

# Canadian Leader in Neurology: G. Bryan Young

Erica D. McKenzie 

**Keywords:** History, Neurocritical care, Neuroethics, Residency training, EEG

doi:[10.1017/cjn.2021.227](https://doi.org/10.1017/cjn.2021.227)

Can J Neurol Sci. 2022; 49: 452–453



*Figure 1: Drs. G. Bryan Young (left) and Erica D. McKenzie (right).*

The Canadian Leaders in Neurology series is an initiative of the Canadian Neurological Society whose objective is to showcase exceptional accomplishments by Canadian neurologists who are leaders in their respective fields. In this segment of the series, Erica McKenzie, a neurology resident at the University of Calgary, interviewed G. Bryan Young.

Dr. G. Bryan Young is a Canadian neurologist who spent 30 years of his career with the Department of Clinical Neurological Sciences at Western University. He has made numerous contributions to the neurophysiology and neuroprognostication of critical illnesses, with particular interests in sepsis-associated and anoxic encephalopathies. He is co-author of *Coma and Impaired Consciousness* with Drs. Allan Ropper and Charles Bolton and is a founding member of the Canadian Neurocritical Care Group. He “retired” from Western University in 2013 and now works full-time at Grey Bruce Health Services in Owen Sound, where he is active in the regional stroke program.

**Erica D. McKenzie (EDM): Walk me through your training journey and how you came to focus on neurology in the intensive care unit (ICU).**

**G. Bryan Young (GBY):** I graduated from the University of Saskatchewan in 1970 and then did a rotating internship and 1 year of medical residency in Vancouver. I practiced as a

generalist in my hometown, Melfort, in Saskatchewan until Dr. Charles Bolton – who was one of my teachers in Saskatchewan – moved to London [Ontario] and invited me along. This was at the time the first Department of Clinical Neurosciences was formed by Drs. Henry Barnett and Charles Drake. At that time, it was 3 years of residency in neurology. We had good residents and we worked really quite hard. I was interested in electroencephalography (EEG), and I took a year of EEG and epilepsy with Dr. Warren Blume and Dr. John Girvin. I then worked in Saskatoon, at University Hospital, for 2 years doing EEG, epilepsy, and general neurology.

I then got an invitation to come back to London and work with Dr. Bolton and together, we studied patients in ICU. This was remote from the epilepsy unit where I had trained, but I thought there was a good application for electrophysiology in ICU. We had a good ICU at the Victoria Hospital, run by Dr. Bill Sibbald, who was quite a prominent intensivist. We’d make rounds with him, and he was only too keen for us to be involved in his ICU – he realized he could use some neurology help and encouraged us to do studies and get involved.

The work I did subsequently was as consultant in the various hospital ICUs, mostly for comatose patients. We developed evoked responses and EEG monitoring for seizures, and to correlate the degree of encephalopathy with the clinical

From the Department of Clinical Neurosciences, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada

RECEIVED SEPTEMBER 2, 2021. FINAL REVISIONS SUBMITTED SEPTEMBER 17, 2021. DATE OF ACCEPTANCE SEPTEMBER 21, 2021.

Correspondence to: Erica D. McKenzie, Foothills Medical Centre, 1403 29 Street NW, Calgary, Alberta, Canada, T2N 2T9. Email: [Erica.McKenzie@ucalgary.ca](mailto:Erica.McKenzie@ucalgary.ca)

outcomes in sepsis and in anoxic–ischemic encephalopathy after cardiac arrest. We worked on prognostic guidelines for cardiac arrest as well as brain death. I also worked with the Canadian Society of Clinical Neurophysiologists as well as the College in Ontario to develop standards for EEG laboratories and EEG interpretation.

**EDM: How would you encapsulate the role of the neurologist or the neuro-intensivist in the ICU? What do you think is the “special sauce” someone with a neurology background brings to that setting?**

**GBY:** I think we bring an understanding of the nervous system, especially the brain, that others don't really have, in terms of evaluating the patient. To evaluate the patient from a clinical point of view, do a neurological exam, localize, and work out what's going on. The difference between the regular neurologist and the neurology consultant in the ICU is that we work very much on prognosis – that is a big part of our role. I think there are better tools now, through electrophysiology, structural imaging and functional imaging to study how the brain responds. This new technology should certainly be applied, but I think it needs to be a neurologist who spearheads this approach to what's going on in the brain.

**EDM: You've made many contributions to the field. What are you most proud of?**

**GBY:** I was really pleased to work with Dr. Adrian Owen on the wakefulness–unresponsiveness syndrome. That area of exploring consciousness is quite interesting. Many of those patients considered to be vegetative were found to have cognitive responses with functional MRI. It does give some insight – we have to treat [these patients] as human beings. *Cogito, ergo sum*. A person capable of thought and appreciation – if that's gone, the human quality is missing. The ethical insights into these things are useful. You have to treat them and discuss patient wishes. It at least recognizes that those people are not as disabled as we thought, and perhaps sometimes they will recover if they have some cognitive function remaining. Some make a complete recovery, such as one patient who was able to return home to his family and work after appearing to be in a vegetative state.

So, don't give up on [patients] unless you have really solid evidence that their brain is totally and irreversibly damaged. You can't make assumptions that the prognosis is poor until you have really good evidence it is – either using imaging or other technology to show that. We used to say “well, there's no chance,” – unless you have good evidence, don't let the other intensivists or others talk you into abandoning the patient until you really are sure. It pays to have good evidence before you consider withdrawal.

Having said that, I am proud to have worked with such excellent people over the years, Dr. Charles Bolton, Dr. Warren Blume, Dr. Ken Jordan, Dr. David Houlden, Dr. John Connolly, and Dr. Allan Ropper to name a few and such superb former fellows and residents, including Dr. Teneille Gofton, Dr. Martin Savard, Dr. Gary Hunter, and Dr. Jason Chan. Also, it was an

honor and a privilege to have served as Editor-in-Chief for the Canadian Journal of Neurological Sciences for 6 years.

**EDM: What's the best piece of advice you've received about life in medicine and neurology?**

**GBY:** It pays to work hard, as Allan Ropper said. Put your mind into it and look for opportunities. I thought I'd end up working in an epilepsy monitoring unit, but I wound up in ICU. There were opportunities there and we took them! You have to make lemonade!

Collaboration is important – it's hard to do things by yourself. Team up with good people.

**EDM: What are you passionate about outside of medicine?**

**GBY:** My wife!

**EDM: Good answer! What keeps you excited about your work these days?**

**GBY:** It may sound hokey, but – making a difference. Coming to a small place where they needed some neurology help and building it up to serve as a district stroke center. We can improve outcomes, and we've shown an improvement in mortality. Even if it's nothing ground-shaking, it's just bringing care that they didn't have before and making it accessible. It's been very worthwhile.

**EDM: Finally, what advice do you have for a neurology trainee who is interested the ICU and neurocritical care?**

**GBY:** I think it's an area of growth. It's going to be challenging, and you'll work hard in ICU especially because there's not that many of us who are interested in this discipline, but I think it's very worthwhile. I take my hat off to the fully trained neurointensivists who can manage intracranial pressure problems and keep cerebral perfusion going. There wasn't such a thing as a neurointensivist when I was a medical student, but I think if were to start over again, I'd take the full training to have the intensive care background as well as the neurology background. It's a lot of extra work, but it's worth it. Pursue it! You'll find some subspecialty area that will really interest you that will be very fruitful.

Please mention to any of your friends if they want to spend some time in community neurology, we're always happy to have them in Owen Sound!

#### ACKNOWLEDGEMENTS

The author would like to thank Dr. G. Bryan Young for his participation in the interview.

#### CONFLICT OF INTEREST

None.

#### STATEMENT OF AUTHORSHIP

EDM conducted the interview and drafted the manuscript.