

NOBEL FOUNDATION

Nobel Directory

Part II

Laureates

CONTENTS

LAUREATES

<i>Physics</i>	3
<i>Chemistry</i>	40
<i>Physiology or Medicine</i>	72
<i>Literature</i>	107
<i>Peace</i>	131
<i>Economic Sciences (Alfred Nobel Memorial Prize)</i>	150
<i>Index</i>	164

NOBEL FOUNDATION DIRECTORY

Pristagar-delen

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LIST OF NOBEL LAUREATES

Note: Titles, data and places given below refer to the time of the award.

1. PHYSICS

- 1901 RÖNTGEN, WILHELM CONRAD, Germany, Munich University
* 1845, † 1923
- *"såsom ett erkännande av den utomordentliga förtjänst han inlagt genom upptäckten av de egendomliga strålar, som sedermera uppkallats efter honom"*
 - "in recognition of the extraordinary services he has rendered by the discovery of the remarkable rays subsequently named after him."
- 1902 The prize was awarded jointly to:
- LORENTZ, HENDRIK ANTOON, the Netherlands, Leiden University
* 1853, † 1928
- and
- ZEEMAN, PIETER, the Netherlands, Amsterdam University
* 1865, † 1943
- *"såsom ett erkännande av den utomordentliga förtjänst de inlagt genom sina undersökningar över magnetismens inflytande på strålningsfenomenen"*
 - "in recognition of the extraordinary service they rendered by their researches into the influence of magnetism upon radiation phenomena."
- 1903 The prize was divided, one half being awarded to:
- BECQUEREL, ANTOINE HENRI, France, École Polytechnique, Paris
* 1852, † 1908

PHYSICS

- *"såsom ett erkännande av den utomordentliga förtjänst han inlagt genom upptäckten av den spontana radioaktiviteten"*
- "in recognition of the extraordinary services he has rendered by his discovery of spontaneous radioactivity."

the other half jointly to:

CURIE, PIERRE, France, École municipale de physique et de chimie industrielles (Municipal School of Industrial Physics and Chemistry), Paris

* 1859, † 1906

and his wife

CURIE, MARIE, née SKLODOWSKA, France

* 1867 (in Warsaw, Poland), † 1934

- *"såsom ett erkännande av den utomordentliga förtjänst de inlagt genom sina gemensamt utförda arbeten rörande de av Professor Henri Becquerel upptäckta strålningsfenomenen"*
- "in recognition of the extraordinary services they have rendered by their joint researches on the radiation phenomena discovered by Professor Henri Becquerel."

1904 Lord RAYLEIGH, (JOHN WILLIAM STRUTT), United Kingdom, Royal Institution of Great Britain, London

* 1842, † 1919

- *"för hans undersökningar rörande de viktigaste gasernas täthet samt hans i sammanhang med dessa undersökningar gjorda upptäckt av argon"*
- "for his investigations of the densities of the most important gases and for his discovery of argon in connection with these studies."

1905 LENARD, PHILIPP EDUARD ANTON VON, Germany, Kiel University

* 1862 (in Pressburg, then Hungary), † 1947

- *"för hans arbeten över katodstrålarna"*
- "for his work on cathode rays."

1906 THOMSON, JOSEPH JOHN, United Kingdom, University of Cambridge

* 1856, † 1940

- "såsom ett erkännande av den stora förtjänst han inlagt genom sina teoretiska och experimentella undersökningar över elektricitetens gång genom gaser"
 - "in recognition of the great merits of his theoretical and experimental investigations on the conduction of electricity by gases."
- 1907 MICHELSON, ALBERT ABRAHAM, U.S.A., University of Chicago, IL
 * 1852 (in Strelno, then Germany), † 1931
- "för hans optiska precisionsinstrument och hans därmed utförda spektroskopiska och metrologiska undersökningar"
 - "for his optical precision instruments and the spectroscopic and metrological investigations carried out with their aid."
- 1908 LIPPMANN, GABRIEL, France, Sorbonne University, Paris
 * 1845 (in Hollerich, Luxembourg), † 1921
- "för hans på interferensfenomenet grundade metod att fotografiskt återgiva färger"
 - "for his method of reproducing colours photographically based on the phenomenon of interference."
- 1909 The prize was awarded jointly to:
- MARCONI, GUGLIELMO, Italy, Marconi Wireless Telegraph Co. Ltd., London, United Kingdom
 * 1874, † 1937
- and
- BRAUN, KARL FERDINAND, Germany, Strasbourg University, Alsace (then Germany)
 * 1850, † 1918
- "såsom ett erkännande av deras förtjänster om den trådlösa telegrafiens utveckling"
 - "in recognition of their contributions to the development of wireless telegraphy."
- 1910 WAALS, JOHANNES DIDERIK VAN DER, the Netherlands, Amsterdam University
 * 1837, † 1923
- "för hans arbeten angående gasers och vätskors tillståndsekvation"

PHYSICS

- “for his work on the equation of state for gases and liquids.”
- 1911 WIEN, WILHELM, Germany, Würzburg University
* 1864, † 1928
- *”för hans upptäckter angående värmestrålningens lagar”*
 - “for his discoveries regarding the laws governing the radiation of heat.”
- 1912 DALÉN, NILS GUSTAF, Sweden, Swedish Gas-Accumulator Co., Lidingö-Stockholm
* 1869, † 1937
- *”för hans uppfinningar av självverkande regulatorer att i kombination med gasaccumulatorer användas till belysning av fyrar och lysbojar”*
 - “for his invention of automatic regulators for use in conjunction with gas accumulators for illuminating lighthouses and buoys.”
- 1913 KAMERLINGH ONNES, HEIKE, the Netherlands, Leiden University
* 1853, † 1926
- *”i anledning av hans undersökningar över kroppars egenskaper vid låga temperaturer, vilka bland annat lett till framställningen av flytande helium”*
 - “for his investigations on the properties of matter at low temperatures which led, inter alia, to the production of liquid helium.”
- 1914 LAUE, MAX VON, Germany, Frankfurt-on-the-Main University
* 1879, † 1960
- *”för hans upptäckt av röntgenstrålarnas diffraktion i kristaller”*
 - “for his discovery of the diffraction of X-rays by crystals.”
- 1915 The prize was awarded jointly to:
BRAGG, Sir WILLIAM HENRY, United Kingdom, London University
* 1862, † 1942
and his son

BRAGG, WILLIAM LAWRENCE, United Kingdom, Victoria University, Manchester

* 1890 (in Adelaide, Australia), † 1971

- *"för deras förtjänster om utforskandet av kristallstrukturer medelst röntgenstrålar"*
- "for their services in the analysis of crystal structure by means of X-rays."

1916 Reserved.

1917 The prize money for 1916 was allocated to the Special Fund of this prize section.

The prize for 1917: Reserved.

1918 The prize for 1917:

BARKLA, CHARLES GLOVER, United Kingdom, Edinburgh University

* 1877, † 1944

- *"för hans upptäckt av den karakteristiska röntgenstrålningen hos elementen"*
- "for his discovery of the characteristic Röntgen radiation of the elements."

The prize for 1918: Reserved.

1919 The prize for 1918:

PLANCK, MAX KARL ERNST LUDWIG, Germany, Berlin University

* 1858, † 1947

- *"såsom ett erkännande av den förtjänst han genom upptäckten av elementarkvanta inlagt om fysikens utveckling"*
- "in recognition of the services he rendered to the advancement of Physics by his discovery of energy quanta."

The prize for 1919:

STARK, JOHANNES, Germany, Greifswald University

* 1874, † 1957

- *"för hans upptäckt av dopplereffekten hos kanalstrålar och av spektrallinjens uppdelning i elektriska fält"*

PHYSICS

- “for his discovery of the Doppler effect in canal rays and the splitting of spectral lines in electric fields.”

1920 GUILLAUME, CHARLES EDOUARD, Switzerland, Bureau International des Poids et Mesures (International Bureau of Weights and Measures), Sèvres

* 1861, † 1938

- *”såsom ett erkännande av den förtjänst han genom upptäckten av nickelstållegeringarnas anomalier inlagt om precisionsfysiken”*
- “in recognition of the service he has rendered to precision measurements in Physics by his discovery of anomalies in nickel steel alloys.”

1921 Reserved.

1922 The prize for 1921:

EINSTEIN, ALBERT, Germany and Switzerland, Kaiser-Wilhelm-Institut (now Max-Planck-Institut) für Physik, Berlin

* 1879 (in Ulm, Germany), † 1955

- *”för hans förtjänster om den teoretiska fysiken, särskilt hans upptäckt av lagen för den fotoelektriska effekten”*
- “for his services to Theoretical Physics, and especially for his discovery of the law of the photoelectric effect.”

The prize for 1922:

BOHR, NIELS HENRIK DAVID, Denmark, Copenhagen University

* 1885, † 1962

- *”för hans förtjänster om utforskandet av atomernas struktur och den från dem utgående strålningen”*
- “for his services in the investigation of the structure of atoms and of the radiation emanating from them.”

1923 MILLIKAN, ROBERT ANDREWS, U.S.A., California Institute of Technology, Pasadena, CA

* 1868, † 1953

- *”för hans arbeten rörande den elektriska enhetsladdningen samt den fotoelektriska effekten”*
- “for his work on the elementary charge of electricity and on the photoelectric effect.”

1924 Reserved.

1925 The prize for 1924:

SIEGBAHN, KARL MANNE GEORG, Sweden, Uppsala University

* 1886, † 1978

- *"för hans röntgenspektroskopiska upptäckter och forskningar"*
- "for his discoveries and research in the field of X-ray spectroscopy."

The prize for 1925: Reserved

1926 The prize for 1925 was awarded jointly to:

FRANCK, JAMES, Germany, Goettingen University

* 1882, † 1964

and

HERTZ, GUSTAV LUDWIG, Germany, Halle University

* 1887, † 1975

- *"med anledning av deras upptäckt av lagarna för stöten mellan en elektron och en atom"*
- "for their discovery of the laws governing the impact of an electron upon an atom."

The prize for 1926:

PERRIN, JEAN BAPTISTE, France, Sorbonne University, Paris

* 1870, † 1942

- *"för hans arbeten rörande materiens diskontinuerliga struktur, särskilt för hans upptäckt av sedimentations-jämvikten"*
- "for his work on the discontinuous structure of matter, and especially for his discovery of sedimentation equilibrium."

1927 The prize was divided equally between:

COMPTON, ARTHUR HOLLY, U.S.A., Chicago University, IL

* 1892, † 1962

- *"för hans upptäckt av den efter honom benämnda effekten"*
- "for his discovery of the effect named after him."

PHYSICS

and

WILSON, CHARLES THOMSON REES, United Kingdom, University of Cambridge

* 1869 (in Glencorse, Scotland), † 1959

- "*för upptäckten av hans metod att genom ångkondensation göra elektriskt laddade partiklars banor iakttagbara*"
- "for his method of making the paths of electrically charged particles visible by condensation of vapour."

1928 Reserved.

1929 The prize for 1928:

RICHARDSON, OWEN WILLANS, United Kingdom, London University

* 1879, † 1959

- "*för hans arbeten rörande termjonfenomenet och särskilt för upptäckten av den efter honom benämnda lagen*"
- "for his work on the thermionic phenomenon and especially for the discovery of the law named after him."

The prize for 1929:

BROGLIE, Prince LOUIS-VICTOR PIERRE RAYMOND DE, France, Sorbonne University, Institut Henri Poincaré, Paris

* 1892, † 1987

- "*för upptäckten av elektronernas vågnatur*"
- "for his discovery of the wave nature of electrons."

1930 RAMAN, Sir CHANDRASEKHARA VENKATA, India, Calcutta University

* 1888, † 1970

- "*för hans arbeten angående ljusets diffusion och för upptäckten av den efter honom uppkallade effekten*"
- "for his work on the scattering of light and for the discovery of the effect named after him."

1931 Reserved.

1932 The prize money for 1931 was allocated to the Special Fund of this prize section.

The prize for 1932: Reserved.

1933 The prize for 1932:

HEISENBERG, WERNER KARL, Germany, Leipzig University

* 1901, † 1976

- *"för uppställande av kvantmekaniken, vars användning bl.a. lett till upptäckten av väteets allotropa former"*
- "for the creation of quantum mechanics, the application of which has, inter alia, led to the discovery of the allotropic forms of hydrogen."

The prize for 1933 was awarded jointly to:

SCHRÖDINGER, ERWIN, Austria, Berlin University, Germany

* 1887, † 1961

and

DIRAC, PAUL ADRIEN MAURICE, United Kingdom, University of Cambridge

* 1902, † 1984

- *"för upptäckandet av nya fruktbara former av atomteorin"*
- "for the discovery of new productive forms of atomic theory."

1934 Reserved.

1935 The prize money for 1934 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1935:

CHADWICK, JAMES, United Kingdom, Liverpool University

* 1891, † 1974

- *"för upptäckten av neutronen"*
- "for the discovery of the neutron."

1936 The prize was divided equally between:

HESS, VICTOR FRANZ, Austria, Innsbruck University

* 1883, † 1964

PHYSICS

- *"för upptäckten av den kosmiska strålningen"*
- "for his discovery of cosmic radiation."

and

ANDERSON, CARL DAVID, U.S.A., California Institute of Technology, Pasadena, CA

* 1905, † 1991

- *"för upptäckten av positronen"*
- "for his discovery of the positron."

1937 The prize was awarded jointly to:

DAVISSON, CLINTON JOSEPH, U.S.A., Bell Telephone Laboratories, New York, NY

* 1881, † 1958

and

THOMSON, GEORGE PAGET, United Kingdom, London University

* 1892, † 1975

- *"för den experimentella upptäckten av interferensfenomenet vid kristallers bestrålning med elektroner"*
- "for their experimental discovery of the diffraction of electrons by crystals."

1938 FERMI, ENRICO, Italy, Rome University

* 1901, † 1954

- *"för hans påvisande av nya radioaktiva grundämnen, framställda genom neutronbestrålning, och hans i anslutning därtill gjorda upptäckt av kärnreaktioner, åstadkomna genom långsamma neutroner"*
- "for his demonstrations of the existence of new radioactive elements produced by neutron irradiation, and for his related discovery of nuclear reactions brought about by slow neutrons."

1939 LAWRENCE, ERNEST ORLANDO, U.S.A., University of California, Berkeley, CA

* 1901, † 1958

- *"för uppfinningen av cyklotronen, dess utveckling och med densamma vunna resultat, särskilt beträffande artificiellt radioaktiva element"*

- “for the invention and development of the cyclotron and for results obtained with it, especially with regard to artificial radioactive elements.”
- 1940 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1941 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1942 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1943 Reserved.
- 1944 The prize for 1943:
 STERN, OTTO, U.S.A., Carnegie Institute of Technology, Pittsburgh, PA
 * 1888 (in Sorau, then Germany), † 1969
- *”för hans bidrag till utveckling av molekylstrålemetoden och upptäckten av protonens magnetiska moment”*
 - “for his contribution to the development of the molecular ray method and his discovery of the magnetic moment of the proton.”
- The prize for 1944:
 RABI, ISIDOR ISAAC, U.S.A., Columbia University, New York, NY
 * 1898 (in Rymanow, then Austria-Hungary), † 1988
- *”för den av honom angivna resonansmetoden för registrering av atomkärnans magnetiska egenskaper”*
 - “for his resonance method for recording the magnetic properties of atomic nuclei.”
- 1945 PAULI, WOLFGANG, Austria, Princeton University, Princeton, NJ, U.S.A.
 * 1900, † 1958
- *”för upptäckten av uteslutningsprincipen, även benämnd Pauliprincipen”*

PHYSICS

- “for the discovery of the Exclusion Principle, also called the Pauli Principle.”
- 1946 BRIDGMAN, PERCY WILLIAMS, U.S.A., Harvard University, Cambridge, MA
* 1882, † 1961
- *”för uppfinningen av en apparatur för åstadkommande av extremt höga tryck och för de upptäckter han med densamma gjort inom området för de höga tryckens fysik”*
 - “for the invention of an apparatus to produce extremely high pressures, and for the discoveries he made therewith in the field of high pressure physics.”
- 1947 APPLETON, Sir EDWARD VICTOR, United Kingdom, Department of Scientific and Industrial Research, London
* 1892, † 1965
- *”för hans arbeten rörande atmosfärens fysik, särskilt för upptäckten av det s.k. 'Appletonskiktet'”*
 - “for his investigations of the physics of the upper atmosphere especially for the discovery of the so-called Appleton layer.”
- 1948 BLACKETT, PATRICK MAYNARD STUART, United Kingdom, Victoria University, Manchester
* 1897, † 1974
- *”för hans utveckling av Wilsonmetoden och hans därmed gjorda upptäckter inom kärnfysiken och rörande den kosmiska strålningen”*
 - “for his development of the Wilson cloud chamber method, and his discoveries therewith in the fields of nuclear physics and cosmic radiation.”
- 1949 YUKAWA, HIDEKI, Japan, Kyoto Imperial University and Columbia University, New York, NY, U.S.A.
* 1907, † 1981
- *”för hans på grundval av teoretiska arbeten rörande kärnkrafterna gjorda förutsägelse av mesonernas existens”*
 - “for his prediction of the existence of mesons on the basis of theoretical work on nuclear forces.”

1950 POWELL, CECIL FRANK, United Kingdom, Bristol University

* 1903, † 1969

- *"för hans utveckling av den fotografiska metoden för studiet av kärnprocesser och hans därvid gjorda upptäckter rörande mesonerna"*
- "for his development of the photographic method of studying nuclear processes and his discoveries regarding mesons made with this method."

1951 The prize was awarded jointly to:

COCKCROFT, Sir JOHN DOUGLAS, United Kingdom, Atomic Energy Research Establishment, Harwell, Berkshire

* 1897, † 1967

and

WALTON, ERNEST THOMAS SINTON, Ireland, Trinity College, Dublin

* 1903, † 1995

- *"för deras pionjärbete vid genomförandet av kärnomvandlingar medelst artificiellt accelererade partiklar"*
- "for their pioneer work on the transmutation of atomic nuclei by artificially accelerated atomic particles."

1952 The prize was awarded jointly to:

BLOCH, FELIX, U.S.A., Stanford University, Stanford, CA

* 1905 (in Zurich, Switzerland), † 1983

and

PURCELL, EDWARD MILLS, U.S.A., Harvard University, Cambridge, MA

* 1912, † 1997

- *"för deras utveckling av nya metoder för kärnmagnetiska precisionsmätningar och därmed gjorda upptäckter"*
- "for their development of new methods for nuclear magnetic precision measurements and discoveries in connection therewith."

PHYSICS

1953 ZERNIKE, FRITS (FREDERIK), the Netherlands, Groningen University

* 1888, † 1966

- *"för den av honom angivna faskontrastmetoden, särskilt för hans uppfinning av faskontrastmikroskopet"*
- "for his demonstration of the phase contrast method, especially for his invention of the phase contrast microscope."

1954 The prize was divided equally between:

BORN, MAX, United Kingdom, Edinburgh University

* 1882 (in Breslau, then Germany), † 1970

- *"för hans grundläggande arbeten inom kvantmekaniken, särskilt hans statistiska tolkning av vågfunktionen"*
- "for his fundamental research in quantum mechanics, especially for his statistical interpretation of the wave-function."

and

BOTHE, WALTHER, Federal Republic of Germany, University of Heidelberg, Max-Planck Institut (former Kaiser-Wilhelm-Institut) für medizinische Forschung, Heidelberg

* 1891, † 1957

- *"för koincidensmetoden och hans därmed gjorda upptäckter"*
- "for the coincidence method and his discoveries made therewith."

1955 The prize was awarded jointly to:

LAMB, WILLIS EUGENE, U.S.A., Stanford University, Stanford, CA

* 1913, † 2008

- *"för hans upptäckter rörande finstrukturen i väteets spektrum"*
- "for his discoveries concerning the fine structure of the hydrogen spectrum."

and

KUSCH, POLYKARP, U.S.A., Columbia University, New York, NY

* 1911 (in Blankenburg, then Germany), † 1993

- *"för hans precisionsbestämning av elektronens magnetiska moment"*

- “for his precision determination of the magnetic moment of the electron.”

1956 The prize was divided jointly, one third each, to:

SHOCKLEY, WILLIAM BRADFORD, U.S.A., Semiconductor Laboratory of Beckman Instruments, Inc., Mountain View, CA

* 1910 (in London, United Kingdom), † 1989

BARDEEN, JOHN, U.S.A., University of Illinois, Urbana, IL

* 1908, † 1991

and

BRATTAIN, WALTER HOUSER, U.S.A., Bell Telephone Laboratories, Murray Hill, NJ

* 1902, † 1987

- *”för deras undersökningar över halvledare och upptäckt av transistoreffekten”*
- “for their researches on semiconductors and their discovery of the transistor effect.”

1957 The prize was awarded jointly to:

YANG, CHEN NING, China, Institute for Advanced Study, Princeton, NJ, U.S.A.

* 1922

and

LEE, TSUNG-DAO, China, Columbia University, New York, NY, U.S.A.

* 1926

- *”för deras djupgående undersökning av de s.k. paritetslagarna, vilken har lett till viktiga upptäckter rörande elementarpartiklarna”*
- “for their penetrating investigation of the so-called parity laws which has led to important discoveries regarding the elementary particles.”

1958 The prize was awarded jointly to:

CHERENKOV, PAVEL ALEKSEYEVICH, USSR, Physics Institute of USSR Academy of Sciences, Moscow

* 1904, † 1990

PHYSICS

FRANK, IL'JA MIKHAILOVICH, USSR, University of Moscow and Physics Institute of USSR Academy of Sciences, Moscow

* 1908, † 1990

and

TAMM, IGOR YEGENYEVICH, USSR, University of Moscow and Physics Institute of USSR Academy of Sciences, Moscow

* 1895, † 1971

- "*för upptäckten och tolkningen av Cherenkoeffekten*"
- "for the discovery and the interpretation of the Cherenkov effect."

1959 The prize was awarded jointly to:

SEGRÈ, EMILIO GINO, U.S.A., University of California, Berkeley, CA

* 1905 (in Tivoli, Italy), † 1989

and

CHAMBERLAIN, OWEN, U.S.A., University of California, Berkeley, CA

* 1920, † 2006

- "*för deras upptäckt av antiprotonen*"
- "for their discovery of the antiproton."

1960 GLASER, DONALD ARTHUR, U.S.A., University of California, Berkeley, CA

* 1926

- "*för uppfinningen av bubbelkammaren*"
- "for the invention of the bubble chamber."

1961 The prize was divided equally between:

HOFSTADTER, ROBERT, U.S.A., Stanford University, Stanford, CA

* 1915, † 1990

- "*för hans banbrytande undersökningar över elektron-spridningen mot atomkärnor och därvid gjorda upptäckter rörande nukleonernas struktur*"

- “for his pioneering studies of electron scattering in atomic nuclei and for his thereby achieved discoveries concerning the structure of the nucleons.”

and

MÖSSBAUER, RUDOLF LUDWIG, Federal Republic of Germany, Technical University, Munich, and California Institute of Technology, Pasadena, CA, U.S.A.

* 1929

- *”för hans undersökningar rörande gammastrålningens resonansabsorption och därvid gjorda upptäckt av den efter honom benämnda effekten”*
- “for his researches concerning the resonance absorption of gamma radiation and his discovery in this connection of the effect which bears his name.”

1962 LANDAU, LEV DAVIDOVICH, USSR, Academy of Sciences, Moscow

* 1908, † 1968

- *”för hans banbrytande teorier för kondenserad materia, särskilt flytande helium”*
- “for his pioneering theories for condensed matter, especially liquid helium.”

1963 The prize was divided, one half being awarded to:

WIGNER, EUGENE PAUL, U.S.A., Princeton University, Princeton, NJ

* 1902 (in Budapest, Hungary), † 1995

- *”för hans insatser inom teorien för atomkärnorna och elementarpartiklarna, särskilt genom upptäckten och tillämpningen av fundamentala symmetriprinciper”*
- “for his contributions to the theory of the atomic nucleus and the elementary particles, particularly through the discovery and application of fundamental symmetry principles.”

the other half jointly to:

GOEPPERT-MAYER, MARIA, U.S.A., University of California, La Jolla, CA

* 1906 (in Kattowitz, then Germany), † 1972

and

PHYSICS

JENSEN, J. HANS D., Federal Republic of Germany, University of Heidelberg

* 1907, † 1973

• *"för deras upptäckter beträffande atomkärnornas skalstruktur"*

• "for their discoveries concerning nuclear shell structure."

1964 The prize was divided, one half being awarded to:

TOWNES, CHARLES HARD, U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1915

the other half jointly to:

BASOV, NICOLAY GENNADIYEVICH, USSR, Lebedev Institute for Physics, Akademija Nauk, Moscow

* 1922, † 2001

and

PROKHOROV, ALEKSANDR MIKHAILOVICH, USSR, Lebedev Institute for Physics, Akademija Nauk, Moscow

* 1916, † 2002

• *"för grundläggande arbeten inom kvantelektroniken, som lett till framställning av oscillatorer och förstärkare enligt maser-laserprincipen"*

• "for fundamental work in the field of quantum electronics, which has led to the construction of oscillators and amplifiers based on the maser-laser principle."

1965 The prize was awarded jointly to:

TOMONAGA, SIN-ITIRO, Japan, Tokyo University of Education

* 1906, † 1979

SCHWINGER, JULIAN, U.S.A., Harvard University, Cambridge, MA

* 1918, † 1994

and

FEYNMAN, RICHARD P., U.S.A., California Institute of Technology, Pasadena, CA

* 1918, † 1988

- *"för deras fundamentala insats inom kvantelektrodynamiken, med djupgående konsekvenser för elementarpartikelfysiken"*
 - "for their fundamental work in quantum electrodynamics, with deep-ploughing consequences for the physics of elementary particles."
- 1966 KASTLER, ALFRED, France, École Normale Supérieure, Université de Paris
 * 1902, † 1984
- *"för upptäckt och utveckling av optiska metoder för studiet av hertziska resonanser i atomer"*
 - "for the discovery and development of optical methods for studying Hertzian resonances in atoms."
- 1967 BETHE, HANS ALBRECHT, U.S.A., Cornell University, Ithaca, NY
 * 1906 (in Strasbourg, then Germany), † 2005
- *"för hans insatser inom teorien för kärnreaktioner, särskilt hans upptäckter rörande energialstringen i stjärnorna"*
 - "for his contributions to the theory of nuclear reactions, especially his discoveries concerning the energy production in stars."
- 1968 ALVAREZ, LUIS WALTER, U.S.A., University of California, Berkeley, CA
 * 1911, † 1988
- *"för hans avgörande insatser inom elementarpartikelfysiken, särskilt upptäckten av ett stort antal resonanstillstånd, möjliggjord genom hans utveckling av tekniken med vätebubbelkammare och dataanalys"*
 - "for his decisive contributions to elementary particle physics, in particular the discovery of a large number of resonance states, made possible through his development of the technique of using hydrogen bubble chamber and data analysis."
- 1969 GELL-MANN, MURRAY, U.S.A., California Institute of Technology, Pasadena, CA
 * 1929

PHYSICS

- *"för hans bidrag och upptäckter beträffande klassificeringen av elementarpartiklarna och deras växelverkan"*
- "for his contributions and discoveries concerning the classification of elementary particles and their interactions."

1970 The prize was divided equally between:

ALFVÉN, HANNES OLOF GÖSTA, Sweden, Royal Institute of Technology, Stockholm

* 1908, † 1995

- *"för grundläggande insatser och upptäckter inom magnetohydrodynamiken med fruktbara tillämpningar inom olika områden av plasmafysiken"*
- "for fundamental work and discoveries in magnetohydrodynamics with fruitful applications in different parts of plasma physics."

and

NÉEL, LOUIS EUGÈNE FÉLIX, France, University of Grenoble

* 1904, † 2000

- *"för grundläggande insatser och upptäckter rörande antiferromagnetism och ferrimagnetism som lett till betydelsefulla tillämpningar inom det fasta tillståndets fysik"*
- "for fundamental work and discoveries concerning antiferromagnetism and ferrimagnetism which have led to important applications in solid state physics."

1971 GABOR, DENNIS, United Kingdom, Imperial College of Science and Technology, London

* 1900 (in Budapest, Hungary), † 1979

- *"för hans uppfinning och utveckling av den holografiska metoden"*
- "for his invention and development of the holographic method."

1972 The prize was awarded jointly to:

BARDEEN, JOHN, U.S.A., University of Illinois, Urbana, IL

* 1908, † 1991

COOPER, LEON NEIL, U.S.A., Brown University, Providence, RI

* 1930

and

SCHRIEFFER, JOHN ROBERT, U.S.A., University of Pennsylvania, Philadelphia, PA

* 1931

- "*för den av dem gemensamt utvecklade teorien för supraledningsfenomenet, vanligen kallad BCS-teorien*"
- "for their jointly developed theory of superconductivity, usually called the BCS-theory."

1973 The prize was divided, one half being equally shared between:

ESAKI, LEO, Japan, IBM Thomas J. Watson Research Center, Yorktown Heights, NY, U.S.A.

* 1925

and

GIAEVER, IVAR, U.S.A., General Electric Company, Schenectady, NY

* 1929 (in Bergen, Norway)

- "*för deras experimentella upptäckter rörande tunnelfenomenet i halvledare, respektive supraledare*"
- "for their experimental discoveries regarding tunneling phenomena in semiconductors and superconductors, respectively."

and the other half to:

JOSEPHSON, BRIAN DAVID, United Kingdom, University of Cambridge

* 1940

- "*för hans teoretiska förutsägelser av egenskaperna hos en supraström genom en tunnelbarriär, särskilt de fenomen vilka allmänt benämns Josephson-effekterna*"
- "for his theoretical predictions of the properties of a supercurrent through a tunnel barrier, in particular those phenomena which are generally known as the Josephson effects."

1974 The prize was awarded jointly to:

PHYSICS

RYLE, Sir MARTIN, United Kingdom, University of Cambridge

* 1918, † 1984

and

HEWISH, ANTONY, United Kingdom, University of Cambridge

* 1924

- *"för deras banbrytande arbeten inom radioastrofysiken: Ryle för hans observationer och uppfinningar, särskilt apertursyntestekniken, och Hewish för hans avgörande insatser vid upptäckten av pulsarerna"*
- "for their pioneering research in radio astrophysics: Ryle for his observations and inventions, in particular of the aperture synthesis technique, and Hewish for his decisive role in the discovery of pulsars."

1975 The prize was awarded jointly to:

BOHR, AAGE NIELS, Denmark, Niels Bohr Institute, Copenhagen

* 1922, † 2009

MOTTELSON, BEN ROY, Denmark, Nordita, Copenhagen

* 1926 (in Chicago, IL, U.S.A.)

and

RAINWATER, LEO JAMES, U.S.A., Columbia University, New York, NY

* 1917, † 1986

- *"för upptäckten av sambandet mellan kollektiva rörelser och partikelrörelser i atomkärnor, samt den därpå baserade utvecklingen av teorien för atomkärnans struktur"*
- "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."

1976 The prize was divided equally between:

RICHTER, BURTON, U.S.A., Stanford Linear Accelerator Center, Stanford, CA

* 1931

and

TING, SAMUEL CHAO CHUNG, U.S.A., Massachusetts Institute of Technology, (MIT), Cambridge, MA

* 1936

- *"för deras ledande insatser vid upptäckten av en tung elementarpartikel av nytt slag"*
- "for their pioneering work in the discovery of a heavy elementary particle of a new kind."

1977 The prize was divided equally between:

ANDERSON, PHILIP WARREN, U.S.A., Bell Telephone Laboratories, Murray Hill, NJ

* 1923

MOTT, Sir NEVILL FRANCIS, United Kingdom, University of Cambridge

* 1905, † 1996

and

VLECK, JOHN HASBROUCK VAN, U.S.A., Harvard University, Cambridge, MA

* 1899, † 1980

- *"för deras grundläggande teoretiska insatser rörande elektronstrukturen i magnetiska och oordnade system"*
- "for their fundamental theoretical investigations of the electronic structure of magnetic and disordered systems."

1978 The prize was divided, one half being awarded to:

KAPITSA, PYOTR LEONIDOVICH, USSR, Academy of Sciences, Moscow

* 1894, † 1984

- *"för hans grundläggande uppfinningar och upptäckter inom lågtemperaturfysiken"*
- "for his basic inventions and discoveries in the area of low-temperature physics."

and the other half divided equally between:

PENZIAS, ARNO ALLAN, U.S.A., Bell Laboratories, Holmdel, NJ

* 1933 (in Munich, Germany)

and

PHYSICS

WILSON, ROBERT WOODROW, U.S.A., Bell Laboratories, Holmdel, NJ

* 1936

- *"för deras upptäckt av den kosmiska bakgrunden av mikrovågor"*
- "for their discovery of cosmic microwave background radiation."

1979 The prize was divided equally between:

GLASHOW, SHELDON LEE, U.S.A., Lyman Laboratory, Harvard University, Cambridge, MA

* 1932

SALAM, ABDUS, Pakistan, International Centre for Theoretical Physics, Trieste, and Imperial College of Science and Technology, London, United Kingdom

* 1926, † 1996

and

WEINBERG, STEVEN, U.S.A., Harvard University, Cambridge, MA

* 1933

- *"för deras insatser inom teorin för förenad svag och elektromagnetisk växelverkan mellan elementar partiklar, innefattande bl.a. förutsägelsen av den svaga neutrala strömmen"*
- "for their contributions to the theory of the unified weak and electromagnetic interaction between elementary particles, including, inter alia, the prediction of the weak neutral current."

1980 The prize was divided equally between:

CRONIN, JAMES WATSON, U.S.A., University of Chicago, Chicago, IL

* 1931

and

FITCH, VAL LOGSDON, U.S.A., Princeton University, Princeton, NJ

* 1923

- *"för upptäckten av brott mot fundamentala symmetriprinciper i neutrala K-mesoners sönderfall"*
- "for the discovery of violations of fundamental symmetry principles in the decay of neutral K-mesons."

1981 The prize was awarded with one half jointly to:

BLOEMBERGEN, NICOLAAS, U.S.A., Harvard University, Cambridge, MA

* 1920 (in Dordrecht, the Netherlands)

and

SCHAWLOW, ARTHUR LEONARD, U.S.A., Stanford University, Stanford, CA

* 1921, † 1999

- *"för deras bidrag till utvecklingen av laserspektroskopien"*
- "for their contribution to the development of laser spectroscopy."

and the other half to:

SIEGBAHN, KAI M., Sweden, Uppsala University

* 1918, † 2007

- *"för hans bidrag till utvecklingen av den högupplösande elektronspektroskopien"*
- "for his contribution to the development of high-resolution electron spectroscopy."

1982 WILSON, KENNETH G., U.S.A., Cornell University, Ithaca, NY

* 1936

- *"för hans teori för kritiska fenomen vid fasomvandlingar"*
- "for his theory for critical phenomena in connection with phase transitions."

1983 The prize was awarded with one half to:

CHANDRASEKHAR, SUBRAMANYAN, U.S.A., University of Chicago, Chicago, IL

* 1910 (in Lahore, India), † 1995

- *"för hans teoretiska studier av de fysikaliska processer, som är av betydelse för stjärnornas struktur och utveckling"*
- "for his theoretical studies of the physical processes of importance to the structure and evolution of the stars."

PHYSICS

and by the other half to:

FOWLER, WILLIAM ALFRED, U.S.A., California Institute of Technology, Pasadena, CA

* 1911, † 1995

- *"för hans teoretiska och experimentella studier av de kärnreaktioner, som är av betydelse för de kemiska elementens bildning i universum"*
- "for his theoretical and experimental studies of the nuclear reactions of importance in the formation of the chemical elements in the universe."

1984 The prize was awarded jointly to:

RUBBIA, CARLO, Italy, CERN, Geneva, Switzerland

* 1934

and

MEER, SIMON VAN DER, the Netherlands, CERN, Geneva, Switzerland

* 1925

- *"för deras avgörande insatser i det stora projekt, som lett till upptäckten av fältpartiklarna W och Z, förmedlare av svag växelverkan"*
- "for their decisive contributions to the large project, which led to the discovery of the field particles W and Z, communicators of weak interaction."

1985 KLITZING, KLAUS VON, Federal Republic of Germany, Max-Planck-Institut für Festkörperforschung, Stuttgart

* 1943

- *"för upptäckten av den kvantiserade Halleffekten"*
- "for the discovery of the quantized Hall effect."

1986 The prize was awarded with one half to:

RUSKA, ERNST, Federal Republic of Germany, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin

* 1906, † 1988

- *"för hans fundamentala elektronoptiska arbeten och konstruktionen av det första elektronmikroskopet"*
- "for his fundamental work in electron optics, and for the design of the first electron microscope."

and the other half jointly to:

BINNIG, GERD, Federal Republic of Germany, IBM Zurich Research Laboratory, Rüschlikon, Switzerland

* 1947

and

ROHRER, HEINRICH, Switzerland, IBM Zurich Research Laboratory, Rüschlikon

* 1933

- *"för deras konstruktion av sveptunnelmikroskopet"*
- "for their design of the scanning tunneling microscope."

1987 The prize was awarded jointly to:

BEDNORZ, J. GEORG, Federal Republic of Germany, IBM Research Laboratory, Rüschlikon, Switzerland

* 1950

and

MÜLLER, K. ALEXANDER, Switzerland, IBM Research Laboratory, Rüschlikon

* 1927

- *"för deras banbrytande upptäckt av supraledning i keramiska material"*
- "for their important break-through in the discovery of superconductivity in ceramic materials."

1988 The prize was awarded jointly to:

LEDERMAN, LEON M., U.S.A., Fermi National Accelerator Laboratory, Batavia, IL

* 1922

SCHWARTZ, MELVIN, U.S.A., Digital Pathways, Inc., Mountain View, CA

* 1932, † 2006

and

STEINBERGER, JACK, U.S.A., CERN, Geneva, Switzerland

* 1921 (in Bad Kissingen, Germany)

- *"för metoden med neutrinostrålar och påvisandet av leptonernas dubblettstruktur genom upptäckten av myonneutrino"*

PHYSICS

- “for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino.”

1989 The prize was awarded with one half to:

RAMSEY, NORMAN F., U.S.A., Harvard University, Cambridge, MA

* 1915

- *”för uppfinningen av metoden med separerade oscillerande fält och dess användning i vätemasern och andra atomklockor”*
- “for the invention of the separated oscillatory fields method and its use in the hydrogen maser and other atomic clocks.”

and the other half jointly to:

DEHMELT, HANS G., U.S.A., University of Washington, Seattle, WA

* 1922 (in Görlitz, Germany)

and

PAUL, WOLFGANG, Federal Republic of Germany, University of Bonn

* 1913, † 1993

- *”för utvecklingen av jonfälletekniken”*
- “for the development of the ion trap technique.”

1990 The prize was awarded jointly to:

FRIEDMAN, JEROME I., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1930

KENDALL, HENRY W., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1926, † 1999

and

TAYLOR, RICHARD E., Canada, Stanford University, Stanford, CA, U.S.A.

* 1929

- *”för deras banbrytande undersökningar rörande starkt inelastisk spridning av elektroner mot protoner och bundna*

neutroner, vilka haft en avgörande betydelse för utvecklingen av kvarkmodellen inom partikelfysiken”

- “for their pioneering investigations concerning deep inelastic scattering of electrons on protons and bound neutrons, which have been of essential importance for the development of the quark model in particle physics.”
- 1991 GENNES, PIERRE-GILLES DE, France, Collège de France, Paris
* 1932, † 2007
- *”för upptäckten att metoder, som utvecklats för att beskriva ordning i enkla system, kan generaliseras till att gälla mer komplicerade former av materia, särskilt flytande kristaller och polymerer”*
 - “for discovering that methods developed for studying order phenomena in simple systems can be generalized to more complex forms of matter, in particular to liquid crystals and polymers.”
- 1992 CHARPAK, GEORGES, France, École Supérieure de Physique et Chimie, Paris and CERN, Geneva, Switzerland
* 1924 (in Dabrovica, Poland)
- *”för hans uppfinning och utveckling av partikeldetektorer, särskilt flertrådsproportionalalkammaren”*
 - “for his invention and development of particle detectors, in particular the multiwire proportional chamber.”
- 1993 The prize was awarded jointly to:
- HULSE, RUSSELL A., U.S.A., Princeton University, Princeton, NJ
* 1950
- and
- TAYLOR, Jr., JOSEPH H., U.S.A., Princeton University, Princeton, NJ
* 1941
- *”för upptäckten av en ny typ av pulsar, en upptäckt som öppnat nya möjligheter för studiet av gravitationen”*
 - “for the discovery of a new type of pulsar, a discovery that has opened up new possibilities for the study of gravitation.”

PHYSICS

1994 The prize was awarded:

- *"för pionjärinsatser vid utvecklingen av neutronspridningsmetoder för studier av kondenserad materia;"*
- "for pioneering contributions to the development of neutron scattering techniques for studies of condensed matters."

with one half to:

BROCKHOUSE, BERTRAM N., Canada, McMaster University, Hamilton, Ontario

* 1918, † 2003

- *"för utveckling av neutronspektroskopin"*
- "for the development of neutron spectroscopy."

and with one half to:

SHULL, CLIFFORD G., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1915, † 2001

- *"för utveckling av neutroddiffraktionstekniken"*
- "for the development of the neutron diffraction technique."

1995 The prize was awarded:

- *"för banbrytande experimentella insatser inom leptonfysiken"*
- "for pioneering experimental contributions to lepton physics."

with one half to:

PERL, MARTIN L., U.S.A., Stanford University, Stanford, CA

* 1927

- *"för upptäckten av tauonen"*
- "for the discovery of the tau lepton."

and one half to:

REINES, FREDERICK, U.S.A., University of California, Irvine, CA

* 1918, † 1998

- *"för påvisandet av neutrino"*
- "for the detection of the neutrino."

1996 The prize was awarded jointly to:

LEE, DAVID M., U.S.A., Cornell University, Ithaca, NY
* 1931

OSHEROFF, DOUGLAS D., U.S.A., Stanford University,
Stanford, CA
* 1945

and

RICHARDSON, ROBERT C., U.S.A., Cornell University,
Ithaca, NY
* 1937

- *"för upptäckten av suprafluiditet i helium-3"*
- "for their discovery of superfluidity in helium-3."

1997 The prize was awarded jointly to:

CHU, STEVEN, U.S.A., Stanford University, Stanford, CA
* 1948

COHEN-TANNOUJJI, CLAUDE, France, Collège de France
and École Normale Supérieure, Paris
* 1933 (in Constantine, Algeria)

and

PHILLIPS, WILLIAM D., U.S.A., National Institute of Stan-
dards and Technology, Gaithersburg, MD
* 1948

- *"för utveckling av metoder att kyla och infånga atomer med laserljus"*
- "for development of methods to cool and trap atoms with laser light."

1998 The prize was awarded jointly to:

LAUGHLIN, ROBERT B., U.S.A., Stanford University,
Stanford, CA
* 1950

STÖRMER, HORST L., Federal Republic of Germany, Co-
lumbia University, New York, NY, U.S.A.
* 1949

and

TSUI, DANIEL C., U.S.A., Princeton University, Princeton, NJ

* 1939 (in Henan, China)

- *"för deras upptäckt av en ny form av kvantvätska med fraktionellt laddade excitationer"*
- "for their discovery of a new form of quantum fluid with fractionally charged excitations."

1999 The prize was awarded jointly to:

't HOOFT, GERARDUS, the Netherlands, Utrecht University, Utrecht

* 1946

and

VELTMAN, MARTINUS J. G., the Netherlands, Bilthoven

* 1931

- *"för deras avgörande insatser rörande kvantstrukturen hos teorin för elektrosvag växelverkan i fysiken"*
- "for elucidating the quantum structure of electroweak interactions in physics."

2000 The prize was awarded with one half jointly to:

ALFEROV, ZHOES I., Russia, AF. Ioffe Physico-Technical Institute, St. Petersburg

* 1930

and

KROEMER, HERBERT, Federal Republic of Germany, University of California at Santa Barbara, California, U.S.A.

* 1928

- *"för utvecklingen av halvledarheterostrukturer för höghastighets- och optoelektronik"*
- "for developing semiconductor heterostructures used in high-speed- and opto-electronics."

and with one half to:

KILBY, JACK S., U.S.A., Texas Instruments, Dallas, TX

* 1923, † 2005

- *"för hans del i uppfinningen av den integrerade kretsen"*
- "for his part in the invention of the integrated circuit."

2001 The prize was awarded jointly to:

CORNELL, ERIC A., U.S.A., JILA, University of Colorado, Boulder, CO

* 1961

KETTERLE, WOLFGANG, Federal Republic of Germany, MIT, Cambridge, MA, U.S.A.

* 1957

and

WIEMAN, CARL E., U.S.A., JILA and Department of Physics, University of Colorado, Boulder, CO

* 1951

- *"för uppnående av Bose-Einsteinkondensation i förtunnade gaser av alkaliatomer, samt för tidiga fundamentala studier av kondensatens egenskaper"*
- "for the achievement of Bose-Einstein condensation in dilute gases of alkali atoms, and for early fundamental studies of the properties of the condensates."

2002 The prize was awarded with one half jointly to:

DAVIS Jr., RAYMOND, U.S.A., University of Pennsylvania, Philadelphia, PA

* 1914, † 2006

and

KOSHIBA, MASATOSHI, Japan, University of Tokyo, Tokyo

* 1926

- *"för banbrytande insatser inom astrofysiken, särskilt för detektion av kosmiska neutriner"*
- "for pioneering contributions to astrophysics, in particular for the detection of cosmic neutrinos."

and the other half to:

GIACCONI, RICCARDO, U.S.A., Associated Universities, Inc., Washington, DC

* 1931 (in Genoa, Italy)

- *"för banbrytande insatser inom astrofysiken, som lett till upptäckten av kosmiska röntgenkällor"*
- "for pioneering contributions to astrophysics, which have led to the discovery of cosmic X-ray sources."

PHYSICS

2003 The prize was awarded jointly to:

ABRIKOSOV, ALEXEI A., U.S.A and Russia, Argonne National Laboratory, Argonne, IL

* 1928

GINZBURG, VITALY L., Russia, P.N. Lebedev Physical Institute, Moscow

* 1916, † 2009

and

LEGGETT, ANTHONY J., United Kingdom and U.S.A., University of Illinois, Urbana, IL

* 1938

- *"för banbrytande insatser inom teorin för supraledare och supravätskor"*
- "for pioneering contributions to the theory of superconductors and superfluids."

2004 The prize was awarded jointly to:

GROSS, DAVID J., U.S.A., Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA

* 1941

POLITZER, H. DAVID, U.S.A., California Institute of Technology (Caltech), Pasadena, CA

* 1949

and

WILCZEK, FRANK, U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1951

- *"för upptäckten av asymptotisk frihet i teorin för den starka växelverkan"*
- "for the discovery of asymptotic freedom in the theory of the strong interaction."

2005 The prize was awarded with one half to:

GLAUBER, ROY J., U.S.A., Harvard University, Cambridge, MA

* 1925

- *"för hans bidrag till den kvantmekaniska teorin för optisk koherens"*

- “for his contribution to the quantum theory of optical coherence.”

and the other half jointly to:

HALL, JOHN L., U.S.A., JILA, University of Colorado and National Institute of Standards and Technology, Boulder, CO
* 1934

and

HÄNSCH, THEODOR W., Germany, Max-Planck-Institut für Quantenoptik, Garching and Ludwig-Maximilians-Universität, Munich

* 1941

- *”för deras bidrag till utvecklingen av laserbaserad precisionsspektroskopi, inkluderande den optiska frekvenskamstekniken”*
- “for their contributions to the development of laser-based precision spectroscopy, including the optical frequency comb technique.”

2006 The prize was awarded jointly to:

MATHER, JOHN. C, U.S.A., NASA, Goddard Space Flight Center, Greenbelt, MD

* 1946

and

SMOOT, GEORGE F., U.S.A., University of California, Berkely, CA

* 1945

- *”för upptäckten av den kosmiska bakgrundsstrålningens svartkroppsförm och anisotropi”*
- “for their discovery of the blackbody form and anisotropy of the cosmic microwave background radiation.”

2007 The prize was awarded jointly to:

FERT, ALBERT, France, Université Paris-Sud, Unité Mixte de Physique CNRS/THALES, Orsay

* 1938

and

PHYSICS

GRÜNBERG, PETER, Germany, Forschungszentrum Jülich
* 1939

- *"för upptäckten av jättemagnetoresistans"*
- "for the discovery of Giant Magnetoresistance."

2008 The prize was awarded with one half to:

NAMBU, YOICHIRO, U.S.A., Enrico Fermi Institute, University of Chicago, Chicago, IL

* 1921 (in Tokyo, Japan)

- *"för upptäckten av mekanismen för spontant symmetribrott inom den subatomära fysiken"*
- "for the discovery of the mechanism of spontaneous broken symmetry in subatomic physics."

and the other half jointly to:

KOBAYASHI, MAKOTO, Japan, High Energy Accelerator Research Organization (KEK), Tsukuba

* 1944

and

MASKAWA, TOSHIHIDE, Japan, Yukawa Institute for Theoretical Physics (YITP), Kyoto University

* 1940

- *"för upptäckten av ursprunget till det symmetribrott som förutsäger att naturen måste ha minst tre familjer av kvarkar"*
- "for the discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature."

2009 The prize was awarded with one half to:

KAO, CHARLES K., United Kingdom and U.S.A., Standard Telecommunication Laboratories, Harlow, and Chinese University of Hong Kong

* 1933 (in Shanghai, China)

- *"för banbrytande insatser angående ljustransmission i fibrer för optisk kommunikation"*
- "for groundbreaking achievements concerning the transmission of light in fibers for optical communication."

and the other half jointly to:

BOYLE, WILLARD S., U.S.A. and Canada, Bell Laboratories, Murray Hill, NJ

* 1924 (in Amherst, NS, Canada)

and

SMITH, GEORGE E., U.S.A., Bell Laboratories, Murray Hill, NJ

* 1930

- *"för uppfinningen av en avbildande halvledarkrets - CCD-detektorn"*
- "for the invention of an imaging semiconductor circuit - the CCD sensor."

2. CHEMISTRY

- 1901 HOFF, JACOBUS HENRICUS VAN 'T, the Netherlands, Berlin University, Germany
* 1852, † 1911
- *"såsom ett erkännande av den utomordentliga förtjänst han inlagt genom upptäckten av lagarna för den kemiska dynamiken och för det osmotiska trycket i lösningar"*
 - "in recognition of the extraordinary services he has rendered by the discovery of the laws of chemical dynamics and osmotic pressure in solutions."
- 1902 FISCHER, HERMANN EMIL, Germany, Berlin University
* 1852, † 1919
- *"såsom ett erkännande av den utomordentliga förtjänst han inlagt genom sina syntetiska arbeten inom socker- och purin-grupperna"*
 - "in recognition of the extraordinary services he has rendered by his work on sugar and purine syntheses."
- 1903 ARRHENIUS, SVANTE AUGUST, Sweden, Stockholm University
* 1859, † 1927
- *"såsom ett erkännande för den utomordentliga förtjänst han genom sin elektrolytiska dissociations-teori inlagt om kemiens utveckling"*
 - "in recognition of the extraordinary services he has rendered to the advancement of chemistry by his electrolytic theory of dissociation."
- 1904 RAMSAY, Sir WILLIAM, United Kingdom, London University
* 1852, † 1916
- *"såsom ett erkännande av den förtjänst han inlagt genom upptäckten av de indifferentia gasformiga grundämnena i luften och bestämmandet av deras plats i det periodiska systemet"*
 - "in recognition of his services in the discovery of the inert gaseous elements in air, and his determination of their place in the periodic system."

- 1905 BAEYER, JOHANN FRIEDRICH WILHELM ADOLF VON, Germany, Munich University
 * 1835, † 1917
- *"såsom ett erkännande av den förtjänst han inlagt om den organiska kemiens och den kemiska industriens utveckling genom sina arbeten rörande organiska färgämnen och hydroaromatiska föreningar"*
 - "in recognition of his services in the advancement of organic chemistry and the chemical industry, through his work on organic dyes and hydroaromatic compounds."
- 1906 MOISSAN, HENRI, France, Sorbonne University, Paris
 * 1852, † 1907
- *"såsom ett erkännande av den stora förtjänst han inlagt genom sin undersökning och isolering av elementet fluor samt genom införandet av den efter honom uppkallade elektriska ugnen i vetenskapens tjänst"*
 - "in recognition of the great services rendered by him in his investigation and isolation of the element fluorine, and for the adoption in the service of science of the electric furnace called after him."
- 1907 BUCHNER, EDUARD, Germany, Landwirtschaftliche Hochschule, (Agricultural College), Berlin
 * 1860, † 1917
- *"för hans biologiskkemiska undersökningar och upptäckt av den cellfria jäsningsen"*
 - "for his biochemical researches and his discovery of cell-free fermentation."
- 1908 RUTHERFORD, ERNEST, United Kingdom, Victoria University, Manchester
 * 1871 (in Nelson, New Zealand), † 1937
- *"för hans undersökningar rörande elementers sönderfallande och de radioaktiva ämnernas kemi"*
 - "for his investigations into the disintegration of the elements, and the chemistry of radioactive substances."
- 1909 OSTWALD, WILHELM, Germany, Leipzig University
 * 1853 (in Riga, then Russia), † 1932

CHEMISTRY

- "såsom ett erkännande åt hans arbeten över katalys jämte hans härför grundläggande undersökningar över kemiska jämviktsförhållanden och reaktionshastigheter"
 - "in recognition of his work on catalysis and for his investigations into the fundamental principles governing chemical equilibria and rates of reaction."
- 1910 WALLACH, OTTO, Germany, Goettingen University
* 1847, † 1931
- "såsom ett erkännande av den förtjänst han inlagt om den organiska kemiens och den kemiska industriens utveckling genom sina banbrytande arbeten på de alicykliska föreningarnas område"
 - "in recognition of his services to organic chemistry and the chemical industry by his pioneer work in the field of alicyclic compounds."
- 1911 CURIE, MARIE, née SKLODOWSKA, France, Sorbonne University, Paris
* 1867 (in Warsaw, Poland), † 1934
- "såsom ett erkännande för den förtjänst hon inlagt om kemiens utveckling genom upptäckten av grundämnena radium och polonium, genom karakteriserandet av radium och dess isolerande i metalliskt tillstånd samt genom sina undersökningar angående detta märkliga grundämnes föreningar"
 - "in recognition of her services to the advancement of chemistry by the discovery of the elements radium and polonium, by the isolation of radium and the study of the nature and compounds of this remarkable element."
- 1912 The prize was divided equally between:
- GRIGNARD, VICTOR, France, Nancy University
* 1871, † 1935
- "för det av honom uppfunna så kallade Grignard'ska reagenset, som i hög grad främjat den organiska kemiens framsteg under de senare åren"
 - "for the discovery of the so-called Grignard reagent, which in recent years has greatly advanced the progress of organic chemistry."

and

SABATIER, PAUL, France, Toulouse University

* 1854, † 1941

- *"för hans metod att hydrera organiska föreningar vid närvaro av fint fördelade metaller, varigenom den organiska kemiens framsteg under de senare åren i hög grad främjats"*
- "for his method of hydrogenating organic compounds in the presence of finely disintegrated metals whereby the progress of organic chemistry has been greatly advanced in recent years."

1913 WERNER, ALFRED, Switzerland, University of Zurich

* 1866 (in Mulhouse, Alsace, then Germany), † 1919

- *"på grund av hans arbeten angående atomernas bindningsförhållanden inom molekylen, varigenom han belyst äldre och öppnat nya forskningsområden, särskilt inom den oorganiska kemien"*
- "in recognition of his work on the linkage of atoms in molecules by which he has thrown new light on earlier investigations and opened up new fields of research especially in inorganic chemistry."

1914 Reserved.

1915 The prize for 1914:

RICHARDS, THEODORE WILLIAM, U.S.A., Harvard University, Cambridge, MA

* 1868, † 1928

- *"såsom ett erkännande för hans noggranna bestämningar av ett stort antal kemiska grundämnen atomvikter"*
- "in recognition of his accurate determinations of the atomic weight of a large number of chemical elements."

The prize for 1915:

WILLSTÄTTER, RICHARD MARTIN, Germany, Munich University

* 1872, † 1942

- *"för hans undersökningar av färgämnen i växtriket, framförallt klorofyll"*

CHEMISTRY

- “for his researches on plant pigments, especially chlorophyll.”

1916 Reserved.

1917 The prize money for 1916 was allocated to the Special Fund of this prize section.

The prize for 1917: Reserved.

1918 The prize money for 1917 was allocated to the Special Fund of this prize section.

The prize for 1918: Reserved.

1919 The prize for 1918:

HABER, FRITZ, Germany, Kaiser-Wilhelm-Institut (now Fritz-Haber-Institut) für physikalische Chemie und Electrochemie, Berlin-Dahlem

* 1868, † 1934

- *”för hans syntes av ammoniak ur dess element”*
- “for the synthesis of ammonia from its elements.”

The prize for 1919 Reserved.

1920 The prize money for 1919 was allocated to the Special Fund of this prize section.

The prize for 1920: Reserved.

1921 The prize for 1920:

NERNST, WALTHER HERMANN, Germany, Berlin University

* 1864, † 1941

- *”såsom ett erkännande för hans termokemiska arbeten”*
- “in recognition of his work in thermochemistry.”

The prize for 1921: Reserved.

1922 The prize for 1921:

SODDY, FREDERICK, United Kingdom, University of Oxford

* 1877, † 1956

- *"för hans bidrag till kännedom om de radioaktiva ämnernas kemi och hans undersökningar rörande isotopers förekomst och natur"*
- "for his contributions to our knowledge of the chemistry of radioactive substances, and his investigations into the origin and nature of isotopes."

The prize for 1922:

ASTON, FRANCIS WILLIAM, United Kingdom, University of Cambridge

* 1877, † 1945

- *"för hans medelst masspektrografen gjorda upptäckt av ett stort antal ej radioaktiva grundämnens isotopiförhållanden samt av den s.k. heltalslagen"*
- "for his discovery, by means of his mass spectrograph, of isotopes, in a large number of non-radioactive elements, and for his enunciation of the whole-number rule."

1923 PREGL, FRITZ, Austria, Graz University

* 1869, † 1930

- *"för den av honom uppfunna mikroanalysen av organiska ämnen"*
- "for his invention of the method of micro-analysis of organic substances."

1924 Reserved.

1925 The prize money for 1924 was allocated to the Special Fund of this prize section.

The prize for 1925: Reserved.

1926 The prize for 1925:

ZSIGMONDY, RICHARD ADOLF, Germany, Goettingen University

* 1865 (in Vienna, Austria), † 1929

CHEMISTRY

- *"för uppvisandet av de kolloida lösningarnas heterogena natur och för de därvid använda metoderna, som varit grundläggande för den moderna kolloidkemien"*
- "for his demonstration of the heterogenous nature of colloid solutions and for the methods he used, which have since become fundamental in modern colloid chemistry."

The prize for 1926:

SVEDBERG, THE (THEODOR), Sweden, Uppsala University
* 1884, † 1971

- *"för hans arbeten rörande dispersa system"*
- "for his work on disperse systems."

1927 Reserved.

1928 The prize for 1927:

WIELAND, HEINRICH OTTO, Germany, Munich University
* 1877, † 1957

- *"för hans undersökningar över gallsyrornas och närsläktade ämnens konstitution"*
- "for his investigations of the constitution of the bile acids and related substances."

The prize for 1928:

WINDAUS, ADOLF OTTO REINHOLD, Germany, Goettingen University
* 1876, † 1959

- *"för hans förtjänster om utforskandet av sterinernas konstitution och deras samband med vitamingroupen"*
- "for the services rendered through his research into the constitution of the sterols and their connection with the vitamins."

1929 The prize was divided equally between:

HARDEN, ARTHUR, United Kingdom, London University
* 1865, † 1940

and

EULER-CHELPIN, HANS KARL AUGUST SIMON VON, Sweden, Stockholm University
* 1873 (in Augsburg, Germany), † 1964

- *"för deras undersökningar av sockerarteres jäsning och därvid verksamma enzym"*
- "for their investigations on the fermentation of sugar and fermentative enzymes."

1930 FISCHER, HANS, Germany, Technische Hochschule (Institute of Technology), Munich

* 1881, † 1945

- *"för hans arbeten över blad - och blodfärgämnenas konstitution samt för hans syntes av hämin"*
- "for his researches into the constitution of haemin and chlorophyll and especially for his synthesis of haemin."

1931 The prize was awarded jointly to:

BOSCH, CARL, Germany, University of Heidelberg and I.G. Farbenindustrie A.G., Heidelberg

* 1874, † 1940

and

BERGIUS, FRIEDRICH, Germany, University of Heidelberg and I.G. Farbenindustrie A.G., Mannheim-Rheinau

* 1884, † 1949

- *"för deras förtjänster om kemiska högtrycksmetoders uppkomst och utveckling"*
- "in recognition of their contributions to the invention and development of chemical high pressure methods."

1932 LANGMUIR, IRVING, U.S.A., General Electric Co., Schenectady, NY

* 1881, † 1957

- *"för hans upptäckter och undersökningar inom ytkemien"*
- "for his discoveries and investigations in surface chemistry."

1933 Reserved.

1934 The prize money for 1933 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1934:

CHEMISTRY

UREY, HAROLD CLAYTON, U.S.A., Columbia University, New York, NY

* 1893, † 1981

- "*för upptäckten av det tunga vätet*"
- "for his discovery of heavy hydrogen."

1935 The prize was awarded jointly to:

JOLIOT, FRÉDÉRIC, France, Institut du Radium, Paris

* 1900, † 1958

and his wife

JOLIOT-CURIE, IRÈNE, France, Institut du Radium, Paris

* 1897, † 1956

- "*såsom ett erkännande för deras gemensamt utförda syntes av nya radioaktiva grundämnen*"
- "in recognition of their synthesis of new radioactive elements."

1936 DEBYE, PETRUS (PETER) JOSEPHUS WILHELMUS, the Netherlands, Berlin University, and Kaiser-Wilhelm-Institut (now Max-Planck-Institut) für Physik, Berlin

* 1884, † 1966

- "*för de bidrag, som han genom sina undersökningar över dipolmoment och över röntgen och elektronstråleinterferens i gaser lämnat till kännedom om molekylernas byggnad*"
- "for his contributions to our knowledge of molecular structure through his investigations on dipole moments and on the diffraction of X-rays and electrons in gases."

1937 The prize was divided equally between:

HAWORTH, WALTER NORMAN, United Kingdom, Birmingham University

* 1883, † 1950

- "*för hans undersökningar över kolhydrat och vitamin C*"
- "for his investigations on carbohydrates and vitamin C."

and

KARRER, PAUL, Switzerland, University of Zurich

* 1889, † 1971

- "*för hans undersökningar över karotinoider och flaviner samt vitaminerna A och B2*"

- “for his investigations on carotenoids, flavins and vitamins A and B2.”

1938 Reserved.

1939 The prize for 1938:

KUHN, RICHARD, Germany, University of Heidelberg and Kaiser-Wilhelm-Institut (now Max-Planck-Institut) für medizinische Forschung, Heidelberg. (Caused by the authorities of his country to decline the award but later received the diploma and the medal).

* 1900 (in Vienna, Austria), † 1967

- *”för hans arbeten över karotinoider och vitaminer”*
- “for his work on carotenoids and vitamins.”

The prize for 1939 was divided equally between:

BUTENANDT, ADOLF FRIEDRICH JOHANN, Germany, Berlin University and Kaiser-Wilhelm-Institut (now Max-Planck-Institut) für Biochemie, Berlin-Dahlem. (Caused by the authorities of his country to decline the award but later received the diploma and the medal).

* 1903, † 1995

- *”för hans arbeten över sexualhormoner”*
- “for his work on sex hormones.”

and

RUZICKA, LEOPOLD, Switzerland, Eidgenössische Technische Hochschule, (Federal Institute of Technology), Zurich

* 1887 (in Vukovar, then Austria-Hungary), † 1976

- *”för hans arbeten över polymetylener och högre terpenför-
eningar”*
- “for his work on polymethylenes and higher terpenes.”

1940 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

1941 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

CHEMISTRY

1942 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

1943 Reserved.

1944 The prize for 1943:

HEVESY, GEORGE DE, Hungary, Stockholm University, Sweden

* 1885, † 1966

- *"för hans arbeten över isotopers användning som indikatorer vid studiet av kemiska processer"*
- "for his work on the use of isotopes as tracers in the study of chemical processes."

The prize for 1944: Reserved.

1945 The prize for 1944:

HAHN, OTTO, Germany, Kaiser-Wilhelm-Institut, (now Max-Planck Institut) für Chemie, Berlin-Dahlem

* 1879, † 1968

- *"för upptäckten av tunga atomkärnors klyvning"*
- "for his discovery of the fission of heavy nuclei."

The prize for 1945:

VIRTANEN, ARTTURI ILMARI, Finland, Helsinki University

* 1895, † 1973

- *"för hans undersökningar och uppfinningar inom agriskultur- och näringskemien, särskilt för hans foderkonserveringsmetod"*
- "for his research and inventions in agricultural and nutrition chemistry, especially for his fodder preservation method."

1946 The prize was divided, one half being awarded to:

SUMNER, JAMES BATCHELLER, U.S.A., Cornell University, Ithaca, NY

* 1887, † 1955

- *"för hans upptäckt av enzyms kristalliserbarhet"*
- "for his discovery that enzymes can be crystallized."

the other half jointly to:

NORTHROP, JOHN HOWARD, U.S.A., Rockefeller Institute for Medical Research, Princeton, NJ

* 1891, † 1987

and

STANLEY, WENDELL MEREDITH, U.S.A., Rockefeller Institute for Medical Research, Princeton, NJ

* 1904, † 1971

- *"för deras arbeten över renframställning av enzymer och virusproteiner"*
- "for their preparation of enzymes and virus proteins in a pure form."

1947 ROBINSON, Sir ROBERT, United Kingdom, University of Oxford

* 1886, † 1975

- *"för hans undersökningar över biologiskt betydelsefulla ämnen ur växtriket, särskilt alkaloider"*
- "for his investigations on plant products of biological importance, especially the alkaloids."

1948 TISELIUS, ARNE WILHELM KAURIN, Sweden, Uppsala University

* 1902, † 1971

- *"för hans elektroforetiska och adsorptionsanalytiska arbeten, särskilt hans upptäckter rörande serumproteiners sammansatta natur"*
- "for his research on electrophoresis and adsorption analysis, especially for his discoveries concerning the complex nature of the serum proteins."

1949 GIAUQUE, WILLIAM FRANCIS, U.S.A., University of California, Berkeley, CA

* 1895, † 1982

- *"för hans insatser på den kemiska termodynamikens område, särskilt beträffande ämnas förhållande vid extremt låga temperaturer"*
- "for his contributions in the field of chemical thermodynamics, particularly concerning the behaviour of substances at extremely low temperatures."

CHEMISTRY

1950 The prize was awarded jointly to:

DIELS, OTTO PAUL HERMANN, Federal Republic of Germany, Kiel University

* 1876, † 1954

and

ALDER, KURT, Federal Republic of Germany, Cologne University

* 1902, † 1958

- *"för deras upptäckt och utveckling av diensyntesen"*
- "for their discovery and development of the diene synthesis."

1951 The prize was awarded jointly to:

McMILLAN, EDWIN MATTISON, U.S.A., University of California, Berkeley, CA

* 1907, † 1991

and

SEABORG, GLENN THEODORE, U.S.A., University of California, Berkeley, CA

* 1912, † 1999

- *"för deras upptäckter inom de transurana grundämnenas kemi"*
- "for their discoveries in the chemistry of the transuranium elements."

1952 The prize was awarded jointly to:

MARTIN, ARCHER JOHN PORTER, United Kingdom, National Institute for Medical Research, London

* 1910, † 2002

and

SYNGE, RICHARD LAURENCE MILLINGTON, United Kingdom, Rowett Research Institute, Bucksburn (Scotland)

* 1914, † 1994

- *"för deras uppfinning av fördelningskromatografien"*
- "for their invention of partition chromatography."

- 1953 STAUDINGER, HERMANN, Federal Republic of Germany, University of Freiburg in Breisgau and Staatliches Institut für macromolekulare Chemie (State Research Institute for Macromolecular Chemistry), Freiburg in Br.
- * 1881, † 1965
 - *"för hans upptäckter inom de högmolekulära ämnenas kemi"*
 - "for his discoveries in the field of macromolecular chemistry."
- 1954 PAULING, LINUS CARL, U.S.A., California Institute of Technology, Pasadena, CA
- * 1901, † 1994
 - *"för hans arbeten över den kemiska bindningens natur med tillämpning på komplicerade ämnens byggnad"*
 - "for his research into the nature of the chemical bond and its application to the elucidation of the structure of complex substances."
- 1955 VIGNEAUD, VINCENT DU, U.S.A., Cornell University, Ithaca, NY
- * 1901, † 1978
 - *"för hans arbeten över biokemiskt betydelsefulla svavelföreningar, särskilt för den första syntesen av ett polypeptidhormon"*
 - "for his work on biochemically important sulphur compounds, especially for the first synthesis of a polypeptide hormone."
- 1956 The prize was awarded jointly to:
- HINSHELWOOD, Sir CYRIL NORMAN, United Kingdom, University of Oxford
- * 1897, † 1967
- and
- SEMENOV, NIKOLAY NIKOLAEVICH, USSR, Institute for Chemical Physics of the Academy of Sciences of the USSR, Moscow
- * 1896, † 1986
 - *"för deras undersökningar över kemiska reaktioners mekanism"*

CHEMISTRY

- “for their researches into the mechanism of chemical reactions.”
- 1957 TODD, Lord (ALEXANDER R.), United Kingdom, University of Cambridge
* 1907, † 1997
- *”för hans arbeten över nucleotider och nucleotida coenzym”*
 - “for his work on nucleotides and nucleotide co-enzymes.”
- 1958 SANGER, FREDERICK, United Kingdom, University of Cambridge
* 1918
- *”för hans arbeten över äggviteämnenas, särskilt insulinets, byggnad”*
 - “for his work on the structure of proteins, especially that of insulin.”
- 1959 HEYROVSKY, JAROSLAV, Czechoslovakia, Polarographic Institute of the Czechoslovak Academy of Science, Prague
* 1890, † 1967
- *”för hans uppfinning och utveckling av den polarografiska analysmetoden”*
 - “for his discovery and development of the polarographic methods of analysis.”
- 1960 LIBBY, WILLARD FRANK, U.S.A., University of California, Los Angeles, CA
* 1908, † 1980
- *”för hans metod att använda kol-14 som tidmätare inom arkeologi, geologi, geofysik m.fl. vetenskaper”*
 - “for his method to use carbon-14 for age determination in archaeology, geology, geophysics, and other branches of science.”
- 1961 CALVIN, MELVIN, U.S.A., University of California, Berkeley, CA
* 1911, † 1997
- *”för hans undersökningar av växternas kolsyreassimilation”*
 - “for his research on the carbon dioxide assimilation in plants.”

- 1962 The prize was divided equally between:
- PERUTZ, MAX FERDINAND, United Kingdom, Laboratory of Molecular Biology, Cambridge
 * 1914 (in Vienna, Austria), † 2002
- and
- KENDREW, JOHN COWDERY, United Kingdom, Laboratory of Molecular Biology, Cambridge
 * 1917, † 1997
- *"för deras undersökningar rörande globulära proteiners byggnad"*
 - "for their studies of the structures of globular proteins."
- 1963 The prize was divided equally between:
- ZIEGLER, KARL, Federal Republic of Germany, Max-Planck-Institut für Kohlenforschung (Max-Planck-Institute for Carbon Research) Mülheim/Ruhr
 * 1898, † 1973
- and
- NATTA, GIULIO, Italy, Institute of Technology, Milan
 * 1903, † 1979
- *"för deras upptäckter inom högpolymerernas kemi och teknologi"*
 - "for their discoveries in the field of the chemistry and technology of high polymers."
- 1964 HODGKIN, DOROTHY CROWFOOT, United Kingdom, Royal Society, University of Oxford
 * 1910, † 1994
- *"för hennes med röntgenmetoder utförda bestämningar av biokemiskt viktiga ämnens byggnad"*
 - "for her determinations by X-ray techniques of the structures of important biochemical substances."
- 1965 WOODWARD, ROBERT BURNS, U.S.A., Harvard University, Cambridge, MA
 * 1917, † 1979
- *"för hans förtjänster om den organiska synteskostens utveckling"*

CHEMISTRY

- “for his outstanding achievements in the art of organic synthesis.”
- 1966 MULLIKEN, ROBERT S., U.S.A., University of Chicago, Chicago, IL
* 1896, † 1986
- *”för hans grundläggande arbeten över kemisk bindning och molekylers elektronstruktur medelst molekylorbitalmetoden”*
 - “for his fundamental work concerning chemical bonds and the electronic structure of molecules by the molecular orbital method.”
- 1967 The prize was divided, one half being awarded to:
- EIGEN, MANFRED, Federal Republic of Germany, Max-Planck-Institut für Physikalische Chemie, Goettingen
* 1927
- and the other half jointly to:
- NORRISH, RONALD GEORGE WREYFORD, United Kingdom, Institute of Physical Chemistry, Cambridge
* 1897, † 1978
- and
- PORTER, GEORGE, United Kingdom, Royal Institution of Great Britain, London
* 1920, † 2002
- *”för deras undersökningar av ytterst snabba kemiska reaktioner genom jämviktsstörning med kortvariga energipulser”*
 - “for their studies of extremely fast chemical reactions, effected by disturbing the equilibrium by means of very short pulses of energy.”
- 1968 ONSAGER, LARS, U.S.A., Yale University, New Haven, CT
* 1903 (in Oslo, Norway), † 1976
- *”för upptäckten av de efter honom uppkallade reciprocitetsrelationerna, som är grundläggande för den irreversibla termodynamiken”*
 - “for the discovery of the reciprocal relations bearing his name, which are fundamental for the thermodynamics of irreversible processes.”

- 1969 The prize was divided equally between:
- BARTON, DEREK H. R., United Kingdom, Imperial College of Science and Technology, London
 * 1918, † 1998
- and
- HASSEL, ODD, Norway, Kjemisk Institutt, University of Oslo
 * 1897, † 1981
- *"för deras insatser för konformationsbegreppets utveckling och tillämpning inom kemien"*
 - "for their contributions to the development of the concept of conformation and its application in chemistry."
- 1970 LELOIR, LUIS F., Argentina, Institute for Biochemical Research, Buenos Aires
 * 1906, † 1987
- *"för hans upptäckt av sockernukleotider och deras funktion vid biosyntesen av kolhydrater"*
 - "for his discovery of sugar nucleotides and their role in the biosynthesis of carbohydrates."
- 1971 HERZBERG, GERHARD, Canada, National Research Council of Canada, Ottawa
 * 1904 (in Hamburg, Germany), † 1999
- *"för hans bidrag till kännedomen om elektronstruktur och geometri hos molekyler, särskilt fria radikaler"*
 - "for his contributions to the knowledge of electronic structure and geometry of molecules, particularly free radicals."
- 1972 The prize was divided, one half being awarded to:
- ANFENSEN, CHRISTIAN B., U.S.A., National Institutes of Health, Bethesda, MD
 * 1916, † 1995
- *"för hans arbeten över ribonukleas, särskilt rörande sambandet mellan aminosyrasekvensen och den biologiskt aktiva konformationen"*
 - "for his work on ribonuclease, especially concerning the connection between the amino acid sequence and the biologically active conformation."
- the other half jointly to:

CHEMISTRY

MOORE, STANFORD, U.S.A., Rockefeller University, New York, NY

* 1913, † 1982

and

STEIN, WILLIAM H., U.S.A., Rockefeller University, New York, NY

* 1911, † 1980

- *"för deras bidrag till förståelsen av sambandet mellan kemisk struktur och katalytisk aktivitet hos ribonukleasmolekylens aktiva centrum"*
- "for their contribution to the understanding of the connection between chemical structure and catalytic activity of the active centre of the ribonuclease molecule."

1973 The prize was divided equally between:

FISCHER, ERNST OTTO, Federal Republic of Germany, Technical University of Munich

* 1918, † 2007

and

WILKINSON, GEOFFREY, United Kingdom, Imperial College, London

* 1921, † 1996

- *"för deras var för sig utförda pionjärbeten över de metallorganiska så kallade sandwichföreningarnas kemi"*
- "for their pioneering work, performed independently, on the chemistry of the organometallic, so called sandwich compounds."

1974 FLORY, PAUL J., U.S.A., Stanford University, Stanford, CA

* 1910, † 1985

- *"för hans fundamentala insatser, såväl teoretiska som experimentella, inom makromolekylernas fysikaliska kemi"*
- "for his fundamental achievements, both theoretical and experimental, in the physical chemistry of the macromolecules."

1975 The prize was divided equally between:

CORNFORTH, JOHN WARCUP, Australia and United Kingdom, University of Sussex, Brighton

* 1917

- *"för hans arbeten rörande enzymkatalyserade reaktioners stereokemi"*
- "for his work on the stereochemistry of enzyme-catalyzed reactions."

and

PRELOG, VLADIMIR, Switzerland, Eidgenössische Technische Hochschule, Zurich

* 1906 (in Sarajevo, Bosnia), † 1998

- *"för hans arbeten rörande organiska molekylers och reaktioners stereokemi"*
- "for his research into the stereochemistry of organic molecules and reactions."

1976 LIPSCOMB, WILLIAM N., U.S.A., Harvard University, Cambridge, MA

* 1919

- *"för hans arbeten över boranernas struktur och därmed sammanhängande problem rörande den kemiska bindningens natur"*
- "for his studies on the structure of boranes illuminating problems of chemical bonding."

1977 PRIGOGINE, ILYA, Belgium, Université Libre de Bruxelles, Brussels (University of Texas, TX, U.S.A.)

* 1917 (in Moscow, Russia), † 2003

- *"för hans bidrag till den irreversibla termodynamiken, särskilt teorien för dissipativa strukturer"*
- "for his contributions to non-equilibrium thermodynamics, particularly the theory of dissipative structures."

1978 MITCHELL, PETER D., United Kingdom, Glynn Research Laboratories, Bodmin

* 1920, † 1992

- *"för hans bidrag till förståelsen av biologisk energiöverföring genom utvecklingen av den kemiosmotiska teorin"*

CHEMISTRY

- “for his contribution to the understanding of biological energy transfer through the formulation of the chemiosmotic theory.”

1979 The prize was divided equally between:

BROWN, HERBERT C., U.S.A., Purdue University, West Lafayette, IN

* 1912 (in London, United Kingdom), † 2004

and

WITTIG, GEORG, Federal Republic of Germany, University of Heidelberg

* 1897, † 1987

- *”för deras utveckling av borföreningar respektive fosforföreningar till viktiga reagens inom organisk syntes”*
- “for their development of the use of boron- and phosphorus-containing compounds, respectively, into important reagents in organic synthesis.”

1980 The prize was divided, one half being awarded to:

BERG, PAUL, U.S.A., Stanford University, Stanford, CA

* 1926

- *”för hans grundläggande arbeten över nukleinsyror, biokemi, särskilt avseende hybrid-DNA”*
- “for his fundamental studies of the biochemistry of nucleic acids, with particular regard to recombinant-DNA.”

and the other half jointly to:

GILBERT, WALTER, U.S.A., Harvard University, Biological Laboratories, Cambridge, MA

* 1932

and

SANGER, FREDERICK, United Kingdom, MRC Laboratory of Molecular Biology, Cambridge

* 1918

- *”för deras insatser rörande bassekvensbestämning i nukleinsyror”*
- “for their contributions concerning the determination of base sequences in nucleic acids.”

- 1981 The prize was awarded jointly to:
FUKUI, KENICHI, Japan, Kyoto University
* 1918, † 1998
and
HOFFMANN, ROALD, U.S.A., Cornell University, Ithaca, NY
* 1937 (in Zloczov, Poland)
• *"för deras var för sig utvecklade teorier för kemiska reaktioners förlopp"*
• "for their theories, developed independently, concerning the course of chemical reactions."
- 1982 KLUG, AARON, United Kingdom, MRC Laboratory of Molecular Biology, Cambridge
* 1926 (in Zelvas, Lithuania)
• *"för hans utveckling av kristallografisk elektronmikroskopi och hans klarläggande av strukturen hos biologiskt viktiga nukleinsyra-proteinkomplex"*
• "for his development of crystallographic electron microscopy and his structural elucidation of biologically important nucleic acid-protein complexes."
- 1983 TAUBE, HENRY, U.S.A., Stanford University, Stanford, CA
* 1915 (in Saskatoon, Canada), † 2005
• *"för hans arbeten över mekanismerna för elektronöverföringsreaktioner, särskilt hos metallkomplex"*
• "for his work on the mechanisms of electron transfer reactions, especially in metal complexes."
- 1984 MERRIFIELD, ROBERT BRUCE, U.S.A., Rockefeller University, New York, NY
* 1921, † 2006
• *"för hans utveckling av metodik för kemisk syntes på fast matris"*
• "for his development of methodology for chemical synthesis on a solid matrix."
- 1985 The prize was awarded jointly to:

CHEMISTRY

HAUPTMAN, HERBERT A., U.S.A., The Medical Foundation of Buffalo, Buffalo, NY

* 1917

and

KARLE, JEROME, U.S.A., US Naval Research Laboratory, Washington DC

* 1918

- *"för deras avgörande insatser vid utveckling av direkta metoder för kristallstrukturbestämning"*
- "for their outstanding achievements in the development of direct methods for the determination of crystal structures."

1986 The prize was awarded jointly to:

HERSCHBACH, DUDLEY R., U.S.A., Harvard University, Cambridge, MA

* 1932

LEE, YUAN T., U.S.A., University of California, Berkeley, CA

* 1936 (in Hsinchu, Taiwan)

and

POLANYI, JOHN C., Canada, University of Toronto

* 1929

- *"för deras insatser rörande dynamiken hos kemiska elementarprocesser"*
- "for their contributions concerning the dynamics of chemical elementary processes."

1987 The prize was awarded jointly to:

CRAM, DONALD J., U.S.A., University of California, Los Angeles, CA

* 1919, † 2001

LEHN, JEAN-MARIE, France, Université Louis Pasteur, Strasbourg and Collège de France, Paris

* 1939

and

PEDERSEN, CHARLES J., U.S.A., Du Pont, Wilmington, DE

* 1904 (in Fusan, Korea, as a Norwegian citizen), † 1989

- *"för deras utveckling och användning av molekyler med strukturspecifik växelverkan av hög selektivitet"*
- "for their development and use of molecules with structure-specific interactions of high selectivity."

1988 The prize was awarded jointly to:

DEISENHOFER, JOHANN, Federal Republic of Germany, Howard Hughes Medical Institute at the University of Texas Southwestern Medical Center at Dallas, TX, U.S.A.

* 1943

HUBER, ROBERT, Federal Republic of Germany, Max-Planck-Institut für Biochemie, Martinsried

* 1937

and

MICHEL, HARTMUT, Federal Republic of Germany, Max-Planck-Institut für Biophysik, Frankfurt-on-the-Main

* 1948

- *"för bestämning av den tre dimensionella strukturen hos ett fotosyntetiskt reaktionscentrum"*
- "for the determination of the three-dimensional structure of a photosynthetic reaction centre."

1989 The prize was awarded jointly to:

ALTMAN, SIDNEY, U.S.A. and Canada, Yale University, New Haven, CT

* 1939

and

CECH, THOMAS R., U.S.A., University of Colorado, Boulder, CO

* 1947

- *"för deras upptäckt av katalytiska egenskaper hos RNA"*
- "for their discovery of catalytic properties of RNA."

1990 COREY, ELIAS JAMES, U.S.A., Harvard University, Cambridge, MA

* 1928

- *"för hans utveckling av den organiska syntesens teori och metodik"*

CHEMISTRY

- “for his development of the theory and methodology of organic synthesis.”

1991 ERNST, RICHARD R., Switzerland, Eidgenössische Technische Hochschule, Zurich

* 1933

- *”för hans insatser för metodutvecklingen inom högupplösande kärnmagnetisk resonansspektroskopi (NMR-spektroskopi)”*
- “for his contributions to the development of the methodology of high resolution nuclear magnetic resonance (NMR) spectroscopy.”

1992 MARCUS, RUDOLPH A., U.S.A., California Institute of Technology, Pasadena, CA

* 1923 (in Montreal, Canada)

- *”för hans bidrag till teorin för elektronöverföringsreaktioner i kemiska system”*
- “for his contributions to the theory of electron transfer reactions in chemical systems.”

1993 The prize was awarded:

- *”för insatser för metodutvecklingen inom DNA-baserad kemi”*
- “for contributions to the developments of methods within DNA-based chemistry.”

with half to:

MULLIS, KARY B., U.S.A., La Jolla, CA

* 1944

- *”för hans uppfinning av PCR-metoden (Polymerase Chain Reaction)”*
- “for his invention of the polymerase chain reaction (PCR) method.”

and half to:

SMITH, MICHAEL, Canada, University of British Columbia, Vancouver

* 1932 (in Blackpool, United Kingdom), † 2000

- "för hans grundläggande insatser vid tillkomsten av den oligonukleotidbaserade riktade mutagenesen och dess utveckling för proteinsstudier"
 - "for his fundamental contributions to the establishment of oligonucleotide-based, site-directed mutagenesis and its development for protein studies."
- 1994 OLAH, GEORGE A., U.S.A., University of Southern California, CA
 * 1927 (in Budapest, Hungary)
- "för hans insatser inom karbokationkemin"
 - "for his contribution to carbocation chemistry."
- 1995 The prize was awarded jointly to:
- CRUTZEN, PAUL J., the Netherlands, Max-Planck-Institut für Chemie, Mainz, Federal Republic of Germany
 * 1933
- MOLINA, MARIO J., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA
 * 1943 (in Mexico City, Mexico)
- and
- ROWLAND, F. SHERWOOD, U.S.A., University of California, Irvine, CA
 * 1927
- "för deras arbeten inom atmosfärskemin, speciellt rörande bildning och nedbrytning av ozon"
 - "for their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone."
- 1996 The prize was awarded jointly to:
- CURL Jr., ROBERT F., U.S.A., Rice University, Houston, TX
 * 1933
- KROTO, Sir HAROLD W., United Kingdom, University of Sussex, Brighton
 * 1939
- and

CHEMISTRY

SMALLEY, RICHARD E., U.S.A., Rice University, Houston, TX

* 1943, † 2005

- "*för deras upptäckt av fullerener*"
- "for their discovery of fullerenes."

1997 The prize was awarded with one half to:

BOYER, PAUL D., U.S.A., University of California, Los Angeles, CA

* 1918

and

WALKER, JOHN E., United Kingdom, Medical Research Council, Laboratory of Molecular Biology, Cambridge

* 1941

- "*för deras klargörande av den enzymatiska mekanismen för syntes av adenosintrifosfat (ATP)*"
- "for their elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP)."

and with one half to:

SKOU, JENS C., Denmark, Aarhus University, Aarhus

* 1918

- "*för det först upptäckta jontransporterande enzymet, Na⁺, K⁺ -ATPase*"
- "for the first discovery of an ion-transporting enzyme, Na⁺, K⁺ -ATPase."

1998 The prize was awarded with one half to:

KOHN, WALTER, U.S.A., University of California, Santa Barbara, CA

* 1923 (in Vienna, Austria)

- "*för hans utveckling av täthetsfunktionalteorin*"
- "for his development of the density-functional theory."

and with one half to:

POPLE, JOHN A., United Kingdom, Northwestern University, Evanston, IL, U.S.A.

* 1925, † 2004

- "*för hans utveckling av kvantkemisk beräkningsmetodik*"

- “for his development of computational methods in quantum chemistry.”
- 1999 ZEWAIL, AHMED H., Egypt and U.S.A., California Institute of Technology, Pasadena, CA
 * 1946
- *”för hans studier av kemiska reaktioners övergångstillstånd med femtosekundspektroskopi”*
 - “for his studies of the transition states of chemical reactions using femtosecond spectroscopy.”
- 2000 The prize was awarded jointly to:
- HEEGER, ALAN J., U.S.A., University of California at Santa Barbara, California
 * 1936
- MacDIARMID, ALAN G., U.S.A., University of Pennsylvania, Philadelphia, PA
 * 1927 (in Masterton, New Zealand), † 2007
- and
- SHIRAKAWA, HIDEKI, Japan, University of Tsukuba, Tokyo
 * 1936
- *”för upptäckten och utvecklandet av ledande polymerer”*
 - “for the discovery and development of conductive polymers.”
- 2001 The prize was awarded with one half jointly to:
- KNOWLES, WILLIAM S., U.S.A., Saint Louis, MO
 * 1917
- and
- NOYORI, RYOJI, Japan, Nagoya University, Nagoya
 * 1938
- *”för deras arbeten över kiralt katalyserade hydrogeneringsreaktioner”*
 - “for their work on chirally catalysed hydrogenation reactions.”
- and the other half to:

SHARPLESS, K. BARRY, U.S.A., The Scripps Research Institute, La Jolla, CA

* 1941

- *"för hans arbeten över kiralt katalyserade oxidationsreaktioner"*
- "for his work on chirally catalysed oxidation reactions."

2002 The prize was awarded with one half jointly to:

FENN, JOHN B., U.S.A., Virginia Commonwealth University, Richmond, VA

* 1917

and

TANAKA, KOICHI, Japan, Shimadzu Corp., Kyoto

* 1959

- *"för deras utveckling av mjuka desorptionsjonisationsmetoder för masspektrometisk analys av biologiska makromolekyler"*
- "for their development of soft desorption ionisation methods for mass spectrometric analyses of biological macromolecules."

and the other half to:

WÜTHRICH, KURT, Switzerland, Eidgenössische Technische Hochschule, Zurich and The Scripps Research Institute, La Jolla, CA, U.S.A.

* 1938

- *"för hans utveckling av kärnmagnetisk resonansspektroskopi för bestämning av biologiska makromolekylers tredimensionella struktur i lösning"*
- "for his development of nuclear magnetic resonance spectroscopy for determining the three-dimensional structure of biological macromolecules in solution."

2003 The prize was awarded with one half to:

AGRE, PETER, U.S.A., Johns Hopkins University School of Medicine, Baltimore, MD

* 1949

- *"för upptäckten av vattenkanaler"*
- "for the discovery of water channels."

and with one half to:

MacKINNON, RODERICK, U.S.A., Howard Hughes Medical Institute, The Rockefeller University, New York, NY

* 1956

- "*för strukturella och mekaniska studier av jonkanaler*"
- "for structural and mechanistic studies of ion channels."

2004 The prize was awarded jointly to:

CIECHANOVER, AARON, Israel, Technion - Israel Institute of Technology, Haifa

* 1947

HERSHKO, AVRAM, Israel, Technion - Israel Institute of Technology, Haifa

* 1937 (in Karcag, Hungary)

and

ROSE, IRWIN, U.S.A., University of California, Irvine, CA

* 1926

- "*För upptäckten av ubiquitinmedierad proteinnedbrytning*"
- "for the discovery of ubiquitin-mediated protein degradation."

2005 The prize was awarded jointly to:

CHAUVIN, YVES, France, Institut Français du Pétrole, Rueil-Malmaison

* 1930

and

GRUBBS, ROBERT H., U.S.A., California Institute of Technology (Caltech), Pasadena, CA

* 1942

and

SCHROCK, RICHARD R., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1945

- "*för utveckling av metates-metoden inom organisk syntes*"
- "for the development of the metathesis method in organic synthesis."

CHEMISTRY

2006 The prize was awarded to:

KORNBERG, ROGER D., U.S.A., Stanford University,
Stanford, CA

* 1947

- "*för hans studier av den molekylära grunden för eukaryot transkription*"
- "for his studies of the molecular basis of eukaryotic transcription."

2007 The prize was awarded to:

ERTL, GERHARD, Germany, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin

* 1936

- "*för hans studier av kemiska processer på fasta ytor*"
- "for his studies of chemical processes on solid surfaces."

2008 The prize was awarded jointly to:

SHIMOMURA, OSAMU, Japan, Marine Biological Laboratory (MBL), Woods Hole, MA, U.S.A. and Boston University Medical School, Massachusetts, MA, U.S.A.

* 1928

and

CHALFIE, MARTIN, U.S.A., Columbia University, New York, NY

* 1947

and

TSIEN, ROGER Y., U.S.A., University of California, San Diego, CA

* 1952

- "*för upptäckt och utveckling av det grönt fluorescerande proteinet, GFP*"
- "for the discovery and development of the green fluorescent protein, GFP."

2009 The prize was awarded with one third each to:

RAMAKRISHNAN, VENKATRAMAN, United Kingdom, MRC Laboratory of Molecular Biology, Cambridge

* 1952 (in Chidambaram, Tamil Nadu, India)

and

STEITZ, THOMAS A., U.S.A., Yale University New Haven,
CT, ; Howard Hughes Medical Institute

* 1940

and

YONATH, ADA E., Israel, Weizmann Institute of Science,
Rehovot

* 1939

- "*för studier av ribosomens struktur och funktion*"
- "for studies of the structure and function of the ribosome."

3. PHYSIOLOGY OR MEDICINE

- 1901 BEHRING, EMIL ADOLF VON, Germany, Marburg University
* 1854, † 1917
- *"för hans arbete rörande serumterapien och särskilt dess användning mot difteri, varigenom han brutit en ny väg inom den medicinska vetenskapens område och givit läkaren ett segerrikt vapen i kampen mot sjukdom och död"*
 - "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."
- 1902 ROSS, RONALD, United Kingdom, University College, Liverpool
* 1857 (in Almora, India), † 1932
- *"för hans arbete rörande malarian, varigenom han uppdagat det sätt, varpå densamma vinner insteg i organismen, och därmed lagt grunden för betydelsefulla forskningar angående denna sjukdom och dess bekämpande"*
 - "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."
- 1903 FINSEN, NIELS RYBERG, Denmark, Finsen Medical Light Institute, Copenhagen
* 1860 (in Thorshavn, Faroe Islands), † 1904
- *"såsom ett erkännande åt hans arbete för behandling av sjukdomar och särskilt lupus vulgaris med koncentrerade ljusstrålar, varigenom han öppnat en ny väg för läkekonsten"*
 - "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."

- 1904 PAVLOV, IVAN PETROVICH, Russia, Military Medical Academy, St. Petersburg
 * 1849, † 1936
- *"såsom ett erkännande av hans arbete rörande digestionens fysiologi, varigenom han i väsentliga delar omdanat och vidgat kunskapen på detta område"*
 - "in recognition of his work on the physiology of digestion, through which knowledge on vital aspects of the subject has been transformed and enlarged."
- 1905 KOCH, ROBERT, Germany, Institut für Infektions-Krankheiten (Institute for Infectious Diseases), Berlin
 * 1843, † 1910
- *"för hans undersökningar och upptäckter rörande tuberkulos"*
 - "for his investigations and discoveries in relation to tuberculosis."
- 1906 The prize was awarded jointly to:
 GOLGI, CAMILLO, Italy, Pavia University
 * 1843, † 1926
- and
- RAMÓN Y CAJAL, SANTIAGO, Spain, Madrid University
 * 1852, † 1934
- *"såsom ett erkännande åt deras arbeten rörande nervsystemets byggnad"*
 - "in recognition of their work on the structure of the nervous system."
- 1907 LAVERAN, CHARLES LOUIS ALPHONSE, France, Institut Pasteur, Paris
 * 1845, † 1922
- *"såsom ett erkännande åt hans arbeten rörande protozoers betydelse som sjukdomsalstrare"*
 - "in recognition of his work on the role played by protozoa in causing diseases."
- 1908 The prize was awarded jointly to:

MECHNIKOV, ILYA ILYICH, Russia, Institut Pasteur, Paris, France

* 1845, † 1916

and

EHRlich, PAUL, Germany, Goettingen University and Königliches Institut für experimentelle Therapie (Royal Institute for Experimental Therapy), Frankfurt-on-the-Main

* 1854, † 1915

- *"såsom ett erkännande åt deras arbeten rörande immuniteten"*
- "in recognition of their work on immunity."

1909 KOCHER, EMIL THEODOR, Switzerland, Berne University

* 1841, † 1917

- *"för hans arbeten rörande thyreoideas fysiologi, patologi och kirurgi"*
- "for his work on the physiology, pathology and surgery of the thyroid gland."

1910 KOSSEL, ALBRECHT, Germany, University of Heidelberg

* 1853, † 1927

- *"såsom ett erkännande för den insats han genom sina arbeten rörande äggviteämnena, däri jämväl inbegripna nukleinsubstanserna, gjort till kändedomen om cellens kemi"*
- "in recognition of the contributions to our knowledge of cell chemistry made through his work on proteins, including the nucleic substances."

1911 GULLSTRAND, ALLVAR, Sweden, Uppsala University

* 1862, † 1930

- *"för hans arbeten rörande ögats dioptrik"*
- "for his work on the dioptrics of the eye."

1912 CARREL, ALEXIS, France, Rockefeller Institute for Medical Research, New York, NY, U.S.A.

* 1873, † 1944

- *"såsom ett erkännande för hans arbeten rörande kärlsutur samt kärl- och organtransplantation"*

- “in recognition of his work on vascular suture and the transplantation of blood vessels and organs.”
- 1913 RICHET, CHARLES ROBERT, France, Sorbonne University, Paris
 * 1850, † 1935
- *”såsom ett erkännande för hans arbeten rörande anafylaxien”*
 - “in recognition of his work on anaphylaxis.”
- 1914 Reserved.
- 1915 The prize for 1914:
- BÁRÁNY, ROBERT, Austria, Vienna University
 * 1876, † 1936
- *”för hans arbeten om vestibularapparatusens fysiologi och patologi”*
 - “for his work on the physiology and pathology of the vestibular apparatus.”
- The prize for 1915: Reserved
- 1916 The prize money for 1915 was allocated to the Special Fund of this prize section.
- The prize for 1916: Reserved.
- 1917 The prize money for 1916 was allocated to the Special Fund of this prize section.
- The prize for 1917: Reserved.
- 1918 The prize money for 1917 was allocated to the Special Fund of this prize section.
- The prize for 1918: Reserved.
- 1919 The prize money for 1918 was allocated to the Special Fund of this prize section.
- The prize for 1919: Reserved.

1920 The prize for 1919:

BORDET, JULES, Belgium, Brussels University

* 1870, † 1961

- "*för hans upptäckter beträffande immuniteten*"
- "for his discoveries relating to immunity."

The prize for 1920:

KROGH, SCHACK AUGUST STEENBERG, Denmark, Copenhagen University

* 1874, † 1949

- "*för hans upptäckt av den kapillärmotoriska regulationsmekanismen*"
- "for his discovery of the capillary motor regulating mechanism."

1921 Reserved.

1922 The prize money for 1921 was allocated to the Special Fund of this prize section.

The prize for 1922: Reserved.

1923 The prize for 1922 was divided equally between:

HILL, ARCHIBALD VIVIAN, United Kingdom, London University

* 1886, † 1977

- "*för hans upptäckt rörande värmetoningen i muskeln*"
- "for his discovery relating to the production of heat in the muscle."

and

MEYERHOF, OTTO FRITZ, Germany, Kiel University

* 1884, † 1951

- "*för hans upptäckt av det lagbundna förhållandet mellan syrgasförbrukningen och mjölksyreomsättningen i muskeln*"
- "for his discovery of the fixed relationship between the consumption of oxygen and the metabolism of lactic acid in the muscle."

The prize for 1923 was awarded jointly to:

BANTING, FREDERICK GRANT, Canada, University of Toronto

* 1891, † 1941

and

MACLEOD, JOHN JAMES RICHARD, Canada, University of Toronto

* 1876 (in Cluny, Scotland), † 1935

- "*för upptäckten av insulin*"
- "for the discovery of insulin."

1924 EINTHOVEN, WILLEM, the Netherlands, Leiden University

* 1860 (in Semarang, Java, then Dutch East Indies), † 1927

- "*för hans upptäckt av elektrokardiogrammets mekanism*"
- "for his discovery of the mechanism of the electrocardiogram."

1925 Reserved.

1926 The prize money for 1925 was allocated to the Special Fund of this prize section.

The prize for 1926: Reserved.

1927 The prize for 1926:

FIBIGER, JOHANNES ANDREAS GRIB, Denmark, Copenhagen University

* 1867, † 1928

- "*för hans upptäckt av spiropteracarcinomet*"
- "for his discovery of the Spiroptera carcinoma."

The prize for 1927:

WAGNER-JAUREGG, JULIUS, Austria, Vienna University

* 1857, † 1940

- "*för hans upptäckt av malaraiänympningens terapeutiska betydelse vid dementia paralytica*"
- "for his discovery of the therapeutic value of malaria inoculation in the treatment of dementia paralytica."

- 1928 NICOLLE, CHARLES JULES HENRI, France, Institut Pasteur, Tunis
* 1866, † 1936
• "*för hans arbeten om fläcktyfus*"
• "for his work on typhus."
- 1929 The prize was divided equally between:
EIJKMAN, CHRISTIAAN, the Netherlands, Utrecht University
* 1858, † 1930
• "*för hans upptäckt av antineuritiska vitaminet*"
• "for his discovery of the antineuritic vitamin."
and
HOPKINS, Sir FREDERICK GOWLAND, United Kingdom, University of Cambridge
* 1861, † 1947
• "*för hans upptäckt av tillväxtvitaminerna*"
• "for his discovery of the growth-stimulating vitamins."
- 1930 LANDSTEINER, KARL, Austria, Rockefeller Institute for Medical Research, New York, NY, U.S.A.
* 1868, † 1943
• "*för hans upptäckt av människosläktets blodgrupper*"
• "for his discovery of human blood groups."
- 1931 WARBURG, OTTO HEINRICH, Germany, Kaiser-Wilhelm-Institut (now Max-Planck-Institut) für Biologie, Berlin-Dahlem
* 1883, † 1970
• "*för hans upptäckt av andningsfermentets art och verkningsätt*"
• "for his discovery of the nature and mode of action of the respiratory enzyme."
- 1932 The prize was awarded jointly to:
SHERRINGTON, Sir CHARLES SCOTT, United Kingdom, University of Oxford
* 1857, † 1952
and

- ADRIAN, EDGAR DOUGLAS, United Kingdom, University of Cambridge
 * 1889, † 1977
 • *"för deras upptäckter rörande neuronets funktioner"*
 • "for their discoveries regarding the functions of neurons."
- 1933 MORGAN, THOMAS HUNT, U.S.A., California Institute of Technology, Pasadena, CA
 * 1866, † 1945
 • *"för hans upptäckter rörande kromosomernas ärftlighetsbärande funktioner"*
 • "for his discoveries concerning the role played by the chromosome in heredity."
- 1934 The prize was awarded jointly to:
 WHIPPLE, GEORGE HOYT, U.S.A., Rochester University, Rochester, NY
 * 1878, † 1976
 MINOT, GEORGE RICHARDS, U.S.A., Harvard University, Cambridge, MA
 * 1885, † 1950
 and
 MURPHY, WILLIAM PARRY, U.S.A., Harvard University, Cambridge, MA and Peter Brent Brigham Hospital, Boston, MA
 * 1892, † 1987
 • *"för deras upptäckter rörande leverterapi vid anemier"*
 • "for their discoveries concerning liver therapy in cases of anaemia."
- 1935 SPEMANN, HANS, Germany, University of Freiburg im Breisgau
 * 1869, † 1941
 • *"för upptäckten av organisatoreffekten under den embryonala utvecklingen"*
 • "for his discovery of the organizer effect in embryonic development."
- 1936 The prize was awarded jointly to:

DALE, Sir HENRY HALLETT, United Kingdom, National Institute for Medical Research, London

* 1875, † 1968

and

LOEWI, OTTO, Austria, Graz University

* 1873 (in Frankfurt-on-the-Main, Germany), † 1961

- "*för deras upptäckter rörande kemisk överföring av nervverkan*"
- "for their discoveries relating to chemical transmission of nerve impulses."

1937 SZENT-GYÖRGYI NAGYRAPOLT, ALBERT VON, Hungary, Szeged University

* 1893, † 1986

- "*för hans upptäckter rörande de biologiska förbränningsprocesserna, med särskild hänsyn till vitamin C och fumarsyre katalysen*"
- "for his discoveries in connection with the biological combustion processes, with special reference to vitamin C and the catalysis of fumaric acid."

1938 Reserved.

1939 The prize for 1938:

HEYMANS, CORNEILLE JEAN FRANÇOIS, Belgium, Ghent University

* 1892, † 1968

- "*för upptäckten av sinus- och aortamekanismernas betydelse för andningens regulation*"
- "for the discovery of the role played by the sinus and aortic mechanisms in the regulation of respiration."

The prize for 1939:

DOMAGK, GERHARD, Germany, Munster University
(Caused by the authorities of his country to decline the award but later received the diploma and the medal)

* 1895, † 1964

- "*för upptäckten av prontosilets antibakteriella verkan*"
- "for the discovery of the antibacterial effects of prontosil."

- 1940 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1941 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1942 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1943 Reserved.
- 1944 The prize for 1943 was divided equally between:
- DAM, HENRIK CARL PETER, Denmark, Polytechnic Institute, Copenhagen
 * 1895, † 1976
 • "*för hans upptäckt av K-vitaminet*"
 • "for his discovery of vitamin K."
- and
- DOISY, EDWARD ADELBERT, U.S.A., Saint Louis University, St. Louis, MO
 * 1893, † 1986
 • "*för hans upptäckt av K-vitaminets kemiska natur*"
 • "for his discovery of the chemical nature of vitamin K."
- The prize for 1944 was awarded jointly to:
- ERLANGER, JOSEPH, U.S.A., Washington University, St. Louis, MO
 * 1874, † 1965
- and
- GASSER, HERBERT SPENCER, U.S.A., Rockefeller Institute for Medical Research, New York, NY
 * 1888, † 1963
 • "*för deras upptäckter rörande de enskilda nervtrådarnas mångsidiga funktionella differentiering*"
 • "for their discoveries relating to the highly differentiated functions of single nerve fibres."
- 1945 The prize was awarded jointly to:

FLEMING, Sir ALEXANDER, United Kingdom, London University

* 1881 (in Lochfield, Scotland), † 1955

CHAIN, ERNST BORIS, United Kingdom, University of Oxford

* 1906 (in Berlin, Germany), † 1979

and

FLOREY, Sir HOWARD WALTER, Australia, University of Oxford, United Kingdom

* 1898, † 1968

- *"för upptäckten av penicillinet och dess botande verkan vid olika infektionssjukdomar"*
- "for the discovery of penicillin and its curative effect in various infectious diseases."

1946 MULLER, HERMANN JOSEPH, U.S.A., Indiana University, Bloomington, IN

* 1890, † 1967

- *"för upptäckten av framkallandet av mutationer medelst röntgenbestrålning"*
- "for the discovery of the production of mutations by means of X-ray irradiation."

1947 The prize was divided, one half being awarded jointly to:

CORI, CARL FERDINAND, U.S.A., Washington University, St. Louis, MO

* 1896 (in Prague, then Austria), † 1984

and his wife

CORI, GERTY THERESA, née RADNITZ, U.S.A., Washington University, St. Louis, MO

* 1896 (in Prague, then Austria), † 1957

- *"för deras upptäckt av förloppet vid glykogenets katalytiska omsättning"*
- "for their discovery of the course of the catalytic conversion of glycogen."

the other half to being awarded to:

HOUSSAY, BERNARDO ALBERTO, Argentina, Instituto de Biología y Medicina Experimental (Institute for Biology and Experimental Medicine), Buenos Aires

* 1887, † 1971

- "*för hans upptäckt av hypofysframlobshormonets betydelse för sockeromsättningen*"
- "for his discovery of the part played by the hormone of the anterior pituitary lobe in the metabolism of sugar."

1948 MÜLLER, PAUL HERMANN, Switzerland, Laboratorium der Farben-Fabriken J.R. Geigy A.G. (Laboratory of the J.R. Geigy Dye-Factory Co.), Basel

* 1899, † 1965

- "*för hans upptäckt av DDT:s starka verkan som kontaktgift mot ett flertal arthropoder*"
- "for his discovery of the high efficiency of DDT as a contact poison against several arthropods."

1949 The prize was divided equally between:

HESS, WALTER RUDOLF, Switzerland, University of Zurich

* 1881, † 1973

- "*för hans upptäckt av mellan hjärnans funktionella organisation för samordning av verksamheten i inre organ*"
- "for his discovery of the functional organization of the inter-brain as a coordinator of the activities of the internal organs."

and

MONIZ, ANTONIO CAETANO DE ABREU FREIRE EGAS, Portugal, Neurological Institute, University of Lisbon

* 1874, † 1955

- "*för hans upptäckt av den prefrontala leukotomiens terapeutiska betydelse vid vissa psykoser*"
- "for his discovery of the therapeutic value of leucotomy in certain psychoses."

1950 The prize was awarded jointly to:

KENDALL, EDWARD CALVIN, U.S.A., Mayo Clinic, Rochester, MN

* 1886, † 1972

REICHSTEIN, TADEUS, Switzerland, Basel University

* 1897 (in Wloclawek, Poland), † 1996

and

HENCH, PHILIP SHOWALTER, U.S.A., Mayo Clinic,
Rochester MN

* 1896, † 1965

- *"för deras upptäckter rörande binjurebarkens hormoner, deras byggnad och biologiska verkningar"*
- "for their discoveries relating to the hormones of the adrenal cortex, their structure and biological effects."

1951 THEILER, MAX, Union of South Africa, Laboratories of the
Division of Medicine and Public Health, Rockefeller Founda-
tion, New York, NY, U.S.A.

* 1899, † 1972

- *"för hans upptäckter rörande gula febern och dess bekämpande"*
- "for his discoveries concerning yellow fever and how to combat it."

1952 WAKSMAN, SELMAN ABRAHAM, U.S.A., Rutgers Uni-
versity, New Brunswick, NJ

* 1888 (in Priluka, Ukraine, Russia), † 1973

- *"för hans upptäckt av streptomycin - det första mot tuberkulos verksamma antibiotiska ämnet"*
- "for his discovery of streptomycin, the first antibiotic effective against tuberculosis."

1953 The prize was divided equally between:

KREBS, HANS ADOLF, United Kingdom, Sheffield Univer-
sity

* 1900 (in Hildesheim, Germany), † 1981

- *"för hans upptäckt av citronsyrecykeln"*
- "for his discovery of the citric acid cycle."

and

LIPMANN, FRITZ ALBERT, U.S.A., Harvard Medical
School and Massachusetts General Hospital, Boston, MA

* 1899 (in Koenigsberg, then Germany), † 1986

- *"för hans upptäckt av coenzym A och dess betydelse för den intermediära ämnesomsättningen"*
- "for his discovery of co-enzyme A and its importance for intermediary metabolism."

1954 The prize was awarded jointly to:

ENDERS, JOHN FRANKLIN, U.S.A., Harvard Medical School, Boston, MA; Research Division of Infectious Diseases, Children's Medical Center, Boston, MA

* 1897, † 1985

WELLER, THOMAS HUCKLE, U.S.A., Research Division of Infectious Diseases, Children's Medical Center, Boston, MA

* 1915, † 2008

and

ROBBINS, FREDERICK CHAPMAN, U.S.A., Western Reserve University, Cleveland, OH

* 1916, † 2003

- *"för deras upptäckt av poliomyelitvirus förmåga att föröka sig i kulturer av vävnader av olika slag"*
- "for their discovery of the ability of poliomyelitis viruses to grow in cultures of various types of tissue."

1955 THEORELL, AXEL HUGO THEODOR, Sweden, Nobel Medical Institute, Stockholm

* 1903, † 1982

- *"för hans upptäckter rörande oxidationsenzymens natur och verkningsätt"*
- "for his discoveries concerning the nature and mode of action of oxidation enzymes."

1956 The prize was awarded jointly to:

COURNAND, ANDRÉ FRÉDÉRIC, U.S.A., Cardio-Pulmonary Laboratory, Columbia University Division, Bellevue Hospital, New York, NY

* 1895 (in Paris, France), † 1988

FORSSMANN, WERNER, Federal Republic of Germany, Mainz University and Bad Kreuznach

* 1904, † 1979

and

RICHARDS, DICKINSON W., U.S.A., Columbia University,
New York, NY

* 1895, † 1973

- *"för deras upptäckter rörande hjärkateterisering och sjukliga förändringar i cirkulationsapparaten"*
- "for their discoveries concerning heart catheterization and pathological changes in the circulatory system."

1957 BOVET, DANIEL, Italy, Istituto Superiore di Sanità (Chief
Institute of Public Health), Rome

* 1907 (in Neuchâtel, Switzerland), † 1992

- *"för hans upptäckter rörande syntetiska medel, som blockera vissa kroppsegna substansers verkan, särskilt på blodkärl och skelettmuskulatur"*
- "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."

1958 The prize was divided, one half being awarded jointly to:

BEADLE, GEORGE WELLS, U.S.A., California Institute of
Technology, Pasadena, CA

* 1903, † 1989

and

TATUM, EDWARD LAWRIE, U.S.A., Rockefeller Institute
for Medical Research, New York, NY

* 1909, † 1975

- *"för deras upptäckt att gener verka vid reglerandet av bestämda kemiska förlopp"*
- "for their discovery that genes act by regulating definite chemical events."

and the other half to:

LEDERBERG, JOSHUA, U.S.A., University of Wisconsin,
Madison, WI

* 1925, † 2008

- *"för hans upptäckter rörande genetisk rekombination samt arvsmassans organisation hos bakterier"*

- “for his discoveries concerning genetic recombination and the organization of the genetic material of bacteria.”

1959 The prize was awarded jointly to:

OCHOA, SEVERO, U.S.A., New York University, College of Medicine, New York, NY

* 1905 (in Lueca, Spain), † 1993

and

KORNBERG, ARTHUR, U.S.A., Stanford University, Stanford, CA

* 1918, † 2007

- *”för deras upptäckter av mekanismen vid den biologiska syntesen av ribonukleinsyra och deoxiribonukleinsyra”*
- “for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid.”

1960 The prize was awarded jointly to:

BURNET, Sir FRANK MACFARLANE, Australia, Walter and Eliza Hall Institute for Medical Research, Melbourne

* 1899, † 1985

and

MEDAWAR, PETER BRIAN, United Kingdom, University College, London

* 1915, † 1987

- *”för upptäckten av förvärvad immunologisk tolerans”*
- “for the discovery of acquired immunological tolerance.”

1961 BÉKÉSY, GEORG VON, U.S.A., Harvard University, Cambridge, MA

* 1899 (in Budapest, Hungary), † 1972

- *”för hans upptäckter rörande de fysikaliska retningsmekanismerna i örats snäcka”*
- “for his discoveries of the physical mechanism of stimulation within the cochlea.”

1962 The prize was awarded jointly to:

CRICK, FRANCIS HARRY COMPTON, United Kingdom,
Institute of Molecular Biology, Cambridge

* 1916, † 2004

WATSON, JAMES DEWEY, U.S.A., Harvard University,
Cambridge, MA

* 1928

and

WILKINS, MAURICE HUGH FREDERICK, United King-
dom, London University

* 1916, † 2004

- *"för deras upptäckt av nukleinsyrornas molekylära uppbyggnad och dess betydelse för informationsöverföring i levande materia"*
- "for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material."

1963 The prize was awarded jointly to:

ECCLES, Sir JOHN CAREW, Australia, Australian National
University, Canberra

* 1903, † 1997

HODGKIN, ALAN LLOYD, United Kingdom, University of
Cambridge

* 1914, † 1998

and

HUXLEY, ANDREW FIELDING, United Kingdom, London
University

* 1917

- *"för deras upptäckter rörande jonmekanismerna vid retning och hämning i nervcellernas perifera och centrala membranavsnitt"*
- "for their discoveries concerning the ionic mechanisms involved in excitation and inhibition in the peripheral and central portions of the nerve cell membrane."

1964 The prize was awarded jointly to:

BLOCH, KONRAD, U.S.A., Harvard University, Cambridge, MA

* 1912 (in Neisse, Germany), † 2000

and

LYNEN, FEODOR, Federal Republic of Germany, Max-Planck-Institut für Zellchemie, Munich

* 1911, † 1979

- *"för deras upptäckter rörande kolesterol- och fettsyreomsättningens mekanism och reglering"*
- "for their discoveries concerning the mechanism and regulation of the cholesterol and fatty acid metabolism."

1965 The prize was awarded jointly to:

JACOB, FRANÇOIS, France, Institut Pasteur, Paris

* 1920

LWOFF, ANDRÉ, France, Institut Pasteur, Paris

* 1902, † 1994

and

MONOD, JACQUES, France, Institut Pasteur, Paris

* 1910, † 1976

- *"för deras upptäckter rörande genetisk styrning av enzym- och virussyntes"*
- "for their discoveries concerning genetic control of enzyme and virus synthesis."

1966 The prize was divided equally between:

ROUS, PEYTON, U.S.A., Rockefeller University, New York, NY

* 1879, † 1970

- *"för hans upptäckt rörande tumörframkallande virus"*
- "for his discovery of tumour-inducing viruses."

and

HUGGINS, CHARLES BRENTON, U.S.A., Ben May Laboratory for Cancer Research, University of Chicago, Chicago, IL

* 1901, † 1997

- *"för hans upptäckter rörande hormonbehandling av prostatacancer"*

- “for his discoveries concerning hormonal treatment of prostatic cancer.”

1967 The prize was awarded jointly to:

GRANIT, RAGNAR, Sweden, Karolinska Institutet, Stockholm

* 1900 (in Helsinki, Finland), † 1991

HARTLINE, HALDAN KEFFER, U.S.A., Rockefeller University, New York, NY

* 1903, † 1983

and

WALD, GEORGE, U.S.A., Harvard University, Cambridge, MA

* 1906, † 1997

- *”för deras upptäckter rörande de primära fysiologiska och kemiska synprocesserna i ögat”*
- “for their discoveries concerning the primary physiological and chemical visual processes in the eye.”

1968 The prize was awarded jointly to:

HOLLEY, ROBERT W., U.S.A., Cornell University, Ithaca, NY

* 1922, † 1993

KHORANA, HAR GOBIND, U.S.A., University of Wisconsin, Madison, WI

* 1922 (in Raipur, India)

and

NIRENBERG, MARSHALL W., U.S.A., National Institutes of Health, Bethesda, MD

* 1927

- *”för deras upptäckter rörande tolkningen av den genetiska koden och dennas funktion vid proteinsyntes”*
- “for their interpretation of the genetic code and its function in protein synthesis.”

1969 The prize was awarded jointly to:

DELBRÜCK, MAX, U.S.A., California Institute of Technology, Pasadena, CA

* 1906 (in Berlin, Germany), † 1981

HERSHEY, ALFRED D., U.S.A., Carnegie Institution of Washington, Long Island, New York, NY

* 1908, † 1997

and

LURIA, SALVADOR E., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1912 (in Torino, Italy), † 1991

- *"för deras upptäckter rörande virus förökningsmekanism och genetiska struktur"*
- "for their discoveries concerning the replication mechanism and the genetic structure of viruses."

1970 The prize was awarded jointly to:

KATZ, Sir BERNARD, United Kingdom, University College, London

* 1911, † 2003

EULER, ULF VON, Sweden, Karolinska Institutet, Stockholm

* 1905, † 1983

and

AXELROD, JULIUS, U.S.A., National Institutes of Health, Bethesda, MD

* 1912, † 2004

- *"för deras upptäckter rörande signalsubstanser i nervcellernas kontaktorgan och mekanismerna för deras upplagring, frisättning och inaktivering"*
- "for their discoveries concerning the humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation."

1971 SUTHERLAND, EARL W., JR., U.S.A., Vanderbilt University, Nashville., TN

* 1915, † 1974

- *"för hans upptäckter rörande hormoners verkningsmekanismer"*

- “for his discoveries concerning the mechanisms of the action of hormones.”

1972 The prize was awarded jointly to:

EDELMAN, GERALD M., U.S.A., Rockefeller University,
New York, NY

* 1929

and

PORTER, RODNEY R., United Kingdom, University of
Oxford

* 1917, † 1985

- *”för deras upptäckter rörande immunkropparnas kemiska byggnad”*
- “for their discoveries concerning the chemical structure of antibodies.”

1973 The prize was awarded jointly to:

FRISCH, KARL VON, Federal Republic of Germany, Zoolo-
gisches Institut der Universität München, Munich

* 1886 (in Vienna, Austria), † 1982

LORENZ, KONRAD, Austria, Österreichische Akademie der
Wissenschaften, Institut für vergleichende Verhaltensfor-
schung, Altenberg

* 1903, † 1989

and

TINBERGEN, NIKOLAAS, United Kingdom, Department of
Zoology, University Museum, Oxford

* 1907 (in the Hague, the Netherlands), † 1988

- *”för deras upptäckter rörande organisation och utlösning av individuella och sociala beteendemönster”*
- “for their discoveries concerning organization and elicitation of individual and social behaviour patterns.”

1974 The prize was awarded jointly to:

CLAUDE, ALBERT, Belgium, Université Catholique de
Louvain

* 1899, † 1983

DUVE, CHRISTIAN DE, Belgium, Rockefeller University, New York, NY

* 1917

and

PALADE, GEORGE E., U.S.A., Yale University School of Medicine, New Haven, CT

* 1912 (in Iasi, Romania), † 2008

- *"för deras upptäckter rörande cellens strukturella och funktionella organisation"*
- "for their discoveries concerning the structural and functional organization of the cell."

1975 The prize was awarded jointly to:

BALTIMORE, DAVID, U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1938

DULBECCO, RENATO, U.S.A., Imperial Cancer Research Fund Laboratory, London, United Kingdom

* 1914 (in Catanzaro, Italy)

and

TEMIN, HOWARD MARTIN, U.S.A., University of Wisconsin, Madison, WI

* 1934, † 1994

- *"för deras upptäckter över tumörvirus samspel med cellens arvs massa"*
- "for their discoveries concerning the interaction between tumour viruses and the genetic material of the cell."

1976 The prize was awarded jointly to:

BLUMBERG, BARUCH S., U.S.A., The Institute for Cancer Research, Philadelphia, PA

* 1925

and

GAJDUSEK, D. CARLETON, U.S.A., National Institutes of Health, Bethesda, MD

* 1923, † 2008

- *"för deras upptäckter av nya mekanismer för infektionssjukdomars uppkomst och spridning"*

- “for their discoveries concerning new mechanisms for the origin and dissemination of infectious diseases.”

1977 The prize was divided, one half being awarded jointly to:

GUILLEMIN, ROGER, U.S.A., The Salk Institute, San Diego, CA

* 1924 (in Dijon, France)

and

SCHALLY, ANDREW V., U.S.A., Veterans Administration Hospital, New Orleans, LA

* 1926 (in Wilno, Poland)

- *”för deras upptäckter rörande hjärnans produktion av peptidhormoner”*
- “for their discoveries concerning the peptide hormone production of the brain.”

and the other half being awarded to:

YALOW, ROSALYN, U.S.A., Veterans Administration Hospital, Bronx, NY

* 1921

- *”för utveckling av radioimmunologiska metoder för bestämning av peptidhormoner”*
- “for the development of radioimmunoassays of peptide hormones.”

1978 The prize was awarded jointly to:

ARBER, WERNER, Switzerland, Biozentrum der Universität, Basel

* 1929

NATHANS, DANIEL, U.S.A., Johns Hopkins University School of Medicine, Baltimore, MD

* 1928, † 1999

and

SMITH, HAMILTON O., U.S.A., Johns Hopkins University School of Medicine, Baltimore, MD

* 1931

- *”för upptäckten av restriktionsenzym och deras användning inom den molekylära tekniken”*

- “for the discovery of restriction enzymes and their application to problems of molecular genetics.”

1979 The prize was awarded jointly to:

CORMACK, ALLAN M., U.S.A., Tufts University, Medford, MA

* 1924 (in Johannesburg, South Africa), † 1998

and

HOUNSFIELD, GODFREY N., United Kingdom, Central Research Laboratories, EMI, London

* 1919, † 2004

• *”för utvecklandet av datortomografi”*

• “for the development of computer assisted tomography.”

1980 The prize was awarded jointly to:

BENACERRAF, BARUJ, U.S.A., Harvard Medical School, Boston, MA

* 1920 (in Caracas, Venezuela)

DAUSSET, JEAN, France, Université de Paris, Laboratoire Immuno-Hématologie, Paris

* 1916, † 2009

and

SNELL, GEORGE D., U.S.A., Jackson Laboratory, Bar Harbor, ME

* 1903, † 1996

• *”för deras upptäckter rörande genetiskt bestämda cellulära ytstrukturer som styr immunologiska reaktioner”*

• “for their discoveries concerning genetically determined structures on the cell surface that regulate immunological reactions.”

1981 The prize was awarded with one half to:

SPERRY, ROGER W., U.S.A., California Institute of Technology, Pasadena, CA

* 1913, † 1994

• *”för hans upptäckter rörande hjärnhemisfärernas funktionella specialisering”*

- “for his discoveries concerning the functional specialization of the cerebral hemispheres.”

and the other half jointly to:

HUBEL, DAVID H., U.S.A., Harvard Medical School, Boston, MA

* 1926 (in Windsor, ON, Canada)

and

WIESEL, TORSTEN N., Sweden, Harvard Medical School, Boston, MA, U.S.A.

* 1924

- *”för deras upptäckter rörande informationsbearbetningen i synsystemet”*
- “for their discoveries concerning information processing in the visual system.”

1982 The prize was awarded jointly to:

BERGSTRÖM, SUNE K., Sweden, Karolinska Institutet, Stockholm

* 1916, † 2004

SAMUELSSON, BENGT I., Sweden, Karolinska Institutet, Stockholm

* 1934

and

VANE, JOHN R., United Kingdom, The Wellcome Research Laboratories, Beckenham

* 1927, † 2004

- *”för deras upptäckter rörande prostaglandiner och närbesläktade biologiskt aktiva substanser”*
- “for their discoveries concerning prostaglandins and related biologically active substances.”

1983 McCLINTOCK, BARBARA, U.S.A., Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

* 1902, † 1992

- *”för hennes upptäckt av rörliga strukturer i arvsmassan”*
- “for her discovery of mobile genetic elements.”

1984 The prize was awarded jointly to:

JERNE, NIELS K., Denmark, Basel Institute for Immunology, Switzerland

* 1911, † 1994

KÖHLER, GEORGES J.F., Federal Republic of Germany, Basel Institute for Immunology, Switzerland

* 1946, † 1995

and

MILSTEIN, CÉSAR, United Kingdom and Argentina, MRC Laboratory of Molecular Biology, Cambridge

* 1927 (in Bahia Blanca, Argentina), † 2002

- *"för teorier om immunsystemets specifika uppbyggnad och styrning och upptäckten av principen för produktion av monoklonala antikroppar"*
- "for theories concerning the specificity in development and control of the immune system and the discovery of the principle for production of monoclonal antibodies."

1985 The prize was awarded jointly to:

BROWN, MICHAEL S., U.S.A., University of Texas Health Science Center at Dallas, Dallas, TX

* 1941

and

GOLDSTEIN, JOSEPH L., U.S.A., University of Texas Health Science Center at Dallas, Dallas, TX

* 1940

- *"för deras upptäckter rörande kontrollen av kolesterolets omsättning"*
- "for their discoveries concerning the regulation of cholesterol metabolism."

1986 The prize was awarded jointly to:

COHEN, STANLEY, U.S.A., Vanderbilt University School of Medicine, Nashville, TN

* 1922

and

LEVI-MONTALCINI, RITA, Italy and U.S.A., Institute of Cell Biology of the C.N.R., Rome

* 1909

- *"för deras upptäckter av tillväxtfaktorer"*
- "for their discoveries of growth factors."

1987 TONEGAWA, SUSUMU, Japan, Massachusetts Institute of Technology (MIT), Cambridge, MA, U.S.A.

* 1939

- *"för hans upptäckt av det genetiska underlaget för uppkomsten av antikroppars variationsrikedom"*
- "for his discovery of the genetic principle for generation of antibody diversity."

1988 The prize was awarded jointly to:

BLACK, Sir JAMES W., United Kingdom, King's College Hospital Medical School, London University

* 1924

ELION, GERTRUDE B., U.S.A., Wellcome Research Laboratories, Research Triangle Park, NC

* 1918, † 1999

and

HITCHINGS, GEORGE H., U.S.A., Wellcome Research Laboratories, Research Triangle Park, NC

* 1905, † 1998

- *"för deras upptäckter av viktiga principer för läkemedelsbehandling"*
- "for their discoveries of important principles for drug treatment."

1989 The prize was awarded jointly to:

BISHOP, J. MICHAEL, U.S.A., University of California School of Medicine, San Francisco, CA

* 1936

and

VARMUS, HAROLD E., U.S.A., University of California School of Medicine, San Francisco, CA

* 1939

- *"för deras upptäckt av retrovirala onkogens cellulära ursprung"*

- “for their discovery of the cellular origin of retroviral oncogenes.”

1990 The prize was awarded jointly to:

MURRAY, JOSEPH E., U.S.A., Brigham and Women's Hospital, Boston, MA
* 1919

and

THOMAS, E. DONNALL, U.S.A., Fred Hutchinson Cancer Research Center, Seattle, WA
* 1920

- *”för deras upptäckter rörande organ- och celltransplantation som klinisk behandlingsmetod”*
- “for their discoveries concerning organ and cell transplantation in the treatment of human disease.”

1991 The prize was awarded jointly to:

NEHER, ERWIN, Federal Republic of Germany, Max-Planck-Institut für Biophysikalische Chemie, Goettingen
* 1944

and

SAKMANN, BERT, Federal Republic of Germany, Max-Planck-Institut für medizinische Forschung, Heidelberg
* 1942

- *”för deras upptäckter rörande enskilda cellulära jonkanalers funktion”*
- “for their discoveries concerning the function of single ion channels in cells.”

1992 The prize was awarded jointly to:

FISCHER, EDMOND H., U.S.A. and Switzerland, University of Washington, Seattle, WA
* 1920 (in Shanghai, China)

and

KREBS, EDWIN G., U.S.A., University of Washington, Seattle, WA
* 1918

- *"för deras upptäckter rörande reversibel proteinfosforylering som biologisk regleringsmekanism"*
- "for their discoveries concerning reversible protein phosphorylation as a biological regulatory mechanism."

1993 The prize was awarded jointly to:

ROBERTS, RICHARD J., United Kingdom, New England Biolabs, Beverly, MA, U.S.A.

* 1943

and

SHARP, PHILLIP A., U.S.A., Center for Cancer Research, Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1944

- *"för deras upptäckt av diskontinuerligt uppbyggda gener"*
- "for their discoveries of split genes."

1994 The prize was awarded jointly to:

GILMAN, ALFRED G., U.S.A., University of Texas Southwestern Medical Center, Dallas, TX

* 1941

and

RODBELL, MARTIN, U.S.A., National Institute of Environmental Health Sciences, Research Triangle Park, NC

* 1925, † 1998

- *"för deras upptäckt av G-proteiner och dessa proteins betydelse för signalöverföring i celler"*
- "for their discovery of G-proteins and the role of these proteins in signal transduction in cells."

1995 The prize was awarded jointly to:

LEWIS, EDWARD B., U.S.A., California Institute of Technology, Pasadena, CA

* 1918, † 2004

NÜSSLEIN-VOLHARD, CHRISTIANE, Federal Republic of Germany, Max-Planck-Institut für Entwicklungsbiologie, Tübingen

* 1942

and

WIESCHAUS, ERIC F., U.S.A., Princeton University, Princeton, NJ

* 1947

- *"för deras upptäckter rörande den genetiska kontrollen av tidig embryonalutveckling"*
- "for their discoveries concerning the genetic control of early embryonic development."

1996 The prize was awarded jointly to:

DOHERTY, PETER C., Australia, St. Jude Children's Research Hospital, Memphis, TN, U.S.A.

* 1940

and

ZINKERNAGEL, ROLF M., Switzerland, Institute of Experimental Immunology, University of Zurich

* 1944

- *"för deras upptäckter rörande det cellförmedlade immunförsvarets specificitet"*
- "for their discoveries concerning the specificity of the cell mediated immune defence."

1997 PRUSINER, STANLEY B., U.S.A., University of California, San Francisco, CA

* 1942

- *"för hans upptäckt av prioner - en ny biologisk princip för infektion"*
- "for his discovery of prions - a new biological principle of infection."

1998 The prize was awarded jointly to:

FURCHGOTT, ROBERT F., U.S.A., SUNY Health Science Center, Brooklyn, NY

* 1916, † 2009

IGNARRO, LOUIS J., U.S.A., UCLA School of Medicine, Los Angeles, CA

* 1941

and

MURAD, FERID, U.S.A., University of Texas Medical School at Houston, Houston, TX

* 1936

- *"för deras upptäckter rörande kväveoxid som en signalmolekyl i hjärtkärlsystemet"*
- "for their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system."

1999 BLOBEL, GÜNTER, U.S.A., Rockefeller University, Howard Hughes Medical Institute, New York, NY

* 1936 (in Waltersdorf/Silesia, Germany)

- *"för upptäckten att proteiner har inbyggda signaler som styr deras transport och lokalisation i cellen"*
- "for the discovery that proteins have intrinsic signals that govern their transport localization in the cell."

2000 The prize was awarded jointly to:

CARLSSON, ARVID, Sweden, Göteborg University

* 1923

GREENGARD, PAUL, U.S.A., Rockefeller University, New York, NY

* 1925

and

KANDEL, ERIC R., U.S.A., Columbia University, New York, NY

* 1929 (in Vienna, Austria)

- *"för deras upptäckter rörande signalöverföring i nervsystemet"*
- "for their discoveries concerning signal transduction in the nervous system."

2001 The prize was awarded jointly to:

HARTWELL, LELAND H., U.S.A., Fred Hutchinson Cancer Research Center, Seattle, WA

* 1939

HUNT, TIM, United Kingdom, Imperial Cancer Research Fund, London

* 1943

and

NURSE, Sir PAUL M., United Kingdom, Imperial Cancer Research Fund, London

* 1949

- *"för deras upptäckter rörande kontrollen av cellcykeln"*
- "for their discoveries of key regulators of the cell cycle."

2002 The prize was awarded jointly to:

BRENNER, SYDNEY, United Kingdom, The Molecular Sciences Institute Berkely, CA, U.S.A.

* 1927 (in South Africa)

HORVITZ, H. ROBERT, U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA

* 1947

and

SULSTON, JOHN E., United Kingdom, The Wellcome Trust Sanger Institute, Cambridge

* 1942

- *"för deras upptäckter rörande genetisk reglering av organutveckling och programmerad celldöd"*
- "for their discoveries concerning genetic regulation of organ development and programmed cell death."

2003 The prize was awarded jointly to:

LAUTERBUR, PAUL C., U.S.A., University of Illinois, Urbana, IL

* 1929, † 2007

and

MANSFIELD, Sir PETER, United Kingdom, University of Nottingham, School of Physics and Astronomy, Nottingham

* 1933

- *"för deras upptäckter rörande avbildning med magnetresonans"*
- "for their discoveries concerning magnetic resonance imaging."

2004 The prize was awarded jointly to:

AXEL, RICHARD, U.S.A., Columbia University, New York, NY

* 1946

and

BUCK, LINDA B., U.S.A., Fred Hutchinson Cancer Research Center, Seattle, WA

* 1947

- "*för deras upptäckter av luktreceptorer och luktsinnets organisation*"
- "for their discoveries of odorant receptors and the organization of the olfactory system."

2005 The prize was awarded jointly to:

MARSHALL, BARRY J., Australia, NHMRC Helicobacter pylori Research Laboratory, QEII Medical Centre, University of Western Australia, Nedlands

* 1951

and

WARREN, J. ROBIN, Australia

* 1937

- "*för deras upptäckt av bakterien Helicobacter pylori och dess roll vid gastrit och ulcussjukdom*"
- "for their discovery of the bacterium Helicobacter pylori and its role in gastritis and peptic ulcer disease."

2006 The prize was awarded jointly to:

FIRE, ANDREW Z., U.S.A., Stanford University School of Medicine, Stanford, CA

* 1959

and

MELLO, CRAIG C., U.S.A., University of Massachusetts Medical School, Worcester, MA

* 1960

- "*för deras upptäckt av RNA-interferens - utsläckning av geners uttryck med dubbelsträngat RNA*"
- "for their discovery of RNA interference - gene silencing by double-stranded RNA."

2007 The prize was awarded jointly to:

CAPECCHI, MARIO R., U.S.A., University of Utah, Salt Lake City, UT; Howard Hughes Medical Institute
* 1937 (in Italy)

and

EVANS, Sir MARTIN J., United Kingdom, Cardiff University, Cardiff
* 1941

and

SMITHIES, OLIVER, U.S.A., University of North Carolina at Chapel Hill, Chapel Hill, NC
* 1925 (in United Kingdom)

- *"för deras upptäckter av principer för att introducera specifika förändringar av gener i möss med användning av embryonala stamceller"*
- "for their discoveries of principles for introducing specific gene modifications in mice by the use of embryonic stem cells."

2008 The prize was awarded with one half to:

ZUR HAUSEN, HARALD, Germany, German Cancer Research Centre, Heidelberg
* 1936

- *"humana papillomvirus som orsakar livmoderhalscancer"*
- "for his discovery of human papilloma viruses causing cervical cancer."

and the other half jointly to:

BARRE-SINOUSSE, FRANCOISE, France, Regulation of Retroviral Infections Unit, Virology Department, Institut Pasteur, Paris
* 1947

and

MONTAGNIER, LUC, France, World Foundation for AIDS Research and Prevention, Paris
* 1932

- *"humant immunbristvirus"*
- "for their discovery of human immunodeficiency virus."

2009 The prize was awarded with one third each to:

BLACKBURN, ELIZABETH H., U.S.A., University of California, San Francisco, CA

* 1948 (in Hobart, Tasmania, Australia)

and

GREIDER, CAROL W., U.S.A., John Hopkins University School of Medicine, Baltimore, MD

* 1961

and

SZOSTAK, JACK W., U.S.A., Harvard Medical School, Massachusetts General Hospital, Boston, MA

* 1952 (in London, United Kingdom)

- *"hur kromosomerna skyddas av telomerer och enzymet telomeras"*
- "for the discovery of how chromosomes are protected by telomeres and the enzyme telomerase."

4. LITERATURE

- 1901 SULLY PRUDHOMME (pen-name of PRUDHOMME, RENÉ FRANÇOIS ARMAND), France
* 1839, † 1907
- *"såsom ett erkännande av hans utmärkta, jämväl under senare år ådagalagda förtjänster som författare och särskilt av hans om hög idealitet, konstnärlig fulländning samt sällspord förening av hjärtats och snillets egenskaper vittnande diktning"*
 - "in special recognition of his poetic composition, which gives evidence of lofty idealism, artistic perfection and a rare combination of the qualities of both heart and intellect."
- 1902 MOMMSEN, CHRISTIAN MATTHIAS THEODOR, Germany
* 1817 (in Garding, Sleswick, then Denmark), † 1903
- *"nutidens störste levande mästare i den historiska framställningens konst, med särskilt fäst avseende å hans monumentala verk 'Römische Geschichte'"*
 - "the greatest living master of the art of historical writing, with special reference to his monumental work, 'A History of Rome'."
- 1903 BJØRNSON, BJØRNSTJERNE MARTINUS, Norway
* 1832, † 1910
- *"såsom en gård av erkännande åt hans ädla, storartade och mångsidiga skaldeverksamhet, som alltid varit utmärkt på en gång av ingivelsens friskhet och av en sällsynt själsrenhet"*
 - "as a tribute to his noble, magnificent and versatile poetry, which has always been distinguished by both the freshness of its inspiration and the rare purity of its spirit."
- 1904 The prize was divided equally between:
MISTRAL, FRÉDÉRIC, France
* 1830, † 1914
- *"med avseende fäst å det ursprungsfriska, snillrika och sant konstnärliga i hans diktning, som troget avspeglar hans hembygds natur och folkliv, samt å hans betydelsefulla verksamhet som provençalsk filolog"*

LITERATURE

- “in recognition of the fresh originality and true inspiration of his poetic production, which faithfully reflects the natural scenery and native spirit of his people, and, in addition, his significant work as a Provençal philologist.”

and

ECHEGARAY Y EIZAGUIRRE, JOSÉ, Spain

* 1832, † 1916

- *”med avseende fäst å hans omfattande och snillrika författarskap, som på självständigt och orginellt sätt återupplivat det spanska skådespelets stora traditioner”*
- “in recognition of the numerous and brilliant compositions which, in an individual and original manner, have revived the great traditions of the Spanish drama.”

1905 SIENKIEWICZ, HENRYK, Poland

* 1846, † 1916

- *”på grund av hans storartade förtjänster som episk författare”*
- “because of his outstanding merits as an epic writer.”

1906 CARDUCCI, GIOSUÈ, Italy

* 1835, † 1907

- *”i betraktande ej blott av hans rika lärdom och kritiska forskningar, utan främst som en hyllning åt den plastiska energi, den stilens friskhet och den lyriska styrka, som utmärka hans poetiska mästerverk”*
- “not only in consideration of his deep learning and critical research, but above all as a tribute to the creative energy, freshness of style, and lyrical force which characterize his poetic masterpieces.”

1907 KIPLING, RUDYARD, United Kingdom

* 1865 (in Bombay, Br. India), † 1936

- *”i betraktande av den iakttagelseförmåga, den ursprungliga inbillningskraft samt den manliga styrka i uppfattning och skildringskonst, som utmärka denne världsberömda författares skapelser”*
- “in consideration of the power of observation, originality of imagination, virility of ideas and remarkable talent for narra-

tion which characterize the creations of this world-famous author.”

- 1908 EUCKEN, RUDOLF CHRISTOPH, Germany
* 1846, † 1926
- *”på grund av det sanningsökande allvar, den genomträngande tankekraft och vidsynthet, den värme och styrka i framställningen, varmed han i talrika arbeten hävdad och utvecklat en ideal världsåskådning”*
 - “in recognition of his earnest search for truth, his penetrating power of thought, his wide range of vision, and the warmth and strength in presentation with which in his numerous works he has vindicated and developed an idealistic philosophy of life.”
- 1909 LAGERLÖF, SELMA OTTILIA LOVISA, Sweden
* 1858, † 1940
- *”på grund av den ädla idealitet, den fantasiens rikedom och den framställningens själfullhet, som präglade hennes diktning”*
 - “in appreciation of the lofty idealism, vivid imagination and spiritual perception that characterize her writings.”
- 1910 HEYSE, PAUL JOHANN LUDWIG, Germany
* 1830, † 1914
- *”såsom hyllningsgärd åt den fulländade och av ideal uppfattning präglade konstnärlighet han ådagalagt under en lång och betydande verksamhet såsom lyriker, dramaturg, romanförfattare och diktare av världsberömda noveller”*
 - “as a tribute to the consummate artistry, permeated with idealism, which he has demonstrated during his long productive career as a lyric poet, dramatist, novelist and writer of world-renowned short stories.”
- 1911 MAETERLINCK, Count MAURICE (MOORIS) POLIDORE MARIE BERNHARD, Belgium
* 1862, † 1949
- *”på grund av hans mångsidiga litterära verksamhet och särskilt hans dramatiska skapelser, som utmärka sig genom fantasirikedom och genom en poetisk idealitet, vilken, stundom i sagospelets slöjade form, röjer djup ingivelse*

LITERATURE

samt på ett hemlighetsfullt sätt tilltalar läsarens känsla och aning”

- “in appreciation of his many-sided literary activities, and especially of his dramatic works, which are distinguished by a wealth of imagination and by a poetic fancy, which reveals, sometimes in the guise of a fairy tale, a deep inspiration, while in a mysterious way they appeal to the readers' own feelings and stimulate their imaginations.”

1912 HAUPTMANN, GERHART JOHANN ROBERT, Germany

* 1862, † 1946

- *”förnämligast för hans rika, mångsidiga, framstående verksamhet inom den dramatiska diktningens område”*
- “primarily in recognition of his fruitful, varied and outstanding production in the realm of dramatic art.”

1913 TAGORE, RABINDRANATH, India

* 1861, † 1941

- *”på grund av hans dikters djup och höga syftning samt den skönhet och friskhet, som på ett lysande sätt införlivat hans skaldskap i dess egen engelska dräkt även med den västerländska vitterheten”*
- “because of his profoundly sensitive, fresh and beautiful verse, by which, with consummate skill, he has made his poetic thought, expressed in his own English words, a part of the literature of the West.”

1914 Reserved.

1915 The prize money for 1914 was allocated to the Special Fund of this prize section.

The prize for 1915: Reserved.

1916 The prize for 1915:

ROLLAND, ROMAIN, France

* 1866, † 1944

- *”såsom en hyllning åt den upphöjda idealismen i hans författarskap samt åt den medkänsla och den sanning med vilka han tecknat olika människotyper”*

- “as a tribute to the lofty idealism of his literary production and to the sympathy and love of truth with which he has described different types of human beings.”

The prize for 1916:

HEIDENSTAM, CARL GUSTAF VERNER VON, Sweden

* 1859, † 1940

- *”såsom ett erkännande av hans betydelse som målsmannen för ett nytt skede i vår vitterhet”*
- “in recognition of his significance as the leading representative of a new era in our literature.”

1917 The prize was divided equally between:

GJELLERUP, KARL ADOLPH, Denmark

* 1857, † 1919

- *”för hans mångsidigt rika och av höga ideal burna diktning”*
- “for his varied and rich poetry, which is inspired by lofty ideals.”

and

PONTOPPIDAN, HENRIK, Denmark

* 1857, † 1943

- *”för hans fullödiga framställningar av nutida danskt liv”*
- “for his authentic descriptions of present-day life in Denmark.”

1918 Reserved.

1919 The prize money for 1918 was allocated to the Special Fund of this prize section

The prize for 1919: Reserved

1920 The prize for 1919:

SPITTELER, CARL FRIEDRICH GEORG, Switzerland

* 1845, † 1924

- *”med särskild tanke på hans mäktiga epos 'Olympischer Frühling'”*
- “in special appreciation of his epic, 'Olympian Spring'.”

LITERATURE

The prize for 1920:

HAMSUN, KNUT PEDERSEN, Norway

* 1859, † 1952

- "*för hans monumentala verk 'Markens grøde'*"
- "for his monumental work, 'Growth of the Soil'."

1921 ANATOLE FRANCE (pen-name of THIBAUT, JACQUES ANATOLE), France

* 1844, † 1924

- "*såsom ett erkännande av hans lysande författarverksamhet, präglad av ädel stilkonst, av vidhärtad humanitet, av behag och franskt lynne*"
- "in recognition of his brilliant literary achievements, characterized as they are by a nobility of style, a profound human sympathy, grace, and a true Gallic temperament."

1922 BENAVENTE, JACINTO, Spain

* 1866, † 1954

- "*för det lyckliga sätt varpå han fullföljt den spanska dramatikens ärofulla traditioner*"
- "for the happy manner in which he has continued the illustrious traditions of the Spanish drama."

1923 YEATS, WILLIAM BUTLER, Ireland

* 1865, † 1939

- "*för hans ständigt besjälade diktning, som i den strängaste konstnärliga form ger uttryck åt ett folks anda*"
- "for his always inspired poetry, which in a highly artistic form gives expression to the spirit of a whole nation."

1924 REYMONT (pen-name of REJMENT), WLADYSLAW STANISLAW, Poland

* 1867, † 1925

- "*för hans stora nationalepos 'Bönderna'*"
- "for his great national epic, 'The Peasants'."

1925 Reserved.

1926 The prize for 1925:

SHAW, GEORGE BERNARD, United Kingdom

* 1856 (in Dublin, Ireland), † 1950

- *"för hans av både idealitet och humanitet uppburna författarskap, vars friska satir ofta med sig förenar en egenartad poetisk skönhet"*
- "for his work which is marked by both idealism and humanity, its stimulating satire often being infused with a singular poetic beauty."

The prize for 1926: Reserved.

1927 The prize for 1926:

GRAZIA DELEDDA (pen-name of MADESANI, GRAZIA, née DELEDDA), Italy

* 1871, † 1936

- *"för hennes av hög idealitet burna författarskap, som med plastisk åskådlighet skildrat livet på hennes fäderneö och med djup och värme behandlat allmänt mänskliga problem"*
- "for her idealistically inspired writings which with plastic clarity picture the life on her native island and with depth and sympathy deal with human problems in general."

The prize for 1927: Reserved.

1928 The prize for 1927:

BERGSON, HENRI, France

* 1859, † 1941

- *"som ett erkännande åt hans rika och livgivande idéer och den glänsande konst varmed de framburits"*
- "in recognition of his rich and vitalizing ideas and the brilliant skill with which they have been presented."

The prize for 1928:

UNDSET, SIGRID, Norway

* 1882 (in Kalundborg, Denmark), † 1949

- *"förmäligast för hennes mäktiga skildringar ur Nordens medeltida liv"*
- "principally for her powerful descriptions of Northern life during the Middle Ages."

1929 MANN, THOMAS, Germany

* 1875, † 1955

LITERATURE

- *"förnämligast för hans stora roman 'Buddenbrooks', vilken under årens lopp vunnit alltmer stadgat erkännande som ett av den samtida litteraturens klassiska verk"*
 - "principally for his great novel, 'Buddenbrooks', which has won steadily increased recognition as one of the classic works of contemporary literature."
- 1930 LEWIS, SINCLAIR, U.S.A.
* 1885, † 1951
- *"för hans starka och levande skildringskonst, med typskapande förmåga, med kvickhet och humor"*
 - "for his vigorous and graphic art of description and his ability to create, with wit and humour, new types of characters."
- 1931 KARLFELDT, ERIK AXEL, Sweden
* 1864, † 1931
- *"Erik Axel Karlfeldts diktning"*
 - "The poetry of Erik Axel Karlfeldt."
- 1932 GALSWORTHY, JOHN, United Kingdom
* 1867, † 1933
- *"för den förnåma skildringskonst, som i 'The Forsyte Saga' uppnått sitt högsta uttryck"*
 - "for his distinguished art of narration which takes its highest form in 'The Forsyte Saga'."
- 1933 BUNIN, IVAN ALEKSEYEVICH, stateless domicile in France
* 1870 (in Voronezh, Russia), † 1953
- *"för det stränga konstnärsskap, varmed han företrätt den klassiskt ryska linjen i prosadiktningen"*
 - "for the strict artistry with which he has carried on the classical Russian traditions in prose writing."
- 1934 PIRANDELLO, LUIGI, Italy
* 1867, † 1936
- *"för hans djärva och sinnrika nyskapelse av dramats och scenens konst"*
 - "for his bold and ingenious revival of dramatic and scenic art."

1935 Reserved.

1936 The prize money for 1935 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1936:

O'NEILL, EUGENE GLADSTONE, U.S.A.

* 1888, † 1953

- *"för hans av kraft, ärlighet och stark känsla samt självständig, tragisk uppfattning präglade dramatik"*
- "for the power, honesty and deep-felt emotions of his dramatic works, which embody an original concept of tragedy."

1937 MARTIN DU GARD, ROGER, France

* 1881, † 1958

- *"för den konstnärliga kraft och sanning, varmed han i romanserien 'Les Thibault' har framställt mänskliga motsättningar och väsentliga sidor av samtida liv"*
- "for the artistic power and truth with which he has depicted human conflict as well as some fundamental aspects of contemporary life in his novel-cycle 'Les Thibault'."

1938 PEARL BUCK (pen-name of WALSH, PEARL, née SYDENSTRICKER), U.S.A.

* 1892, † 1973

- *"för rika och äkta episka skildringar ur kinesiskt bondeliv och för biografiska mästerverk"*
- "for her rich and truly epic descriptions of peasant life in China and for her biographical masterpieces."

1939 SILLANPÄÄ, FRANS EEMIL, Finland

* 1888, † 1964

- *"för den djupa uppfattning och den utsökta stilkonst, varmed han skildrat sitt hemlands allmogeliv och natur i deras inbördes sammanhang"*
- "for his deep understanding of his country's peasantry and the exquisite art with which he has portrayed their way of life and their relationship with Nature."

LITERATURE

- 1940 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1941 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1942 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1943 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1944 JENSEN, JOHANNES VILHELM, Denmark
* 1873, † 1950
- *"för den sällsynta kraften och frodigheten i hans diktarfantasi, förenad med vittfamnande intellektualitet och djärv, nyskapande stilkonst"*
 - "for the rare strength and fertility of his poetic imagination with which is combined an intellectual curiosity of wide scope and a bold, freshly creative style."
- 1945 GABRIELA MISTRAL (pen-name of GODOY Y ALCAYAGA, LUCILA), Chile
* 1889, † 1957
- *"för den av mäktig känsla inspirerade lyrik, som gjort hennes diktarnamn till en symbol för hela den latinamerikanska världens ideella strävanden"*
 - "for her lyric poetry which, inspired by powerful emotions, has made her name a symbol of the idealistic aspirations of the entire Latin American world."
- 1946 HESSE, HERMANN, Switzerland
* 1877 (in Calw, Wuerttemberg, Germany), † 1962
- *"för hans inspirerade författarskap, som i sin utveckling mot djärvhet och djup tillika företräder klassiska humanistideal och höga stilvärden"*
 - "for his inspired writings which, while growing in boldness and penetration, exemplify the classical humanitarian ideals and high qualities of style."

- 1947 GIDE, ANDRÉ PAUL GUILLAUME, France
 * 1869, † 1951
- *"för hans vittomfattande och konstnärligt betydelsefulla författarskap, i vilket mänsklighetens frågor och villkor ha framställts med oförskräckt sanningskärlek och psykologisk skarpsyn"*
 - "for his comprehensive and artistically significant writings, in which human problems and conditions have been presented with a fearless love of truth and keen psychological insight."
- 1948 ELIOT, THOMAS STEARNS, United Kingdom
 * 1888 (in S:t Louis, MO, U.S.A.), † 1965
- *"för hans märkliga insats som banbrytare inom nutida poesi"*
 - "for his outstanding, pioneer contribution to present-day poetry."
- 1949 Reserved.
- 1950 The prize for 1949:
 FAULKNER, WILLIAM, U.S.A.
 * 1897, † 1962
- *"för hans kraftfulla och självständigt konstnärliga insats i Amerikas nya romanlitteratur"*
 - "for his powerful and artistically unique contribution to the modern American novel."
- The prize for 1950:
 RUSSELL, Earl (BERTRAND ARTHUR WILLIAM), United Kingdom
 * 1872, † 1970
- *"som ett erkännande åt hans mångsidiga och betydelsefulla författarskap, vari han framträtt som en humanitetens och tankefrihetens förkämpe"*
 - "in recognition of his varied and significant writings in which he champions humanitarian ideals and freedom of thought."
- 1951 LAGERKVIST, PÄR FABIAN, Sweden
 * 1891, † 1974

LITERATURE

- *"för den konstnärliga kraft och djupa självständighet, varmed han i sin diktning söker svar på människans eviga frågor"*
 - "for the artistic vigour and true independence of mind with which he endeavours in his poetry to find answers to the eternal questions confronting mankind."
- 1952 MAURIAC, FRANÇOIS, France
- * 1885, † 1970
 - *"för den genomträngande själskunskap och konstnärliga intensitet, varmed han i romanens form tolkat det mänskliga livsdramat"*
 - "for the deep spiritual insight and the artistic intensity with which he has in his novels penetrated the drama of human life."
- 1953 CHURCHILL, Sir WINSTON LEONARD SPENCER, United Kingdom
- * 1874, † 1965
 - *"för hans mästerskap i historisk och biografisk framställning samt för den lysande talekonst, med vilken han framträtt som försvarare av höga mänskliga värden"*
 - "for his mastery of historical and biographical description as well as for brilliant oratory in defending exalted human values."
- 1954 HEMINGWAY, ERNEST MILLER, U.S.A.
- * 1899, † 1961
 - *"för hans kraftfulla och inom nutida berättarkonst stilbildande mästerskap, senast ådagalagt i 'The Old Man and the Sea'"*
 - "for his mastery of the art of narrative, most recently demonstrated in 'The Old Man and the Sea', and for the influence that he has exerted on contemporary style."
- 1955 LAXNESS, HALLDÓR KILJAN, Iceland
- * 1902, † 1998
 - *"för hans målande epik, som förnyat den stora isländska berättarkonsten"*
 - "for his vivid epic power which has renewed the great narrative art of Iceland."

- 1956 JIMÉNEZ, JUAN RAMÓN, Spain (domiciled in Puerto Rico, U.S.A.)
 * 1881, † 1958
- *"för hans lyriska diktning som på spanskt språk bildar ett föredöme av hög andlighet och konstnärlig renhet"*
 - "for his lyrical poetry, which in Spanish language constitutes an example of high spirit and artistical purity."
- 1957 CAMUS, ALBERT, France
 * 1913 (in Mondovi, Algeria), † 1960
- *"för hans betydelsefulla författarskap, som med skarpsynt allvar belyser mänskliga samvetsproblem i vår tid"*
 - "for his important literary production, which with clear-sighted earnestness illuminates the problems of the human conscience in our times."
- 1958 PASTERNAK, BORIS LEONIDOVICH, USSR
 * 1890, † 1960
- *"för hans betydande insats såväl inom den samtida lyriken som på den stora ryska berättartraditionens område"*
 - "for his important achievement both in contemporary lyrical poetry and in the field of the great Russian epic tradition."
- (Accepted first, later caused by the authorities of his country to decline the prize).
- 1959 QUASIMODO, SALVATORE, Italy
 * 1901, † 1968
- *"för hans lyriska diktning, som med klassisk eld uttrycker samtidens tragiska livskänsla"*
 - "for his lyrical poetry, which with classical fire expresses the tragic experience of life in our own times."
- 1960 SAINT-JOHN PERSE (pen-name of LÉGER, ALEXIS), France
 * 1887 (on Guadeloupe Island), † 1975
- *"för den höga flykten och den bildskapande fantasien i hans diktning, som visionärt avspeglar tidsläget"*
 - "for the soaring flight and the evocative imagery of his poetry which in a visionary fashion reflects the conditions of our time."

LITERATURE

- 1961 ANDRIC, IVO, Yugoslavia
* 1892 (in Travnik, Bosnia), † 1975
- *"för den episka kraft varmed han gestaltat motiv och öden ur sitt lands historia"*
 - "for the epic force with which he has traced themes and depicted human destinies drawn from the history of his country."
- 1962 STEINBECK, JOHN, U.S.A.
* 1902, † 1968
- *"för hans på en gång realistiska och fantasifulla berättarkonst, utmärkt av medkännande humor och social skarpsyn"*
 - "for his realistic and imaginative writings, combining as they do sympathetic humour and keen social perception."
- 1963 GIORGOS SEFERIS (pen-name of SEFERIADIS, GIORGOS), Greece
* 1900 (in Smyrna, Turkey), † 1971
- *"för hans framstående lyriska diktning, inspirerad av djup känsla för den hellenska kulturvärlden"*
 - "for his eminent lyrical writing, inspired by a deep feeling for the Hellenic world of culture."
- 1964 SARTRE, JEAN-PAUL, France
* 1905, † 1980
- *"för hans idérika författarskap, som genom sin frihetsanda och sanningssträvan har utövat ett vidsträckt inflytande i vår samtid"*
 - "for his work which, rich in ideas and filled with the spirit of freedom and the quest for truth, has exerted a far-reaching influence on our age (Declined the prize)."
- 1965 SHOLOKHOV, MICHAÏL ALEKSANDROVICH, USSR
* 1905, † 1984
- *"för den konstnärliga kraft och ärlighet, varmed han i sitt Donska epos har gestaltat ett historiskt skede i ryska folkets liv"*
 - "for the artistic power and integrity with which, in his epic of the Don, he has given expression to a historic phase in the life of the Russian people."

1966 The prize was divided equally between:

AGNON, SHMUEL YOSEF, Israel

* 1888, † 1970

- *"för hans djupt karaktärsfulla berättarkonst med motiv från det judiska folkets liv"*
- "for his profoundly characteristic narrative art with motifs from the life of the Jewish people."

and

SACHS, NELLY, Sweden

* 1891 (in Berlin, Germany), † 1970

- *"för hennes framstående lyriska och dramatiska diktning, som med gripande styrka tolkar Israels öde"*
- "for her outstanding lyrical and dramatic writing, which interprets Israel's destiny with touching strength."

1967 ASTURIAS, MIGUEL ANGEL, Guatemala

* 1899, † 1974

- *"för hans färgstarka diktning med rötter i folklig egenart och indianska traditioner"*
- "for his vivid literary achievement, deep-rooted in the national traits and traditions of Indian peoples of Latin America."

1968 KAWABATA, YASUNARI, Japan

* 1899, † 1972

- *"för hans berättarkonst, som med fin känsla uttrycker japanskt väsen i dess egenart"*
- "for his narrative mastery, which with great sensibility expresses the essence of the Japanese mind."

1969 BECKETT, SAMUEL, Ireland

* 1906, † 1989

- *"för en diktning som i nya former för roman och drama ur nutidsmänniskans blottställdhet hämtar sin konstnärliga resning"*
- "for his writing, which - in new forms for the novel and drama - in the destitution of modern man acquires its elevation."

LITERATURE

- 1970 SOLZHENITSYN, ALEKSANDR ISAYEVICH, USSR
* 1918, † 2008
- *"för den etiska kraft varmed han fullföljt den ryska litteraturens omistliga traditioner"*
 - "for the ethical force with which he has pursued the indispensable traditions of Russian literature."
- 1971 PABLO NERUDA (pen-name of BASOALTO, NEFTALÍ RICARDO REYES), Chile
* 1904, † 1973
- *"för en poesi, som med verkan av en naturkraft levandegör en världsdels öden och drömmar"*
 - "for a poetry that with the action of an elemental force brings alive a continent's destiny and dreams."
- 1972 BÖLL, HEINRICH, Federal Republic of Germany
* 1917, † 1985
- *"för en diktning som genom sin förening av tidshistorisk vidsyn och ömsint gestaltningsförmåga verkat förnyande inom tysk litteratur"*
 - "for his writing which through its combination of a broad perspective on his time and a sensitive skill in characterization has contributed to a renewal of German literature."
- 1973 WHITE, PATRICK, Australia
* 1912 (in London, United Kingdom), † 1990
- *"för en episk och psykologisk berättarkonst som infört en ny världsdels i litteraturen"*
 - "for an epic and psychological narrative art which has introduced a new continent into literature."
- 1974 The prize was divided equally between:
- JOHNSON, EYVIND, Sweden
* 1900, † 1976
- *"för en i länder och tider vittskådande berättarkonst i frihetens tjänst"*
 - "for a narrative art, far-seeing in lands and ages, in the service of freedom."
- and

- MARTINSON, HARRY, Sweden
 * 1904, † 1978
- *"för ett författarskap som fångar daggdroppen och speglar kosmos"*
 - "for writings that catch the dewdrop and reflect the cosmos."
- 1975 MONTALE, EUGENIO, Italy
 * 1896, † 1981
- *"för hans särpräglade diktning som med stor konstnärlig känslighet tolkat humana värden i tecknet av en illusionsfri livssyn"*
 - "for his distinctive poetry which, with great artistic sensitivity, has interpreted human values under the sign of an outlook on life with no illusions."
- 1976 BELLOW, SAUL, U.S.A.
 * 1915, † 2005
- *"för den mänskliga förståelse och subtila kulturanalys, som förenas i hans verk"*
 - "for the human understanding and subtle analysis of contemporary culture that are combined in his work."
- 1977 ALEIXANDRE, VICENTE, Spain
 * 1898, † 1984
- *"för en nyskapande diktning som belyser människans villkor i kosmos och i dagens samhälle samtidigt som den företräder mellankrigstidens stora förnyelse av den spanska poesins traditioner"*
 - "for a creative poetic writing which illuminates man's condition in the cosmos and in present-day society, at the same time representing the great renewal of the traditions of Spanish poetry between the wars."
- 1978 SINGER, ISAAC BASHEVIS, U.S.A.
 * 1904 (in Radzymin, Poland), † 1991
- *"för hans intensiva berättarkonst, som med rötter i en polsk-judisk kulturtradition levandegör universella mänskliga villkor"*
 - "for his impassioned narrative art which, with roots in a Polish-Jewish cultural tradition, brings universal human conditions to life."

LITERATURE

- 1979 ODYSSEUS ELYTIS (pen-name of ALEPOUDHELIS, ODYSSEUS), Greece
* 1911, † 1996
- *"för hans poesi som mot bakgrund av grekisk tradition med sinnlig styrka och intellektuell klarsyn levandegör en modern människas kamp för frihet och skapande"*
 - "for his poetry, which, against the background of Greek tradition, depicts with sensuous strength and intellectual clear-sightedness modern man's struggle for freedom and creativeness."
- 1980 MIŁOSZ, CZESLAW, U.S.A. and Poland
* 1911, † 2004
- *"som med kompromisslös klarsyn tolkar människans utsatthet i en värld av starka konflikter"*
 - "who with uncompromising clear-sightedness voices man's exposed condition in a world of severe conflicts."
- 1981 CANETTI, ELIAS, United Kingdom
* 1905 (in Rustschuk, Bulgaria), † 1994
- *"för ett författarskap präglad av vid utblick, idérikedom och konstnärlig kraft"*
 - "for writings marked by a broad outlook, a wealth of ideas and artistic power."
- 1982 GARCÍA MÁRQUEZ, GABRIEL, Colombia
* 1928
- *"för hans romaner och noveller, där det fantastiska och det realistiska förenas i en rikt sammansatt diktvärld, som speglar en kontinents liv och konflikter"*
 - "for his novels and short stories, in which the fantastic and the realistic are combined in a richly composed world of imagination, reflecting a continent's life and conflicts."
- 1983 GOLDING, WILLIAM, United Kingdom
* 1911, † 1993
- *"för hans romaner som med den realistiska berättarkonstens åskådlighet och med mytens mångtydiga allmängiltighet belyser mänskliga villkor i dagens värld"*

- “for his novels which, with the perspicuity of realistic narrative art and the diversity and universality of myth, illuminate the human condition in the world of today.”
- 1984 SEIFERT, JAROSLAV, Czechoslovakia
 * 1901, † 1986
- *”för hans poesi som med frisk sinnlighet och rik uppfinningsförmåga ger en befriande bild av mänsklig okuvlighet och mångfald”*
 - “for his poetry which endowed with freshness, sensuality and rich inventiveness provides a liberating image of the indomitable spirit and versatility of man.”
- 1985 SIMON, CLAUDE, France
 * 1913, † 2005
- *”som i sina romaner förenar poetens och målarens skapande med ett fördjupat tidsmedvetande i skildringen av mänskliga villkor”*
 - “who in his novel combines the poet's and the painter's creativeness with a deepened awareness of time in the depiction of the human condition.”
- 1986 SOYINKA, WOLE, Nigeria
 * 1934
- *”som i ett brett kulturellt perspektiv och med poetiska övertoner gestaltar tillvarons drama”*
 - “who in a wide cultural perspective and with poetic overtones fashions the drama of existence.”
- 1987 BRODSKY, JOSEPH, U.S.A.
 * 1940 (in Leningrad, USSR), † 1996
- *”för ett vittfamlande författarskap, präglad av tankeskärpa och poetisk intensitet”*
 - “for an all-embracing authorship, imbued with clarity of thought and poetic intensity.”
- 1988 MAHFOUZ, NAGUIB, Egypt
 * 1911, † 2006
- *”som genom valörrika verk - ömsom skarpsynt verklighetsnära, ömsom suggestivt mångtydiga - har format en arabisk romankonst med allmänmänsklig giltighet”*

LITERATURE

- “who, through works rich in nuance - now clear-sightedly realistic, now evocatively ambiguous - has formed an Arabian narrative art that applies to all mankind.”
- 1989 CELA, CAMILO JOSÉ, Spain
* 1916, † 2002
- *”för en rik och intensiv prosakonst, som med återhållen medkänsla gestaltar en utmanande vision av människans utsatthet”*
 - “for a rich and intensive prose, which with restrained compassion forms a challenging vision of man's vulnerability.”
- 1990 PAZ, OCTAVIO, Mexico
* 1914, † 1998
- *”för en lidelsefull diktning med vida horisonter, präglad av sinnlig intelligens och humanistisk integritet”*
 - “for impassioned writing with wide horizons, characterized by sensuous intelligence and humanistic integrity.”
- 1991 GORDIMER, NADINE, South Africa
* 1923
- *”som genom storartad episk diktning har - med Alfred Nobels ord - gjort mänskligheten den största nytta”*
 - “who through her magnificent epic writing has - in the words of Alfred Nobel - been of very great benefit to humanity.”
- 1992 WALCOTT, DEREK, Saint Lucia
* 1930
- *”för en diktning med stor lyskraft, buren av en historisk vision som vuxit fram ur ett mångkulturellt engagemang”*
 - “for a poetic oeuvre of great luminosity, sustained by a historical vision, the outcome of a multicultural commitment.”
- 1993 MORRISON, TONI, U.S.A.
* 1931
- *”som genom en romankonst präglad av visionär kraft och poetisk pregnans levandegör en väsentlig sida av amerikansk verklighet”*
 - “who in novels characterized by visionary force and poetic import, gives life to an essential aspect of American reality.”

- 1994 OE, KENZABURO, Japan
 * 1935
- *"som med poetisk kraft skapar en imaginär värld, där liv och myt förtätas till en skakande bild av människans belägenhet i nutiden"*
 - "who with poetic force creates an imagined world, where life and myth condense to form a disconcerting picture of the human predicament today."
- 1995 HEANEY, SEAMUS, Ireland
 * 1939
- *"för ett författarskap av lyrisk skönhet och etiskt djup, som lyfter fram vardagens mirakler och det levande förflutna"*
 - "for works of lyrical beauty and ethical depth, which exalt everyday miracles and the living past."
- 1996 SZYMBORSKA, WISLAWA, Poland
 * 1923
- *"för en poesi som med ironisk precision låter det historiska och biologiska sammanhanget träda fram i fragment av mänsklig verklighet"*
 - "for poetry that with ironic precision allows the historical and biological context to come to light in fragments of human reality."
- 1997 FO, DARIO, Italy
 * 1926
- *"som i medeltida gycklares efterföljd gisslar makten och upprättar de utsattas värdighet"*
 - "who emulates the jesters of the Middle Ages in scourging authority and upholding the dignity of the downtrodden."
- 1998 SARAMAGO, JOSÉ, Portugal
 * 1922
- *"som med liknelser burna av fantasi, medkänsla och ironi ständigt på nytt gör en undflyende verklighet gripbar"*
 - "who with parables sustained by imagination, compassion and irony continually enables us once again to apprehend an elusory reality."

LITERATURE

- 1999 GRASS, GÜNTER, Federal Republic of Germany
* 1927 (in Danzig)
• *"för att i muntert svarta fabler ha tecknat historiens glömda ansikte"*
• "whose frolicsome black fables portray the forgotten face of history."
- 2000 GAO, XINGJIAN, France
* 1940 (in Ganzhou, China)
• *"för ett verk av universell giltighet, bitter insikt och språklig sinnrikhet, som öppnat nya vägar för kinesisk romankonst och dramatik"*
• "for an oeuvre of universal validity, bitter insights and linguistic ingenuity, which has opened new paths for the Chinese novel and drama."
- 2001 NAIPAUL, Sir VIDYADHAR SURAJPRASAD, United Kingdom
* 1932 (in Trinidad)
• *"för att ha förenat lyhört berättande och omutlig iakttagelse i verk som dömer oss att se den bortträngda historiens närvaro"*
• "for having united perceptive narrative and incorruptible scrutiny in works that compel us to see the presence of suppressed histories."
- 2002 KERTÉSZ, IMRE, Hungary
* 1929
• *"för ett författarskap som hävdar den enskildes bräckliga erfarenhet mot historiens barbariska godtycke"*
• "for writing that upholds the fragile experience of the individual against the barbaric arbitrariness of history."
- 2003 COETZEE, JOHN M., South Africa
* 1940
• *"som i talrika förklådnader framställer utanförskapets överrumplande delaktighet"*
• "who in innumerable guises portrays the surprising involvement of the outsider."

- 2004 JELINEK, ELFRIEDE, Austria
 * 1946
- *"för hennes musikaliska flöde av röster och motröster i romaner och dramer som med enastående språklig lidelse blottar de sociala klichéernas absurditet och tvingande makt"*
 - "for her musical flow of voices and counter-voices in novels and plays that with extraordinary linguistic zeal reveal the absurdity of society's clichés and their subjugating power."
- 2005 The prize was awarded to:
 PINTER, HAROLD, United Kingdom
 * 1930
- *"som i sina dramer frilägger avgrunden under vardagspratet och bryter sig in i förtryckets slutna rum"*
 - "who in his plays uncovers the precipice under everyday prattle and forces entry into oppression's closed rooms."
- 2006 The prize was awarded to:
 PAMUK, ORHAN, Turkey
 * 1952
- *"som på spaning efter sin hemstads melankoliska själ har funnit nya sinnebilder för kulturernas strid och sammanflätning"*
 - "who in the quest for the melancholic soul of his native city has discovered new symbols for the clash and interlacing of cultures."
- 2007 The prize was awarded to:
 LESSING, DORIS, United Kingdom
 * 1919 (in Kermanshah, Iran, then Persia)
- *"den kvinnliga erfarenhetens epiker, som med skepsis, hetta och visionär kraft har tagit en splittrad civilisation till granskning"*
 - "that epicist of the female experience, who with scepticism, fire and visionary power has subjected a divided civilisation to scrutiny."
- 2008 The prize was awarded to:

LITERATURE

LE CLEZIO, JEAN-MARIE GUSTAVE, France

* 1940

- *"uppbrottets, det poetiska äventyrets och den sinnliga extasens författare, utforskare av en mänsklighet utanför och nedanför den härskande civilisationen"*
- "author of new departures, poetic adventure and sensual ecstasy, explorer of a humanity beyond and below the reigning civilization."

2009 The prize was awarded to:

MÜLLER, HERTA, Germany

* 1953 (in Nitzkydorf, Banat, Romania)

- *"som med poesins förtätning och prosans saklighet tecknar hemlöshetens landskap"*
- "who, with the concentration of poetry and the frankness of prose, depicts the landscape of the dispossessed."

5. PEACE

- 1901 The prize was divided equally between:
DUNANT, JEAN HENRY, Switzerland, Founder International Committee of the Red Cross, Geneva; Originator Geneva Convention (Convention de Genève)
* 1828, † 1910
and
PASSY, FRÉDÉRIC, France, Founder and President first French peace society (since 1889 called Société française pour l'arbitrage entre nations)
* 1822, † 1912
- 1902 The prize was divided equally between:
DUCOMMUN, ÉLIE, Switzerland, Honorary Secretary Permanent International Peace Bureau, Berne
* 1833, † 1906
and
GOBAT, CHARLES ALBERT, Switzerland, Secretary General Inter-Parliamentary Union, Berne; Honorary Secretary Permanent International Peace Bureau, Berne
* 1843, † 1914
- 1903 CREMER, WILLIAM RANDAL, United Kingdom, Member British Parliament; Secretary International Arbitration League
* 1828, † 1908
- 1904 INSTITUT DE DROIT INTERNATIONAL (INSTITUTE OF INTERNATIONAL LAW), Ghent, scientific society, founded in 1873.
- 1905 SUTTNER, Baroness BERTHA SOPHIE FELICITA VON, née Countess KINSKY von CHINIC und TETTAU, Austria, Writer; Hon. President Permanent International Peace Bureau, Berne; Author 'Lay Down Your Arms'
* 1843 (in Prague, then Austria), † 1914

PEACE

- 1906 ROOSEVELT, THEODORE, U.S.A., President United States of America; collaborator various peace treaties
* 1858, † 1919
- 1907 The prize was divided equally between:
MONETA, ERNESTO TEODORO, Italy, President Lombard League of Peace
* 1833, † 1918
and
RENAULT, LOUIS, France, Professor International Law, Sorbonne University, Paris
* 1843, † 1918
- 1908 The prize was divided equally between:
ARNOLDSON, KLAS PONTUS, Sweden, Writer; formerly Member Swedish Parliament; Founder Swedish Peace and Arbitration League
* 1844, † 1916
and
BAJER, FREDRIK, Denmark, Member Danish Parliament; Honorary President Permanent International Peace Bureau, Berne
* 1837, † 1922
- 1909 The prize was divided equally between:
BEERNAERT, AUGUSTE MARIE FRANÇOIS, Belgium, ex-Prime Minister; Member Belgian Parliament; Member Cour internationale d'arbitrage at the Hague
* 1829, † 1912
and
D'ESTOURNELLES DE CONSTANT, PAUL HENRI BENJAMIN BALLUET, Baron DE CONSTANT DE REBECQUE, France, Member French Parliament (Sénateur); Founder and President French parliamentary group for voluntary arbitration (Groupe parlementaire de l'arbitrage international); Founder Comité de défense des intérêts nationaux et de

conciliation internationale (Committee for the defense of national interests and international conciliation)

* 1852, † 1924

1910 BUREAU INTERNATIONAL PERMANENT DE LA PAIX (PERMANENT INTERNATIONAL PEACE BUREAU), Berne, founded in 1891.

1911 The prize was divided equally between:

ASSER, TOBIAS MICHAEL CAREL, the Netherlands, Prime Minister; Member Privy Council; Originator International Conferences of Private Law at the Hague

* 1838, † 1913

and

FRIED, ALFRED HERMANN, Austria, Journalist; Founder 'Die Friedenswarte' (a peace publication)

* 1864, † 1921

1912 Reserved.

1913 The prize for 1912:

ROOT, ELIHU, U.S.A., i.a. ex-Secretary of State; Originator various treaties of arbitration

* 1845, † 1937

The prize for 1913:

LA FONTAINE, HENRI, Belgium, Member Belgian Parliament (Sénateur); President Permanent International Peace Bureau, Berne

* 1854, † 1943

1914 Reserved.

1915 The prize money for 1914 was allocated to the Special Fund of this prize section.

The prize for 1915: Reserved.

PEACE

- 1916 The prize money for 1915 was allocated to the Special Fund of this prize section

The prize for 1916: Reserved.

- 1917 The prize money for 1916 was allocated to the Special Fund of this prize section.

The prize for 1917:

COMITÉ INTERNATIONAL DE LA CROIX ROUGE
(INTERNATIONAL COMMITTEE OF THE RED CROSS),
Geneva, founded 1863.

- 1918 Reserved.

- 1919 The prize money for 1918 was allocated to the Special Fund of this prize section.

The prize for 1919: Reserved.

- 1920 The prize for 1919:

WILSON, THOMAS WOODROW, U.S.A., President United States of America; Founder Société des Nations (the League of Nations)

* 1856, † 1924

The prize for 1920:

BOURGEOIS, LÉON VICTOR AUGUSTE, France, i.a. ex-Secretary of State; President French Parliament (Sénat); President Conseil de la Société des Nations (Council of the League of Nations)

* 1851, † 1925

- 1921 The prize was divided equally between:

BRANTING, KARL HJALMAR, Sweden, Prime Minister; Swedish Delegate Conseil de la Société des Nations (Council of the League of Nations)

* 1860, † 1925

and

LANGE, CHRISTIAN LOUS, Norway, Secretary General
Inter-Parliamentary Union, Brussels

* 1869, † 1938

1922 NANSEN, FRIDTJOF, Norway, Scientist; Explorer; Norwegian Delegate Société des Nations (League of Nations); Originator 'Nansen passports' (for refugees)

* 1861, † 1930

1923 Reserved.

1924 The prize money for 1923 was allocated to the Special Fund of this prize section.

The prize for 1924: Reserved.

1925 The prize money for 1924 was allocated to the Special Fund of this prize section.

The prize for 1925: Reserved.

1926 The prize for 1925 was awarded jointly to:

CHAMBERLAIN, Sir AUSTEN, United Kingdom, Foreign Secretary; Part-originator Locarno-Pact

* 1863, † 1937

and

DAWES, CHARLES GATES, U.S.A., Vice-President United States of America; Chairman Allied Reparation Commission (Originator "Dawes Plan")

* 1865, † 1951

The prize for 1926 was awarded jointly to:

BRIAND, ARISTIDE, France, Foreign Minister, Part-originator Locarno Pact, Briand-Kellogg Pact

* 1862, † 1932

and

PEACE

STRESEMANN, GUSTAV, Germany, ex-Lord High Chancellor (Reichs-kanzler); Foreign Minister; Part-originator Locarno-Pact

* 1878, † 1929

1927 The prize was divided equally between:

BUISSON, FERDINAND, France, formerly Professor Sorbonne University, Paris; Founder and President Ligue des Droits de l'Homme (League for Human Rights)

* 1841, † 1932

and

QUIDDE, LUDWIG, Germany, Professor Berlin University; Member German Parliament; Participant various peace conferences

* 1858, † 1941

1928 Reserved.

1929 The prize money for 1928 was allocated to the Special Fund of this prize section.

The prize for 1929: Reserved.

1930 The prize for 1929:

KELLOGG, FRANK BILLINGS, U.S.A., ex-Secretary of State; Part-originator Briand-Kellogg Pact

* 1856, † 1937

The prize for 1930:

SÖDERBLOM, LARS OLOF JONATHAN (NATHAN), Sweden, Archbishop; Leader in the ecumenical movement

* 1866, † 1931

1931 The prize was divided equally between:

ADDAMS, JANE, U.S.A., Sociologist, International President Women's International League for Peace and Freedom

* 1860, † 1935

and

BUTLER, NICHOLAS MURRAY, U.S.A., President Columbia University, Promoter Briand-Kellogg Pact
* 1862, † 1947

1932 Reserved.

1933 The prize money for 1932 was allocated to the Special Fund of this prize section.

The prize for 1933: Reserved.

1934 The prize for 1933:

ANGELL (RALPH LANE), Sir NORMAN, United Kingdom, Writer; Member Commission Exécutive de la Société des Nations (Executive Committee of the League of Nations and of National Peace Council)
* 1872, † 1967

The prize for 1934:

HENDERSON, ARTHUR, United Kingdom, ex-Foreign Secretary; President Disarmament Conference 1932
* 1863, † 1935

1935 Reserved.

1936 The prize for 1935:

OSSIETZKY, CARL VON, Germany, Journalist (i.a. 'die Weltbühne'); Pacifist
* 1889, † 1938

The prize for 1936:

SAAVEDRA LAMAS, CARLOS, Argentina, Secretary of State; President Société des Nations (League of Nations); Mediator in a conflict between Paraguay and Bolivia
* 1878, † 1959

PEACE

- 1937 CECIL OF CHELWOOD, Viscount, (Lord EDGAR ALGERNON ROBERT GASCOYNE CECIL), United Kingdom, Writer, i.a. ex-Lord Privy Seal; Founder and President International Peace Campaign
* 1864, † 1958
- 1938 OFFICE INTERNATIONAL NANSEN POUR LES RÉFUGIÉS (NANSEN INTERNATIONAL OFFICE FOR REFUGEES), Geneva, an international relief organization, started by Fridtjof Nansen in 1921
- 1939 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1940 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1941 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1942 The prize money was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1943 Reserved.
- 1944 The prize money for 1943 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.
- 1945 The prize for 1944:
COMITÉ INTERNATIONAL DE LA CROIX ROUGE (INTERNATIONAL COMMITTEE OF THE RED CROSS), Geneva, founded 1863.
The prize for 1945:
HULL, CORDELL, U.S.A., ex-Secretary of State; prominent part-taker in originating the United Nations
* 1871, † 1955
- 1946 The prize was divided equally between:

BALCH, EMILY GREENE, U.S.A., formerly Professor of History and Sociology, Honorary International President Women's International League for Peace and Freedom
* 1867, † 1961

and

MOTT, JOHN RALEIGH, U.S.A., Chairman International Missionary Council; President World Alliance of Young Men's Christian Associations
* 1865, † 1955

1947 The prize was awarded jointly to:

THE FRIENDS SERVICE COUNCIL (The Quakers), London, founded 1647.

and

THE AMERICAN FRIENDS SERVICE COMMITTEE (The Quakers), Washington, first official meeting 1672.

1948 Reserved.

1949 The prize money for 1948 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1949:

BOYD ORR OF BRECHIN, Lord (JOHN), United Kingdom, Physician; Alimentary Politician; prominent organizer and Director General Food and Agricultural Organization; President National Peace Council and World Union of Peace Organizations

* 1880 (in Kilmaurs, Scotland), † 1971

1950 BUNCHE, RALPH, U.S.A., Professor Harvard University, Cambridge, MA; Director division of Trusteeship U.N.; Acting Mediator in Palestine 1948

* 1904, † 1971

1951 JOUHAUX, LÉON, France, President Trade Union Confederation 'C.G.T. Force Ouvrière'; President Conseil national économique and International Committee of the European

PEACE

Council; Vice President International Confederation of Free Trade Unions; Vice President Fédération syndicale mondiale; Member Council of I.L.O. (International Labour Organization); Delegate U.N.

* 1879, † 1954

1952 Reserved.

1953 The prize for 1952:

SCHWEITZER, ALBERT, France, Missionary surgeon; Founder Lambaréné Hospital (République du Gabon)

* 1875 (in Kaysersberg, Alsace, then Germany), † 1965

The prize for 1953:

MARSHALL, GEORGE CATLETT, U.S.A., General, President American Red Cross; ex-Secretary of State and of Defense; Delegate U.N.; Originator 'Marshall Plan'

* 1880, † 1959

1954 Reserved.

1955 The prize for 1954:

OFFICE OF THE UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES, Geneva, an international relief organization, founded by U.N. in 1951

The prize for 1955: Reserved.

1956 The prize money for 1955 was allocated to the Special Fund of this prize section.

The prize for 1956: Reserved.

1957 The prize money for 1956 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1957:

PEARSON, LESTER BOWLES, Canada, former Secretary of State for External Affairs of Canada; President 7th Session of the United Nations General Assembly

* 1897, † 1972

1958 PIRE, GEORGES, Belgium, Father of the Dominican Order; Leader of the relief organization for refugees 'l'Europe du Coeur au Service du Monde'

* 1910, † 1969

1959 NOEL-BAKER, PHILIP J., United Kingdom, Member of Parliament; lifelong ardent worker for international peace and co-operation

* 1889, † 1982

1960 Reserved.

1961 The prize for 1960:

LUTULI, ALBERT JOHN, South Africa, President of the African National Congress in S.A.

* 1898 (in Southern Rhodesia), † 1967

The prize for 1961:

HAMMARSKJÖLD, DAG HJALMAR AGNE CARL, Sweden, Secretary General of the U.N.

* 1905, † 1961

1962 Reserved.

1963 The prize for 1962:

PAULING, LINUS CARL, U.S.A., California Institute of Technology, Pasadena, CA

* 1901, † 1994

The prize for 1963 was divided equally between:

COMITÉ INTERNATIONAL DE LA CROIX ROUGE
(INTERNATIONAL COMMITTEE OF THE RED CROSS),
Geneva, founded 1863.

and

PEACE

LIGUE DES SOCIÉTÉS DE LA CROIX-ROUGE (LEAGUE OF RED CROSS SOCIETIES), Geneva

1964 KING JR., MARTIN LUTHER, U.S.A., leader of 'Southern Christian Leadership Conference'

* 1929, † 1968

1965 UNITED NATIONS CHILDREN'S FUND (UNICEF), New York, founded by U.N. in 1946.

1966 Reserved.

1967 The prize money for 1966 was allocated to the Special Fund of this prize section.

The prize for 1967: Reserved.

1968 The prize money for 1967 was with 1/3 allocated to the Main Fund and with 2/3 to the Special Fund of this prize section.

The prize for 1968:

CASSIN, RENÉ, France, President of the European Court for Human Rights

* 1887, † 1976

1969 INTERNATIONAL LABOUR ORGANIZATION (I.L.O.), Geneva

1970 BORLAUG, NORMAN E., U.S.A., International Maize and Wheat Improvement Center, Mexico City

* 1914, † 2009

1971 BRANDT, WILLY, Federal Republic of Germany, Chancellor of the Federal Republic of Germany

* 1913, † 1992

1972 Reserved.

1973 The prize money for 1972 was allocated to the Main Fund.

The prize for 1973 was awarded jointly to:

KISSINGER, HENRY A., U.S.A., Secretary of State, State Department, Washington

* 1923

and

LE DUC THO, Democratic Republic of Vietnam

* 1910, † 1990

(Declined the prize).

1974 The prize was divided equally between:

MacBRIDE, SEÁN, Ireland, President of the International Peace Bureau, Geneva and the Commission of Namibia, United Nations, New York

* 1904, † 1988

and

SATO, EISAKU, Japan, Prime Minister of Japan

* 1901, † 1975

1975 SAKHAROV, ANDREI DMITRIEVICH, USSR, Soviet nuclear physicist

* 1921, † 1989

1976 Reserved.

1977 The prize for 1976:

WILLIAMS, BETTY, United Kingdom

* 1943

and

CORRIGAN, MAIREAD, United Kingdom

* 1944

Founders of the Northern Ireland Peace Movement (later renamed Community of Peace People)

The prize for 1977:

AMNESTY INTERNATIONAL, London

PEACE

- 1978 The prize for 1978 was divided equally between:
AL-SADAT, MOHAMED ANWAR, Egypt, President of the Arab Republic of Egypt
* 1918, † 1981
and
BEGIN, MENACHEM, Israel, Prime Minister of Israel
* 1913 (in Brest Litovsk, then Poland), † 1992
- 1979 MOTHER TERESA, India, leader of Missionaries of Charity, Calcutta
* 1910 (in Skopje, then Turkey), † 1997
- 1980 PÉREZ ESQUIVEL, ADOLFO, Argentina, architect, sculptor and human rights leader
* 1931
- 1981 OFFICE OF THE UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES, Geneva, an international relief organization, founded by U.N. in 1951
- 1982 The prize was awarded jointly to:
MYRDAL, ALVA, Sweden, former Cabinet Minister, diplomat and writer
* 1902, † 1986
and
GARCÍA ROBLES, ALFONSO, Mexico, diplomat; delegate to the United Nations General Assembly on Disarmament; former Secretary for Foreign Affairs
* 1911, † 1991
- 1983 WALESIA, LECH, Poland, trade union leader (Solidaritet)
* 1943
- 1984 TUTU, DESMOND MPIOLO, South Africa, Bishop of Johannesburg; former Secretary General South African Council of Churches (S.A.C.C.)
* 1931

- 1985 INTERNATIONAL PHYSICIANS FOR THE PREVENTION OF NUCLEAR WAR, Boston, MA
- 1986 WIESEL, ELIE, U.S.A., Chairman of 'The President's Commission on the Holocaust'
* 1928 (in Sighet, Romania)
- 1987 ARIAS SANCHEZ, OSCAR, Costa Rica, President of Costa Rica
* 1941
- 1988 THE UNITED NATIONS PEACE-KEEPING FORCES, New York, NY
* 1948
- 1989 THE 14TH DALAI LAMA (TENZIN GYATSO), Tibet
* 1935
- 1990 GORBACHEV, MIKHAIL SERGEYEVICH, USSR, President of USSR
* 1931
- 1991 AUNG SAN SUU KYI, Burma
* 1945
- 1992 MENCHÚ TUM, RIGOBERTA, Guatemala
* 1959
- 1993 The prize was awarded jointly to:
MANDELA, NELSON, South Africa
* 1918
and
KLERK, FREDERIK WILLEM DE, South Africa
* 1936
- 1994 The prize was awarded jointly to:

PEACE

ARAFAT, YASSER, Palestine, Chairman of the Executive Committee of the PLO; President of the Palestinian National Authority

* 1929, † 2004

PERES, SHIMON, Israel, Foreign Minister of Israel

* 1923

and

RABIN, YITZHAK, Israel, Prime Minister of Israel

* 1922, † 1995

1995 The prize was awarded in two equal parts to:

ROTLAT, JOSEPH, United Kingdom

* 1908 (in Warsaw, Poland), † 2005

and

PUGWASH CONFERENCES ON SCIENCE AND WORLD AFFAIRS, founded in 1957 in Pugwash, Canada

1996 The prize was awarded in two equal parts to:

BELO, CARLOS FILIPE XIMENES, East Timor

* 1948

and

RAMOS-HORTA, JOSÉ, East Timor

* 1949

1997 The prize was awarded in two equal parts to:

INTERNATIONAL CAMPAIGN TO BAN LANDMINES (ICBL), U.S.A., launched 1992

and

WILLIAMS, JODY, U.S.A., coordinator of the ICBL campaign, Putney, VT

* 1950

1998 The prize was awarded in two equal parts to:

HUME, JOHN, MP, Leader of the Social Democratic and Labour Party, United Kingdom

* 1937

and

TRIMBLE, DAVID, MP, Leader of the Ulster Unionist Party, United Kingdom

* 1944

1999 MÉDECINS SANS FRONTIÈRES (DOCTORS WITHOUT BORDERS), Belgium

(Founded in 1971)

- *"for organisasjonens banebrytande humanitære innsats på flere kontinenter"*
- "in recognition of the organization's pioneering humanitarian work on several continents."

2000 KIM, DAE-JUNG, President of South Korea

* 1925, † 2009

- *"for hans arbeid for demokrati og menneskerettigheter i Sør-Korea og Øst-Asia generelt og for fred og forsoning spesielt med Nord-Korea"*
- "for his work for democracy and human rights in South Korea and in East Asia in general, and for peace and reconciliation with North Korea in particular."

2001 The prize was awarded in two portions to:

UNITED NATIONS (U.N.), New York, founded in 1945

and to its Secretary-General

ANNAN, KOFI, Ghana

* 1938

- *"for deres innsats for en bedre organisert og fredeligare verden"*
- "for their work for a better organized and more peaceful world."

2002 CARTER, JIMMY, 39th President of the United States of America

* 1924

PEACE

- *"for hans iherdige innsats gjennom flere tiår for fredelig løsning av internasjonale konflikter, for demokrati og menneskerettigheter og for økonomisk og sosial utvikling"*
- "for his decades of untiring effort to find peaceful solutions to international conflicts, to advance democracy and human rights, and to promote economic and social development."

2003 EBADI, SHIRIN, Iran

* 1947

- *"for hennar innsats for demokrati og menneskerettar. Ho har særleg engasjert seg i kampen for rettane til kvinner og born"*
- "for her efforts for democracy and human rights. She has focused especially on the struggle for the rights of women and children."

2004 MAATHAI, WANGARI, Kenya

* 1940

- *"for hennar innsats for ei berekraftig utvikling, demokrati og fred"*
- "for her contribution to sustainable development, democracy and peace."

2005 The prize was awarded in two equal parts to:

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA),
Austria, founded in 1957

and

ELBARADEI, MOHAMED, Egypt

* 1942

- *"for arbeidet deira for å hindra at kjernefysisk energi blir nytta til militære føremål og for at kjernefysisk energi til sivile føremål vert nytta på sikrast mogelege måte"*
- "for their efforts to prevent nuclear energy from being used for military purposes and to ensure that nuclear energy for peaceful purposes is used in the safest possible way."

2006 The prize was awarded in two equal parts to:

YUNUS, MUHAMMAD, Bangladesh

* 1940

and

GRAMEEN BANK, Bangladesh, founded in 1976

- *"for arbeidet deira for å skapa økonomisk og sosial utvikling nedanfrå"*
- "for their efforts to create economic and social development from below."

2007 The prize was awarded in two equal parts to:

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), Geneva, founded in 1988

and

GORE Jr, ALBERT ARNOLD (AL), U.S.A.

* 1948

- *"for deira innsats for å skape og spreie større kunnskap om menneskeskapte klimaendringar og for å leggje grunnlag for dei tiltaka som krevst for å motverke desse endringane"*
- "for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."

2008 The prize was awarded to:

AHTISAARI, MARTTI, Finland

* 1937

- *"for den store innsatsen han har lagt ned på fleire kontinent og gjennom meir enn tre tiår for å løyse internasjonale konflikhtar"*
- "for his important efforts, on several continents and over more than three decades, to resolve international conflicts."

2009 The prize was awarded to:

OBAMA, BARACK, U.S.A., 44th President of the United States of America

* 1961

- *"for hans ekstraordinaere innsats for å styrke internasjonalt diplomati og mellomfolkelig samarbeid"*
- "for his extraordinary efforts to strengthen international diplomacy and cooperation between peoples."

PRIZE-WINNERS IN ECONOMIC SCIENCES
IN MEMORY OF ALFRED NOBEL

1969 The prize was awarded jointly to:

FRISCH, RAGNAR, Norway, University of Oslo

* 1895, † 1973

and

TINBERGEN, JAN, the Netherlands, the Netherlands School
of Economics, Rotterdam

* 1903, † 1994

- *"för utveckling och användning av dynamiska modeller för analys av ekonomiska förlopp"*
- "for having developed and applied dynamic models for the analysis of economic processes."

1970 SAMUELSON, PAUL A., U.S.A., Massachusetts Institute of
Technology (MIT), Cambridge, MA

* 1915

- *"för de arbeten genom vilka han utvecklat den statiska och dynamiska ekonomiska teorien och verksamt bidragit till att höja den analystekniska nivån inom den ekonomiska vetenskapen"*
- "for the scientific work through which he has developed static and dynamic economic theory and actively contributed to raising the level of analysis in economic science."

1971 KUZNETS, SIMON, U.S.A., Harvard University, Cambridge,
MA

* 1901 (in Russia), † 1985

- *"för hans empiriskt baserade tolkning av ekonomisk tillväxt som lett till ny och fördjupad insikt i den ekonomiska och sociala strukturen och utvecklingsprocessen"*
- "for his empirically founded interpretation of economic growth which has led to new and deepened insight into the economic and social structure and process of development."

1972 The prize was awarded jointly to:

HICKS, JOHN R., United Kingdom, All Souls College, Ox-
ford

* 1904, † 1989

and

ARROW, KENNETH J., U.S.A., Harvard University, Cambridge, MA

* 1921

- *"för deras banbrytande insatser inom allmän ekonomisk jämviktsteori och välfärdsteori"*
- "for their pioneering contributions to general economic equilibrium theory and welfare theory."

1973 LEONTIEF, WASSILY, U.S.A., Harvard University, Cambridge, MA

* 1906 (in St. Petersburg, Russia), † 1999

- *"för utarbetandet av input-output metoden samt för dess tillämpning på viktiga ekonomiska problem"*
- "for the development of the input-output method and for its application to important economic problems."

1974 The prize was divided equally between:

MYRDAL, GUNNAR, Sweden

* 1898, † 1987

and

HAYEK, FRIEDRICH AUGUST VON, United Kingdom

* 1899 (in Vienna, Austria), † 1992

- *"för deras pionjärbete inom penning- och konjunkturteori samt deras inträngande analys av det ömsesidiga beroendet mellan ekonomiska, sociala och institutionella förhållanden"*
- "for their pioneering work in the theory of money and economic fluctuations and for their penetrating analysis of the interdependence of economic, social and institutional phenomena."

1975 The prize was awarded jointly to:

KANTOROVICH, LEONID VITALIYEVICH, USSR, Academy of Sciences, Moscow

* 1912, † 1986

and

- KOOPMANS, TJALLING C., U.S.A., Yale University, New Haven, CT
- * 1910 (in 's Graveland, the Netherlands), † 1985
 - *"för deras bidrag till teorin för optimal resursanvändning"*
 - "for their contributions to the theory of optimum allocation of resources."
- 1976 FRIEDMAN, MILTON, U.S.A., University of Chicago, Chicago, IL
- * 1912, † 2006
 - *"för hans bidrag till konsumtionsanalys, till monetär historia och teori jämte hans klarläggande av stabiliseringspolitikens komplexitet"*
 - "for his achievements in the fields of consumption analysis, monetary history and theory and for his demonstration of the complexity of stabilization policy."
- 1977 The prize was divided equally between:
- OHLIN, BERTIL, Sweden, Stockholm School of Economics
- * 1899, † 1979
- and
- MEADE, JAMES E., United Kingdom, University of Cambridge
- * 1907, † 1995
 - *"för deras banbrytande arbeten inom teorin för internationell handel och internationella kapitalrörelser"*
 - "for their pathbreaking contribution to the theory of international trade and international capital movements."
- 1978 SIMON, HERBERT A., U.S.A., Carnegie-Mellon University, Pittsburgh, PA
- * 1916, † 2001
 - *"för hans banbrytande forskning om beslutsprocessen inom ekonomiska organisationer"*
 - "for his pioneering research into the decision-making process within economic organizations."
- 1979 The prize was divided equally between:

SCHULTZ, THEODORE W., U.S.A., University of Chicago, Chicago, IL

* 1902, † 1998

and

LEWIS, Sir ARTHUR, United Kingdom, Princeton University, Princeton, NJ, U.S.A.

* 1915 (in St. Lucia), † 1991

- *"för deras pionjärbeten inom ekonomisk utvecklingsforskning med särskild hänsyn till u-ländernas problem"*
- "for their pioneering research into economic development research with particular consideration of the problems of developing countries."

1980 KLEIN, LAWRENCE R., U.S.A., University of Pennsylvania, Philadelphia, PA

* 1920

- *"för konstruktionen av ekonometriska konjunkturmodeller samt deras tillämpning för analys av ekonomisk politik"*
- "for the creation of econometric models and the application to the analysis of economic fluctuations and economic policies."

1981 TOBIN, JAMES, U.S.A., Yale University, New Haven, CT

* 1918, † 2002

- *"för hans analys av finansiella marknader och dessas samband med utgiftsbeslut och därmed sysselsättning, produktion och prisutveckling"*
- "for his analysis of financial markets and their relations to expenditure decisions, employment, production and prices."

1982 STIGLER, GEORGE J., U.S.A., University of Chicago, Chicago, IL

* 1911, † 1991

- *"för hans banbrytande studier av marknadens funktionssätt och strukturer samt offentliga regleringars orsaker och effekter"*
- "for his seminal studies of industrial structures, functioning of markets and causes and effects of public regulation."

- 1983 DEBREU, GERARD, U.S.A., University of California, Berkeley, CA
 * 1921 (in Calais, France), † 2004
 • *"för införandet av nya analytiska metoder i nationalekonomisk teori och för en rigorös omformulering av teorin för allmän jämvikt"*
 • "for having incorporated new analytical methods into economic theory and for his rigorous reformulation of the theory of general equilibrium."
- 1984 STONE, RICHARD, United Kingdom, University of Cambridge
 * 1913, † 1991
 • *"för att han gjort banbrytande insatser vid utvecklandet av system för nationalräkenskaper och därigenom radikalt förbättrat underlaget för empirisk ekonomisk analys"*
 • "for having made fundamental contributions to the development of systems of national accounts and hence greatly improved the basis for empirical economic analysis."
- 1985 MODIGLIANI, FRANCO, U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA
 * 1918 (in Rome, Italy), † 2003
 • *"för hans grundläggande analyser av sparande och finansiella marknader"*
 • "for his pioneering analyses of saving and of financial markets."
- 1986 BUCHANAN, JR., JAMES M., U.S.A., Center for Study of Public Choice, Fairfax, VA
 * 1919
 • *"för hans utveckling av de kontraktsteoretiska och konstitutionella grundvalarna för ekonomiskt och politiskt beslutsfattande"*
 • "for his development of the contractual and constitutional bases for the theory of economic and political decision-making."
- 1987 SOLOW, ROBERT M., U.S.A., Massachusetts Institute of Technology (MIT), Cambridge, MA
 * 1924

- *"för hans insatser inom teorin för ekonomisk tillväxt"*
- "for his contributions to the theory of economic growth."

1988 ALLAIS, MAURICE, France, École Nationale Supérieure des Mines de Paris

* 1911

- *"för hans pionjärinsatser inom teorin för marknader och effektivt resursutnyttjande"*
- "for his pioneering contributions to the theory of markets and efficient utilization of resources."

1989 HAAVELMO, TRYGVE, Norway, University of Oslo

* 1911, † 1999

- *"för hans klarläggande av de sannolikheteoretiska grunderna för ekonometrisk metodik och hans analys av simultana ekonomiska strukturer"*
- "for his clarification of the probability theory foundations of econometrics and his analyses of simultaneous economic structures."

1990 The prize was awarded with one third each to:

MARKOWITZ, HARRY M., U.S.A., City University of New York, New York, NY

* 1927

MILLER, MERTON H., U.S.A., University of Chicago, Chicago, IL

* 1923, † 2000

and

SHARPE, WILLIAM F., U.S.A., Stanford University, Stanford, CA

* 1934

- *"för deras pionjärinsatser inom teorin för finansiell ekonomi"*
- "for their pioneering work in the theory of financial economics."

1991 COASE, RONALD H., United Kingdom, University of Chicago, Chicago, IL, U.S.A.

* 1910

- *"för hans klarläggande av transaktionskostnadernas och de ekonomiska rättigheternas betydelse för det ekonomiska systemets institutionella struktur och funktionssätt"*
- "for his discovery and clarification of the significance of transaction costs and property rights for the institutional structure and functioning of the economy."

1992 BECKER, GARY S., U.S.A., University of Chicago, Chicago, IL

* 1930

- *"för att ha vidgat tillämpningen av mikroekonomisk analys till att gälla ett brett område av individers beteenden och relationer, även utanför marknaden"*
- "for having extended the domain of microeconomic analysis to a wide range of human behaviour and interaction, including nonmarket behaviour."

1993 The prize was awarded jointly to:

FOGEL, ROBERT W., U.S.A., University of Chicago, Chicago, IL

* 1926

and

NORTH, DOUGLASS C., U.S.A., Washington University, St. Louis, MO

* 1920

- *"för att ha förnyat den ekonomiskhistoriska forskningen genom att använda ekonomisk teori och kvantitativa metoder för att förklara ekonomisk och institutionell förändring"*
- "for having renewed research in economic history by applying economic theory and quantitative methods in order to explain economic and institutional change."

1994 The prize was awarded jointly to:

HARSANYI, JOHN C., U.S.A., University of California, Berkeley, CA

* 1920 (in Budapest, Hungary), † 2000

NASH JR, JOHN F., U.S.A., Princeton University, Princeton, NJ

* 1928

and

SELTEN, REINHARD, Federal Republic of Germany, Rheinische Friedrich-Wilhelms-Universität, Bonn

* 1930

- *"för deras banbrytande analys av jämvikter i teorin för icke-kooperativa spel"*
- "for their pioneering analysis of equilibria in the theory of non-cooperative games."

1995 LUCAS JR., ROBERT E., U.S.A., University of Chicago, Chicago, IL

* 1937

- *"för att ha utvecklat och tillämpat hypotesen om rationella förväntningar och i grunden förändrat makroekonomisk analys och synen på ekonomisk politik"*
- "for having developed and applied the hypothesis of rational expectations, and thereby having transformed macroeconomic analysis and deepened our understanding of economic policy."

1996 The prize was awarded jointly to:

MIRRELES, JAMES A., United Kingdom, University of Cambridge

* 1936

and

VICKREY, WILLIAM, U.S.A., Columbia University, New York, NY

* 1914 (in Victoria, BC, Canada), † 1996 (deceased October 11, 1996)

- *"för fundamentala bidrag till den ekonomiska teorin för incitament vid asymmetrisk information"*
- "for their fundamental contributions to the economic theory of incentives under asymmetric information."

1997 The prize was awarded jointly to:

MERTON, ROBERT C., U.S.A., Harvard University Graduate School of Business Administration, Boston, MA

* 1944

and

SCHOLES, MYRON S., U.S.A., Long Term Capital Management, Greenwich, CT

* 1941 (in Timmins, ON, Canada)

- *"för en ny metod att värdera derivatinstrument"*
- "for a new method to determine the value of derivatives."

1998 SEN, AMARTYA, India, Trinity College, Cambridge, United Kingdom

* 1933

- *"för hans bidrag till den ekonomiska välfärdsanalysen"*
- "for his contributions to welfare economics."

1999 MUNDELL, ROBERT A., Canada, Columbia University, New York, NY, U.S.A.

* 1932

- *"för hans analys av penning- och finanspolitik under olika växelkursregimer, samt hans analys av optimala valutaområden"*
- "for his analysis of monetary and fiscal policy under different exchange rate regimes and his analysis of optimum currency areas."

2000 The prize was divided equally between:

HECKMAN, JAMES J., U.S.A., University of Chicago, Chicago, IL

* 1944

- *"för hans utveckling av teori och metoder för analys av selektiva urval"*
- "for his development of theory and methods for analyzing selective samples."

and

McFADDEN, DANIEL L., U.S.A., University of California at Berkeley, CA

* 1937

- *"för hans utveckling av teori och metoder för analys av diskreta val"*
- "for his development of theory and methods for analyzing discrete choice."

2001 The prize was awarded jointly to:

AKERLOF, GEORGE A., U.S.A., University of California, Berkely, CA

* 1940

SPENCE, A. MICHAEL, U.S.A., Stanford University, Stanford, CA

* 1943

and

STIGLITZ, JOSEPH E., U.S.A., Columbia University, New York, NY

* 1943

- *"för deras analys av marknader med asymmetrisk information"*
- "for their analyses of markets with asymmetric information."

2002 The prize was divided equally between:

KAHNEMAN, DANIEL, Israel and U.S.A., Princeton University, Princeton, NJ

* 1934 (in Tel Aviv)

- *"för att ha infört insikter från psykologisk forskning i ekonomisk vetenskap, särskilt beträffande bedömningar och beslut under osäkerhet"*
- "for having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty."

and

SMITH, VERNON L., U.S.A., George Mason University, Fairfax, VA

* 1927

- *"för att ha gjort laboratorieexperiment till verktyg i empirisk ekonomisk analys, särskilt i studier av olika marknadsmekanismer"*

- “for having established laboratory experiments as a tool in empirical economic analysis, especially in the study of alternative market mechanisms.”

2003 The Prize was shared between:

ENGLE III, ROBERT F., U.S.A., New York University, New York, NY

* 1942

- *”för metoder att analysera ekonomiska tidsserier med tidsvarierande volatilitet (ARCH)”*
- “for methods of analyzing economic time series with time-varying volatility (ARCH).”

and

GRANGER, CLIVE W. J., United Kingdom, University of California at San Diego, CA, U.S.A.

* 1934, † 2009

- *”för metoder att analysera ekonomiska tidsserier med samvarierande trender (kointegration)”*
- “for methods of analyzing economic time series with common trends (cointegration).”

2004 The prize was awarded jointly to:

KYDLAND, FINN E., Norway, Carnegie Mellon University, Pittsburgh, PA and University of California, Santa Barbara, CA, U.S.A.

* 1943

and

PRESCOTT, EDWARD C., U.S.A., Arizona State University, Tempe, AZ and Federal Reserve Bank of Minneapolis, Minneapolis, MN

* 1940

- *”för deras bidrag till dynamisk makroekonomisk teori: den ekonomiska politikens tidskonsistens och konjunktorens drivkrafter”*
- “for their contributions to dynamic macroeconomics: the time consistency of economic policy and the driving forces behind business cycles.”

2005 The prize was awarded jointly to:

AUMANN, ROBERT J., Israel, U.S.A., Center for Rationality,
Hebrew University of Jerusalem

* 1930

and

SCHELLING, THOMAS C., U.S.A., Department of Economics
and School of Public Policy, University of Maryland, College
Park, MD

* 1921

- *"för att genom spelteoretisk analys ha fördjupat vår
förståelse av konflikt och samarbete"*
- "for having enhanced our understanding of conflict and co-
operation through game-theory analysis."

2006 The prize was awarded to:

PHELPS, EDMUND S., U.S.A., Columbia University, New
York, NY

* 1933

- *"för hans analys av intertemporal avvägningar i
makroekonomisk politik"*
- "for his analysis of intertemporal tradeoffs in macroeco-
nomic policy."

2007 The prize was awarded jointly to:

HURWICZ, LEONID, U.S.A., University of Minnesota, MN

* 1917 (in Moscow, Russia), † 2008

and

MASKIN, ERIC S., U.S.A., Institute for Advanced Study,
Princeton, NJ

* 1950

and

MYERSON, ROGER B., U.S.A., University of Chicago, IL

* 1951

- *"för att ha lagt grunden till teorin för
allokeringsmekanismer"*
- "for having laid the foundations of mechanism design the-
ory."

2008 The prize was awarded to:

KRUGMAN, PAUL, U.S.A., Princeton University, Princeton, NJ

* 1953

- *"för hans analys av handelsmönster och lokalisering av ekonomisk verksamhet"*
- "for his analysis of trade patterns and location of economic activity."

2009 The prize was awarded with one half to:

OSTROM, ELINOR, U.S.A., Indiana University Bloomington, IN

* 1933

- *"för hennes analys av ekonomisk organisering, särskilt samfälligheter"*
- "for her analysis of economic governance, especially the commons."

and with one half to:

WILLIAMSON, OLIVER E., U.S.A., University of California, Berkely, CA

* 1932

- *"för hans analys av ekonomisk organisering, särskilt företagens gränser"*
- "for his analysis of economic governance, especially the boundaries of the firm."

INDEX
of Nobel Prize Laureates
and Prize Winners in Economics

Ph = physics
Ch = chemistry
M = physiology or medicine
L = literature
P = peace
E = economics

Abrikosov	Ph 2003	Arnoldson	P 1908
Addams	P 1931	Arrhenius	Ch 1903
Adrian	M 1932	Arrow	E 1972
Agnon	L 1966	Asser	P 1911
Agre	Ch 2003	Aston	Ch 1922
Ahtisaari	P 2008	Asturias	L 1967
Akerlof	E 2001	Aumann	E 2005
Alder	Ch 1950	Aung San Suu Kyi	P 1991
Aleixandre	L 1977	Axel	M 2004
Alepoudhelis, see: Elytis, Odysseus		Axelrod	M 1970
Alferov	Ph 2000	von Baeyer	Ch 1905
Alfvén	Ph 1970	Bajer	P 1908
Allais	E 1988	Balch	P 1946
Altman	Ch 1989	Baltimore	M 1975
Alvarez	Ph 1968	Banting	M 1923
American Friends Service Committee	P 1947	Bárány	M 1914
		see 1915	
Amnesty International	P 1977	Bardeen	Ph 1956
Anderson, C.D.	Ph 1936		Ph 1972
Anderson, P.W.	Ph 1977	Barkla	Ph 1917
Andric	L 1961	see 1918	
Anfinsen	Ch 1972	Barré-Sinoussi	M 2008
Angell	P 1933	Barton	Ch 1969
see 1934		Basov	Ph 1964
Annan	P 2001	Beadle	M 1958
Appleton	Ph 1947	Becker	E 1992
Arafat	P 1994	Beckett	L 1969
Arber	M 1978	Becquerel	Ph 1903
Arias Sanchez	P 1987	Bednorz	Ph 1987

Beernaert	P	1909	Braun	Ph	1909
Begin	P	1978	Brenner	M	2002
Behring	M	1901	Briand	P	1926
von Békésy	M	1961	Bridgman	Ph	1946
Bellow	L	1976	Brockhouse	Ph	1994
Belo	P	1996	Brodsky	L	1987
Benacerraf	M	1980	de Broglie	Ph	1929
Benavente	L	1922	Brown, H.C.	Ch	1979
Berg	Ch	1980	Brown, M.S.	M	1985
Bergius	Ch	1931	Buchanan	E	1986
Bergson	L	1927	Buchner	Ch	1907
see 1928			Buck L.	M	2004
Bergström	M	1982	Buck P.	L	1938
Bethe	Ph	1967	Buisson	P	1927
Binnig	Ph	1986	Bunche	P	1950
Bishop	M	1989	Bunin	L	1933
Bjørnson	L	1903	Bureau international		
Black	M	1988	de la Paix	P	1910
Blackburn	M	2009	Burnet	M	1960
Blackett	Ph	1948	Butenandt	Ch	1939
Blobel	M	1999	Butler	P	1931
Bloch, F.	Ph	1952	Böll	L	1972
Bloch, K.	M	1964			
Bloembergen	Ph	1981	Calvin	Ch	1961
Blumberg	M	1976	Camus	L	1957
Bohr, A.N.	Ph	1975	Canetti	L	1981
Bohr, N.H.D.	Ph	1922	Capecchi	M	2007
Bordet	M	1919	Carducci	L	1906
see 1920			Carlsson	M	2000
Borlaug	P	1970	Carrel	M	1912
Born	Ph	1954	Carter Jr.	P	2002
Bosch	Ch	1931	Cassin	P	1968
Bothe	Ph	1954	Cech	Ch	1989
Bourgeois	P	1920	Cecil of Chelwood	P	1937
Bovet	M	1957	Cela	L	1989
Boyd Orr of Brechin	P	1949	Chadwick	Ph	1935
Boyer	Ch	1997	Chain	M	1945
Boyle	Ph	2009	Chalfie	Ch	2008
Bragg, W.H.	Ph	1915	Chamberlain, A.	P	1925
Bragg, W.L.	Ph	1915	see 1926		
Brandt	P	1971	Chamberlain, O.	Ph	1959
Branting	P	1921	Chandrasekhar	Ph	1983
Brattain	Ph	1956	Charpak	Ph	1992

Chauvin	Ch 2005	Dausset	M 1980
Cherenkov	Ph 1958	Dawes	P 1925
Chu	Ph 1997	see 1926	
Churchill	L 1953	Davis Jr.	Ph 2002
Ciechanover	Ch 2004	Davisson	Ph 1937
Claude	M 1974	Debreu	E 1983
Coase	E 1991	Debye	Ch 1936
Cockcroft	Ph 1951	Dehmelt	Ph 1989
Coetzee	L 2003	Deisenhofer	Ch 1988
Cohen	M 1986	Delbrück	M 1969
Cohen-Tannoudji	Ph 1997	Deledda	L 1926
Comité international de la Croix Rouge	P 1917 P 1944	see 1927	
see 1945		Diels	Ch 1950
Comité international de la Croix Rouge	P 1963	Dirac	Ph 1933
Compton	Ph 1927	Doctors without Borders,	
Cooper	Ph 1972	see: Médecins sans Frontières	
Corey	Ch 1990	Doherty	M 1996
Cori, C.F.	M 1947	Doisy	M 1943
Cori, G.T.	M 1947	see 1944	
Cormack	M 1979	Domagk	M 1939
Cornell	Ph 2001	Ducommun	P 1902
Cornforth	Ch 1975	Dulbecco	M 1975
Corrigan	P 1976	Dunant	P 1901
see 1977		Duve	M 1974
Cournand	M 1956	Ebadi	P 2003
Cram	Ch 1987	Eccles	M 1963
Cremer	P 1903	Echegaray	L 1904
Crick	M 1962	Edelman	M 1972
Cronin	Ph 1980	Ehrlich	M 1908
Crutzen	Ch 1995	Eigen	Ch 1967
Curie, M.	Ch 1911	Eijkman	M 1929
	Ph 1903	Einstein	Ph 1921
Curie, P.	Ph 1903	see 1922	
Curl Jr.	Ch 1996	Eindhoven	M 1924
		ElBaradei	P 2005
Dalai Lama	P 1989	Elion	M 1988
Dale	M 1936	Eliot	L 1948
Dalén	Ph 1912	Elytis	L 1979
Dam	M 1943	Enders	M 1954
see 1944		Engle	E 2003

Erlanger	M 1944	Fukui	Ch 1981
Ernst	Ch 1991	Furchgott	M 1998
Ertl	Ch 2007		
Esaki	Ph 1973	Gabor	Ph 1971
d'Estournelles	P 1909	Gajdusek	M 1976
Eucken	L 1908	Galsworthy	L 1932
von Euler	M 1970	Gao	L 2000
von Euler-Chelpin	Ch 1929	García Márquez	L 1982
Evans	M 2007	García Robles	P 1982
		Gasser	M 1944
Faulkner	L 1949	Gell-Mann	Ph 1969
see 1950		de Gennes	Ph 1991
Fenn	Ch 2002	Giacconi	Ph 2002
Fermi	Ph 1938	Giaever	Ph 1973
Fert	Ph 2007	Giauque	Ch 1949
Feynman	Ph 1965	Gide	L 1947
Fibiger	M 1926	Gilbert	Ch 1980
see 1927		Gilman	M 1994
Finsen	M 1903	Ginzburg	Ph 2003
Fire	M 2006	Gjellerup	L 1917
Fischer, E.H.	M 1992	Glaser	Ph 1960
Fischer, E.O.	Ch 1973	Glashow	Ph 1979
Fischer, H.	Ch 1930	Glauber	Ph 2005
Fischer, H.E.	Ch 1902	Gobat	P 1902
Fitch	Ph 1980	Godoy y Alcayaga,	
Fleming	M 1945	see: Mistral, Gabriela	
Florey	M 1945	Goepfert-Mayer	Ph 1963
Flory	Ch 1974	Golding	L 1983
Fo	L 1997	Goldstein	M 1985
Fogel	E 1993	Golgi	M 1906
Forssmann	M 1956	Gorbachev	P 1990
Fowler	Ph 1983	Gordimer	L 1991
France	L 1921	Gore Jr	P 2007
Franck	Ph 1925	Grameen Bank	P 2006
see 1926		Granger	E 2003
Frank	Ph 1958	Granit	M 1967
Fried	P 1911	Grass	L 1999
Friedman, J.I.	Ph 1990	Greengard	M 2000
Friedman, M.	E 1976	Greider	M 2009
Friends Service		Grignard	Ch 1912
Council	P 1947	Gross	Ph 2004
Frisch	E 1969	Grubbs	Ch 2005
von Frisch	M 1973	Grünberg	Ph 2007

Guillaume	Ph 1920	see 1939	
Guillemin	M 1977	Heyrovsky	Ch 1959
Gullstrand	M 1911	Heyse	L 1910
		Hicks	E 1972
Haavelmo	E 1989	Hill	M 1922
Haber	Ch 1918	see 1923	
see 1919		Hinshelwood	Ch 1956
Hahn	Ch 1944	Hitchings	M 1988
see 1945		Hodgkin, A.L.	M 1963
Hall	Ph 2005	Hodgkin, D.C.	Ch 1964
Hammarskjöld	P 1961	van 't Hoff	Ch 1901
Hamsun	L 1920	Hoffmann	Ch 1981
Harden	Ch 1929	Hofstadter	Ph 1961
Harsanyi	E 1994	Holley	M 1968
Hartline	M 1967	't Hooft	Ph 1999
Hartwell	M 2001	Hopkins	M 1929
Hassel	Ch 1969	Horvitz	M 2002
Hauptman	Ch 1985	Hounsfield	M 1979
Hauptmann	L 1912	Houssay	M 1947
von Haworth	Ch 1937	Hubel	M 1981
Hayek	E 1974	Huber	Ch 1988
Heaney	L 1995	Huggins	M 1966
Heckman	E 2000	Hull	P 1945
Heeger	Ch 2000	Hulse	Ph 1993
von Heidenstam	L 1916	Hume	P 1998
Heisenberg	Ph 1932	Hunt	M 2001
see 1933		Hurwicz	E 2007
Hemingway	L 1954	Huxley	M 1963
Hench	M 1950	Hänsch	Ph 2005
Henderson	P 1934		
Herschbach	Ch 1986	Ignarro	M 1998
Hershey	M 1969	Institut de droit	
Hershko	Ch 2004	international	P 1904
Hertz	Ph 1925	Intergovernmental	
see 1926		Panel on Climate Change	
Herzberg	Ch 1971	(IPCC)	P 2007
Hess, V.F.	Ph 1936	International Atomic	
Hess, W.R.	M 1949	Energy Agency	
Hesse	L 1946	(IAEA)	P 2005
Hevesy	Ch 1943	International Campaign	
see 1944		to Ban Landmines	P 1997
Hewish	Ph 1974	International Labour	
Heymans	M 1938	Organization	P 1969

International Physicians for the Prevention of Nuclear War	P	1985	Klug	Ch	1982
			Knowles	Ch	2001
Jacob	M	1965	Kobayashi	Ph	2008
Jelinek	L	2004	Koch	M	1905
Jensen, J.H.D.	Ph	1963	Kocher	M	1909
Jensen, J.V.	L	1944	Kohn	Ch	1998
Jerne	M	1984	Koopmans	E	1975
Jiménez	L	1956	Kornberg A.	M	1959
Johnson	L	1974	Kornberg R.D.	Ch	2006
Joliot	Ch	1935	Koshiba	Ph	2002
Joliot-Curie	Ch	1935	Kossel	M	1910
Josephson	Ph	1973	Krebs, E.G.	M	1992
Jouhaux	P	1951	Krebs, H.A.	M	1953
			Kroemer	Ph	2000
Kahneman	E	2002	Krogh	M	1920
Kamerlingh Onnes	Ph	1913	Kroto	Ch	1996
Kandel	M	2000	Krugman	E	2008
Kantorovich	E	1975	Kuen	Ph	2009
Kapitsa	Ph	1978	Kuhn	Ch	1938
Karle	Ch	1985	see 1939		
Karlfeldt	L	1931	Kusch	Ph	1955
Karrer	Ch	1937	Kuznets	E	1971
Kastler	Ph	1966	Kydland	E	2004
Katz	M	1970	Köhler	M	1984
Kawabata	L	1968	La Fontaine	P	1913
Kellogg	P	1929	Lagerkvist	L	1951
see 1930			Lagerlöf	L	1909
Kendall, E.C.	M	1950	Lamb	Ph	1955
Kendall, H.W.	Ph	1990	Landau	Ph	1962
Kendrew	Ch	1962	Landsteiner	M	1930
Kertész	L	2002	Lange	P	1921
Ketterle	Ph	2001	Langmuir	Ch	1932
Khorana	M	1968	von Laue	Ph	1914
Kilby	Ph	2000	Laughlin	Ph	1998
Kim	P	2000	Lauterbur	M	2003
King	P	1964	Laveran	M	1907
Kipling	L	1907	Lawrence	Ph	1939
Kissinger	P	1973	Laxness	L	1955
Klein	E	1980	Le Clézio	L	2008
de Klerk	P	1993	Le Duc Tho	P	1973
von Klitzing	Ph	1985	Lederberg	M	1958
			Lederman	Ph	1988

Lee, D.M.	Ph 1996	Marconi	Ph 1909
Lee, T.D.	Ph 1957	Marcus	Ch 1992
Lee, Y.T.	Ch 1986	Markowitz	E 1990
Léger, see: Saint-John		Marshall B. J.	M 2005
Legget	Ph 2003	Marshall G. C.	P 1953
Lehn	Ch 1987	Martin	Ch 1952
Leloir	Ch 1970	Martin du Gard	L 1937
von Lenard	Ph 1905	Martinson	L 1974
Leontief	E 1973	Maskawa	Ph 2008
Lessing	L 2007	Maskin	E 2007
Levi-Montalcini	M 1986	Mather	Ph 2006
Lewis, A.	E 1979	Mauriac	L 1952
Lewis, E.B.	M 1995	McClintock	M 1983
Lewis, S.	L 1930	McFadden	E 2000
Libby	Ch 1960	McMillan	Ch 1951
Ligue des Sociétés de la Croix-Rouge	P 1963	Meade	E 1977
Lipmann	M 1953	Mechnikov	M 1908
Lippmann	Ph 1908	Medawar	M 1960
Lipscomb	Ch 1976	Médecins sans Frontières	P 1999
Loewi	M 1936	van der Meer	Ph 1984
Lorentz	Ph 1902	Mello	M 2006
Lorenz	M 1973	Menchú Tum	P 1992
Lucas	E 1995	Merrifield	Ch 1984
Luria	M 1969	Merton	E 1997
Lutuli see 1961	P 1960	Meyerhof see 1923	M 1922
Lwoff	M 1965	Michel	Ch 1988
Lynen	M 1964	Michelson	Ph 1907
Maathai	P 2004	Miller	E 1990
MacBride	P 1974	Millikan	Ph 1923
MacDiarmid	Ch 2000	Milosz	L 1980
MacKinnon	Ch 2003	Milstein	M 1984
Macleod	M 1923	Minot	M 1934
Madesani, see: Deledda		Mirrlees	E 1996
Maeterlinck	L 1911	Mistral, F.	L 1904
Mahfouz	L 1988	Mistral, G.	L 1945
Mandela	P 1993	Mitchell	Ch 1978
Mann	L 1929	Modigliani	E 1985
Mansfield	M 2003	Moissan	Ch 1906
		Molina	Ch 1995
		Mommsen	L 1902
		Moneta	P 1907

Moniz	M	1949	Noyori	Ch	2001
Monod	M	1965	Nurse	M	2001
Montagnier	M	2008	Nüsslein-Volhard	M	1995
Montale	L	1975			
Moore	Ch	1972	Obama	P	2009
Morgan	M	1933	Ochoa	M	1959
Morrison	L	1993	Oe	L	1994
Mother Teresa	P	1979	Office international Nansen	P	1938
Mott, J.R.	P	1946	Office of the United Nations High Commissioner for Refugees	P	1954
Mott, N.F.	Ph	1977	see 1955		
Mottelson	Ph	1975	Office of the United Nations High Commissioner for Refugees, Geneva	P	1981
Muller	M	1946	Ohlin	E	1977
Mulliken	Ch	1966	Olah	Ch	1994
Mullis	Ch	1993	O'Neill	L	1936
Mundell	E	1999	Onsager	Ch	1968
Murad	M	1998	Osheroff	Ph	1996
Murphy	M	1934	von Ossietzky	P	1935
Murray	M	1990	see 1936		
Myerson	E	2007	Ostrom	E	2009
Müller	L	2009	Ostwald	Ch	1909
Müller, K.A.	Ph	1987			
Müller, P.H.	M	1948	Palade	M	1974
Myrdal, A.	P	1982	Pamuk	L	2006
Myrdal, G.	E	1974	Passy	P	1901
Mössbauer	Ph	1961	Pasternak	L	1958
			Paul	Ph	1989
			Pauli	Ph	1945
			Pauling	Ch	1954
			see 1963	P	1962
Naipaul	L	2001	Pavlov	M	1904
Nambu	Ph	2008	Paz	L	1990
Nansen	P	1922	Pearson	P	1957
Nash	E	1994	Pedersen	Ch	1987
Nathans	M	1978	Penzias	Ph	1978
Natta	Ch	1963			
Néel	Ph	1970			
Neher	M	1991			
Nernst	Ch	1920			
see 1921					
Neruda	L	1971			
Nicolle	M	1928			
Nirenberg	M	1968			
Noel-Baker	P	1959			
Norrish	Ch	1967			
North	E	1993			
Northrop	Ch	1946			

Peres	P	1994	Rayleigh	Ph	1904
Pérez Esquivel	P	1980	Reichstein	M	1950
Perl	Ph	1995	Reines	Ph	1995
Perrin	Ph	1926	Renault	P	1907
Perutz	Ch	1962	Reymont	L	1924
Phelps	E	2006	Richards, D.W.	M	1956
Phillips	Ph	1997	Richards, T.W.	Ch	1914
Pinter	L	2005	see 1915		
Pirandello	L	1934	Richardson, O.W.	Ph	1928
Pire	P	1958	see 1929		
Planck	Ph	1918	Richardson, R.C.	Ph	1996
see 1919			Richet	M	1913
Polanyi	Ch	1986	Richter	Ph	1976
Politzer	Ph	2004	Robbins	M	1954
Pontoppidan	L	1917	Roberts	M	1993
Pople	Ch	1998	Robinson	Ch	1947
Porter, G.	Ch	1967	Rodbell	M	1994
Porter, R.R.	M	1972	Rohrer	Ph	1986
Powell	Ph	1950	Rolland	L	1915
Pregl	Ch	1923	see 1916		
Prelog	Ch	1975	Roosevelt	P	1906
Prescott	E	2004	Root	P	1912
Prigogine	Ch	1977	see 1913		
Prokhorov	Ph	1964	Rose	Ch	2004
Prudhomme	L	1901	Ross	M	1902
Prusiner	M	1997	Rotblat	P	1995
Pugwash Conferences			Rous	M	1966
on Science and World			Rowland	Ch	1995
Affairs	P	1995	Rubbia	Ph	1984
Purcell	Ph	1952	Ruska	Ph	1986
			Russell	L	1950
Quasimodo	L	1959	Rutherford	Ch	1908
Quidde	P	1927	Ruzicka	Ch	1939
			Ryle	Ph	1974
Rabi	Ph	1944	Röntgen	Ph	1901
Rabin	P	1994			
Rainwater	Ph	1975	Saavedra Lamas	P	1936
RAMAKRISHNAN	Ch	2009	Sabatier	Ch	1912
Raman	Ph	1930	Sachs	L	1966
Ramón Y Cajal	M	1906	Sadat	P	1978
Ramos-Horta	P	1996	Saint-John Perse	L	1960
Ramsay	Ch	1904	Sakharov	P	1975
Ramsey	Ph	1989	Sakmann	M	1991

Salam	Ph	1979	Simon, C.	L	1985
Samuelson	E	1970	Simon, H.A.	E	1978
Samuelsson	M	1982	Singer	L	1978
Sanger	Ch	1958	Skou	Ch	1997
	Ch	1980	Smalley	Ch	1996
Saramago	L	1998	Smith	Ph	2009
Sartre	L	1964	Smith, H.O.	M	1978
Sato	P	1974	Smith, M.	Ch	1993
Schally	M	1977	Smith, V. L.	E	2002
Schawlow	Ph	1981	Smithies	M	2007
Schelling	E	2005	Smoot	Ph	2006
Scholes	E	1997	Snell	M	1980
Schrieffer	Ph	1972	Soddy	Ch	1921
Schrock	Ch	2005	see 1922		
Schrödinger	Ph	1933	Solow	E	1987
Schultz	E	1979	Solzhenitsyn	L	1970
Schwartz	Ph	1988	Soyinka	L	1986
Schweitzer	P	1952	Spemann	M	1935
see 1953			Spence	E	2001
Schwinger	Ph	1965	Sperry	M	1981
Seaborg	Ch	1951	Spitteler	L	1919
Seferis	L	1963	see 1920		
Segrè	Ph	1959	Stanley	Ch	1946
Seifert	L	1984	Stark	Ph	1919
Selten	E	1994	Staudinger	Ch	1953
Semenov	Ch	1956	Stein	Ch	1972
Sen	E	1998	Steinbeck	L	1962
Sharp	M	1993	Steinberger	Ph	1988
Sharpe	E	1990	Steitz	Ch	2009
Sharpless	Ch	2001	Stern	Ph	1943
Shaw	L	1925	see 1944		
see 1926			Stigler	E	1982
Sherrington	M	1932	Stiglitz	E	2001
Shimomura	Ch	2008	Stone	E	1984
Shirakawa	Ch	2000	Stresemann	P	1926
Shockley	Ph	1956	Störmer	Ph	1998
Sholokhov	L	1965	Sulston	M	2002
Shull	Ph	1994	Sumner	Ch	1946
Siegbahn, K.M.	Ph	1981	Sutherland	M	1971
Siegbahn, K.M.G.	Ph	1924	von Suttner	P	1905
see 1925			Svedberg	Ch	1926
Sienkiewicz	L	1905	Synge	Ch	1952
Sillanpää	L	1939	von Szent-Györgyi	M	1937

Szostak	M	2009	Wagner-Jauregg	M	1927
Szymborska	L	1996	Waksman	M	1952
Söderblom	P	1930	Walcott	L	1992
			Wald	M	1967
Tagore	L	1913	Walesa	P	1983
Tamm	Ph	1958	Walker	Ch	1997
Tanaka	Ch	2002	Wallach	Ch	1910
Tatum	M	1958	Walsh,		
Taube	Ch	1983	see: Buck, Pearl		
Taylor, R.E.	Ph	1990	Walton	Ph	1951
Taylor, J.H.	Ph	1993	Vane	M	1982
Temin	M	1975	Warburg	M	1931
Theiler	M	1951	Varmus	M	1989
Theorell	M	1955	Warren	M	2005
Thibault,			Watson	M	1962
see: France, Anatole			Weinberg	Ph	1979
Thomas	M	1990	Weller	M	1954
Thomson, G.P.	Ph	1937	Veltman	Ph	1999
Thomson, J.J.	Ph	1906	Werner	Ch	1913
Tinbergen, J.	E	1969	Whipple	M	1934
Tinbergen, N.	M	1973	White	L	1973
Ting	Ph	1976	Vickrey	E	1996
Tiselius	Ch	1948	Wieland	Ch	1927
Tobin	E	1981	see 1928		
Todd	Ch	1957	Wieman	Ph	2001
Tomonaga	Ph	1965	Wien	Ph	1911
Tonegawa	M	1987	Wieschus	M	1995
Townes	Ph	1964	Wiesel, E.	P	1986
Trimble	P	1998	Wiesel, T.N.	M	1981
Tsien	Ch	2008	du Vigneaud	Ch	1955
Tsui	Ph	1998	Wigner	Ph	1963
Tutu	P	1984	Wilczek	Ph	2004
			Wilkins	M	1962
Undset	L	1928	Wilkinson	Ch	1973
United Nations	P	2001	Williams, B.	P	1976
United Nations			see 1977		
Children's Fund	P	1965	Williams, J.	P	1997
United Nations			Williamson	E	2009
Peace-Keeping			Willstätter	Ch	1915
Forces	P	1988	Wilson, C.T.R.	Ph	1927
Urey	Ch	1934	Wilson, K.G.	Ph	1982
			Wilson, R.W.	Ph	1978
van der Waals	Ph	1910	Wilson, T.W.	P	1919

see 1920	
Windaus	Ch 1928
Virtanen	Ch 1945
Wittig	Ch 1979
van Vleck	Ph 1977
Woodward	Ch 1965
Wüthrich	Ch 2002
Yalow	M 1977
Yang	Ph 1957
Yeats	L 1923
Yonath	Ch 2009
Yukawa	Ph 1949
Yunus	P 2006
Zeeman	Ph 1902
Zernike	Ph 1953
Zewail	Ch 1999
Ziegler	Ch 1963
Zinkernagel	M 1996
Zsigmondy	Ch 1925
see 1926	
zur Hausen	M 2008