CHAPTER 5

The Family Origins of Elizabeth Cavert Miller:
New York, Ireland and Scotland

“We have spent an exciting 35 years together in trying to ferret out some of the properties of chemical carcinogens and the changes they cause in their target tissue. When we started our work together in 1942, chemical carcinogenesis was a rather limited field that had attracted only a small number of investigators.” The studies have “given much information relevant to the prevention of cancer.” These quotations were taken from the 1977 Presidential Address to the Denver meeting of the American Association for Cancer Research, Inc. by Elizabeth Cavert Miller.¹ She alerted her audience that she and her husband, James Alexander Miller, were pioneers in how chemicals cause cancer and she concluded that those studies became relevant for the prevention of that dread disease. I would term these thoughts as the alpha and omega of the Millers’ research. The alpha, the beginning, concerns how certain chemicals begin the transformation process that leads normal cells to become malignant cells. The omega, the significance of their results is the prevention of cancer.

Elizabeth’s collaborative research with James Miller led, in part, to my desire to write not only about their seminal investigations, but also about their lives. “Brilliant scientist”, “superb cancer researcher” and “fantastic scholar” are phrases used to describe Elizabeth. Those phrases apply no less to James. However, in this chapter and the following, I concentrate on Elizabeth. I suppose that Elizabeth comes first for several reasons: She grew up only a few blocks from where I live in the Saint Anthony Park neighborhood of Saint Paul, Minnesota; I enjoyed lecturing about her work during the many years that I taught a course in the biology of cancer; and she graduated from the University of Minnesota where I have been a faculty member since 1970. How could I not consider Elizabeth first? The life and times of James and his family, of equal importance, are described in a later chapter.

I believe that family history and life experience play a major role in providing insight into brilliant accomplishment. Further, just as many readers wish to learn about the family and personal details of the lives of notable public figures, so too is there a desire among some, and that includes me, to know something

of the personal life of a woman who spent countless hours at the laboratory bench digging into the complex and arcane molecular reactions that lead to cancer. Here then is a glimpse of Elizabeth Cavert Miller’s family over several generations. It may hold a clue as to the why of her accomplishments.

Elizabeth’s family was far from ordinary. Generation after generation, through profound effort coupled with strong moral values and innate ability, her predecessors achieved success in varying endeavors. One of her ancestors was a pioneering founder of a beautiful village still flourishing two centuries later, while other ancestors were successful farmers; still others were gifted preachers and distinguished professors. This was the family tradition of achievement in which Elizabeth matured.

Family history and life experiences, including upbringing, education and socioeconomic condition, may be considered nurture. Elizabeth was a child of 9 at the onset of the Great Depression, and certainly the economically difficult times that began even before she was a teenager affected not only her but also her parents and siblings and where and how they lived. Exceptionally few, and this did not include the Cavert family, escaped the economic disaster of the depression. Elizabeth’s birth in Minneapolis, Minnesota and her early years in Saint Paul and then Anoka, Minnesota are the “nurture” of her early life and that nurture, added to family history, may have contributed to who she became.

All of the nurture in the world, however, will not yield a brilliant scholar without an innately exceptional nature. And nature here refers to what I commonly refer to as “intellect”. Like many of her family members, Elizabeth enjoyed an abundance of intellect. It was probably this combination of family tradition of excellence, Elizabeth’s early years in Minnesota and an acute intellect that enhanced her growth and ambition and gave the scientific world the remarkable Elizabeth Cavert.

This family history includes an account of Elizabeth’s New Jersey and New York ancestors, as well as bit of her Irish and Scottish antecedents. Elizabeth’s pioneer ancestors moved to Charlton, New York and so the focus of her history begins with Charlton.

**Charlton, New York**

Elizabeth Cavert’s father and many of her other ancestors were born in Charlton, New York, while her mother was born in nearby West Charlton. Charlton is by no means a city and even now it appears to be little more than a hamlet, albeit a spread-out hamlet of 32 square miles. Charlton had a popu-