Dr. William J. “Bill” Hadlow, who in 1961 started what has become a world-renowned prion disease research program at Rocky Mountain Laboratories (RML) in Hamilton, Mont., died June 20, 2015, at age 94.

Self-described as “old school,” Hadlow trusted his experience, trained eyes, and careful observation in place of new technology, particularly when examining the brain. Be thorough. Go slowly. Those are the attributes from his career that he shared with budding scientists in a 2004 interview with the Office of History at the National Institutes of Health (NIH). RML is a component of the NIH.

Hadlow was recruited to work at RML in 1952 as its veterinary pathologist. Except for a U.S. Department of Agriculture assignment in the United Kingdom from 1958-61, he remained at RML in that capacity until retiring on May 30, 1987. After retiring, he remained in Hamilton and regularly met with colleagues to discuss research projects; he even pursued a few writing projects simply to satisfy his curiosity, such as tracing the origin of the Conestoga horse.

“Bill was a wonderful colleague over many years at the lab,” said Dr. Bruce Chesebro, who now oversees prion disease research at RML. “I will always remember his engaging smile and excellent, dry sense of humor.”

Dr. Marshall Bloom, RML associate director for scientific management, recalled that Hadlow’s studies are what attracted him to RML in 1972. “Bill’s work on the chronic virus infection of mink, called Aleutian disease, got me interested in virology,” Dr. Bloom said. “I had great respect and affection for him.”

Hadlow’s early years at RML were extremely challenging, according to his 2004 interview, because he had to learn about a variety of diseases that were new to him.

“Psittacosis. Plague. Tularemia. Rocky Mountain spotted fever. They were totally unfamiliar to me,” Hadlow said. To make the situation more difficult, word quickly spread in the community that RML had a veterinary pathologist on staff. “There were all of these animals being brought in, and I was sort of the village pathologist,” he said. “Farmers’ wives would drag in chickens” and others brought calves and lambs for diagnoses. Hadlow said he taught himself to understand animal pathology “from a mouse to a moose.”

And in doing so, he took animal research at RML to a new level, studying the progression of diseases.

In April 1961, when Hadlow returned to RML from research study in the United Kingdom, he brought with him brains from mice infected with scrapie, a little known brain-wasting disorder in sheep and goats. Dr. Carl Eklund, the man who recruited Hadlow to RML, strongly encouraged him to start a scrapie disease research program unlike any other, looking at the distribution of the disease, the organs it affected and sites where the disease replicated. His was the first group at NIH to study these so-called “slow virus” infections. Hadlow made significant contributions to
the field that is now referred to as prion diseases. In addition to making seminal comparisons between scrapie and the human disease kuru, he played a crucial role in identifying chronic wasting disease and bovine spongiform encephalopathy (mad cow disease) as prion diseases. In the 1970s, Hadlow assisted future Nobel Prize-winner Stanley Prusiner with characterizing the enigmatic prion protein by assisting him with mouse testing at RML.

Hadlow’s primary talent was in studying animal brains and identifying areas of disease or concern. In fact, he was so skilled that he often was called on to consult for others: in 1963 the Centers for Disease Control and Prevention asked him to investigate a neurological disorder in mink in Idaho and Wisconsin; he was later sent to the Soviet Union for six weeks to investigate the transmissibility of Lou Gehrig’s disease (ALS).

Hadlow was born in West Park, Ohio. He attended The Ohio State University and the University of Minnesota School of Veterinary Medicine. While in Minnesota, Hadlow met Evelyn O’Connor and they married in 1952; she preceded him in death in 1985. Hadlow is survived by a son, a daughter, and two brothers.