



Dr. Robert Anthony Holton

January 26, 1944 - May 21, 2025

Dr. Robert Anthony Holton, known as “Bob” to friends and colleagues, was a groundbreaking chemist and the scientist behind the first total synthesis of the cancer drug Taxol. He died peacefully at his home in Tallahassee, Florida, on May 21, 2025. He was 81.

Born in Fayetteville, North Carolina, and raised in Charlotte, he was the son of Marion Downing Holton and Aaron T. Holton. He met his first wife, Juanita Bird, at the University of North Carolina at Chapel Hill while earning his undergraduate degree in chemistry. They moved to Tallahassee, where he earned his doctorate from Florida State University and had their first son, Robert. After postdoctoral work at Stanford University, where their second son, David, was born, he held faculty positions at Purdue University and Virginia Tech. He returned to FSU in 1986 with his second wife, Dr. Marie E. Krafft, where they both held faculty appointments in the Department of Chemistry & Biochemistry and had their son, Paul. He spent the remainder of his career at FSU.

He is best known for his work on Taxol, a potent chemotherapy agent originally derived from the bark of the Pacific yew tree. The semisynthetic process he developed was the first commercially viable method for large-scale production. In 1993, he and his research group achieved the first successful total synthesis of Taxol, one of the most intricate and celebrated

accomplishments in synthetic organic chemistry. His breakthroughs helped expand access to a critical cancer treatment and marked a milestone in the history of medicinal chemistry.

Dr. Holton received widespread recognition for his contributions to science and medicine. In 1999, Florida State University named him Distinguished Research Professor, and in 2001 he received the Holton Medal for Distinguished Research Service. In 2007, he was awarded the Medalist Award by the Florida Academy of Sciences. He was inducted into the Florida Inventors Hall of Fame in 2015 and named a Fellow of the National Academy of Inventors in 2018—a testament to the real-world impact of his scientific discoveries.

Outside of his scientific life, he cultivated a closeness to the land. He and Marie spent years working on a rural property outside Tallahassee, restoring the landscape and designing what would become their future home. Though Marie died in 2014, shortly before the house was completed, their shared vision continued to shape the place. Bob lived there for the rest of his life, often walking the grounds with his dog, Nicky.

Though best known for his precision in the lab, Bob brought that same exacting eye to nearly everything he cared about. He held firm convictions about what made something excellent and treated those opinions like settled science. He was funny, charming, and generous, but also demanding. He led not with sentiment, but with standards.

He is survived by his sons: Robert L. Holton (with Kelly Greeson) and David J. Holton (with Erin Dougherty), from his first wife Juanita Bird Linzey; and Paul E. Holton, from his late second wife Marie E. Krafft.

A memorial gathering will be held on Saturday, June 14, 2025 at 4:00 p.m. in

the Grand Ballroom of the Florida State University Alumni Center, 1030 W. Tennessee Street, Tallahassee, FL 32304.

Breanna Green of Bevis Funeral Home (850-385-2193 or www.bevisfh.com) is assisting the Holton family with their arrangements.

Cemetery Details

MeadowWood Memorial Park

700 Timberlane Rd.
Tallahassee, FL 32312

Previous Events

Memorial Gathering

JUN 14. 4:00 PM (ET)

FSU Alumni Center Ballroom
1030 W. Tennessee Street
Tallahassee, FL 32304

Tribute Wall

DS

“ Dr. Holton was a Chemistry teacher at VA Tech at the same time I was pursuing my Ph.D. in Chemistry. I knew his first wife very well, as she and I both worked at the VA Tech Vet school where I did a post-doc under Dr. Gehrhard Schurig. I knew that he was dating a graduate student at VA Tech named Marie Krafft (who worked in Dr. Holton's lab). They later got married. Holton was a 'unique' person to say the least! I never really understood him but regardless, he was very bright. His second wife,, Marie Krafft, died long before RA Holton. RIP Dr. Holton.

dshearer2001us@yahoo.com - January 09 at 05:40 PM

PP

“ To Dr. Holton's family:
If there's a heaven, my beloved Rhiannon, who died of ovarian cancer, was certainly first in line to welcome Dr. Holton. She will surely be thanking him for the drug that prolonged her life and gave her two unexpected years to continue on to reach age 44.
I am so sorry for your loss, but so grateful that his work gave me two more years with Rhiannon. They were years filled with love (and chemo) and that time was a gift your dad gave to so many. Please take comfort knowing that there are many of us who are so grateful, and are now shedding tears for your dad's passing.
P. K. Pate, NYC

Patricia K Pate - July 02, 2025 at 04:50 PM

JS

“ *Jianhua Chao, a former student purchased the Beautiful in Blue for the family of Dr. Robert Anthony Holton.*



Jianhua Chao, a former student - June 08, 2025 at 11:38 AM