

NOBEL PRIZE WINNERS

Robert H. Grubbs, Chemistry, 2005

Earned two degrees from UF, a bachelor's and master's in Chemistry.

Organic substances are chemical compounds that contain the element carbon, the basis of all life.

Metathesis is an important type of chemical reaction in assembling or synthesizing organic substances.

Grubbs discovered a stable, metallic compound that improves organic synthesis. Metathesis has helped chemists produce new custom molecules for a wide range of products in pharmaceuticals and plastics.

Marshall W. Nirenberg, Medicine, 1968

Earned two degrees from UF, a bachelor's and master's in Zoology.

Nirenberg arrived at a very simple and ingenious solution for deciphering the genetic code of life by comparing the chemical structure of a particular nucleic acid with that of the corresponding protein.

The interpretation of the genetic code and understanding how it operates in protein synthesis was developed over two decades of exciting research in molecular biology on the mechanism of inheritance.

Robert H. Grubbs, Chemistry 2005

A chemist who earned two degrees from the University of Florida, a bachelor's in 1963 and a master's in 1965, Robert Grubbs also received the Nobel prize for Chemistry in 2005.

Born in rural Kentucky, his mother and grandmother provided great role models for the value of education. His father was a gifted mechanic and practical engineer. An exemplary science teacher in junior high school introduced him to the joys of science.

Having grown up and worked on farms, Grubbs started college at the University of Florida as an Agricultural Chemistry major. His interests changed when he had an opportunity over the summer to work in an organic lab run by a new professor named Merle A. Battiste. Grubbs was eager to learn how organic compounds react at the molecular level and to build new molecules.

He received his doctorate in chemistry from Columbia University in 1968, and did his postdoctoral fellowship at Stanford University. He taught at Michigan State University until 1978 when he accepted a position at the California Institute of Technology as a professor.

Grubbs was among three co-winners of the Nobel Prize in chemistry in 2005 for his work with metathesis, a chemical reaction involved in assembling and synthesizing organic substances. He discovered a class of stable catalysts for facilitating the reaction, allowing chemists to produce new, custom molecules that improve a wide range of products in industries such as pharmaceuticals and plastics. Shortly after winning the Nobel prize, Dr. Grubbs spoke at the graduate degree commencement ceremony for the University of Florida in 2006.

In 2006, the University of Florida awarded Grubbs an honorary doctorate of science in recognition of his accomplishments as a scholar, researcher and mentor. He was further honored by the university with a permanent installation celebrating his contributions to science in the atrium of the Chemistry/Chemical Biology Building, which opened its doors in 2017.

Grubbs was inducted into the National Academy of Sciences (1980), the American Academy of Arts and Sciences (1994), the Royal Society of Chemistry (2005), the National Academy of Inventors (2013), and the National Academy of Engineering (2015).

Robert Grubbs, the Victor and Elizabeth Atkins Professor of Chemistry at Caltech, passed away on December 19, 2021. He was 79 years old.



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<https://www.nobelprize.org/prizes/chemistry/2005/summary/>

Marshall Nirenberg, Medicine, 1968

Marshall Warren Nirenberg's family moved to Orlando, Florida in 1939. He developed an early interest in biology. In 1948 he received a B. Sc. degree, and in 1952, a M. Sc. degree in Zoology from the University of Florida at Gainesville. His dissertation for the Master's thesis was an ecological and taxonomic study of caddis flies (Trichoptera).

He continued his graduate study in biochemistry at the University of Michigan, receiving the Ph.D. degree in 1957. He received postdoctoral training at the National Institutes of Health. He began to study the relationship between DNA, RNA, and protein. Watson and Crick showed that DNA was the molecule of genetic information, but it was not known how DNA and RNA influenced the expression of proteins. With Heinrich Matthaei at NIH, they were able to show that messenger RNA is required for protein synthesis and that synthetic messenger RNA preparations can be used to decipher various aspects of the genetic code.

Nirenberg was awarded the National Medal of Science in 1964 and the National Medal of Honor in 1968 by President Lyndon B. Johnson.

Marshall W. Nirenberg died on 15 January, 2010.



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<https://www.nobelprize.org/prizes/medicine/1968/summary/>