active members to encourage their own membership; all or almost all are now active members. Future efforts at a grass root level should help to further advance membership in CNSS.
4. **Canadian Neurosurgeon Employment:**

Underemployment is defined as a trainee still doing fellowships; doing locum work; doing non-surgical practice; working less than FTE; or effecting a career change. A recent study found that 12% of Canadian neurosurgery graduates remain underemployed 5 years after completing residency. Similar trends have been observed in Canada in cardiac and orthopedic surgery, where there are higher numbers of unemployed or underemployed surgeons. A repeat survey through Program Directors is planned to corroborate the data. For the period 1997 – 2014, Canadian neurosurgery match (CaRMS) data were reviewed and it was found that there were increasing numbers of training positions and increasing numbers of applicants. National Canadian summits on neurosurgeon employment have been held over the past two years. Some programs have reduced training positions which unfortunately has put some high quality Canadian training programs in potential jeopardy.

5. **Canadian Neurosurgical Residency Training**

A neurosurgeon cannot practice as an independent neurosurgeon in Canada without having passed the Royal College examination. Dr. Genevieve Milot (Quebec City) is Chair of the Examination Committee for Neurosurgery. Dr. David Steven (University of Western Ontario) serves as Vice-Chair of the Committee. The Royal College Specialty Committee is chaired by Dr. Vivek Mehta (University of Alberta). The written and oral examinations are in May of each year.

There are 14 neurosurgery training programs accredited by The Royal College of Physicians and Surgeons of Canada. A match for graduates of Canadian Medical Schools (www.carms.ca) is responsible for allocation of residency positions. There are between 16 and 20 positions offered per year. The program length is 6 years, with a minimum 42 months of neurosurgery.

For fully Canadian trained first-attempt candidates over the three years of examinations from 2013-2015, the average number of candidates taking the RCPSC examination was 14.3. The average pass rate percentage during this period was $90.3 \pm 12.0\%$ (mean ± S.D.). In 2016, there were 24 candidates and the pass rate for the Canadian trained residents taking the exam for the first time was 90%.

Neurosurgery in Canada has begun its formal transition process in the Competency by Design CanMEDS 2015 initiative. A series of Royal College sponsored workshops are planned to allow the initial residents to begin in the new program in July 2018. The initial workshop was in early October 2016. Good progress was made in defining new stages of training as well as formulating stage-specific entrustable professional activities (EPAs) and milestones. Post graduate years will be replaced by 4 distinct training phases: Transition to Discipline, Foundations of Discipline, Core of Discipline, and Transition to Practice. In addition to defining the stages and associated EPAs, the committee will
reassess the academic curriculum and the examination process. As of March 31, 2017, efforts are underway to implement competency-based medical education within neurosurgery training programs across the nation. EPAs and milestones are being developed in collaboration with the Royal College of Physicians and Surgeons of Canada for all levels neurosurgical resident training. These efforts will ensure residents are trained to the highest standard and deliver safer care in an increasingly complicated milieu.

Respectfully submitted,

Stephen Lowie

STEPHEN P. LOWNIE
President, the Canadian Neurosurgical Society
Professor of Neurosurgery, Otolaryngology and Medical Imaging
Western University / University Hospital / London Health Sciences Centre
London Ontario CANADA