

Bryan J. Pfister, PhD
New Jersey Institute of Technology

The Mechanics of Living Tissues: The academic life of William C. Hunter, Ph.D. from a student, colleague, career mentor and friend.

Abstract:

A graduate of Electrical Engineering from Lehigh University, William Hunter turned to Bioengineering earning his Ph.D. at the University of Pennsylvania. He pursued a research career in Cardiac Physiology while also making a solid mark in soft tissue mechanics. The function of mechanics on the formation, function and injury of living tissues was the theme of Dr. Hunter's scholarly and academic career. Dr. Hunter enjoyed in all aspects of his job in academia: teaching, service and research. He took pride in addressing the needs of students. He was a founding member of the NJIT Department of Biomedical Engineering establishing the groundwork for the department today. He continued to research and mentor students and was a co-PI on the grant supporting the Center for Engineering MechanoBiology despite his health. This talk will review Dr. Hunter's seminal research, highlights of his teaching and mentoring, and contributions to the field of Biomedical Engineering from the viewpoint of a student, colleague, career mentor and friend. The focus will be on his achievements during his time at NJIT.



Bryan J. Pfister, PhD
Professor and Chair, Biomedical Engineering
Assistant Director, Center for Injury Biomechanics,
Materials and Medicine
New Jersey Institute of Technology
pfister@njit.edu

Bryan Pfister received his BS from Clarkson University, earned his PhD in Material Science and Engineering from the Johns Hopkins University in 2002 and did his post-doctoral study in the Department of Neurosurgery, University of Pennsylvania. Bryan joined the NJIT Biomedical Engineering Department in January 2006 where he now serves as Department Chair. He played a leading role in the department's initial ABET academic accreditation in 2006 and recently chaired the accreditation visit in 2013. More recently he has helped establish the Center for Injury Biomechanics, Materials and Medicine, New Jersey's first Research Center focused on Nervous system injury and repair. His commitment to teaching earned him the 2009 Educator of the Year Award by the American Council of Engineering Companies of NJ. Dr. Pfister is proud of consistently providing extracurricular experiences at the undergraduate level including a National Science Foundation Research Experience for Undergraduates program, enhanced capstone design program and clinical observerships. Dr. Pfister's research encompasses how mechanical forces affect the nervous system – spanning from stretch induced growth during development to axonal stretch injury in traumatic brain injuries. He is also working to determine biomechanics of brain injury from blunt and blast injuries using both animate models and full scale inanimate models of the human brain. He is also a co-PI on a grant from the Army to develop a primary blast injury criteria for animal/human TBI models using field validated shock tubes. He is funded by the Army Research Laboratory, National Science Foundation, National Institutes of Health and the New Jersey Commission on Brain Injury Research.