



A prime indicator
of the University's
excellence is the
success of its
alumni and faculty.
Eleven University
of Illinois alumni
have gone on to
win Nobel Prizes.

NOBEL LAUREATES

ALUMNI

Edward Doisy

(1892-1986) shared the Nobel Prize in medicine and physiology in 1943. Doisy discovered the chemical nature of vitamin K. His work involved synthesis, isolation, and characterization of the K vitamins. Doisy received two U of I degrees: a Bachelor of Arts (1914) and a Master of Science (1916).

Vincent Du Vigneaud

(1901-1978) won the Nobel Prize in chemistry in 1955 for his work on "biochemically important sulfur compounds, especially for achieving the first synthesis of a polypeptide hormone." Du Vigneaud received a Bachelor of Science (1923) and a Master of Science (1924) from the U of I. He served on the University faculty from 1929 to 1932.

Robert Holley

(1922-1993) won the Nobel Prize in medicine and physiology in 1968 for his work determining the precise structure of nucleic acids. He received a Bachelor of Arts in chemistry from the U of I in 1942.

Jack S. Kilby

(1923-2005) shared the 2000 Nobel Prize in physics for his part in the invention and development of the integrated circuit, the microchip. Kilby received a Bachelor of Science from the U of I in 1947.

Edwin Krebs

(1918-) shared the 1992 Nobel Prize in medicine and physiology with Edmond Fischer for their discoveries in the 1950s concerning reversible protein phosphorylation. Krebs was awarded a U of I Bachelor of Arts degree in 1940.

Polykarp Kusch

(1911-1993) shared the 1955 Nobel Prize in physics for his work toward precise measurement of the magnetic moment of the electron. Kusch received a Master of Science (1933) and a Ph.D. (1936) from the U of I.

John Robert Schrieffer

(1931-) shared the 1972 Nobel Prize in physics with faculty member John Bardeen and postdoctoral fellow Leon Cooper for their work at the U of I on the theory

of superconductivity. Schrieffer received a Master of Science in 1954 and a Ph.D. in 1957 from the University and served on the physics faculty from 1959 to 1962.

Phillip A. Sharp

(1944-) shared the 1993 Nobel Prize in medicine and physiology for the discovery of split genes, which proved that genes can be composed of several separate segments. Sharp received a Ph.D. in chemistry from the U of I in 1969.

Hamilton Smith

(1931-) shared the 1978 Nobel Prize in medicine and physiology for "the discovery of restriction enzymes and their application to problems of molecular genetics." Smith graduated from University High School in 1948 and attended the U of I from 1948 to 1950.

Wendell Stanley

(1904-1971) shared the 1946 Nobel Prize in chemistry for contributions to the preparation of enzymes and virus proteins in pure form. Stanley received two U of I degrees: a Master of Science (1927) and a Ph.D. (1929).

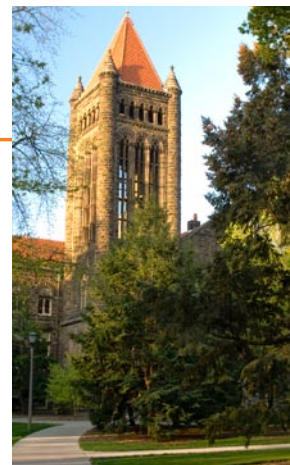
Rosalyn Sussman Yalow

(1921-) shared the 1977 Nobel Prize in medicine and physiology for the discovery and development of radioimmunoassay, a technique that employs radioactive isotopes to detect and measure the levels of insulin and hormones in the blood and in body tissues. Yalow was the second woman to win the Nobel Prize in medicine. Yalow holds two U of I degrees: a Master of Science (1942) and a Ph.D. (1945).


FACULTY

John Bardeen

(1908-1991) won the Nobel Prize in physics in 1956 and 1972, the only person to have won the physics prize twice. He shared the 1956 prize with W. H. Brattain and W. Shockley for research on semiconductors and the invention of the transistor at Bell Labs, and the 1972 prize with L. N. Cooper and J. R. Schrieffer for the theory of



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superconductivity, developed at the U of I. Bardeen served on the University's faculty from 1951 until his death in 1991.

Leon Neil Cooper

(1930-) shared the 1972 Nobel Prize in Physics with faculty member John Bardeen and alumnus John R. Schreiffer for their development of the theory of superconductivity, usually called the BCS-theory. He was a research associate at the U of I from 1955 to 1957.

Elias Corey

(1928-) won the Nobel Prize in chemistry in 1990 for his "development of the theory and methodology of organic synthesis." Corey served on the faculty in the Department of Chemistry at the University from 1951 to 1959.

Vincent Du Vigneaud

(see listing under alumni)

Murray Gell-Mann

(1929-) won the Nobel Prize in Physics in 1969 for "his contributions and discoveries concerning the classification of elementary particles and their interactions." Gell-Mann was a postdoctoral research associate in 1951 and a visiting research professor from 1952-1953.

Leonid Hurwicz

shared the Nobel Prize in economics in 2007 with Eric S. Maskin and Roger B. Myerson for "having laid the foundations of mechanism design theory." Hurwicz served as a faculty member at the University of Illinois Department of Economics from 1949-1951.

Paul C. Lauterbur

(1929-2007) shared the Nobel Prize in physiology or medicine in 2003 with Sir Peter Mansfield for "seminal discoveries concerning the use of magnetic resonance to visualize different structures." Lauterbur was among the first scientists to use nuclear magnetic resonance in the studies of molecules, solutions, and solids. Lauterbur joined the U of I faculty in 1985.

Anthony J. Leggett

(1938-) shared the 2003 Nobel Prize in physics with Alexei A. Abrikosov and Vitaly L. Ginzburg for "pioneering contributions to the theory of superconductors and superfluids." Leggett formulated the decisive theory explaining how atoms interact and are ordered in the superfluid state. Leggett joined the U of I faculty in 1983.

Sir Peter Mansfield

(1933-) shared the 2003 Nobel Prize in Medicine with faculty member Paul C. Lauterbur for "seminal discoveries concerning

the use of magnetic resonance to visualize different structures." Mansfield was a research associate in the U of I department of physics from 1962 to 1964.

Salvador Luria

(1912-1991) won the Nobel Prize in medicine and physiology in 1969 with Max Delbruck and Alfred Hershey for discoveries concerning the replication mechanism and the genetic structure of viruses. He served as a professor of bacteriology at the University from 1950 to 1959.

Rudolph Marcus

(1923-) won the Nobel Prize in chemistry in 1992 for contributions to the theory of how electrons are transferred between molecules—work that helps explain such phenomena as rust and how plants draw nourishment from light. He served as a faculty member in the U of I Department of Chemistry from 1964 to 1978 and completed much of his prize-winning research at the University.

Franco Modigliani

(1918-2003) won the Nobel Prize in economics in 1985 for two major theories: one on personal finance and one on corporate finance. He served as a faculty member in the U of I Department of Economics from 1948 to 1952.

John Robert Schrieffer

(see listing under alumni)

UNIVERSITY HIGH SCHOOL GRADUATES

Philip Anderson

(1923-) won the Nobel Prize in physics in 1977. He shared the prize with John Van Vleck and Nevill Mott for their "fundamental theoretic investigation of the electronic structure of magnetic and disordered systems." Anderson graduated from University High School in 1940.

Hamilton Smith

(see listing under alumni)

James Tobin

(1918-2002) won the Nobel Prize in economics in 1981. Tobin's work provided "a basis for understanding how subjects actually behave when they acquire different assets and incur debts" by his statement of the "portfolio selection theory" of investment. Tobin graduated from University High School in 1935.

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