

Mechanical Engineering Academy of Distinguished Alumni

Reynaldo Calderon, M.D.

Distinguished Mechanical Engineer, 2012

BS, Southwestern University, 1970 BSME, The University of Texas at Austin, 1970 M.D., Baylor College of Medicine, 1978

Co-Founder/Chief Scientific Officer NHC, LLC

Dr. Rey Calderon, a native of Houston, Texas, is a mechanical engineer, physician, and entrepreneur who takes a cross-disciplinary approach to solving problems in math and medicine, engineering, technology, and science, the inverse to STEM. He developed a solid background in mathematics and science at Southwestern University in Georgetown, Texas, where he was encouraged to enroll in the university's dual degree engineering program. In 1967 he enrolled in UT Austin's Department of Mechanical Engineering and in 1970 earned a BS in mathematics from Southwestern and a BS in mechanical engineering from UT Austin.

Rey returned to Houston and began his career at Texaco, Inc. as an applied systems engineer. Between 1970 and 1974, he was awarded fifteen patents for a variety of oilfield tool designs. In 1974 Rey entered Baylor College of Medicine where he received an M.D. in 1978, and completed a residency in pediatrics in 1981. Has been a mentor to countless patients, inspiring and encouraging them to pursue careers in math, science, engineering, and medicine. He also served as mentor in the Upward Bound Program at Houston Community College Central campus, motivating high school students to become the first generation in their families to attend college.

Rey brings an engineering mind to the practice of medicine. He holds five patents for the design of the Otricath™ system, an innovative platform technology designed to create new ways of thinking in a broad spectrum of medical applications from cancer therapeutics, imaging, and diagnostics, to basic research and pharmaceutical development. Rey's novel catheter design overcomes barriers to solid tumor therapy by applying the fundamental principles he learned at UT in fluid dynamics, heat transfer, and thermodynamics. In 2012 a simulated model of Rey's work served as a research project for Sarah Miller, an outstanding UT undergraduate mechanical engineering student.

Following a period of basic research and design, in 2014 Rey became founder and chief scientific officer of NHC, LLC, a life sciences medical device and innovation company. In 2016 NHC completed the first Texas Medical Center Innovation Institute (TMCx) medical device accelerator program. As a TMCx member company, NHC focuses on bringing solutions to challenging medical problems from bench to bedside with the support of the vast resources of the Texas Medical Center.