



In Memoriam: Dr. Robert Campbell (1951-2018)



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Penn Orthopaedics and CHOP lost a dear friend and giant in the field when Robert “Bob” Campbell, Jr. passed away peacefully on July 29th, 2018. Bob’s innovative thought-leadership and inventions changed the world’s approach to children with complex, life-threatening spine and chest wall deformities. The essence of Bob’s contribution to pediatric orthopaedics was a paradigm shift: the focus of treating children with complex spine and chest wall deformities should be on pulmonary function, not on Cobb angle measurement of their scoliosis. His tenacious drive to evangelize the critical importance of preserving or improving pulmonary function, and his success inventing devices to support spine and chest wall growth, explain why colleagues refer to Bob Campbell as “the Charnley of early onset scoliosis”.

Born on May 7, 1951, Bob was raised in Nashville, TN, graduating from Father Ryan High School in 1969. He matriculated to Vanderbilt University where he played football (“I was the smallest linebacker in the SEC”), then transferred to Johns Hopkins, graduating with a BS in Natural Sciences in 1973. After completing Georgetown Medical School in 1977, he did his surgical internship at Tripler Army Medical Center in Honolulu, Hawaii, then his orthopaedic residency at Fitzsimmons Army Medical Center in Aurora, CO. After four years of military service at Kimbrough Army Hospital in Fort Meade, Maryland, Bob completed the pediatric orthopedic fellowship at A.I. DuPont Hospital under the tutelage of G. Dean McEwen.

In 1986, Bob began his career at Christus Santa Rosa Children’s Hospital/UT San Antonio, rising to Tenured Professor and holder of the President’s Council/Dielmann Chair in Pediatric Orthopaedic Surgery. In 2008, Bob was recruited to the Children’s Hospital of Philadelphia to take a leadership role in CHOP’s rapidly growing multi-disciplinary Thoracic Insufficiency program. In 2009, Bob launched CHOP’s Center for Thoracic Insufficiency (CTIS), attracting infants and children from around the world, many of whom were told “nothing can be done”. He grew the team approach

to care, collaborating closely with pulmonologists, thoracic surgeons, intensivists and radiologists to optimize treatment of children with severe spine and chest wall deformities.

Bob invented the VEPTR (Vertical Expandable Prosthetic Titanium Rib) device, taking a customized solution for a single child in San Antonio in desperate need of chest wall support through conceptualization, fabrication, testing and the arduous regulatory pathways of the FDA. His invention became the standard of care throughout the world for children with severe deformities of the spine and chest, saving or extending the lives of children with previously untreatable conditions. From 1991-2004, Bob led the FDA Feasibility Study: Thoracodorsal Reconstruction in Children with Vertical Expandable Prosthetic Titanium Ribs, travelling worldwide to train surgeons on the indications and surgical techniques to treat thoracic insufficiency using the VEPTR device. One of the least heralded contributions Dr. Campbell made to the field of pediatric surgical care was facilitating new device development through his involvement with the FDA. Dr. Campbell leveraged the relationships he built at the FDA to foster countless other devices through the regulatory process. He was named by the agency one of the 30 “Heroes of the FDA”. Bob made frequent trips to FDA headquarters to advise and educate, and created an annual course for surgeons, scientists, device manufacturers and FDA device personnel to promote mutual understanding. In recent years, the regulatory approval processes have eased considerably, paving the way for a new wave of implants to help children; this is in no small part due to Bob’s work, expert collaboration and influence.

Bob received numerous awards and honors, including Congressional recognition (Bill no. 1499, 111th Congress, 2nd session “Honoring the achievements of Dr. Robert M. Campbell, Jr.”), The Pediatric Orthopaedic Society of North America Heune Award, The Scoliosis Research Society Walter Blount Humanitarian Award, and the Johns Hopkins University Distinguished Alumnus Award. Bob held 6 US Patents.

Far beyond awards and patents, Bob patient-families knew him for his unwavering devotion to their child’s care; the large and growing yearly reunion of CTIS families at CHOP is a testament to impact he has had on so many. Bob will be dearly missed by his family, patients and colleagues at CHOP and around the world, but he has left a lasting legacy through his ideas, inventions, and the many surgeons and physicians he trained. “Don’t be afraid to take a chance” Bob said. “It takes someone who can start a marathon without a finish line. If it’s for a child, it’s worth it. Don’t be afraid. You can succeed.” As Bob’s colleagues and trainees, we are determined to do just as he advised, and build his legacy into something even greater. With generous support from his Faculty partners, patients, the

Children's Surgical Associates and CHOP, The Robert Campbell Chair in Orthopaedics has been endowed. The yearly proceeds with drive forward the care of children whose lives

are threatened by spine and chest wall deformities, and help CHOP orthopaedics maintain its world leadership in their care.



Photo collage of Dr. Campbell with one of the many patients and families whose lives have been changed by the VEPTR device.