



# Dr. Grace

## Her pioneering spirit gave the world a priceless vaccine.

By Steve Grinczel

For Dr. Grace Eldering, it has never been a matter of looking for a pat on the back.

Simply put, she had a job to do and loved doing it. Her work as its own reward, and the fact she helped develop one of the most important vaccines in medical history is almost incidental.

Consequently, her self-effacing response to yet another award for her research on whooping cough came as no surprise.

"I felt privileged for the opportunity to work at what I wanted to do and to get paid for it at all," she shrugged. "It (the award) is a little embarrassing. They should be emphasizing the work the lab did, but they always get so personal."

Eldering did not attend Tuesday's YWCA Tribute program which honored her and 11 other local women for their contribution to the community. (See related story page C1.) A condition that robs calcium from her bones has slowed her down physically in this, her 84th year, and she did not feel she could sit through a long evening program.

Despite Eldering's humility, anyone who ever suffered from

the highly contagious whooping cough sickness, or had seen someone who was afflicted, knows that her accomplishments are worthy of honor.

Some 6,000 persons, most children under the age of 5, perished from whooping cough annually in the United States up to the late 1930s. Although whooping cough, also known as pertussis, is obscure today, only the common cold and measles were more prevalent back when Eldering teamed with the late Dr. Pearl L. Kendrick to develop an effective vaccine.

Today, thanks to the work Eldering, Kendrick and their staff of technicians performed in a state laboratory, whooping cough is a funny sounding ailment to those who never have to fear its deadly choke hold.

Eldering's new doctor, a young man not many years removed from medical school, has never seen a case, she said.

Retired in 1969, Eldering spends her time at the country cottage-like home at 3424 Bayberry Drive NE she shared, for many years with Kendrick, who died in 1980. It is a peaceful retirement setting.

The white house is surrounded by a broad lawn and swaying trees and is a natural headquarters for her favorite pastimes of birding, gardening and reading.

A spread of fall crocuses serves as a cheery purple welcome mat for visitors. From her back porch, she occasionally catches glimpses of chickadees, jays, cardinals, titmice and nuthatches.

An issue of National Geographic rests near her arm and she is an ardent reader of Smithsonian magazine.

It is the perfect place for listening to Eldering narrate an oral history of a true pair of medical pioneers.

Born in Montana and raised on the banks of the Yellowstone River, Eldering received a bachelor's degree from the University of Montana in 1927 and boarded a train to Michigan on Labor Day, 1928. Her goal was to be a bacteriologist, and she volunteered

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Press Photo by ANNA MOORE BUTZNER

Research into whooping cough 'was done on top of everything else,' Dr. Grace Eldering remembers.

IBUTE! recipient; see C1

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for a six-month stint with the Bureau of Laboratories in Lansing.

When she found out about the work being done in her field in Grand Rapids, she got a job at the Western Michigan Division Laboratory located at Sunshine Hospital, a tuberculosis sanatorium, which is now the site of Kent Community Hospital.

The job paid \$100 a month at first, and it was somewhat mundane. The lab provided diagnostic information doctors needed for diphtheria and other communicable disease.

In 1932, Kendrick was determined to study a single disease and chose whooping cough because of its prevalence in the community. Even though a vaccine had been around since 1906, it was largely ineffective, and Kendrick and Eldering set out to find a new one.

The hitch was that the laboratory's routine work had to be done before any research could go on.

Amazingly, the inoculation for one of the most dreaded diseases up to that time, was discovered in Kendrick and Eldering's spare time in a dumpy, broken down stucco laboratory.

"Whooping cough was a special interest of Pearl's," Eldering said. "We were paid by the state for routine diagnostic tests for health departments and doctors.

"It was done on top of everything else. When the work day was over, we started on the research because it was fun. We'd come home, feed the dogs, get some dinner and get back to what was interesting."

Eldering also found time to earn a doctor of science degree from Johns Hopkins University in 1941.

"They were family," remembers Julia Baker, a lab technician who worked in the Grand Rapids

Lab from 1947 to 1969, when Eldering, known as Dr. Grace to her co-workers, retired as the lab's director.

There were several keys to Kendrick and Eldering's success. First, they gathered their cultures directly from patients. Prior to that time, laboratories recultured their bacterial samples over and over again, which weakened them.

The field work took place during The Great Depression, and many of the people Eldering called on were poor and living in squalor.

She listened to stories about fathers out of work and collected specimens "by the light of a kerosene lamp from whooping, vomiting, strangling children."

"I think anyone who ever had whooping cough or had seen it feared it," said Eldering who contracted the disease as a child. "I had it when I was 5 years old, and I still remember the terrible spells of coughing that came on. I coughed until I thought it would be the end."

In 1935, the vaccine had been perfected and was being produced in the Lansing laboratory, and by 1940 it was being distributed around the state free of charge to the patients. The manufacturing laboratories began producing it not long afterwards and it was available nationwide.

The number of cases and deaths from whooping cough have spiraled downward ever since.

In 1900, for example, 208 persons died from whooping cough in Michigan.

Last year, only 43 cases of pertussis were reported in the entire state. There were no reported deaths. The vaccine's power is not everlasting however. Countries, like England, which have discontinued using the vaccine because of controversial side effects, have experienced epidemics.

Eldering, herself, recognizes that such side-effects of brain damage and convulsions in young chil-

dren are unfortunate, but points out that such risks must be weighed against a national outbreak of the disease. In 1977, 100,000 cases of whooping cough were reported in England and 36 children died.

Despite the magnitude of Kendrick and Eldering's find, it gained scant publicity.

Had such a discovery been made today, with death rates as they were in the '30s and the media as all-compassing as it is, it would probably result in a news "explosion," Eldering said.

Some of it was their own doing. Kendrick, said Eldering, refused to allow the whooping cough be named after her.

Nevertheless, there may be the temptation to place Kendrick and Eldering on a pedestal, not so much for their scientific contribution, but for their work in the advancement of women.

After all, their research came little more than a decade after women finally won the right to vote.

But it would be unlikely that Eldering would endorse a move to use her as an icon of the women's movement, even though she concedes women took jobs in laboratories in her day because no man would settle for such low pay.

Today, she staunchly believes that women deserve equal pay for equal work.

"I think everybody agrees with that," she said. "I wish women would just do their job and forget about if its done by women or men," she said.

Were she still working in the laboratory today, Eldering isn't sure what she would like to research.

She would have, however, liked to have had a computer — a tool storing data in most of today's research laboratories — at her disposal. A statistician worked for a year to categorize information Eldering and Kendrick compiled on 4,000 children.