THE FACULTY OF MEDICINE
Harvard University

Elizabeth M. Van Cott

Photograph courtesy of Massachusetts General Hospital

Elizabeth Merrill Van Cott, MD, Professor of Pathology at Harvard Medical School (HMS), died on April 13th 2021 at the age of 56, from complications of Limb-Girdle Muscular Dystrophy. At the time of her passing, she was the Director of the Coagulation Laboratory, and Medical Director and Director of Quality of the Core Laboratory at Massachusetts General Hospital (MGH), and Director of Laboratories at the Shriners Hospital for Children, Boston.

Known to all as 'Betsy', she was born in Agana, Guam, the daughter of a commissioned naval officer. After her family eventually settled in Silver Spring, Maryland, she attended the Holton Arms School in Bethesda, before graduating from Smith College in 1986 with a major in Biochemistry, thus depriving the world of a potential musician, physicist, or linguist.

Having set her sights on medical school, Betsy entered the world of emerging recombinant DNA technologies with New England Biolabs (NEB) in Beverly, MA where she spent three years cloning bacterial restriction modification systems to produce the DNA cleavage enzymes that are essential for performing molecular biology experiments. It was here, in 1987, that she met her soon-to-be husband, Neil Storey, who was a postdoctoral researcher at NEB. They were married in 1990, just a few weeks before Betsy entered HMS. After graduation in 1994 she began her career at MGH.

Betsy was recruited to the MGH clinical pathology residency program by Dr. Michael Laposata, who was Director of the MGH Clinical Laboratories at the time. As a clinical pathology resident, Betsy rapidly developed her interest in coagulation laboratory testing and in coagulation disorders. She accepted a faculty appointment at MGH immediately upon completion of her residency. Along with Drs. Laposata and Jun Teruya, she pioneered the development of the diagnostic management team (DMT). The goal

of this important innovation was to provide patient-specific, expert-driven interpretations of complex coagulation test result panels for patient-facing physicians who were uncertain of which specific tests to order or unsure of the clinical significance of the results of those tests.

The creation of this novel role for pathologists initially garnered some degree of suspicion from other disciplines who may have felt that pathology was overreaching its role. However, Betsy's unwavering commitment to putting the patient first and her personal involvement in this innovative diagnostic process, along with her unique individual style and disarming charm, enabled the team to overcome the political challenges that would otherwise have restricted the growth and impact of coagulation rounds. Perhaps the most compelling affirmation of the clinical benefit of the Coagulation DMT was that, for decades, house staff from various clinical services at MGH have carried with them the list of test recommendations for their patients made by the attending pathologist at coagulation rounds. These recommendations had been generated predominantly by Betsy.

Betsy once said that she lived and breathed coagulation, and even in her free time she was happy to be at her computer writing papers, reading, and sharing her knowledge with all those who sought it. Her credibility as the consummate academic clinician was supported by a high level of scholarship. She produced more than 130 peer-reviewed publications in the field of diagnostic coagulation, along with chapters in major textbooks and authored high quality consensus guidelines, as well as papers on the quality of coagulation testing and laboratory management. She also published on the importance of patient advocacy to laboratory medicine. In her own words, she noted it is important to "help determine which tests need improvements and greater standardization, facilitate the selection of high-quality methods by laboratories, and make laboratories aware of assay interferences, pitfalls, and limitations."

Dr Van Cott also served on the editorial board of many journals, including International Journal of Laboratory Hematology (IJLH). She was Associate Editor for the American Journal of Hematology, Seminars in Thrombosis and Hemostasis and for "Pearls" in Clinical Chemistry, and Section Editor for Coagulation for the American Journal of Clinical Pathology and Archives of Pathology and Laboratory Medicine. She served as president of the North American Specialized Coagulation Laboratory Association and was a founding member of the Thrombosis and Hemostasis Societies of North America and served as its Treasurer from 2016-2020.

In 2015 Dr Van Cott became a patient at her own hospital after developing respiratory complications of her muscular dystrophy. While she was a patient, she continued her work, and her care team would come to her bedside for coagulation advice. After a few weeks, she returned to her office, although for the remainder of her time there, she was reliant on her husband, Neil, to bring her to and from work each day. Despite increasing physical challenges, she never decreased her workload. Remarkably, Betsy never disclosed her own medical condition to her colleagues or even to her lifelong friends, and they knew better than to ask. Betsy never wanted to be treated differently or afforded special considerations.

When SARS-CoV2 emerged in early 2020, Betsy moved her office from MGH to her kitchen window, where her husband Neil set up a desk for her. From there she was able to avoid the mortal risk of COVID-19 while at the same time continuing her work, but now with her beloved Golden Retriever at her feet. It was during this period that she began to note connections between factor V levels and COVID-19 patients at high risk for blood clots. At the same time, she conducted her daily coagulation rounds remotely, sometimes dealing with triple the volume of cases. In the months before her death, on a single day, she signed out 80 individual cases as the attending pathologist working with the resident on the coagulation service.

Betsy received many awards over her career, including promotion to full professor at Harvard Medical School—a noteworthy accomplishment given the amount of scholarly work required to achieve it. Shortly before her passing in April 2021, Dr Van Cott was notified by Harvard Medical School that she was being awarded the William Silen Lifetime Achievement in Mentoring Award. She is only the second pathologist to be so honored, the other being Ramzi Cotran, a legendary and pioneering pathologist who had recommended her for the MGH residency program that started her career in clinical pathology. Sadly, she did not live to be able collect the award, which was accepted by her husband, Neil, on her behalf.

Betsy cared deeply for her laboratory personnel and would always credit the excellence of her technologists for good patient outcomes. Although it comprised only a small part of her workload, Betsy treated her work for the Shriners Hospital for Children as though it was the only job that she had. She took a genuine interest not only in the work of the pathology section, but in the very small team that staffed their laboratory.

MGH's recruitment of Betsy also enabled the organization to attract many highly talented women, as well as many talented men, into the CP Residency Program. Following completion of their residencies, many of the women graduates, especially, could significantly attribute their later accomplishments to the inspiration Betsy provided to them. She always took the time to recognize and praise the contributions of her mentees.

Those who interacted with Betsy, be they her laboratory team, students, residents, fellows, or faculty, all remember Betsy in the same way. Generous with her time, passionate about the field of coagulation, humble, calm, and kind, always interested in you, never seen to be unhappy, and with an ability to bring everyone together in the best interest of the patient. In recognition of her unwavering commitment to mentoring residents, fellows, and laboratory personnel, the Professor Elizabeth Van Cott, MD, Endowed Memorial Fund was established in 2021 at MGH with donations from Betsy's husband Neil and other friends and colleagues. Annual distributions from this fund support two awards: (1) the Professor Elizabeth Van Cott, MD, Award for Mentorship in Pathology, given to MGH Department of Pathology faculty who have made "significant contributions to the teaching and mentoring of the department's trainees and/or junior faculty, qualities exemplified by Professor Van Cott during her distinguished

career"; (2) the Professor Elizabeth Van Cott, MD, Career Development Award, given to laboratory technicians or technologists in the MGH Department of Pathology "to support their educational development, reflecting Professor Van Cott's strong interest in and commitment to advancing the careers of these important individuals in the clinical laboratories".

On April 8, 2021, just days before her passing, Dr Van Cott shared her thoughts on her career goals and achievements, with her trademark modesty: "my research, clinical and academic efforts aim to improve the quality of coagulation testing, nationally and internationally. Many of my publications are cited by a variety of guidelines that are widely used nationally and internationally. In addition, I have authored a number of other coagulation guidelines that are widely utilized around the globe."

Betsy was the person that all of us wanted to know and with whom we wanted to work. Someone that in the days immediately following her death, many of us consoled each other over, the loss of a close friend and colleague with whom we consulted frequently. The gravity of her loss to those of us who knew her well is enormous, but she will never be lost from our memories.

Respectfully submitted,

J. Keith Joung, MD, PhD, *Chairperson*
Catherine P.M. Hayward, MD, PhD
Michael Laposata, MD, PhD
Kent Lewandrowski, MD
Neil Storey, PhD, DVM, husband of Elizabeth M. Van Cott
Zbigniew M. Szczepiorkowski, MD, PhD

Note: Portions of the text above originally appeared in the following two published tributes written by committee members Drs. Catherine Hayward and Michael Laposata and are used with the authors' permissions:

Memorial notice: Elizabeth M. Van Cott MD. Catherine P.M. Hayward, Kristi J. Smock. International Journal of Laboratory Hematology*, 2021;43: 530-531.*

Elizabeth (Betsy) M. Van Cott, MD, FCAP (1964-2021). Michael Laposata. American Journal of Clinical Pathology*, 2021; 156(6): 1162–1163.*