

# BUILDING A BETTER FOOTBALL HELMET

If you were, say, the National Football League, and you were looking for someone who could both evaluate innovative new ideas for reducing head and neck injuries on the field and help those ideas succeed in the marketplace, you would almost inevitably wind up knocking on the door of Barry Myers, MD'89, PhD'91, MBA'05.

Myers, a professor of biomedical engineering in Duke's Pratt School of Engineering and director of innovation at the Duke Clinical and Translational Science Institute (CTSI) in the School of Medicine, is among the world's foremost experts on the biomechanics of catastrophic head and neck injuries. He has worked to help craft safety standards for the NFL, NASCAR, the National Highway Traffic Safety Administration, and many other organizations.

On top of that, he's built a second career as a specialist in the intersection between research and entrepreneurship, helping faculty and other

innovators navigate the complex world of venture capital, production, licensing, and marketing necessary to translate creative research into viable enterprises in the marketplace.

So it was hardly a surprise when the NFL asked Myers to lead a new initiative designed to spur the development of safer football helmets and other protective equipment. The project, a partnership between the NFL and Football Research Inc. (FRI) and the CTSI, is called the HeadHealth TECH Challenge. It invites researchers, entrepreneurs, and product manufacturers to compete for awards of up to \$1 million per year to develop improved football helmet technologies and other improvements that will lead to significant gains in head protection.

"Here at Duke, we have the three elements the NFL was looking for," says Myers, who also serves as a consultant for the NFL Players Association. "We have expertise in the biomechanics of head and neck injury. We have expertise in project management. And we have expertise in funding

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early-stage projects to enable research to turn into products and new ventures. So Duke has a trifecta of skill sets that make it a unique resource nationally to do this kind of work."

The TECH Challenge is one part of the NFL's \$60 million "Engineering Roadmap" effort to encourage new technologies to improve player safety, especially head and neck safety. Concussions and other head and neck injuries have sparked substantial public concern in recent years.

"Societal interest and pressure drives innovation and research," says Myers. "The problem of concussions and head injuries isn't new. It's always been there, and we've always been working on it. But when society takes notice, that creates an opportunity. Smoking was like that. Car safety was like that; fifty years ago, nobody cared about car safety. But then people started to pay attention, money was spent, research was done, and now we have safer cars."

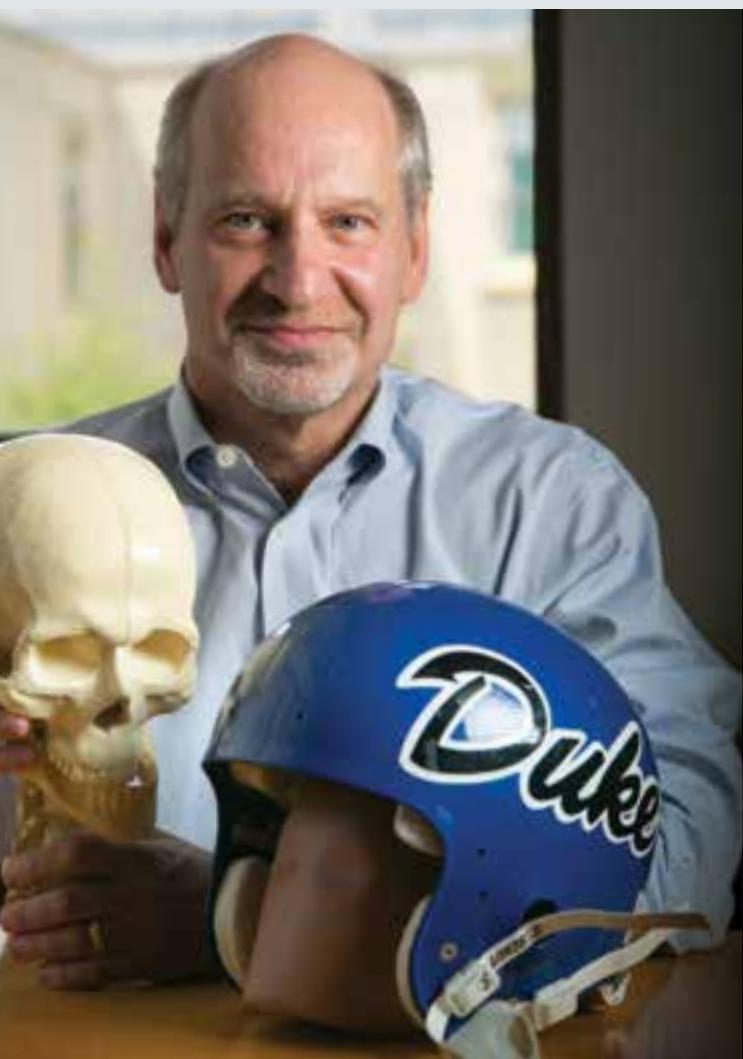
Myers's own path to helping develop safer cars, helmets, and other equipment began with an undergraduate degree in engineering. A native of Toronto, he came to Duke for his medical training, which enabled him to apply engineering principles to physiological systems. He stayed here to get a doctorate in engineering and then joined the faculty.

"I came to Duke Med in 1985, fell into a PhD in biomechanics, loved doing research, and never left the lab," he says.

Along the way, he became interested in, and then instrumental in, helping bridge the gap between research and entrepreneurship. Among his many hats, he founded and directs the Duke-Coulter Translational Research Partnership, which has awarded more than \$8 million to support 39 pilot projects between Duke clinicians and biomechanical engineers and led to nearly \$500 million in follow-up funding, 13 industry licenses, and eight new startup companies. The NFL's TECH Challenge is another opportunity to help research improve lives.

"I'm very committed to Duke, to CTSI, to the NFL, and the NFL Players Association on this program," Myers says. "I look for opportunities, and when I see them, I take them. Duke is a special place because I've been able to do that and be on the faculty here for 26 years. How cool is that?"

— By Dave Hart



JARED LAZARUS

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## 1950s

**Norman Shealy, MD'56, HS'57, DC**, was recognized as the Professional of the Year for two consecutive years, 2016 and 2017, by *Strathmore's Who's Who Worldwide* for outstanding contributions to the field of holistic health care. He lives in Fair Grove, Missouri.

**George E. Bacon, MD'57, HS'58, DC**, was honored with the second annual George E. Bacon Lecture in Pediatric Endocrinology on April 25, 2017, at the University of Michigan. He is a retired endocrinologist and professor emeritus in the Department of Pediatrics at the University of Michigan. He and his wife, Grace, live in Ann Arbor, Michigan.

**Richard F. Bedell, T'53, MD'57**, of Lafayette, Colorado, and his wife, **Jean Bedell, BSN'56**, received the Rotary International Service Above Self Award. The couple conducted part-time medical missionary work in India annually until two years ago. They also spent time in Mexico and Honduras. They have four children, 10 grandchildren, and one great-grandchild.

**R. Rodney Howell, MD'57, HS'60, DC**, was elected president of the International Society for Neonatal Screening. His three-year term began at the organization's September 2016 meeting in The Hague, the Netherlands. Howell, who specializes in biochemical genetics, has been heavily involved in newborn genetic screening policies in the United States for many years, and he was the founding chair of the Advisory Committee on Heritable Disorders in Newborns and Children, which is the congressionally mandated committee that provides recommendations on newborn screening to the U.S. Secretary of Health and Human Services. He is professor of pediatrics and chairman emeritus at the Miller School of Medicine at the University of Miami and lives in Coconut Grove, Florida. He has three grown children and two grandchildren.

**Floyd L. Wergeland Jr., MD'58, DC**, moved from Bonita, California, to Eugene, Oregon, to be closer to his children, Peter and Nicole, who live there. Retired after 49 years of medical practice in ophthalmology, he served as a colonel in the United States Marine Corps and taught at three

universities: the University of California, San Francisco; University of California, San Diego; and Uniformed Services University of Health Sciences in Bethesda, Maryland. At this writing, he was shortly due to receive a Paul Harris Fellowship from the Rotary Foundation.

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## 1960s

**Lawrence H. Parrott, MD'60**, was elected elder emeritus at Bethesda Presbyterian Church in Camden, South Carolina, in January. He spent 30 years teaching at the University of South Carolina and 40 years at the Medical University of South Carolina. He has three children and six grandchildren. His wife, **Joy Parrott, BSN'60**, is the parish nurse at Bethesda Presbyterian Church.

**Philip Pearce, MD'60, HS'60, HS'67**, of Durham, North Carolina, and his wife, Ann, just celebrated their 60th wedding anniversary. In 2016, their oldest grandson married and entered law practice, and their granddaughter earned a master's degree in classical vocal performance and pedagogy. Another granddaughter is working on a master's degree and works with autistic children. Three other grandchildren are in college and doing well.

**Richard L. Reece, T'56, MD'60**, of Old Lyme, Connecticut, has written 12 books on health reform; 4,000 posts on his blog, *Medinnovation and Health Reform*; and 1,500 tweets. He and his wife, Loretta, have two sons, Carter and Spencer. Carter works at Brooks Brothers in New York. An Episcopal priest, Spencer is an internationally acclaimed poet and serves as assistant to and spokesperson for the Episcopal bishop in Madrid. Spencer has published three books of poetry. His most recent book, *Twelve Love Poems from the Murder Capital of the World*, is also a documentary film. He is a recipient of the Griffin Poetry Prize.

**Stanley Worton, MD'60, DC**, is a board member of the Health Foundation of South Florida. A retired radiologist, he lives in Miami with his wife, Joan. They have four daughters—**Linda Worton Jackson, T'84**; Marcelle Worton May; Debra Worton Teich; and Diane Worton Amour—and eight grandchildren.

**Donald C. Mullen, MD'61**, was inducted into the Global Medical Mission Hall of Fame at the University of Toledo Medical School in April 2017. Now retired, he has published a book on his activities since retirement from active practice. *A Radical Change of Direction: Memoir of the Spiritual Journey of a Surgeon* was published by WestBow Press in 2015 and is available on [amazon.com](http://amazon.com). He lives in Newnan, Georgia. He and his wife, Patricia Few Armstrong, have a grandson who graduated from Mercer Medical School in 2017 and is now a resident at the University of Virginia. They have 15 other grandchildren in high school and college.

**Alden W. "Bud" Dudley Jr., T'58, MD'62, HS'62-'63, '65-'67**, sent a letter last year to the *New England Journal of Medicine* about the use of IV albumin to prevent fat emboli complications in orthopaedic surgery. That letter was published in 2016—25 years after his previous one in the journal, about the transmission of AIDS by HIV antibody-negative blood. He promises to send another one in 2041. He and his wife, Gretchen, live in Roanoke, Virginia.

**Ben F. Orman, MD'62**, recently returned from his 15th medical mission trip to Guatemala with Faith in Practice. He and his wife, Janet, live in Houston, Texas, and have three sons: Mark, Neil, and Brian.

**Peter O. Kohler, MD'63, HS'63-65**, retired in 2006 as president emeritus of Oregon Health & Science University (OHSU) after 18 years. He recently retired again after serving for 10 years as vice chancellor for a new regional campus of the University of Arkansas for Medical Sciences in Fayetteville, Arkansas. His role in leading OHSU's conversion to a public benefit corporation has been captured by author William Graves in a recent book, *Transformed: How Oregon's Public Health University Won Independence and Healed Itself*. The book was published in 2017 by Pacific University Press. The transition has had a salutary effect on OHSU and might serve as a model for other public institutions. He and his wife, Judy, live in Fayetteville.

## WHAT'S NEW?

We, and your DukeMed classmates, would love to hear what you've been up to. Please submit your latest news, activities, accomplishments, and other highlights for Class Notes via the link at [medalumni.duke.edu](http://medalumni.duke.edu) or directly by email to [dukemed@mc.duke.edu](mailto:dukemed@mc.duke.edu). We look forward to hearing from you!

**William McMillan, T'59, MD'63, HS'68**, has received the 2017 *Wilmington StarNews* Lifetime Achievement Award for his many years of service to the Wilmington, North Carolina, area. A family practice physician, he played an important role in starting a family medicine residency program in the area. He developed the New Hanover Regional Medical Center's pediatrics program and helped to get the Betty H. Cameron Women's & Children's Hospital off the ground. He retired in 2005 and has remained an active volunteer in the community.

**Carl J. Rubenstein, MD'64, HS'64-'72**, of Oklahoma City, Oklahoma, is the immediate past president of the Interfaith Alliance of Oklahoma. In 2016, he received the Interfaith Award from the Oklahoma Conference of Churches. He is also involved with multiple community organization boards. He and his wife, Deborah, have three children and five grandchildren.

**Creighton Bolter Wright Sr., T'61, MD'65, HS'66**, was named a Lifetime Achiever by *Marquis Who's Who* in 2017. He served on the Mayfield Foundation Board in 2017. He is past president of the AHA Great Rivers Affiliate. He is professor of health sciences at Mount St. Joseph and medical director of the physician assistant program there. He and his wife, Carolyn, have 11 grandchildren. They live in Covington, Kentucky.