

# The University of Michigan's Department of Human Genetics and its Impact on Medical Education



Merle Rosenzweig, AMLS, Irina Zeylikovich, BA, Erin Kerby, MSI, Anna Ercoli Schnitzer, AMLS

## Lee Raymond Dice founded the U-M Medical Center's Heredity Clinic

1942



"Research and counseling in the field of medical genetics are conducted by the Heredity Clinic, which acts as an outpatient clinic of the University Hospital. Any person who has a problem in family heredity may come directly to the Clinic for advice."

## The University of Michigan Department of Human Genetics is established.

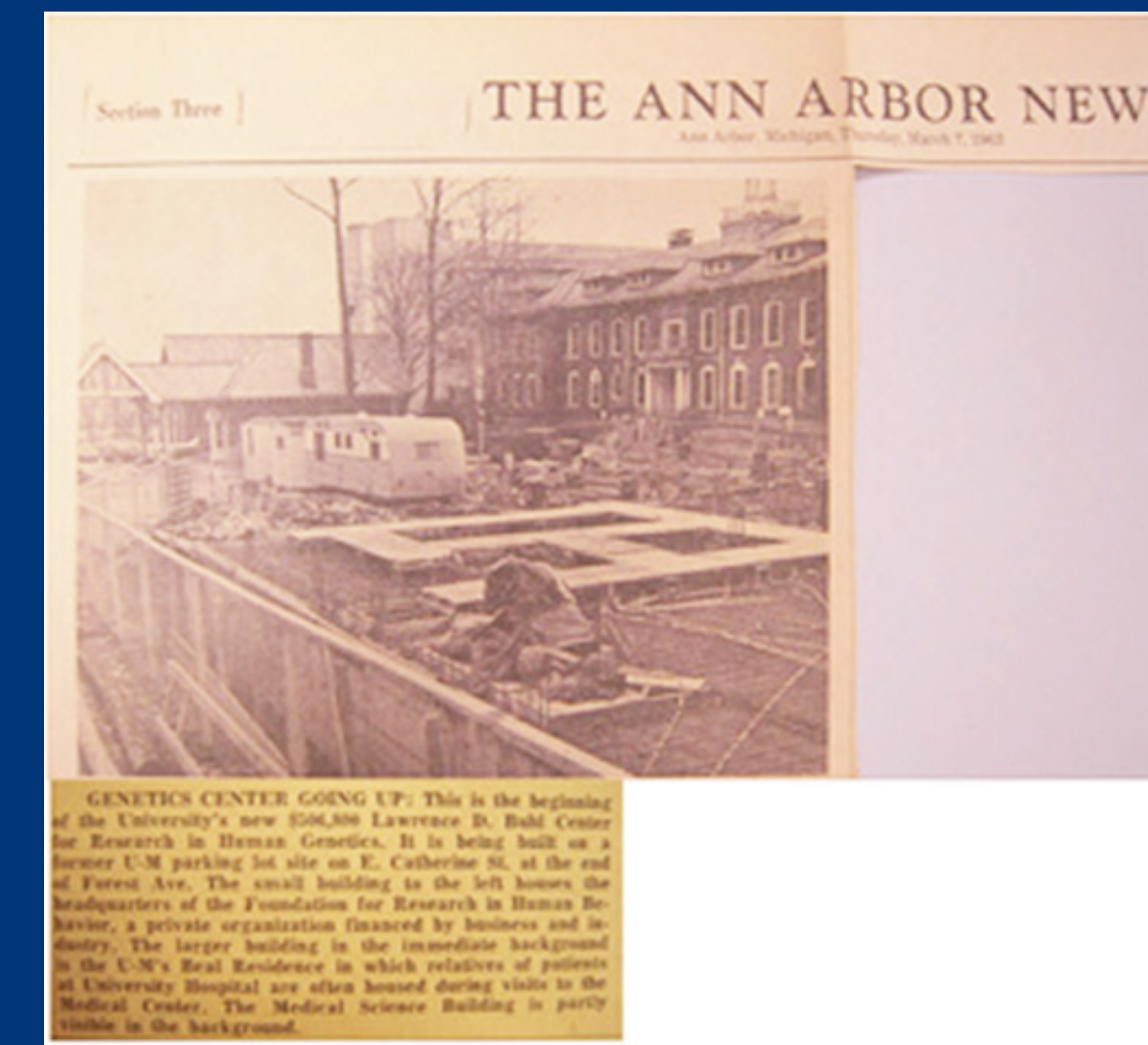
1956



Dr. James V. Neel established the University of Michigan Department of Genetics, the first department of human genetics at a medical school in the United States. Pictured above is Dr. Neel with sophomore medical students employed in the summer of 1960 to carry out field work on the Veteran Twin Study. Left to right: Tom Claffee, Dr. Neel, Roger Metzger, Robert Wonnott, Jean Kelly, Jordan Burke, Philip Yalowitz, and Richard Badson.

## Construction on the Buhl Research Center for Human Genetics Begins

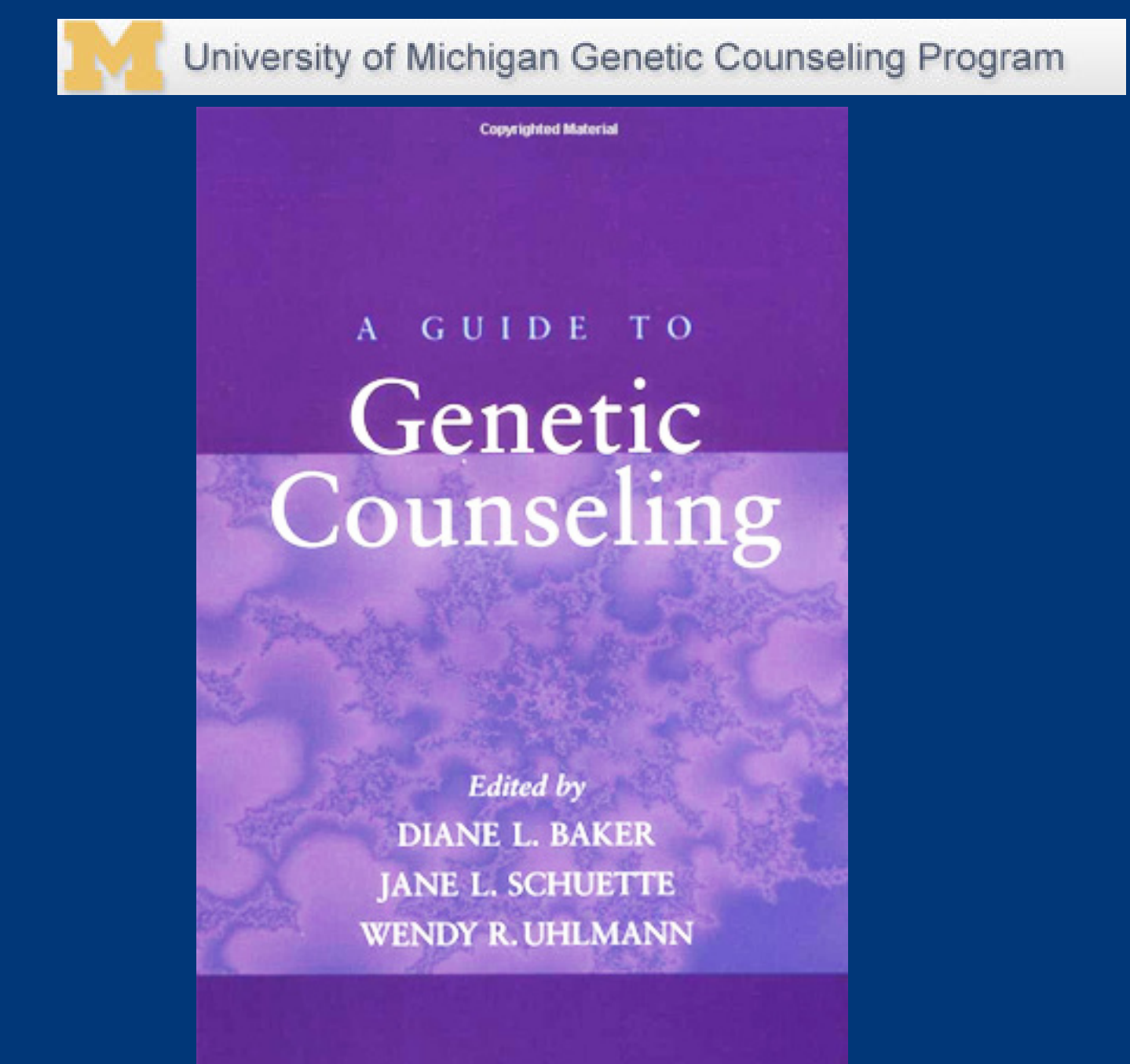
1963



The Buhl Building was made possible by a \$250,000 grant from the Lawrence DeLong and Cora Peck Buhl Fund with matching federal funds.

## Master's Degree Program in Genetic Counseling at the University of Michigan Established

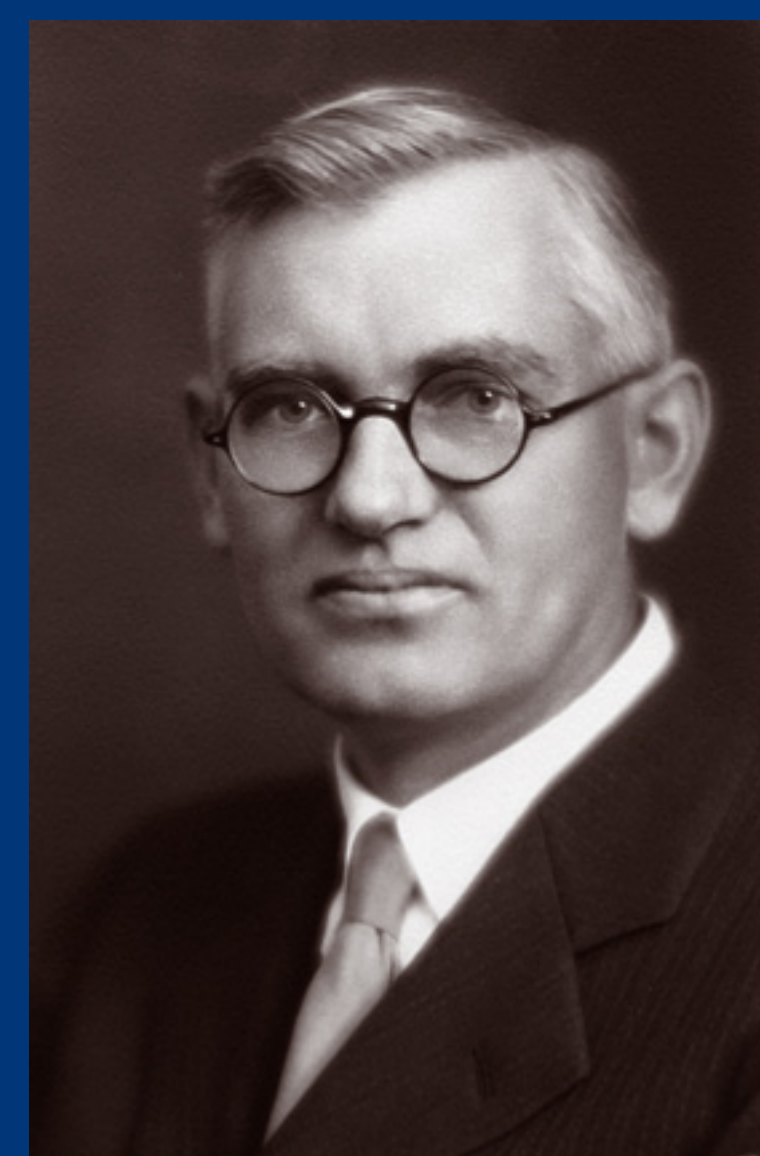
1979



Diane Baker founded the Master's Degree Program in Genetic Counseling at the University of Michigan. The Program is one of the most well established programs in the country and is fully accredited by The American Board of Genetic Counseling (ABGC).

### Lee Raymond Dice

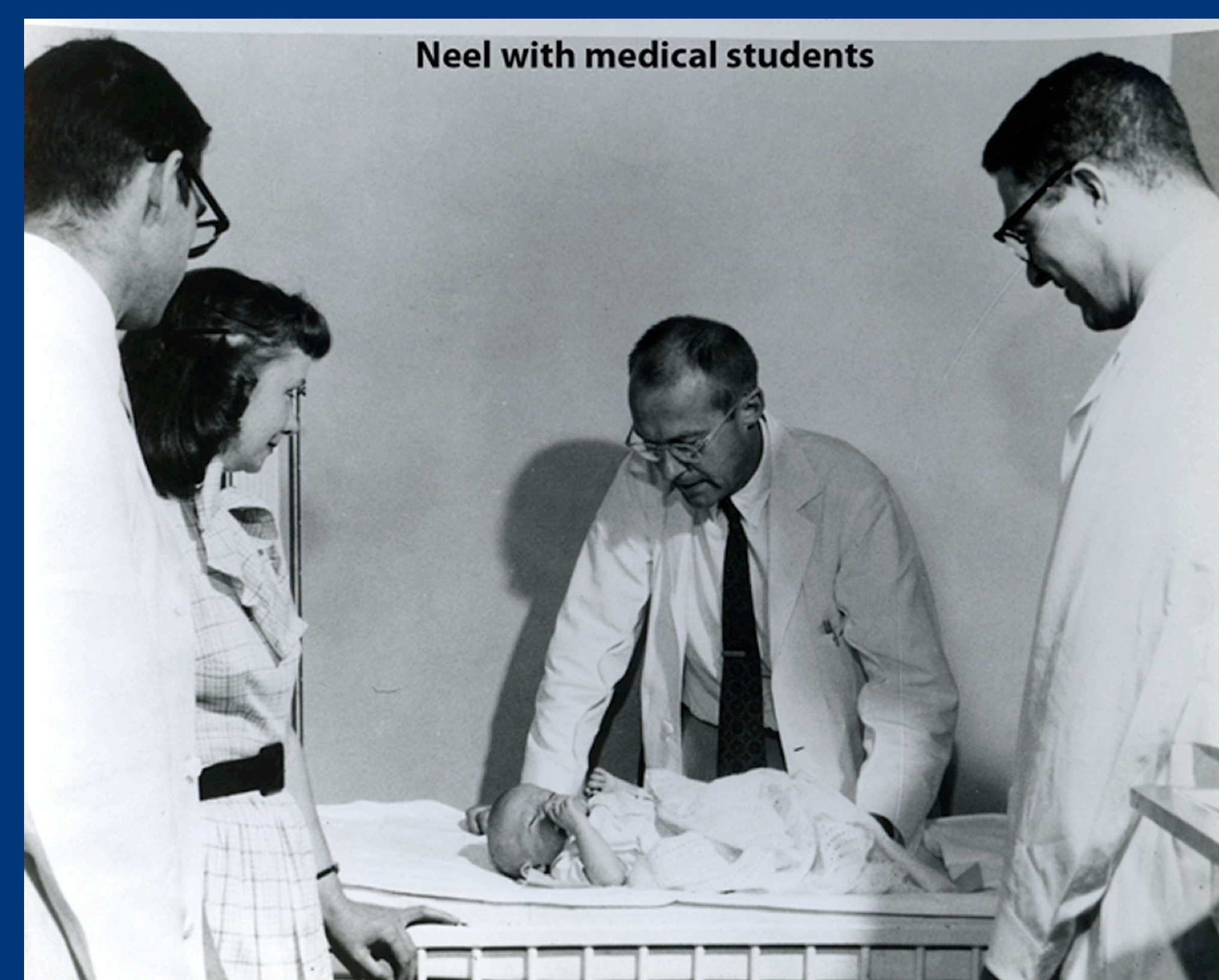
1887-1977



- Founded the UM Medical Center's Heredity Clinic.
- Discovery of polygenic inheritance in *Peromyscus*.
- Well known for this derivation of the Dice coefficient, a similarity used to measure the degree of association between biotic samples.

### James Van Gundia Neel

1915-2000



- Known as the "Father of Modern Genetics".
- Established the first department of human genetics at a medical school in the United States at the University of Michigan.
- Deduced the mode of inheritance of sickle cell anemia.
- Determined the mutagenic potential of radiation exposure following the atomic bombing of Japan.
- Moved population genetics research forward by collecting samples from isolated tribes in South America.

### Harold F. Falls

1909-2006



- Medical Director of the Heredity Clinic.
- Identified and clarified X-linked inheritance patterns.
- First to describe what became known as the Lyon hypothesis.
- Autosomal dominant cleft lip and palate.
- Short stature and mental retardation in 2 siblings.

### Francis Collins

1950-



- Joined University of Michigan in 1984.
- Used his chromosome jumping technique to identify the genes for cystic fibrosis in 1989.
- In 1993 succeeded James Watson as Director of the National Center for Human Genome Research which became the National Human Genome Research Institute (NHGRI) in 1997.
- On July 8, 2009 President Obama nominated him to the position of Director of the National Institutes of Health and he was sworn in on August 7, 2009