Progress and promises of immunotherapy in cancer treatment

's stomach ached. The New York City teacher had been drinking cup after cup of coffee as he labored to finish year-end grading and coach his high-school baseball team through the playoffs. He worried he might have an ulcer.

When school let out, though, Mr. Telford looked forward to relaxing on a 25th anniversary cruise with his wife. But once in the Caribbean, he struggled to swim and climbing from one deck to another exhausted him. Back at home, he collapsed while running a TV cable in his bedroom.

His family doctor told him he had lost two pints of blood. Further tests revealed a tumor the size of a quarter on his small intestine. He had surgery at Memorial Sloan Kettering Cancer Center, followed by months of chemotherapy. But the disease spread to his liver and kidneys. The diagnosis: Stage 4 melanoma, a skin cancer typically fatal within a year.

"Death is not an option," he told his doctor.

Nine years later, against all odds, Mr. Telford is still alive. What saved him was an experimental immunotherapy drug—a medication that unleashes the body's own immune system to attack cancer.

When his tumors began melting away more than eight years ago, Mr. Telford's good fortune was largely an anomaly amid a mostly dreary landscape for advanced cancer. But his remarkable survival caught the attention of researchers, who began to realize that the way immunotherapy drugs were affecting tumors was unlike almost anything seen with conventional treatments.

Today Mr. Telford is among a growing group of super-survivors who are transforming the world of oncology. In both total numbers and duration of survival, they are charting new territory. And they are reviving hopes that the long-maligned idea of enlisting the power of the immune system against cancer may help to turn the tide against some of the most lethal and resistant forms of the disease.

Read full, original article: Cancer's Super-Survivors