Norman W. Thompson

1932-

Gerard M. Doherty



Dr. Norman W. Thompson in one of his frequent teaching moments

Dr. Norman W. Thompson (NWT) is one of the most beloved figures in endocrine surgery. His examples of patient care, mentorship, devotion to his craft, and affable nature have influenced hundreds of surgeons and affected the lives of thousands of patients. He advanced the field through his scientific research and his organizational ability. He is among a small group that can be considered the founders of the specialty of endocrine surgery.

Academic Career

NWT graduated from Hope College (located in Holland, Michigan) in 1953; he has remained a loyal supporter since. He was a member of the board of trustees from 1973 to 1988, and was awarded a Distinguished Alumni Award in 2004. He and Marcia (Hope College, Class of 1956) have endowed a science laboratory and a scholarship at Hope College (Fig. 1). Following college, he went on to the School of Medicine at the University of Michigan, receiving his medical degree in 1957. Dr. Thompson was recruited to stay at the University first in 1957 as a trainee and then in 1962 as a faculty member. He spent his entire career in Ann Arbor, despite opportunities to take leadership positions elsewhere. He retired from active practice in 2002, becoming professor emeritus. An endowed professorship was established in his honor¹.

When NWT joined the faculty in 1962, endocrine surgery did not exist as a subspecialty of general surgery. Most hormones could not be easily measured in patients, and the imaging to identify tumors was rudimentary by current standards. His initial practice was broad, and his publica-



Fig. 1 Norman and Marcia during NWT's internship at the University of Michigan (ca. 1957)

G. M. Doherty (🖂)

Department of Surgery, Boston University, 88 East Newton St C-500, Boston, MA 02118, USA e-mail: dohertyg@bu.edu

¹ The author was the inaugural Norman W. Thompson professor of surgery at the University of Michigan from 2002 to 2012.

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tions from his first decade of practice reflect his interests in general surgery, trauma, and vascular diseases. However, he was influenced by contact with faculty colleagues who were making important observations in patients with endocrine tumors, including Drs. Beierwaltes and Sisson (nuclear medicine/thyroidology), Nishiyama (pathology), Schteingart (endocrinology/adrenal), and Vinik (endocrinology/ pancreas). These collaborations placed him at the center of a large group that made routine the precise measurement and interpretation of hormone levels, and developed the imaging tests needed to identify the tumors. As his experience and fascination with these tumors grew, his endocrine surgery practice squeezed out his other clinical and academic interests. He became devoted to the nascent field.

Clinical and Scientific Contributions

NWT made many of the initial observations that underpin the field of endocrine surgery as we now know it. He had a very broad endocrine surgery practice, a keen set of observational skills, and an uncanny memory for patient situations. He practiced the full spectrum of endocrine surgery, including thyroid, parathyroid, pancreas, and adrenal tumors, as well as tumors of the diffuse neuroendocrine system. His position in Ann Arbor, where the first metaiodobenzylguanidine (MIBG) scans were performed, gave him a vast experience with pheochromocytoma, one of the areas to which he made many contributions [1]. He went on to describe novel presentation of pheochromocytomas, methods for perioperative preparation, and operative techniques.

Similarly, he took his personal observations of a very rare disease (gastrinoma causing Zollinger-Ellison syndrome) and was among the first to determine the cause of the large proportion of patients with no apparent primary tumor. He identified that many patients had small primary tumors in the duodenal wall, often much smaller than the metastatic disease that was also often present in lymph nodes [2]. This observation explained many of the confusing concepts that investigators in this area struggled with at the time, such as whether gastrinoma could commonly be primary in lymph nodes. In related work, he developed a standard approach to the pancreatic tumors associated with the multiple endocrine neoplasia type 1 syndrome. This included a subtotal pancreatectomy and removal of the duodenal disease that he had described; this procedure became known as the Thompson operation [3].

Throughout his endocrine surgery career, NWT demonstrated his skill as a careful and thoughtful surgeon most frequently by his management of thyroid and parathyroid disease. From his early contributions cataloguing the complications of thyroidectomy, to later collaborations on the genetics of familial syndromes and molecular changes in





Fig. 2 A colored pencil drawing by NWT of one of his MEN-1 operations. (Courtesy of Norman W. Thompson)

thyroid cancer, NWT always stayed current and found ways to contribute [4, 5]. His intraoperative discussions are legendary, as he was able to think aloud through complex situations, teaching as he went along. At the completion of his operations, he often made a colored pencil drawing of what he had found and done (Fig. 2).

Mentorship

One of the key contributions that NWT made to the field was through his mentorship of surgeons in Ann Arbor and around the world. He was a beloved teacher of surgery at the University of Michigan and helped to train over 265 chief residents in surgery. He had an endocrine surgery fellowship in Ann Arbor that was one of the first, and the very few, to devote dedicated training time to the field. The fellowship was tailored to meet the needs and opportunity of the trainee; it could range from 3 to 12 months, and was often funded by the trainee's home institution. Many current leaders in endocrine surgery spent time in Ann Arbor with NWT in this way, including Janice Pasieka, Peter Angelos, Gary Talpos, John Kukora, and Jay Harness. NWT also spread his mentorship around the world. He has been a prolific speaker, serving as a visiting professor at 135 institutions, and delivering over 300 other invited lectures. He has received numerous honorific titles and awards. His approachability and clarity of explanation has endeared him to surgeons and to patients.

IAES and AAES

NWT was one of the founding members of both the International Association of Endocrine Surgeons (IAES), and the American Association of Endocrine Surgeons (AAES). Both of these groups can trace their lineage to the San Francisco Congress of the International Society of Surgery in September 1979 [6]. At that meeting, a group of international surgeons interested in endocrine surgery gathered, and determined that the time was right for a group dedicated to their interests. From that, the IAES was born, under the watchful eve of NWT as the inaugural council-coordinator, and subsequently the IAES president. During that same meeting in San Francisco, a smaller group of American surgeons had lunch, and decided that a similar group focused on North Americanbased surgeons could make important contributions to the field. The first meeting was held in Ann Arbor in May of 1980, and included a two-day scientific program, with local arrangements by NWT, who was also elected the first AAES president. As the AAES has grown, much of the credit goes to NWT, as he faithfully attended the sessions, learned the names and interests of junior surgeons from all over, and was always prepared with an opinion or comment for the papers. He helped to create the welcoming, collegial atmosphere that predominates at both the AAES and the IAES meetings. The major donors to the AAES Foundation are grouped as the Norman Thompson Fellows in his honor, to reflect the many contributions that he made to the group.

Family

NWT has remained in Ann Arbor for more than 50 years, with his wife Marcia (née Veldman), a fellow student at Hope College (Fig. 3). They have four children, all of whom attended Hope College: Robert (Hope 1979), Karen (Hope 1983), Susan (Hope 1987), and Jennifer (Hope 1989). Travel with his family, often also including visits to members of his endocrine surgery "family," was a frequent indulgence, but has been curtailed by recent health issues. The Thompsons' generosity has helped to support Hope College, the University of Michigan, and the AAES, among many other worthy causes.



Fig. 3 Norman and Marcia in 2002

The legacy that NWT has created has influenced the lives of many; his patients, and the patients of all to whom he has given so much of himself. He has helped to create a vibrant field of endocrine surgery. He recognized it before it existed, he nurtured it in its infancy, and he shaped the future leaders of the field by both his direct contributions and his personal example. We each owe him our admiration and gratitude.

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