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Henry J.M. Barnett: 1922-2016

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In Memoriam

Henry J.M. Barnett
1922–2016

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Henry J.M. Barnett, MD, FRCP(C), CC, known by his friends as Barney, was born on February 10, 1922 in Newcastle upon Tyne, England, and died at Toronto, Canada, on Thursday, October 20, 2016. He died peacefully in the company of family and caregivers, after 94 fearless and adventurous years. He was predeceased by his beloved wife Kathleen (Kay) in 2006.

A defining moment occurred when, as a boy rambling around the marshes at Ashbridges Bay in Toronto, he chanced upon 2 ornithologists who showed him a hoary redpoll through binoculars. From then on, birds, natural science, and eventually medical science captivated him. In 1944, he graduated from University of Toronto Medical School, where he met a beautiful nurse, Kathleen (Kay), whom he married. He continued his studies in Toronto, then Queen Square, London, United Kingdom, and Oxford, specializing in Neurology, which he practiced and taught for over 45 years in Toronto and then London, Ontario. His clinical research led him to contribute to scientific knowledge on stroke prevention, early detection, clinical care, and treatment for which he received acclaim and prizes worldwide, including an Honorary Doctorate of Letters from Oxford, the Karolinska Stroke Award for Excellence in Stroke Research in Stockholm, and the Companion of the Order of Canada. In later life, he pursued his passion for the natural world as a volunteer advocate with the Nature Conservancy of Canada for the Happy Valley Forest in King Township, Ontario. He bought property there when his children were young and used the 80 acres of forest, ponds, and meadows to pass on his and Kay's delight in Nature to the Nature Conservancy of Canada.

Image courtesy of Kathy Stuart, University Hospital, London, Canada.

Barney as an Academic Leader

Barney was the Principal Investigator of the first randomized trial to show that Aspirin reduced the risk of stroke,[1] the NASCET (North American Carotid Endarterectomy Trial),[2,3] and the EC-IC Bypass study (Extracranial–Intracranial).[4] He was also an editor of *Stroke* from 1982 to 1986 and the founding Scientific Director of the Robarts Research Institute at the University of Western Ontario, in London, Canada.

His many honors included the 2008 Karolinska Award of Excellence in Stroke Research, the highest award for stroke research, and honorary degrees from the University of Western Ontario, Dalhousie University and Utrecht Universities and the New York Institute of Technology. He was one of the first and, by general assent, one of the world's leading stroke neurologists.

Among these honors, perhaps his most cherished was the Honorary Doctor of Science from Oxford University in 2012. He commented:

"I was astonished in October 2011 to receive from the Chancellor's office of Oxford University an indication that they wished to present me with a degree of Honorary Doctor of Science."

The citation read: "Dr Henry Barnett, CC, MD, was born in England and emigrated to Canada as a child (of 3). He graduated from the University of Toronto Medical School (age 17) before undertaking postgraduate training in Neurology in Toronto, London and Oxford, where he worked with Charles Symonds, Hugh Cairns and Richard Doll. He was a member of Toronto's Neurology faculty from 1952 to 1969; in 1967 he founded the Department of Neurosciences at Sunnybrook Hospital and 2 years later co-founded the world's first multidisciplinary Department of Clinical Neurological Sciences at the University of Western Ontario. He was Chairman of the

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department from 1974 until 1986 when he co-founded (with Charles Drake) the Robarts Research Institute which he led for 8 years.

Dr. Barnett oversaw the first randomized trial across Canada to establish the efficacy of aspirin in stroke prevention.[1] This landmark study not only showed that it was possible to prevent stroke but also demonstrated the necessity of robust methodology in such clinical trials.

His hundreds of publications include the standard stroke reference work: Stroke: Pathophysiology, Diagnosis and Treatment. He was a Companion of the Order of Canada."

At the age of 90, when invited to write a foreword for a new book by J.D.S., his reply was: "I have taken the liberty of asking John Walton to write the foreword. I would like to contribute to (several) chapters, and write a chapter of my own. I think I can find you a publisher." He became coeditor, and the result was his last book, *Stroke Prevention, Treatment and Rehabilitation*.[5]

A Less Recognized Side of Barney

In his day, Barney was an outstanding Neurologist and teacher of Neurology. In his early career, he gained enormous clinical experience, with a huge inpatient practice; at Sunnybrook Hospital in Toronto, his service occupied 70 beds. His 1973 monograph on syringomyelia detailed the findings in some 200 patients with that relatively rare condition. He was curious, thought in terms of pathophysiology rather than pattern recognition, and was continually learning—when he came to Western in 1969, his was the perfect example of 25 years' experience, rather than 1 year's experience repeated 25 times.

Barney was the first to recognize and publish many clinical syndromes, including violent effort neuropathy, onion-picker's neuropathy, carotid stump syndrome, stroke from mitral prolapse, external carotid artery steal, post-traumatic syringomyelia, tumor-associated syringomyelia, and probably others that we do not recall. In their time, Barney and his friend John Walton were perhaps the 2 best clinical neurologists in the world.

When his great friend Charlie Drake persuaded Barney to come to London, Ontario, to cofound the first Department of Clinical Neurological Sciences in the world (combining Neurology and Neurosurgery in 1 department, with close ties to Neuropathology and Neuroradiology, and later Neuro-Ophthalmology), he set about to build a great department and succeeded. At the time Barney came to London, J.D.S. had been wondering whether to go to McGill or Harvard to do Neurology, but as a third year medical student, "as soon as I saw Barney in action as a teacher, I knew where I wanted to train: with him. The first patient I presented to him (I still remember her name) had normal pressure hydrocephalus, a syndrome that I recognized from my elective in Neurology at University of Miami the previous summer. I told him what I thought was the diagnosis, and instead of saying 'well done!', he proceeded to quiz me about why I thought that. Once he was satisfied that I really knew what I was talking about, he then said something positive. When he recruited me two years later as a resident in the Neurology program at Western, he only asked one question: 'Are you ambitious?' I think even then he realized that his legacy would be the accomplishments of his disciples—and disciples we were."

His method was Socratic—asking the student questions—and he had an uncanny ability to judge just how much each student knew, so he would not waste time asking questions that were too easy. A tenet of his teaching philosophy was "never teach people what they already know"; it has stood J.D.S. in good stead over the years. "In about my third year of residency I returned to Barney's service after 6 months away at St. Joseph's Hospital with Andy Kertesz. The first question he asked me was too easy, as I had learned some while away, and I could see him realize that I was at a new level, so he raised his sights and the next question parted my hair."

In the early days, he would hold court in his large office on the seventh floor of Victoria Hospital, and the residents would bring the patients to his office, on gurneys or wheelchairs. We would present the patients to him, recounting the history and presenting the findings; he would ask us what we thought, and then he would hone in and refine the history and examination until the diagnosis became apparent. In his office, he had his slide cabinet with thousands of 35 mm glass slides, books, and a glass model of the cerebral ventricles; he would say "hand me that yellow book over there", pointing to it, and turn to an illustration that made the case clear.

V.H. also met Barney at medical school but would not get to work with him until later in his career. V.H. had been offered a Chairmanship of Neurology and asked Barney for his advice. He said "Why go to the States?, come with us." V.H. decided not to move, but now Barney knew that he was moveable and pursued his recruitment with relentless pleasantness. V.H. thought that he could stop the pursuit by making an impossible demand: a positron emission tomography unit. Barney called his bluff. He said that he knew nothing about positron emission tomography scanning except that it was very expensive, but if he accepted to come to London, he would pay for him to go to all the major positron emission tomography centers so that he could help make the case for investing in such an expensive and complex technology. V.H. returned recommending investing in magnetic resonance imaging, an initiative that Barney took up with characteristic enthusiasm, drive, and success.

Barney and V.H. worked closely together, Barney as the Principal Investigator and V.H. as the Principal Neurological Investigator of the EC/IC and NASCET studies and V.H. as the Head of the Stroke and Aging Division of the Robarts Research Institute that Barney cofounded and directed.

Before Barney, the thinking about Neurology was that it was an abstruse specialty involving pensive ruminations about rare untreatable conditions, of little use. At the time he arrived in London, there were 2 neurologists already, and the question people asked was "We already have two neurologists, why would we need more?" Barney taught us that 95% of the diagnosis was in the history and that the most important thing was to never miss anything treatable: for example, never to consign a patient with dementia to a hopeless decline in "the looney bin" until we were sure we had excluded any treatable cause—and the consult was to be on the chart within 24 hours, without exception. By providing a valuable service,

the Neurology team grew quickly from 2 Neurologists and no residents to 14 Neurologists and 6 residents.

Our service was truly an academic enterprise. Barney insisted that every patient who died have an autopsy, so we could learn from our mistakes. As part of his agreement to come to London, he wrested from Dean Douglas Bocking an agreement that 3 Neuropathologists would be hired in London, at a time when there were only 3 in Canada. Every patient with a stroke had a carotid angiogram—unheard of in those days—so we could work out what had happened. He was truly one of the fathers of Stroke Neurology.

He also went to great lengths to ensure that the residents obtained a quality education. In 1971, he managed somehow to find funds to send us all to the American Academy of Neurology conference in St. Louis and that tradition continued for many years. His many disciples have gone on to great things. Tom Feasby developed the Calgary program in Neurological Sciences, modeled on the program at Western, and then hired Alastair Buchan to set up the Stroke Program there. With their leadership and funds from the Alberta Heritage Foundation, it has become one of the best stroke programs in the world. Tom went on to become Dean of Medicine at Calgary. Both Alastair Buchan and George Ebers went to Oxford as Chair of Neurology, and Alastair went on to become Dean of the Medical School at Oxford. Many other Barney disciples have made important contributions in their fields.

Barney was a great man, who lived a big life. His neurological legacy lives on.

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