

In Memory of the late Dr. Lester VanMiddlesworth

January 13, 1919 – May 4, 2016



Dr. Lester VanMiddlesworth was the first scientist to discover worldwide spread of radioactive iodine fallout from nuclear tests. He published his groundbreaking research in 1954. His research findings were instrumental in the signing of the 1963 International Test ban Treaty, which banned atmosphere testing of nuclear weapons.

Dr. VanMiddlesworth was a Professor of Physiology, Biophysics, and Medicine at University of Tennessee Health Center in Memphis, TN, and he was involved in teaching and research there from 1946 – 2010. For more than half a century, Dr. Van conducted research on thyroid physiology, treatment of thyroid disease, and environmental monitoring of radioiodine around the world. Dr. Van's colleagues referred to him as the world's most enthusiastic scientist. "Each day," Dr. Van said, "is an opportunity to find new things unexpected, unsearched for, and always better than you ever imagined!"

In 2008, UT awarded Dr. Van with the Health Science Center Honorary Doctor of Science degree for his 60 years of world-recognized discoveries and academic honors. Other honors include University Distinguished professor, six Outstanding Teacher Awards, the Alpha Omega Alpha Distinguished Teacher Award, and the Distinguished Alumni Award. Dr. Van was a guest investigator at labs in Boston, Los Angeles, and France and has also served as a consultant to World Health Organization.

Born in Washington, DC, in 1919, Dr. Van always had an insatiable desire for learning and investigating. His 1942 Chemistry MS thesis at the University of Virginia continuation of a project begun in his youth in his first research lab in his mother's basement. After earning an MS in Physiology (1944) at the University of Virginia, he was tapped to work on the Manhattan Project. He completed his PhD at UC Berkeley in Physiology, studying the metabolism of an unidentified substance called "Z", which was ultimately declassified as plutonium. In 1946, Dr. Van accepted

an offer from UT Memphis to teach physiology in return for a medical education. In 1951, Dr. van earned his medical degree and joined the faculty of UT as a full-time assistant professor. In 1948, he married Rue, who was a cadet Nurse in the UT Nursing School. Together, they created an incredible 60-year love story and a true partnership in the laboratory, with Rue as Dr. Van's skilled assistant.

For more than half a century, Dr. Van conducted research on thyroid physiology, treatment of thyroid disease, and environmental monitoring of radioactive iodine. He became the first scientist to observe and report worldwide distribution of radioiodine fallout from nuclear tests in animal thyroid glands. In 1962, the National Institute of Health (NIH) recognized Dr. Van with a Career Research Award to continue throughout the career of an investigator. For over 30 years, Dr. Van measured and recorded radioiodine levels in over 80,000 animal thyroids from six continents, by mobilizing volunteers around the world who were inspired by his enthusiasm for science. Dr. Van's original handwritten graph of his 1954 data on radioiodine fallout in grazing animals is displayed at the Smithsonian National Museum in Washington, DC; and his historic lab is preserved at the Nuclear Testing Archives & National Atomic Testing Museum in Las Vegas, Nevada. In 1986, when the Chernobyl nuclear power plant accident occurred in the Ukraine, federal officials turned to Dr. Van for his unique endocrine *bio spectrometer monitoring technique* to help chart the active fallout. Later, Dr. Van was a USA member of the international delegation sent to study the thyroid effects of the accident in the population surrounding Chernobyl. He continued to do research and to inspire and mentor medical students concerning the marvels of the thyroid gland until age 90.

Dr. Van's enthusiasm for thyroid research has always been powerfully infectious. "My only interest was the thyroid," Dr. Van reflected. "But I find that the thyroid leads to *everything!*"

Dr. Van's work is preserved at the Nuclear Testing Archives:

<https://www.osti.gov/opennet/>

Enter NV035* for Dr. VanMiddlesworth Collection bibliographic data