An accomplished career in the biopharmaceutical industry behind him, Ed Fritsch, PhD, was a month away from retirement in 2009 when he and his wife, Jan, learned that the breast cancer she had been treated for five years earlier had returned. The opportunity for enjoyment to which they had both looked forward became, instead, a struggle with a relentless disease that would take her life a year and a half later.

Fritsch experienced the period afterward as "an emptiness." But, like many whose lives have been touched by cancer, he discovered, almost as a gift, a revived sense of purpose. He knew personally, and from extensive reading, "that despite considerable scientific progress, cancer was still winning," he remarks. "I wanted to change that."

"My wife's dying put me on a new mission," he says. "In many ways, it's like finding a new love, it brings out the best in you."

In Fritsch's case, it's clear that his best was far from depleted at the time of his original retirement. Over the past decade, his achievements sound more like those of an innovative young scientist and entrepreneur than of one who was anticipating the relaxation of his golden years. In addition to working on one of the most promising types of personalized vaccines, he helped lead a startup to manufacture it and created websites to inform scientists and the public about advances in cancer immunotherapies.

Now, as he begins his second tour of duty at Dana-Farber (he originally worked at the Institute from 2012-15), Fritsch is focusing on the next generation of the personalized vaccine, NeoVax, that he played a key role in developing and producing during his first time at the Institute.

Ready to Ride

Fritsch got to know Dana-Farber during the treatment of his wife, whose primary oncologist was Daniel Silver, MD, PhD, now of the Sidney Kimmel Cancer Center at Thomas Jefferson University. His first venture into the cancer field after her death was a physical challenge— as a rider in the Pan-Mass Challenge (PMC), presented by the Boston Red Sox Foundation. Despite some initial trepidation—"It was mind-boggling to think about riding 200 miles in two days"—he will ride his 10th PMC this year. The event contributes 100% of ride-raised funds to the Institute's research and care.

Fritsch was determined to contribute on a scientific level as well but hadn't focused on cancer in his biopharma career. He scoured scientific literature daily to learn "what was exciting, and where the field seemed to be moving." Then, he "came across immunotherapy, which involved proteins, antibodies, cells—all things I was familiar with as a molecular biologist."

A meeting with Glenn Dranoff, MD, then the co-leader of Dana-Farber's Cancer Vaccine Center, led him to Catherine Wu, MD, of Dana-Farber and the Broad Institute of MIT and Harvard, and Nir Hacohen, PhD, of Massachusetts General Hospital and the Broad Institute, who created and were developing NeoVax, a personalized vaccine made from bits of proteins identified by sequencing each patient's tumor cells.

Wu and Hacohen explained the project to Fritsch one morning over coffee. "It took me 10 seconds to say I wanted to be involved," he relates. "It was a real challenge, but one with great potential."

The development of the vaccine became "a virtual partnership" between Fritsch and Wu and Hacohen. They carried out their son's wishes.

Less than four years after his wife passed away, his son Matt, an engineer at Elon Musk's company SpaceX, died of melanoma. Matt had wanted his SpaceX stock to go to cancer research, which Ed and his daughters, Lisa and Kate, thought was a great idea. Fritsch didn't just want to make a donation, though, he wanted to do something special. Reflecting on the period after his wife's death, when he would devour scientific literature in search of promising trends in cancer research, Fritsch had an inspiration. "I thought: What if we summarized new research papers and made them easy to understand, and sent the summaries free to whoever wants them?"

The result was Accelerating Cancer Immunotherapy Research (ACIR), a not-for-profit scientific news service he co-founded with Ute Burkhardt, PhD, also an alumna of the Wu lab. The site is now used by scientists around the world to stay current with research advances. It was followed by Understanding Cancer Immunotherapy Research (UCIR), a site geared to a lay audience.

In using the stock to found ACIR and UCIR, Fritsch carried out his son’s wishes.

The latest chapter in Fritsch’s career came earlier this year when he rejoined Dana-Farber and the Broad Institute to help develop the next generation of NeoVax.

"Being part of this project over the years, I still see tremendous opportunities in this approach to cancer vaccines, as well as significant challenges," he comments. "We need to do better, to find ways of producing personalized vaccines faster and less expensively, and to increase their effectiveness. Their potential remains immense."