

## Community Roots, Global Reach: The Hospital as Academic Medical Centre

THERE IS LITTLE NEED TO REMIND CANADIANS that in 2017 we are in the midst of a big birthday bash to celebrate 150 years of nationhood. Without sounding too mawkish, there are many good things to reflect on and be grateful about; but amidst the official hoopla, not many people might consider hospitals in Canada to be one of them. Yet, in a relatively short time, by historical standards, several Canadian institutions have evolved to become monumental successes. Not surprisingly, these institutions are located in the premier cities of Montreal and Toronto: the Montreal General Hospital, the Montreal Neurological Institute, and the Hospital for Sick Children (now “branded” as SickKids) in Toronto. All three are fully deserving of sophisticated historical analysis, but unfortunately, as this essay demonstrates, not all of them receive it.<sup>1</sup>

*The General: A History of the Montreal General Hospital*, under the editorship of Joseph Hanaway and John H. Burgess, is based on the accounts of about 60 contributors, all of whom were associated with the Montreal General Hospital (MGH).<sup>2</sup> Given the breadth and richness of the clinical and administrative experience of these men and women, a well-rounded comprehensive survey of the MGH might be expected. However, instead of a tessellated panorama, this book ends up being an uneven patchwork. Too many misspellings and typographical glitches further mar this work. Similarly, the book’s problematic organization tests the patience of a serious reader. Opening with an homage to the Molson family prominent for its longstanding support of the MGH is understandable, but it is a problematic way to begin a book. Rather, it might have been better to have integrated the major instances of Molson support into the text as appropriate, thus avoiding the impression of kowtowing. The following chapter by the editors, in which they present a review of events related to the history of medicine and their connection to the MGH for the period 1819 to 1885, is laudable but remains unfocused. A reader might be better advised to skip first to chapter 48, on MGH governance, to receive a better grasp of situating the hospital in historical context, before tackling these introductory sections.

The bulk of *The General* is divided into five sections that reflect the departmental clinical structure and power base of the institution, with medicine and surgery taking up the lion’s share of space. Each of these departments is subdivided into analyses of their respective divisions (for example, cardiology, dermatology, geriatrics,

1 As a matter of full disclosure I was one of the university press manuscript readers for the Wright book reviewed here. This fact was communicated to the review essay editor of *Acadiensis* and no conflict of interest was deemed to exist. The university press that published the two other books reviewed here also supports a series in the history of medicine of which I am co-editor. However, neither of these books belongs to this series, nor did I have any involvement in their publication.

2 Joseph Hanaway and John H. Burgess, eds., *The General: A History of the Montreal General Hospital* (Montreal and Kingston: McGill-Queen’s University Press, 2016).

nephrology, rheumatology, general surgery, cardiovascular and thoracic surgery, neurosurgery, and plastic surgery). Another section, somewhat dismissively entitled “Other Departments,” considers fields such as anesthesiology, dentistry, obstetrics and gynecology, pathology, psychiatry, radiology, and urology. Nursing gets its own section, and these chapters add to our understanding of changing norms of education and labour practices in Quebec. These contributions augment the growing literature on regional nursing history and show how this occupation can be greatly influenced by provincial politics in addition to national trends. The final section addresses the MGH Foundation, along with the hospital’s role as the collective team doctor for the Montreal Canadiens. This organizational breakdown into so many subsections results in repetition, for too often the discussion of the specialty at hand overlaps with that of others. As the book makes little attempt at any overarching institutional chronology, each chapter is a micro-chronology and thus one is left with the impression of multiple starts.

Moreover, the historical content of chapters often only extends as far as the contributor’s personal memory or experience; at other times it takes on shades of the Old Testament with lists of who clinically begat whom. This approach allows many people to be included in the narrative, but overall it takes on too much of an insider’s perspective, or old boys’ club, and often at the expense of patients who for the most part are noticeably absent from the study. A few examples will suffice to make these points. When recounting the first “code 99” (cardiac resuscitation using a defibrillator) at the MGH in 1964, the physician-author wrote that when the red button on the machine was pressed “instead of a shock being delivered through the patient’s chest to restart the heart all the lights went out on the floor. The fuses were unable to carry the necessary current, and the life-saving attempt degenerated into a shambles. Fortunately, none of the code 99 team received a shock” (117). But what about the patient? We are never told this in the doctor’s story. Another patient who suffered from cancer and survived both surgery and chemotherapy is identified by the contributor as a farmer’s daughter who “is a cousin of my wife” (206). And we learn how a spinal anaesthetic performed on a “wealthy woman” allowed her to “pass a large amount of flatus.” A case of comic relief perhaps?

Nuggets of historical significance can be panned from *The General*, but the reader has to be conscientious to be rewarded. Scattered across the book’s numerous pages are references to the impact on the MGH of the FLQ crisis, Quebec nationalism, French language rights, the health policies of the government of René Lévesque and his successors, and the creation of CLSCs (centre local de services communautaires, which are provincially operated community health centres). Going backwards and forwards one can piece together a story of anglophone doctors and nurses permanently leaving the MGH (and Quebec) for more politically stable locales, funds drying up or being reallocated to suit regional political agendas, recruiting shortages, strikes, and tensions with francophone institutions and colleagues in Montreal. Over time the MGH, once a bastion of Anglo Canadian culture and dominance, adapted to new political realities to survive. This is an important and unique story, however, that readers are left to create by themselves. *The General* is the latest word on the history of this hospital, but by no means should it be the last word. Until the definitive

history of the MGH is written, scholars should still consider consulting detailed studies by H.E. MacDermot and others.<sup>3</sup>

William Feindel and Richard Leblanc, in their *The Wounded Brain Healed: The Golden Age of the Montreal Neurological Institute, 1934-1984*, demonstrate how an “in-house” institutional history can be successful, even if sharing some of the format of *The General*.<sup>4</sup> Both the late Feindel (the principal author) and Leblanc are insiders at the Montreal Neurological Institute (MNI) and they, along with eight other contributors, have crafted a study of substance. As with the preceding book, this one opens on a biographical note – this one outlining the early life and times of the American doctor Wilder Graves Penfield (1891-1976). This is appropriate as it was Penfield who all but invented the MNI, established its reputation, and to this day his contributions continue to be associated with it. Educated at Princeton, Oxford, and Johns Hopkins universities, along with additional experience gained at Harvard and Columbia, Penfield quickly was recognized for both his skills as a neurosurgeon with a special interest in epilepsy and also his charismatic personality. In 1927 Penfield was recruited by the Royal Victoria Hospital or RVH (Montreal’s other major anglophone clinical institution), as it was expanding its neurosurgical activities; also at this time the McGill medical school was reinventing itself. In short order, discussions were underway to create the stand-alone institution that would be the MNI (but would remain associated with McGill and the RVH) and, in 1942, was literally connected to the hospital by the iconic Bronfman Bridge, which is reminiscent of Venice’s Bridge of Sighs and similar ones at Oxford and Cambridge universities).

Opened in 1934 with funding from the city, the province, private donations, and a significant grant from the Rockefeller Foundation, the MNI was unique in Canada not only for its specialization in neurosurgery and the neurosciences but also due to its highly functional and aesthetic design. The MNI was a hospital with several floors of in-patient wards, doctors’ consulting rooms and offices, its own radiology and other diagnostic equipment, a complement of highly trained nursing staff, well-equipped teaching facilities and library, a research centre with multiple laboratories and animal quarters, and residence rooms for on-call doctors and visiting researchers. Of special note was the MNI’s operating room (OR), which had automatic climate control and also a ventilation system that constantly purified the air to reduce the likelihood of wound contamination. A unique OR photographic equipment arrangement allowed intricate brain operations to be recorded on film without interfering with the surgical process. Consideration was given to the recreation and well-being of staff as a squash court was also a feature. Finally, much

3 H.E. MacDermot, *A History of the Montreal General Hospital* (Montreal: Montreal General Hospital, 1950); Edward Bensley, R. Roy Forsey, and Jean C. Grout, eds., *The Montreal General Hospital Since 1821* (Montreal: Montreal General Hospital, 1971); H.E. MacDermot, *History of the School for Nurses of the Montreal General Hospital* (Montreal: The Alumnae Association, 1940); Barbara Tunis, *In Caps and Gowns: The Story of The School for Graduate Nurses, McGill University, 1920-1964* (Montreal: McGill University Press, 1966).

4 William Feindel and Richard Leblanc, *The Wounded Brain Healed: The Golden Age of the Montreal Neurological Institute, 1934-1984* (Montreal and Kingston: McGill-Queen’s University Press, 2016).

attention was devoted to making the MNI culturally and aesthetically pleasing. With its wood paneling, marble statuary, art deco-inspired features, friezes adorned with the names of the greats of neurosurgery and neurology (later, posthumously, also that of Penfield), and commissioned art work for walls and ceilings (many of which are gloriously reproduced in colour and are a feature of this book), we can only marvel today at the style of the place. Augmenting Feindel's description of the physical plant is a separate chapter contributed by noted medical architectural historian, Annemarie Adams, who analyses the original building plans.

Penfield's plan for the design and mission of the MNI also extended to a more abstract national vision for it. It was not to be a "colonial branch of London's National Hospital [for Neurology and Neurosurgery], not a lesser Salpêtrière [in Paris] springing up in the new world, not an offshoot from an aberrant American root which has tunneled its devious way across an unguarded border. We dare to hope that this is the inauguration of an institute of medicine that is characteristically Canadian, the birth of a Canadian School of Neurology" (95). Although under the directorship of the American Penfield until 1960, a Canadian school did emerge due to the development of numerous pioneering surgical techniques and technological and biomedical breakthroughs at what became known simply and widely as "the Neuro." There was the introduction of cerebral angiography to North America in the mid-1930s, which was more accurate than radiological techniques to detect brain tumours and other intracranial problems. Shortly thereafter, MNI staff undertook research on epilepsy using the EEG (electroencephalogram) machine to measure brainwave activity that turned this originally experimental piece of equipment into a routine scientific and clinical diagnostic instrument. Penfield himself gained widespread recognition for his mapping of the brain with pinpoint accuracy by inserting electrodes into it to determine which areas govern and control bodily functions and actions. This had particular application to the treatment of epilepsy. Work by other noted clinician-researchers resulted in the recognition of the condition that became known universally as TIA (transient ischemia attacks) or "mini-strokes" (248).

The list of innovative contributions is so long that many general readers of *The Wounded Brain Healed* might find the esoteric details overwhelming; but it stands as testimony to the accomplishments of "the Neuro" and Feindel's mastery of neuroscience and neurosurgery. But this strength is also a weakness, for it encourages a certain inward-looking perspective. As is the case with *The General*, *The Wounded Brain Healed* is physician-/medicine-centred: patients appear on its pages, but primarily as "clinical material." This historiographical top-down approach is evident in the case of "H.M.," who is described as someone who suffered from "incapacitating, medically refractory seizures and underwent bilateral hippocampectomies in 1953" (291). After surgery, it was discovered that "H.M." had severe short- and long-term amnesia, so his surgeon contacted Penfield about this condition. "H.M." soon became the subject of intense study by an MNI neuropsychologist. Prior to his death in 2008, "H.M." (identified as Henry Molaison) "donated his brain to science. And, just as Oskar Vogt studied Stalin's brain, H.M.'s brain will be studied with, it is hoped, more instructive results" (291). In fact, what is not stated is that Molaison's neurological deficit was apparently caused by a double lobotomy performed by an especially hubristic American surgeon (with no connection to the MNI). After the MNI neuropsychologist lost

interest in H.M.'s case, he became the exclusive research subject of an MNI graduate who pursued her career at MIT and studied him (including, allegedly, experiments that were akin to torture) until his death. H.M.'s brain donation in actuality was the subject of a perverse inter-university custody battle (in which MIT was victorious).<sup>5</sup> The upshot of all this is that physicians writing as historians can sometimes get too close to their subject matter and become blinded to broader contentious social issues. This is worthy of note as there is a debate in history of medicine circles as to who is best equipped to write about this subfield: doctors or "professional" historians. The question is moot, notwithstanding my commentary here. To my mind, regardless who writes it, "good" history is recognizably as good, while "bad" history is similarly easily identified.<sup>6</sup>

Owing to the creation of numerous visiting fellowship opportunities, the MNI was a magnet for rising stars. Such men and women from around the world were drawn to it based on its reputation and the chance to learn new skills that they could not readily acquire elsewhere. In turn, they spread the word about "the Neuro" when they travelled home and elsewhere to establish neurological and neurosurgical programs of their own. When in the mid-20th century the overarching National Institutes of Health (NIH) based in Bethesda, Maryland, created what would become the National Institute of Neurological Diseases and Stroke (NINDS), it was staffed from top to bottom by former MNI Fellows. More singularly, when Clarence Greene, a graduate of Howard University in Washington, DC (a historically black institution), sought specialist training in neurosurgery, he was welcomed at "the Neuro" unlike medical centres in the US. Upon returning to practise in DC at Freedmen's Hospital, he became the first African American to be certified by the American Board of Neurological Surgery (197).

Readers of *Acadiensis* perhaps can indulge in a brief sidebar to the larger discussion at hand. William Feindel (1918-2014), the principal author of *The Wounded Brain Healed* and the third director of the MNI (from 1972 to 1984), was, in the words of the epilogue to this book, "a boy from Bridgewater," Nova Scotia. After graduating from Acadia University he won a Rhodes scholarship to Oxford University (like Penfield), where he earned a doctorate in neuroanatomy. He then trained in medicine and surgery at McGill. Following his first stint at the MNI, he left in 1955 to found the Department of Neurosurgery at the University of Saskatchewan; four years later he returned to "the Neuro." From then until his death

5 For more context on the case of H.M., see noted medical historian Andrew Scull's essay "Losing Their Minds: The Startling Story of Lobotomies in Twentieth-Century America, in which Brains (and Lives) were Damaged in the Name of Science," *Times Literary Supplement*, 6 January 2017, 3-4. This is a book review of Luke Dittrich, *Patient H.M.: A Story of Memory, Madness, and Family Secrets* (New York City: Chatto and Windus/Random House, 2016). But note the dispute led by MIT scientists over this book. See [https://www.nytimes.com/2016/08/09/health/brain-patient-hm-book-dittrich.html?\\_r=0](https://www.nytimes.com/2016/08/09/health/brain-patient-hm-book-dittrich.html?_r=0); <https://www.scientificamerican.com/article/mit-challenges-the-new-york-times-over-book-on-famous-brain-patient/>; and <https://www.theatlantic.com/science/archive/2016/08/the-dark-story-of-neurosciences-most-famous-patient/494939/>.

6 For an introduction to the broad contours of this debate, see David S. Jones et al., "Making the Case for History in Medical Education," *Journal of the History of Medicine and Allied Sciences* 70 (2014): 623-52; and Jacalyn Duffin, "New and Old Solutions to an Old problem," *The Oslerian* 17 no. 2 (2016): 10-11.

almost 60 years later (in the hospital of the MNI), he pursued a career that garnered him almost every award that Canada could bestow.<sup>7</sup> His reputation was also an international one. Along the way he also served as chancellor of his first *alma mater*, Acadia University.

David Wright, the author of *SickKids: The History of the Hospital for Sick Children* is, coincidentally, also an Oxford graduate, but in history.<sup>8</sup> Well known for his scholarly studies on the history of psychiatry and, lately, the migration of foreign-trained doctors to Canada, this latest book by Wright about the life of a hospital is a departure of sorts. Although an institutionally “funded” project, Wright was given full access to hospital source materials; this allowed him, in his own words, “to author a scholarly and balanced history of this remarkable hospital” (xi). There is no doubt that he achieved this goal and more: many historical accounts of Toronto’s Hospital for Sick Children exist, but Wright’s supersedes them. While a scholarly work, the book is also highly readable; this differentiates it from the other books reviewed here. It is certainly *not* a “trade” book, yet a ready market for it likely exists in the thousands of former and current patients’ family members who may buy a copy out of genuine interest.

Essential to this is the organization of its content, for there is a good flow to the narrative. *SickKids* is structured chronologically, as it begins with the founding of the hospital in the late 19th century and continues the account of its development to the early 21st century. Each of its 16 chapters, however, addresses a particular theme that is especially critical to this periodization. The opening chapter grounds the origins of what would become the “most famous hospital in the entire country” (3) within the context of the invention of childhood in the mid-Victorian era, which was fuelled in part by the writings of Charles Dickens. In this view there arose a moral and religious imperative, especially among middle-class and well-to-do women, to help alleviate the suffering of injured and sick children – hence, the goal of Toronto’s Elizabeth McMaster (1847-1903) to establish a “Ladies Committee” to raise funds to cover the expenses of turning a rented house into a hospital for children. In 1875 it received its first patient, who was the victim of scalding. In the decade-and-a-half following, many children who had swallowed poison, had been burned, were wounded or crippled with a congenital deformity, or were suffering from tuberculosis received treatment and their medical, surgical, and convalescent care was funded by voluntary, charitable donations (41).

In 1891-1892 all this changed. At this juncture there occurred what can best be described as a “takeover” when John Ross Robertson (1841-1918), the publisher of Toronto’s *Evening Telegram* newspaper, cemented his control over the hospital’s governance when the “Ladies” surrendered their power to the board of trustees and McMaster resigned. There is no doubt that this transition was brusque (although it had been in the works for a while) and gendered, but with the benefit of historical hindsight “SickKids” never looked back. Ross was affluent, powerful, and driven; his benevolence and philanthropy was matched only by his desire to get his own

7 These include fellowship to the Royal Society of Canada, investiture to both the Order of Canada and to that of Quebec, and induction into the Canadian Medical Hall of Fame.

8 David Wright, *SickKids: The History of the Hospital for Sick Children* (Toronto: University of Toronto Press, 2016).

way. Soon a brand-new, purpose-built Hospital for Sick Children was erected in downtown Toronto based on a similar institution in Glasgow, Scotland. From 1892 until the early 1950s, this location became the epicentre of all things pediatric in the city. As Wright demonstrates, whether it was establishing milk pasteurization plants for the city, organizing well baby clinics and public health outreach programs, combatting childhood epidemic diseases, pioneering innovative pediatric surgery, developing inexpensive and easily prepared nutritious foods such as “Pablum” (which was also a great source of revenue for the hospital), or engaging in social service activities, SickKids was at the forefront thus becoming the “centre of a hub-and-spoke structure of child health throughout the city” (141).

Not surprisingly, the hospital outgrew its Victorian building and in 1951 moved to new, massive quarters on University Avenue alongside the Toronto General Hospital. At this location, on “ambulance alley,” SickKids continued to expand, especially with respect to its research thrust, which culminated in the 2013 opening of its “research cathedral.” For the first time, the almost 2,000 researchers working in diverse biomedical fields were housed in one place. All of this costs money – a lot of money! But Torontonians especially have always supported *their* children’s hospital as Wright illustrates. Whether through small charitable donations in Elisabeth McMaster’s time, larger sums as a result of John Ross Robertson masterful newspaper fundraising campaigns, even greater amounts owing to hugely successful “telethons,” and more recently private and corporate philanthropic donations that are among the largest ever in Canada, SickKids has always had a strong appeal because of its patient base – children. And, as children as patients were often featured publicly owing to life-threatening conditions and/or seemingly miraculous recoveries, Wright has been able to incorporate them into his narrative effortlessly. Indeed, in *SickKids* almost all levels of hospital workers from senior executives to volunteers are discussed.

Lest readers get lulled into thinking that this book is all about inexorable institutional growth and success accompanied by a “feel good” factor, Wright delivers two palpable blows to SickKids’s solar plexus: the deaths/murders by digoxin of 64 infants in the 1980s and the Dr. Nancy Olivieri research debacle of the 1990s. Anyone living in Ontario (and beyond) during these times could not be unaware of such news-making events; thus Wright was obligated to address them for if he had not done so it would have seriously undermined his credibility. The former involved the laying of criminal charges, an official commission of inquiry (lasting six months and at a cost of \$3 million), and soul-destroying suspicion and acrimony among hospital workers and the public. While certain individuals were at the centre of the numerous investigations, everything and everybody in the hospital was involved in some way. The latter, while it did not involve any deaths, was similarly destructive as it involved the hospital, patients, the University of Toronto, big pharma, issues of academic and research integrity along with that of academic freedom, and amazingly unseemly behaviour between and among colleagues. These two catastrophes were not connected, but in one way were related inasmuch as the unwieldy size and octopus-like growth and demands of the hospital as mega system nurtured them. Indeed, as Wright reasonably concludes, SickKids “evolved into a medical juggernaut on multiple clinical, administrative, and research levels. . . . [It] had morphed into an institution the size and diversity of which, in many key

respects, resembled an international non-governmental organization, one based in Toronto but with far-reaching global influences and partnerships” (361).

All three studies reviewed here are bound together through publication by Canada’s two major academic presses, which is a good thing; also common among them is that they are “official” histories underwritten one way or another by the organizations that are the object of study, which can be a good thing but not necessarily. These works are also alike in that they are all substantial books; collectively, they clock in at around 2,000 pages. But what really connects all three books is the concept of academic medicine, for each hospital continued to serve its local community while also evolving to function as a high-flying academic medical centre. Stated simply, when clinical care is combined with teaching (both undergraduate and post-graduate) as well as laboratory-based research, a hospital may be identified as an academic medical centre. But in reality this combination is much more complex and messy. Medical academics may have several bosses and agendas to satisfy while their activities are financed by an ever-changing mixture of institutional funds, external competitive research grants, philanthropic contributions, and private corporate support, which all have rules, terms, conditions, and expectations that can often be in tension with each other. And somewhere embedded in this matrix are sick people, who are viewed by doctors in white coats simultaneously as patients, teaching objects, and research subjects.

The rise of academic medicine at the MGH is to be found in *The General*, but like other important themes readers have to mine its pages for that story. In *SickKids* its development is nicely articulated; indeed, the research imperative as a component of academic medicine is showcased. It is also why the discussion of the Olivieri imbroglio is important for it is a case study, albeit in the negative, of how a hospital cum academic medical centre operates, while also illustrating its global reach. But the transformation of these two institutions was an evolutionary process over at least a century; in contrast, the active practice of academic medicine at the MNI was its *raison d’être* from its inception as *The Wounded Brain Healed* ably demonstrates.

Together, these analyses also spur thoughts grounded in the traditional rivalries between Toronto and Montreal. The case has been made that Toronto is superior with respect to academic medicine. In a recent study, for instance, Edward Shorter confidently stated that the consortium of hospitals situated in downtown Toronto (including SickKids) along with the University of Toronto create an unrivalled academic medical powerhouse. Underpinning this claim is the fact that this massive metropolis has only one medical school through which research and other funds as well as intellectual talent flow without diversion elsewhere.<sup>9</sup> What might a similar study of academic medical centres in Montreal reveal? Studying not just the historical development of individual institutions, but rather how they interacted and/or collided with each other would tell a story that is only currently sketched out. Not only would such an analysis be of merit in its own right, but it could also test Shorter’s hypothesis about the case of Toronto: in Montreal there are two medical schools, which until quite recently also represented two cultures that included not

9 See J.T.H. Connor, review of *Partnership for Excellence: Medicine at the University of Toronto and Academic Hospitals* by Edward Shorter, *Social History of Medicine* 29, no. 2 (2016): 429-31.

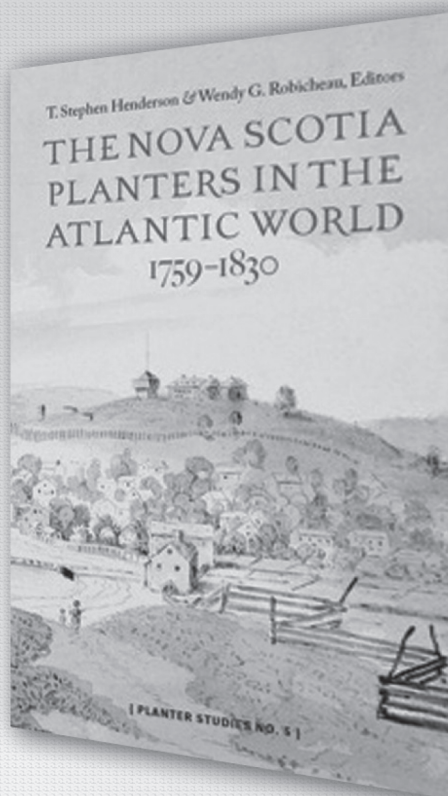


just traditions and language but, in its hospital context, also religious denominations. There is, said differently, plenty of scope here for competition and diversion of funds and talent at which the books on the MGH and MNI hint. Did that have consequences for medical knowledge production? To what extent might this situation have impeded that city from becoming a powerhouse like Toronto? Whatever else that book might be, how could it not be anything but another fat one? In the meantime, however, the three books discussed in this essay, whatever their individual shortcomings, do collectively add much to our knowledge of Canadian and global medical history. Returning to the theme of Canada 150, they ably demonstrate the amazing strides taken within the connected fields of medical research and healthcare in a country with a relatively small population and only within a relatively limited time.

J.T.H. CONNOR

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