

# A Tribute to Remi J. Cadoret, 1928-2005

BY ROBERT PHILIBERT, MD, PhD

*"Why won't that scruffy old man in the hallway just go away?"* was a recurrent thought in my mind in spring of 1999. I had just returned to Iowa, after a six-year stint in the basement of the headquarters of the Human Genome Project at the National Institutes of Health, and was suitably impressed with myself for having hobnobbed with the "giants" of genetics. Why didn't that scruffy old man realize this and stop pestering me about gene-environment interactions! After all, if I hadn't heard about them at the NIH, gene-environment interactions couldn't be important. But the gentleman in the hallway was none other than Remi Cadoret, and luckily for me, he rarely took no for an answer.

Remi was one of those rare individuals who could succeed in virtually any field. Born and reared near the heart of the U.S. coal and steel industry in Scranton, Pennsylvania, on March 28, 1928, Remi's intellectual gifts were recognized early. After graduating magna cum laude from Harvard at the age of 21, he entered the Yale School of Medicine, graduating in 1953. Like many American physicians of his generation, after completing an internship at Packer Hospital in Sayre, Pennsylvania, he interrupted his intellectual journey by serving in the U.S. Air Force. As a general medical officer, he delivered a remarkable 500 babies from 1955 to 1957.

After his discharge, he resumed his academic career by accepting a position with Dr. Joseph Rhine at the Duke University Parapsychology Laboratory. While in Chapel Hill, he explored the nascent field of paranormal phenomena, including extrasensory perception (ESP) and psychic healing. While there, he became perhaps best known for his work with "Chris the Wonderdog," a dog that, according to one set of experiments, produced clairvoyance levels on the "order of a thousand million to one" above chance expectation. But funding for paranormal studies has never been strong. Therefore, at the conclusion of his fellowship in 1958, he accepted a post as an assistant professor in the Department of Physiology at the University of Manitoba, where he became well known for his knowledge of statistics and computing, rising to the rank of associate professor in 1963.

In 1965, he began the course of investigations that would change the field of behavioral medicine, by first accepting a position as a resident, and later joining the faculty of the Department of Psychiatry of Washington University. While there, he

worked with many of the future luminaries in the nascent field of biological psychiatry including his friends Sam Guze, Eli Robins, and Ted Reich. In 1973, he joined his fellow Washington University colleagues George Winokur and Mark Stewart in their move to the University of Iowa, where together they formed the core of a department that would eventually include some of the world's most highly regarded psychiatrists including Ming Tsuang, Nancy Andreasen, Russell Noyes, and Raymond Crowe.

In 1975, noting the work of Leonard Heston, Remi began a series of adoption studies that would significantly alter the way in which the epigenesis of behavioral disorders were viewed. Prior to his work, psychiatric illness was viewed as a set of inevitable consequences resulting from the independent effects of either purely "bad" genetic factors or adverse environment conditions (e.g., bad parenting). In a series of groundbreaking studies of nearly 1000 adopted offspring stretching from 1979 to 1998, Remi demonstrated that the environment had profound effects on the way genetic factors express themselves and that these "gene-environment interactions" could confound sociological or genetic studies that were not designed to detect these effects. Unfortunately, in the hubris of the Human Genome Project, these important findings were mostly ignored by many in the field of genetics, including myself. In retrospect, it seems obvious that our failures to define specific genetic factors for almost any psychiatric illness partly results from our failure to characterize the environment in which our research subjects have developed. And, not surprisingly, in the light of his work, significant efforts have been made to delineate the molecular basis of these interactions.

In the six years following our encounter, I joined the large cadre of other investigators at Iowa and across the United States whom Remi tutored with respect to gene-environment effects. Like many others, I found myself enchanted by this kindly scholar who built harpsichords, assembled one of the largest collections in the world of early American farm implements, cultivated bees, and grew much of his own food on his acreage outside the sleepy town of Solon, Iowa. His views on the pathogenesis of behavioral disorders rapidly became my own.

Dr. Remi Cadoret passed away on November 12, 2005, surrounded by friends and family, and beloved by colleagues. My final lesson was from him: "Yes, there were giants in Iowa as well, except that in Iowa they wear scruffy coats."

