Catherine Frances Mallon’s “Immortal Cells”

Sister Catherine Frances (Helen Marion) Mallon’s life story has appeared in newspapers throughout the United States and Canada because she made a significant contribution to cancer research. Her first 60-some years were not especially significant to the public, but her last years were.

Born on May 11, 1901 in Port Huron, Mich., she attended school at St. Stephen and Port Huron Business College and worked as a stenographer and supervisor at Mueller Brass Co. for 25 years until she entered IHM at age 44. She taught for two years, served in the Motherhouse bursar’s office, and finally managed the bookstore and school accounts for St. Mary Academy for 16 years. She died Dec. 8, 1970.

It was in 1962 that the first signs of cancer appeared. She had two mastectomies, radiation and chemotherapy, but it became obvious that her cancer was incurable. Her doctor Michael Brennan, the president of the Michigan Cancer Foundation (later known as the Karmanos Cancer Center), had been working in cancer research and asked for her help.

No one had ever been able to grow normal or malignant breast cells in test tube cultures, a necessity to be able to test cancer research on a human being. Scientists had been successful in doing so for a half dozen cancers, but not breast cancer. Brennan explained to her that doing this would not help her, but had the potential to help many others. She agreed to have specimens/cells taken of her breast tumor and of tumors that had spread throughout her body. The procedure was successful on the seventh try, and her cells became widely and well known as MCF-7 cells (Michigan Cancer Foundation-seventh try). Since her cells were sensitive to estrogen, for the first time researchers had the ability to control the growth of cells by adding or withholding estrogen.

It was March 1971 when the newest colony of her cells began to divide and redive at a measured pace; and the pace grew stronger and stronger as the months passed, giving rise to new cells at a geometric rate. According to the Karmanos Cancer Center website, Dr. Herbert Soule established the first “immortal” line of human breast cancer cells, MCF-7, in 1973.

By 1984, researcher Charles McGrath estimated there were 10 trillion to 100 trillion MCF-7 cells in existence. In perspective, an average person is made up of about 60 trillion cells.

Brennan said the reason Sister Catherine Frances’s cells retained their special qualities was not known. He added, maybe it was because she prayed every day. For whatever reason, it was very unusual. Most such cells divide a few dozen times and die. Hers seemed to be “immortal.” He explained that MCF-7 “remains the standard in the world….It is the oldest one and the one you would expect some mutations in the multiplying genes—and it hasn’t happened.”

A search of the website of the MD Anderson Hospital in Houston shows numerous studies still being conducted in 2013, using MCF-7 cells.

One friend said, “In a sense she is still alive and helping.” And, there is some truth in that.
Approximately every two weeks during the 1930s and well into the 1950s, a big, royal-blue truck left the Motherhouse for missions in Detroit and surrounding areas. It travelled from Monroe to St. Stephen Port Huron on the north to St. John Jackson on the west, and stopped at all the IHM convents in-between, including the sisters’ residence at Marygrove College. Occasionally, it even went as far as St. Mary in Akron and St. Felicitas in Chicago. When Jerome Vandevelde, a long-time employee who often did the driving, was asked how long it took to make the journey to Chicago, he replied, “About five cigars.”

The truck carried many things: community mailings; freshly laundered sheets and towels being returned to the missions; and always fruits (mostly apples which by the spring months had lost most of their tartness); and, at Thanksgiving, turkeys from the farms. During those years we considered growing our own food, doing our own laundry, and processing our own mail ways of economizing. Today, we would probably describe what we did as “sustainability.” An interesting sidebar was an activity that creatively, if not subversively, allowed ingenious sisters to avoid the practice of having their personal mail opened and read by the superior before it was delivered to them. They tucked letters into laundry bins going to neighboring convents, providing a way to get around the process.

The trips were long and tiring. One day, when the van was returning to Monroe after completing all the deliveries, the driver and his helper had stopped for what they felt was a well-deserved cold beer at a tavern on Telegraph Road, the preferred route for these trips at the time. As the story goes, the building and the vehicles parked in front of it were easily seen by the passing traffic.

Of course, the large, stark white lettering, “Saint Mary College and Academy,” displayed on the side of the blue truck was especially visible. And, wouldn’t you know that Mother Ruth Hankerd and Sister Miriam Raymo were returning to Monroe at precisely that time and were visually assaulted by what they saw.

Later, at the Motherhouse, Sister Miriam sent for the two men and confronted them. “Mother Ruth and I observed the IHM truck clearly visible to all the traffic on Telegraph—and, parked in front of a tavern. ‘Next time,’ she quipped, ‘Park in the back!’”