For Huntington Willard, Ph.D., supporting young entrepreneurs is as important as being a trail-blazer himself. He developed the habit early in his career, and it’s followed him to his roles at Duke University.

Now senior advisor to Duke’s Vice Provost of Undergraduate Education, Willard has spent his professional life investigating the human genome’s impact on gene expression and genome biology. Through his studies and work with students, he’s shaped how the scientific community views genetic and genomic effects.

Specifically, over 20 years, he’s been integral in launching two companies that influence health and activity through genes.

“Any major development takes decades to reach fruition. Our vision wasn’t just about science, but it was the uptake of science by the public,” said Willard, who most recently was Duke’s Institute for Genome Sciences & Policy director. “People need to learn to embrace their DNA and to understand it at some level. They must see their genome’s power and what it could mean.”

In the mid-1990s, Willard partnered with former post-doc students and founded Athersys, a clinical-stage biotechnology company that develops unique therapies to extend and improve life quality. The focus to-date has been on medical conditions with substantial unmet clinical needs.

Its current product, MultiStem®, is a stem cell platform with applications in inflammatory and immune, neurological, and cardiovascular disease. The company has two on-going Phase 2 clinical studies – on ulcerative colitis and ischemic stroke – and five clinical stage programs in inflammatory bowel disease, stroke, graft-versus-host disease, heart attack, and solid organ transplant.

Willard’s second company sprang from an academic coincidence. While a group of Duke students was interested in researching whether genetics and genomics affect sports performance, he received a call from a former professional football player who earned his medical and law degrees during off seasons. The player, he said, was also curious about the possibility of sports genes.

“There are players who seem to be naturals, but others have to work hard. And, no matter how hard they work, improved performance isn’t going to happen,” he said. “So, it occurred to me there might be the opportunity to develop a company, building off the increasing new science knowledge from genetics and genomics and the sports industry.”

Willard and his student team investigated whether this knowledge could be used for injury prevention, to predict athletic performance, or to tailor training regimens to specific athletes. The result: Athleticode, a Bay area-based company using DNA sequencing to pinpoint connections between athletes’ genetic variances and sports injuries, including concussion and knee ligament-tear risks. The
company hopes to eventually craft genetics-based individualized recommendations to help athletes avoid injury.

There’s also a possibility, he said, that science could test young athletes to determine their optimal sport.

At each step, Willard said, Duke’s support has been critical. The university is a nurturing environment for younger people looking to test big ideas.

“That’s the advantage of being at Duke that many people don’t appreciate,” he said. “Students are inherently entrepreneurial themselves – they’re just like that at 18. They walk into the wilderness and try different things. Duke embraces it and lets them run with it.”