



<http://www.ucalgary.ca/hic> • ISSN 1492-7810  
2017-19 • Vol. 12, No. 1

**William Feindel and Richard Leblanc, *The Wounded Brain Healed: The Golden Age of the Montreal Neurological Institute, 1934–1984*. Montreal: McGill-Queen’s University Press, 2016. Pp. xiv + 632, illus. CDN\$100.00 (cloth). ISBN: 978-0-7735-9816-0.**

**Reviewed by James L. Bernat, Dartmouth College**

For over eight decades, the Montreal Neurological Institute (MNI) has been one of the world’s premier neurosurgery-neurology-neuroscience institutions. This book, written by a neurosurgeon-director of the institute, who died in 2014, and a currently active staff neurosurgeon-researcher, traces the history and principal actors of the MNI during what the authors argue was its golden era spanning its first fifty years. They have produced a beautifully illustrated and well-written volume that tells a compelling story and is a fitting tribute to their beloved institution.

The MNI is infused by its history, beginning with its earliest planning in 1928 by the distinguished neurosurgeons Wilder Penfield (1891–1976) and William V. Cone (1897–1959), who were recruited from New York to develop a neurosurgery service at the Royal Victoria Hospital of McGill University. The authors are exceedingly knowledgeable about the historical details of the MNI and were assisted by a small group of colleagues who co-wrote chapters. Within each section are biographies of the clinicians and researchers who developed the MNI. Perhaps, because of the orientation of the senior author, the history is divided into four eras: first, the pre-MNI planning period at the Royal Victoria Hospital (1928–1934), followed by one era for the tenure of each of the MNI’s first three directors (1934–1984).

The volume is magnificently illustrated and printed on high-grade paper, making the numerous illustrations and photographs sharp and adding to the book’s heft. Many of the illustrations and photographs are archival and previously unpublished. The authors provide tables and appendices listing the names of invited speakers, fellows, and staff of each era, increasing the book’s value as a reference work. The authors’ scholarship is exemplary, with over ninety pages of endnotes.

As would be expected, the authors place great emphasis on the life, work, and vision of Wilder Penfield, the man most responsible for the creation and development of the MNI. Penfield was a remarkable neurosurgeon, scholar, researcher, program developer, fundraiser, and visionary thinker. His pioneering work and research in epilepsy surgery, cortical functional anatomy, and brain tumours is legendary. Assisting Penfield at every step was his able right-hand-man, William Cone, who was Penfield’s lower-profile partner in the development of the MNI from its very beginning. Cone’s neurosurgical skills, high personal standards, indefatigability, loyalty, and incredible work ethic allowed Penfield to enjoy the glory of leadership. The authors poignantly described Cone’s tragic and early end with appropriate respect and sensitivity.

Numerous other famous staff members are described, including how they were recruited, how they contributed to starting services at the MNI, and their principal clinical and research accomplishments. Familiar names include Cosimo Amjone-Marsan (1918–2004), Frederick Andermann (b. 1930), André

Barbeau (1931–1986), Gilles Bertrand (b. 1924), Stirling Carpenter (b. 1922?), Kenneth Allan Caldwell Elliott (1903–1986), Arthur Roland Elvidge (1899–1985), William H. Feindel (1918–2014), Pierre Gloor (1923–2003), Herbert Jasper (1906–1999), George Karpati (1934–2009), Francis Leblanc (b. 1931), Donald McEachern (1941–2013), Francis McNaughton (1932–2005), Brenda Milner (b. 1918), Theodore Brown Rasmussen (1910–2002), James Preston Robb (1914–2004), Colin Kerr Russel (1877–1956), and Allan Sherwin (1932–2016). I was particularly delighted to see that the nursing service was afforded equal footing with the physicians, with lengthy descriptions of nursing leaders and their innovations.

Bill Feindel and Richard Leblanc described how the many fellows and other trainees of the MNI later became influential leaders at other medical centres throughout the world. I learned that many of these prominent clinicians and researchers, whom I always associated with their parent institutions, such as Charles Miller Fisher (2013–2012) and David H. Hubel (1926–2013) of Harvard, began their careers by training at the MNI. Penfield maintained numerous international collaborations throughout his career, travelled extensively around the world, and invited clinicians and researchers from many countries to visit the MNI.

Embedded within the biographies are fascinating stories and anecdotes. The role of MNI neurologists and neurosurgeons in the European theatre of the Second World War was covered extensively. The remarkable story of Penfield removing a brain tumour from his own sister Ruth (b. 1918?) is recounted in detail. We are introduced to the famous patient H.M. (now known to be Henry Molaison, 1926–2008), who developed profound anterograde amnesia and complete absence of working memory after bilateral hippocampectomy to treat epilepsy. Although his surgery was performed in Hartford, Connecticut, his amnesia was studied in detail by the MNI neuropsychologist Brenda Milner and her fellow, Suzanne Corkin (1937–2016),<sup>1</sup> who herself has been the subject of a recent *exposé* monograph. An interesting account is given of the history of Juhn Atsushi Wada's (b. 1924) development of the Wada test for language laterality. The tension at several stages of the MNI, between the Francophile and Anglophile political divisions of Montreal and between McGill University and the Université de Montréal are described sensitively.

I was fascinated by the stories and biographies in this volume. I found the earlier history of the MNI to be better told and more exciting, perhaps because with fewer people to cover, the authors offered more complete accounts of their personalities. The authors' desire to provide comprehensive descriptions of the final two decades at times devolved into tedious lists of who did what and when. I have myself spoken at the MNI and viewed the shrines to its founders, so perhaps my interest was primed to wanting to learn more about its biography and provenance. I thoroughly enjoyed reading this book and can recommend it as the lovingly told, definitive history of the MNI's first fifty years.

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<sup>1</sup> Luke Dittrich, *Patient H. M.: A Story of Memory, Madness, and Family Secrets* (London: Random House, 2016).