

Caltech Nobel laureates

Since 1901, Nobel Prizes have been awarded annually on the anniversary of the death of Alfred Nobel, the Swedish-born inventor and international industrialist for whom the award is named. In addition to physiology or medicine, Nobel Prizes are awarded in physics, chemistry, literature, economic sciences and peace. The university has produced 28 laureates, more than any other institution in the state (except Stanford, with which it's tied). Here's a look at Caltech's 28 laureates from the most recent recipient:

Leland H. Hartwell

1939 -
 ■ **Award:** 2001 Nobel Prize in physiology or medicine for his discoveries of a specific class of genes that control the cell cycle.
 ■ **Occupation:** President and director of the Fred Hutchinson Cancer Research Center; professor of genetics, University of Washington
 ■ **Education:** B.S. from Caltech; Ph.D. from Massachusetts Institute of Technology



Ahmed H. Zewail

1946 -
 ■ **Award:** 1999 Nobel Prize in chemistry for being the first to reveal the decisive moments of a chemical reaction — the moments when chemical bonds are broken and formed.
 ■ **Occupation:** Presently the Linus Pauling Chair, professor of chemistry, professor of physics, and director of the NSF Laboratory for Molecular Sciences at Caltech
 ■ **Education:** B.S. (with honors), M.S. from Alexandria University; Ph.D. from University of Pennsylvania; holds several honorary degrees



Robert C. Merton

1944 -
 ■ **Award:** 1997 Nobel Prize in economic sciences shared with Professor Myron S. Scholes of Stanford University and the late scholar Fischer Black. Developed a pioneering formula for the valuation of stock options.
 ■ **Occupation:** Currently the John and Natty McArthur University Professor at the Harvard Business School
 ■ **Education:** B.S. from Columbia University in engineering mathematics; M.S. from Caltech in applied mathematics; Ph.D. from Massachusetts Institute of Technology in economics



Douglas D. Osheroff

1943 -
 ■ **Award:** 1996 Nobel Prize in physics shared with professors David M. Lee and Robert C. Richardson of Cornell University for their discovery of superfluidity in helium-3.
 ■ **Occupation:** Physics professor at Stanford University
 ■ **Education:** B.S. from Caltech, 1967; Doctoral degree in physics from Cornell University, 1973



Edward B. Lewis

1939 -
 ■ **Award:** 1995 Nobel Prize in physiology or medicine. Shared with developmental biologists Christiane Nüsslein-Volhard and Eric F. Wieschaus for their discoveries concerning the genetic control of early embryonic development using a fruit fly as their experimental system
 ■ **Occupation:** Thomas Hunt Morgan Professor of Biology, Emeritus, Caltech
 ■ **Education:** B.A. in biostatistics from University of Minnesota, 1939; Ph.D. in genetics, 1942 and M.S. in meteorology from Caltech



Rudolph A. Marcus

1933 -
 ■ **Award:** 1992 Nobel Prize in chemistry for his contributions to the theory of electron transfer reactions in chemical systems.
 ■ **Occupation:** Arthur Amos Noyes Professor of Chemistry, Caltech
 ■ **Education:** B.S. and Ph.D. from McGill University; Postdoctoral Research Council, Canada; Postdoctoral Fellow, 1946-49; National Research Council, Canada; Postdoctoral Fellow, 1949-51, University of North Carolina.



William A. Fowler

1911 - 1995
 ■ **Award:** 1983 Nobel Prize in physics for his research into the creation of chemical elements inside stars shared with Professor Subrahmanyan Chandrasekhar, University of Chicago
 ■ **Occupation:** Caltech's Institute Professor of Physics, Emeritus
 ■ **Education:** Bachelor's degree from Ohio State University; Ph.D. from Caltech, 1936



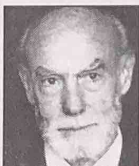
Kenneth G. Wilson

1936 -
 ■ **Award:** 1982 Nobel Prize in physics for his theory for critical phenomena in connection with phase transitions
 ■ **Occupation:** Professor, Cornell University
 ■ **Education:** Ph.D. from Caltech, 1961



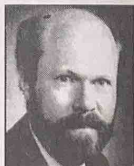
Roger W. Sperry

1918 - 1994
 ■ **Award:** Half of 1981 Nobel Prize in physiology or medicine for his discoveries concerning "the functional specialization of the cerebral hemispheres" shared with David H. Hubel and Torsten N. Wiesel for their discoveries concerning "visual system."
 ■ **Occupation:** Hixon professor of psychobiology, Caltech, 1954-1994
 ■ **Education:** AB in English, MA in psychology from Oberlin College, 1935-37; Ph.D. from University of Chicago, 1941



Robert W. Wilson

1936 -
 ■ **Award:** 1978 Nobel Prize for physics equally shared with Arno A. Penzias for their discovery of cosmic microwave background radiation.
 ■ **Occupation:** Research fellow 1962-1963, Caltech; Adjunct professor, State University of New York, 1978- present
 ■ **Education:** B.A. from Rice University with honors in physics, 1957; Ph.D. from Caltech, 1962



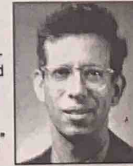
William N. Lipscomb

1919 -
 ■ **Award:** 1976 Nobel Prize in chemistry for his studies on the structure of boranes illuminating problems of chemical bonding
 ■ **Occupation:** Professor, Harvard University
 ■ **Education:** Bachelor's degree from University of Kentucky; Ph.D. from Caltech, 1946



Howard M. Temin

1934 - 1994
 ■ **Award:** 1975 Nobel Prize in physiology or medicine shared with David Baltimore and Renato Dulbecco for their discoveries concerning "the interaction between tumor viruses and the genetic material of the cell."
 ■ **Occupation:** Professor of Oncology at McArdle Laboratory for Cancer Research at the University of Wisconsin-Madison, 1960-1994
 ■ **Education:** Ph.D. from Caltech, 1960



Leo James Rainwater

1917 - 1986
 ■ **Award:** 1975 Nobel Prize in physics equally shared with Aage Bohr, Denmark and Ben Mottelson, Denmark for the discovery of the connection between collective motion and particle motion in atomic nuclei and the development of the theory of the structure of the atomic nucleus based on this connection.
 ■ **Occupation:** Columbia Physics Dept. 1917 - 1986
 ■ **Education:** B.S. in physics from Caltech, 1939



Renato Dulbecco

1914 -
 ■ **Award:** 1975 Nobel Prize in physiology or medicine shared with David Baltimore and Howard Temin for their discoveries concerning "the interaction between tumor viruses and the genetic material of the cell."
 ■ **Occupation:** Imperial Cancer Research Fund Laboratory, London
 ■ **Education:** M.D., University of Torino, Italy, 1936



David Baltimore

1938 -
 ■ **Award:** 1975 Nobel Prize in physiology or medicine shared with Renato Dulbecco and Howard Temin for their discoveries concerning "the interaction between tumor viruses and the genetic material of the cell."
 ■ **Occupation:** Caltech President; Professor of biology
 ■ **Education:** B.A. from Swarthmore College, 1960; Ph.D. from Rockefeller University, 1964



Max Delbrück

1906 - 1981
 ■ **Award:** 1969 Nobel Prize in physiology or medicine shared with Alfred D. Hershey and Salvador E. Luria for their discoveries concerning the replication mechanism and the genetic structure of viruses
 ■ **Occupation:** Instructor of Physics, Vanderbilt University and Caltech
 ■ **Education:** Ph.D., University of Göttingen, Germany, 1930

