

## **All Nobel Laureates in Physiology or Medicine**

The Nobel Prize in Physiology or Medicine has been awarded 104 times to 204 Nobel Laureates between 1901 and 2013. Click on the links to get more information.

### **[The Nobel Prize in Physiology or Medicine 2013](#)**

**[James E. Rothman](#)**, **[Randy W. Schekman](#)** and **[Thomas C. Südhof](#)**

"for their discoveries of machinery regulating vesicle traffic, a major transport system in our cells"

### **[The Nobel Prize in Physiology or Medicine 2012](#)**

**[Sir John B. Gurdon](#)** and **[Shinya Yamanaka](#)**

"for the discovery that mature cells can be reprogrammed to become pluripotent"

### **[The Nobel Prize in Physiology or Medicine 2011](#)**

**[Bruce A. Beutler](#)** and **[Jules A. Hoffmann](#)**

"for their discoveries concerning the activation of innate immunity"

**[Ralph M. Steinman](#)**

"for his discovery of the dendritic cell and its role in adaptive immunity"

### **[The Nobel Prize in Physiology or Medicine 2010](#)**

**[Robert G. Edwards](#)**

"for the development of in vitro fertilization"

### **[The Nobel Prize in Physiology or Medicine 2009](#)**

**[Elizabeth H. Blackburn](#)**, **[Carol W. Greider](#)** and **[Jack W. Szostak](#)**

"for the discovery of how chromosomes are protected by telomeres and the enzyme telomerase"

### **[The Nobel Prize in Physiology or Medicine 2008](#)**

**[Harald zur Hausen](#)**

"for his discovery of human papilloma viruses causing cervical cancer"

**[Françoise Barré-Sinoussi](#)** and **[Luc Montagnier](#)**

"for their discovery of human immunodeficiency virus"

### **[The Nobel Prize in Physiology or Medicine 2007](#)**

[Mario R. Capecchi](#), [Sir Martin J. Evans](#) and [Oliver Smithies](#)

"for their discoveries of principles for introducing specific gene modifications in mice by the use of embryonic stem cells"

[The Nobel Prize in Physiology or Medicine 2006](#)

[Andrew Z. Fire](#) and [Craig C. Mello](#)

"for their discovery of RNA interference - gene silencing by double-stranded RNA"

[The Nobel Prize in Physiology or Medicine 2005](#)

[Barry J. Marshall](#) and [J. Robin Warren](#)

"for their discovery of the bacterium *Helicobacter pylori* and its role in gastritis and peptic ulcer disease"

[The Nobel Prize in Physiology or Medicine 2004](#)

[Richard Axel](#) and [Linda B. Buck](#)

"for their discoveries of odorant receptors and the organization of the olfactory system"

[The Nobel Prize in Physiology or Medicine 2003](#)

[Paul C. Lauterbur](#) and [Sir Peter Mansfield](#)

"for their discoveries concerning magnetic resonance imaging"

[The Nobel Prize in Physiology or Medicine 2002](#)

[Sydney Brenner](#), [H. Robert Horvitz](#) and [John E. Sulston](#)

"for their discoveries concerning genetic regulation of organ development and programmed cell death"

[The Nobel Prize in Physiology or Medicine 2001](#)

[Leland H. Hartwell](#), [Tim Hunt](#) and [Sir Paul M. Nurse](#)

"for their discoveries of key regulators of the cell cycle"

[The Nobel Prize in Physiology or Medicine 2000](#)

[Arvid Carlsson](#), [Paul Greengard](#) and [Eric R. Kandel](#)

"for their discoveries concerning signal transduction in the nervous system"

[The Nobel Prize in Physiology or Medicine 1999](#)

[Günter Blobel](#)

"for the discovery that proteins have intrinsic signals that govern their transport and localization in the cell"

**The Nobel Prize in Physiology or Medicine 1998**

**Robert F. Furchgott**, **Louis J. Ignarro** and **Ferid Murad**

"for their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system"

**The Nobel Prize in Physiology or Medicine 1997**

**Stanley B. Prusiner**

"for his discovery of Prions - a new biological principle of infection"

**The Nobel Prize in Physiology or Medicine 1996**

**Peter C. Doherty** and **Rolf M. Zinkernagel**

"for their discoveries concerning the specificity of the cell mediated immune defence"

**The Nobel Prize in Physiology or Medicine 1995**

**Edward B. Lewis**, **Christiane Nüsslein-Volhard** and **Eric F. Wieschaus**

"for their discoveries concerning the genetic control of early embryonic development"

**The Nobel Prize in Physiology or Medicine 1994**

**Alfred G. Gilman** and **Martin Rodbell**

"for their discovery of G-proteins and the role of these proteins in signal transduction in cells"

**The Nobel Prize in Physiology or Medicine 1993**

**Richard J. Roberts** and **Phillip A. Sharp**

"for their discoveries of split genes"

**The Nobel Prize in Physiology or Medicine 1992**

**Edmond H. Fischer** and **Edwin G. Krebs**

"for their discoveries concerning reversible protein phosphorylation as a biological regulatory mechanism"

**The Nobel Prize in Physiology or Medicine 1991**

**Erwin Neher** and **Bert Sakmann**

"for their discoveries concerning the function of single ion channels in cells"

**The Nobel Prize in Physiology or Medicine 1990**

**Joseph E. Murray** and **E. Donnall Thomas**

"for their discoveries concerning organ and cell transplantation in the treatment of human disease"

**The Nobel Prize in Physiology or Medicine 1989**

**J. Michael Bishop** and **Harold E. Varmus**

"for their discovery of the cellular origin of retroviral oncogenes"

**The Nobel Prize in Physiology or Medicine 1988**

**Sir James W. Black**, **Gertrude B. Elion** and **George H. Hitchings**

"for their discoveries of important principles for drug treatment"

**The Nobel Prize in Physiology or Medicine 1987**

**Susumu Tonegawa**

"for his discovery of the genetic principle for generation of antibody diversity"

**The Nobel Prize in Physiology or Medicine 1986**

**Stanley Cohen** and **Rita Levi-Montalcini**

"for their discoveries of growth factors"

**The Nobel Prize in Physiology or Medicine 1985**

**Michael S. Brown** and **Joseph L. Goldstein**

"for their discoveries concerning the regulation of cholesterol metabolism"

**The Nobel Prize in Physiology or Medicine 1984**

**Niels K. Jerne**, **Georges J.F. Köhler** and **César Milstein**

"for theories concerning the specificity in development and control of the immune system and the discovery of the principle for production of monoclonal antibodies"

**The Nobel Prize in Physiology or Medicine 1983**

**Barbara McClintock**

"for her discovery of mobile genetic elements"

**The Nobel Prize in Physiology or Medicine 1982**

[Sune K. Bergström](#), [Bengt I. Samuelsson](#) and [John R. Vane](#)

"for their discoveries concerning prostaglandins and related biologically active substances"

[The Nobel Prize in Physiology or Medicine 1981](#)

[Roger W. Sperry](#)

"for his discoveries concerning the functional specialization of the cerebral hemispheres"

[David H. Hubel](#) and [Torsten N. Wiesel](#)

"for their discoveries concerning information processing in the visual system"

[The Nobel Prize in Physiology or Medicine 1980](#)

[Baruj Benacerraf](#), [Jean Dausset](#) and [George D. Snell](#)

"for their discoveries concerning genetically determined structures on the cell surface that regulate immunological reactions"

[The Nobel Prize in Physiology or Medicine 1979](#)

[Allan M. Cormack](#) and [Godfrey N. Hounsfield](#)

"for the development of computer assisted tomography"

[The Nobel Prize in Physiology or Medicine 1978](#)

[Werner Arber](#), [Daniel Nathans](#) and [Hamilton O. Smith](#)

"for the discovery of restriction enzymes and their application to problems of molecular genetics"

[The Nobel Prize in Physiology or Medicine 1977](#)

[Roger Guillemin](#) and [Andrew V. Schally](#)

"for their discoveries concerning the peptide hormone production of the brain"

[Rosalyn Yalow](#)

"for the development of radioimmunoassays of peptide hormones"

[The Nobel Prize in Physiology or Medicine 1976](#)

[Baruch S. Blumberg](#) and [D. Carleton Gajdusek](#)

"for their discoveries concerning new mechanisms for the origin and dissemination of infectious diseases"

[The Nobel Prize in Physiology or Medicine 1975](#)

[David Baltimore](#), [Renato Dulbecco](#) and [Howard Martin Temin](#)

"for their discoveries concerning the interaction between tumour viruses and the genetic material of the cell"

[The Nobel Prize in Physiology or Medicine 1974](#)

[Albert Claude](#), [Christian de Duve](#) and [George E. Palade](#)

"for their discoveries concerning the structural and functional organization of the cell"

[The Nobel Prize in Physiology or Medicine 1973](#)

[Karl von Frisch](#), [Konrad Lorenz](#) and [Nikolaas Tinbergen](#)

"for their discoveries concerning organization and elicitation of individual and social behaviour patterns"

[The Nobel Prize in Physiology or Medicine 1972](#)

[Gerald M. Edelman](#) and [Rodney R. Porter](#)

"for their discoveries concerning the chemical structure of antibodies"

[The Nobel Prize in Physiology or Medicine 1971](#)

[Earl W. Sutherland, Jr.](#)

"for his discoveries concerning the mechanisms of the action of hormones"

[The Nobel Prize in Physiology or Medicine 1970](#)

[Sir Bernard Katz](#), [Ulf von Euler](#) and [Julius Axelrod](#)

"for their discoveries concerning the humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation"

[The Nobel Prize in Physiology or Medicine 1969](#)

[Max Delbrück](#), [Alfred D. Hershey](#) and [Salvador E. Luria](#)

"for their discoveries concerning the replication mechanism and the genetic structure of viruses"

[The Nobel Prize in Physiology or Medicine 1968](#)

[Robert W. Holley](#), [Har Gobind Khorana](#) and [Marshall W. Nirenberg](#)

"for their interpretation of the genetic code and its function in protein synthesis"

[The Nobel Prize in Physiology or Medicine 1967](#)

**Ragnar Granit, Haldan Keffer Hartline and George Wald**

"for their discoveries concerning the primary physiological and chemical visual processes in the eye"

**The Nobel Prize in Physiology or Medicine 1966**

**Peyton Rous**

"for his discovery of tumour-inducing viruses"

**Charles Brenton Huggins**

"for his discoveries concerning hormonal treatment of prostatic cancer"

**The Nobel Prize in Physiology or Medicine 1965**

**François Jacob, André Lwoff and Jacques Monod**

"for their discoveries concerning genetic control of enzyme and virus synthesis"

**The Nobel Prize in Physiology or Medicine 1964**

**Konrad Bloch and Feodor Lynen**

"for their discoveries concerning the mechanism and regulation of the cholesterol and fatty acid metabolism"

**The Nobel Prize in Physiology or Medicine 1963**

**Sir John Carew Eccles, Alan Lloyd Hodgkin and Andrew Fielding Huxley**

"for their discoveries concerning the ionic mechanisms involved in excitation and inhibition in the peripheral and central portions of the nerve cell membrane"

**The Nobel Prize in Physiology or Medicine 1962**

**Francis Harry Compton Crick, James Dewey Watson and Maurice Hugh Frederick Wilkins**

"for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material"

**The Nobel Prize in Physiology or Medicine 1961**

**Georg von Békésy**

"for his discoveries of the physical mechanism of stimulation within the cochlea"

**The Nobel Prize in Physiology or Medicine 1960**

**Sir Frank Macfarlane Burnet and Peter Brian Medawar**

"for discovery of acquired immunological tolerance"

#### [The Nobel Prize in Physiology or Medicine 1959](#)

[Severo Ochoa](#) and [Arthur Kornberg](#)

"for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid"

#### [The Nobel Prize in Physiology or Medicine 1958](#)

[George Wells Beadle](#) and [Edward Lawrie Tatum](#)

"for their discovery that genes act by regulating definite chemical events"

[Joshua Lederberg](#)

"for his discoveries concerning genetic recombination and the organization of the genetic material of bacteria"

#### [The Nobel Prize in Physiology or Medicine 1957](#)

[Daniel Bovet](#)

"for his discoveries relating to synthetic compounds that inhibit the action of certain body substances, and especially their action on the vascular system and the skeletal muscles"

#### [The Nobel Prize in Physiology or Medicine 1956](#)

[André Frédéric Cournand](#), [Werner Forssmann](#) and [Dickinson W. Richards](#)

"for their discoveries concerning heart catheterization and pathological changes in the circulatory system"

#### [The Nobel Prize in Physiology or Medicine 1955](#)

[Axel Hugo Theodor Theorell](#)

"for his discoveries concerning the nature and mode of action of oxidation enzymes"

#### [The Nobel Prize in Physiology or Medicine 1954](#)

[John Franklin Enders](#), [Thomas Huckle Weller](#) and [Frederick Chapman Robbins](#)

"for their discovery of the ability of poliomyelitis viruses to grow in cultures of various types of tissue"

#### [The Nobel Prize in Physiology or Medicine 1953](#)

[Hans Adolf Krebs](#)

"for his discovery of the citric acid cycle"



**Fritz Albert Lipmann**

"for his discovery of co-enzyme A and its importance for intermediary metabolism"

**The Nobel Prize in Physiology or Medicine 1952**

**Selman Abraham Waksman**

"for his discovery of streptomycin, the first antibiotic effective against tuberculosis"

**The Nobel Prize in Physiology or Medicine 1951**

**Max Theiler**

"for his discoveries concerning yellow fever and how to combat it"

**The Nobel Prize in Physiology or Medicine 1950**

**Edward Calvin Kendall, Tadeus Reichstein and Philip Showalter Hench**

"for their discoveries relating to the hormones of the adrenal cortex, their structure and biological effects"

**The Nobel Prize in Physiology or Medicine 1949**

**Walter Rudolf Hess**

"for his discovery of the functional organization of the interbrain as a coordinator of the activities of the internal organs"

**Antonio Caetano de Abreu Freire Egas Moniz**

"for his discovery of the therapeutic value of leucotomy in certain psychoses"

**The Nobel Prize in Physiology or Medicine 1948**

**Paul Hermann Müller**

"for his discovery of the high efficiency of DDT as a contact poison against several arthropods"

**The Nobel Prize in Physiology or Medicine 1947**

**Carl Ferdinand Cori and Gerty Theresa Cori, née Radnitz**

"for their discovery of the course of the catalytic conversion of glycogen"

**Bernardo Alberto Houssay**

"for his discovery of the part played by the hormone of the anterior pituitary lobe in the metabolism of sugar"

### [The Nobel Prize in Physiology or Medicine 1946](#)

#### [Hermann Joseph Muller](#)

"for the discovery of the production of mutations by means of X-ray irradiation"

### [The Nobel Prize in Physiology or Medicine 1945](#)

#### [Sir Alexander Fleming](#), [Ernst Boris Chain](#) and [Sir Howard Walter Florey](#)

"for the discovery of penicillin and its curative effect in various infectious diseases"

### [The Nobel Prize in Physiology or Medicine 1944](#)

#### [Joseph Erlanger](#) and [Herbert Spencer Gasser](#)

"for their discoveries relating to the highly differentiated functions of single nerve fibres"

### [The Nobel Prize in Physiology or Medicine 1943](#)

#### [Henrik Carl Peter Dam](#)

"for his discovery of vitamin K"

#### [Edward Adelbert Doisy](#)

"for his discovery of the chemical nature of vitamin K"

### [The Nobel Prize in Physiology or Medicine 1942](#)

No Nobel Prize was awarded this year. The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

### [The Nobel Prize in Physiology or Medicine 1941](#)

No Nobel Prize was awarded this year. The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

### [The Nobel Prize in Physiology or Medicine 1940](#)

No Nobel Prize was awarded this year. The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

### [The Nobel Prize in Physiology or Medicine 1939](#)

#### [Gerhard Domagk](#)

"for the discovery of the antibacterial effects of prontosil"

### [The Nobel Prize in Physiology or Medicine 1938](#)

#### [Corneille Jean Francois Heymans](#)

"for the discovery of the role played by the sinus and aortic mechanisms in the regulation of respiration"

#### [The Nobel Prize in Physiology or Medicine 1937](#)

##### [Albert von Szent-Györgyi Nagyrápolt](#)

"for his discoveries in connection with the biological combustion processes, with special reference to vitamin C and the catalysis of fumaric acid"

#### [The Nobel Prize in Physiology or Medicine 1936](#)

##### [Sir Henry Hallett Dale](#) and [Otto Loewi](#)

"for their discoveries relating to chemical transmission of nerve impulses"

#### [The Nobel Prize in Physiology or Medicine 1935](#)

##### [Hans Spemann](#)

"for his discovery of the organizer effect in embryonic development"

#### [The Nobel Prize in Physiology or Medicine 1934](#)

##### [George Hoyt Whipple](#), [George Richards Minot](#) and [William Parry Murphy](#)

"for their discoveries concerning liver therapy in cases of anaemia"

#### [The Nobel Prize in Physiology or Medicine 1933](#)

##### [Thomas Hunt Morgan](#)

"for his discoveries concerning the role played by the chromosome in heredity"

#### [The Nobel Prize in Physiology or Medicine 1932](#)

##### [Sir Charles Scott Sherrington](#) and [Edgar Douglas Adrian](#)

"for their discoveries regarding the functions of neurons"

#### [The Nobel Prize in Physiology or Medicine 1931](#)

##### [Otto Heinrich Warburg](#)

"for his discovery of the nature and mode of action of the respiratory enzyme"

#### [The Nobel Prize in Physiology or Medicine 1930](#)

##### [Karl Landsteiner](#)

"for his discovery of human blood groups"

#### [The Nobel Prize in Physiology or Medicine 1929](#)

**Christiaan Eijkman**

"for his discovery of the antineuritic vitamin"

**Sir Frederick Gowland Hopkins**

"for his discovery of the growth-stimulating vitamins"

**The Nobel Prize in Physiology or Medicine 1928**

**Charles Jules Henri Nicolle**

"for his work on typhus"

**The Nobel Prize in Physiology or Medicine 1927**

**Julius Wagner-Jauregg**

"for his discovery of the therapeutic value of malaria inoculation in the treatment of dementia paralytica"

**The Nobel Prize in Physiology or Medicine 1926**

**Johannes Andreas Grib Fibiger**

"for his discovery of the Spiroptera carcinoma"

**The Nobel Prize in Physiology or Medicine 1925**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

**The Nobel Prize in Physiology or Medicine 1924**

**Willem Einthoven**

"for his discovery of the mechanism of the electrocardiogram"

**The Nobel Prize in Physiology or Medicine 1923**

**Frederick Grant Banting and John James Rickard Macleod**

"for the discovery of insulin"

**The Nobel Prize in Physiology or Medicine 1922**

**Archibald Vivian Hill**

"for his discovery relating to the production of heat in the muscle"

**Otto Fritz Meyerhof**

"for his discovery of the fixed relationship between the consumption of oxygen and the metabolism of lactic acid in the muscle"

#### **The Nobel Prize in Physiology or Medicine 1921**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

#### **The Nobel Prize in Physiology or Medicine 1920**

##### **Schack August Steenberg Krogh**

"for his discovery of the capillary motor regulating mechanism"

#### **The Nobel Prize in Physiology or Medicine 1919**

##### **Jules Bordet**

"for his discoveries relating to immunity"

#### **The Nobel Prize in Physiology or Medicine 1918**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

#### **The Nobel Prize in Physiology or Medicine 1917**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

#### **The Nobel Prize in Physiology or Medicine 1916**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

#### **The Nobel Prize in Physiology or Medicine 1915**

No Nobel Prize was awarded this year. The prize money was allocated to the Special Fund of this prize section.

#### **The Nobel Prize in Physiology or Medicine 1914**

##### **Robert Bárány**

"for his work on the physiology and pathology of the vestibular apparatus"

#### **The Nobel Prize in Physiology or Medicine 1913**

##### **Charles Robert Richet**

"in recognition of his work on anaphylaxis"

## [The Nobel Prize in Physiology or Medicine 1912](#)

### [Alexis Carrel](#)

"in recognition of his work on vascular suture and the transplantation of blood vessels and organs"

## [The Nobel Prize in Physiology or Medicine 1911](#)

### [Allvar Gullstrand](#)

"for his work on the dioptrics of the eye"

## [The Nobel Prize in Physiology or Medicine 1910](#)

### [Albrecht Kossel](#)

"in recognition of the contributions to our knowledge of cell chemistry made through his work on proteins, including the nucleic substances"

## [The Nobel Prize in Physiology or Medicine 1909](#)

### [Emil Theodor Kocher](#)

"for his work on the physiology, pathology and surgery of the thyroid gland"

## [The Nobel Prize in Physiology or Medicine 1908](#)

### [Ilya Ilyich Mechnikov](#) and [Paul Ehrlich](#)

"in recognition of their work on immunity"

## [The Nobel Prize in Physiology or Medicine 1907](#)

### [Charles Louis Alphonse Laveran](#)

"in recognition of his work on the role played by protozoa in causing diseases"

## [The Nobel Prize in Physiology or Medicine 1906](#)

### [Camillo Golgi](#) and [Santiago Ramón y Cajal](#)

"in recognition of their work on the structure of the nervous system"

## [The Nobel Prize in Physiology or Medicine 1905](#)

### [Robert Koch](#)

"for his investigations and discoveries in relation to tuberculosis"

## [The Nobel Prize in Physiology or Medicine 1904](#)

### [Ivan Petrovich Pavlov](#)

"in recognition of his work on the physiology of digestion, through which knowledge on vital aspects of the subject has been transformed and enlarged"

#### **The Nobel Prize in Physiology or Medicine 1903**

##### **Niels Ryberg Finsen**

"in recognition of his contribution to the treatment of diseases, especially lupus vulgaris, with concentrated light radiation, whereby he has opened a new avenue for medical science"

#### **The Nobel Prize in Physiology or Medicine 1902**

##### **Ronald Ross**

"for his work on malaria, by which he has shown how it enters the organism and thereby has laid the foundation for successful research on this disease and methods of combating it"

#### **The Nobel Prize in Physiology or Medicine 1901**

##### **Emil Adolf von Behring**

"for his work on serum therapy, especially its application against diphtheria, by which he has opened a new road in the domain of medical science and thereby placed in the hands of the physician a victorious weapon against illness and deaths"