

Israel Science and Technology Directory

Jewish Laureates of Nobel Prize in Biomedical Sciences

Year	Nobel Laureate	Country of birth
2006	Fire, Andrew Z. "for their discovery of RNA interference - gene silencing by double-stranded RNA"	USA
2004	Axel, Richard "for their discoveries of odorant receptors and the organization of the olfactory system"	USA
2002	Brenner, Sydney "for their discoveries concerning genetic regulation of organ development and programmed cell death"	South Africa
2002	Horvitz, H. Robert "for their discoveries concerning genetic regulation of organ development and programmed cell death"	USA
2000	Greengard, Paul "signal transduction in the nervous system"	USA
2000	Kandel, Eric R. "signal transduction in the nervous system"	Austria
1998	Furchgott, Robert F. "for their discoveries concerning nitric oxide as a signaling molecule in the cardiovascular system"	USA
1997	Prusiner, Stanley B. "for his discovery of Prions - a new biological principle of infection"	USA
1994	Gilman, Alfred G. "for their discovery of G-proteins and the role of these proteins in signal transduction in cells"	USA
1994	Rodbell, Martin "for their discovery of G-proteins and the role of these proteins in signal transduction in cells"	USA
1989	Varmus, Harold E. "for their discovery of the cellular origin of retroviral oncogenes"	USA
1988	Elion, Gertrude B. "for their discoveries of important principles for drug treatment"	USA
1986	Cohen, Stanley "for their discoveries of growth factors"	USA
1986	Levi-Montalcini, Rita "for their discoveries of growth factors"	Italy
1985	Brown, Michael S. "for their discoveries concerning the regulation of cholesterol metabolism"	USA
1985	Goldstein, Joseph L.	USA

	"for their discoveries concerning the regulation of cholesterol metabolism"	
1984	Milstein, Cesar "for theories concerning the specificity in development and control of the immune system and the discovery of the principle for production of monoclonal antibodies"	Argentina
1980	Benacerraf, Baruj "for their discoveries concerning genetically determined structures on the cell surface that regulate immunological reactions"	Venezuela
1978	Nathans, Daniel "for the discovery of restriction enzymes and their application to problems of molecular genetics"	USA
1977	Schally, Andrew V. "for their discoveries concerning the peptide hormone production of the brain"	Poland
1977	Yalow, Rosalyn "for the development of radioimmunoassays of peptide hormones"	USA
1976	Blumberg, Baruch S. "for their discoveries concerning new mechanisms for the origin and dissemination of infectious diseases"	USA
1975	Baltimore, David "for their discoveries concerning the interaction between tumor viruses and the genetic material of the cell"	USA
1975	Temin, Howard M. "for their discoveries concerning the interaction between tumor viruses and the genetic material of the cell"	USA
1972	Edelman, Gerald M. "for their discoveries concerning the chemical structure of antibodies"	USA
1970	Axelrod, Julius "for their discoveries concerning the humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation"	USA
1970	Katz, Bernard "for their discoveries concerning the humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation"	Germany
1969	Luria, Salvador E. "for their discoveries concerning the replication mechanism and the genetic structure of viruses"	Italy
1968	Nirenberg, Marshall W. "for their interpretation of the genetic code and its function in protein synthesis"	USA
1967	Wald, George "for their discoveries concerning the primary physiological and chemical visual processes in the eye"	USA
1965	Jacob, Francois "for their discoveries concerning genetic control of enzyme and virus synthesis"	France
1965	Lwoff, Andre "for their discoveries concerning genetic control of enzyme and virus synthesis"	France

1964	Bloch, Konrad	Germany
	"for their discoveries concerning the mechanism and regulation of the cholesterol and fatty acid metabolism"	
1959	Kornberg, Arthur	USA
	"for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid"	
1958	Lederberg, Joshua	USA
	"for his discoveries concerning genetic recombination and the organization of the genetic material of bacteria"	
1953	Krebs, Hans Adolf	Germany
	"for his discovery of the citric acid cycle"	
1953	Lipmann, Fritz Albert	Germany
	"for his discovery of co-enzyme A and its importance for intermediary metabolism"	
1952	Waksman, Selman A.	Russia
	"for his discovery of streptomycin, the first antibiotic effective against tuberculosis"	
1950	Reichstein, Tadeus	Poland
	"for their discoveries relating to the hormones of the adrenal cortex, their structure and biological effects"	
1947	Cori, Gerty Theresa, Radnitz	Czech Republic
	"for their discovery of the course of the catalytic conversion of glycogen"	
1946	Muller, Hermann J.	USA
	"for the discovery of the production of mutations by means of X-ray irradiation"	
1945	Chain, Ernst Boris	Germany
	"for the discovery of penicillin and its curative effect in various infectious diseases"	
1944	Erlanger, Joseph	USA
	"for their discoveries relating to the highly differentiated functions of single nerve fibers"	
1936	Loewi, Otto	Austria
	"for their discoveries relating to chemical transmission of nerve impulses"	
1930	Landsteiner, Karl	Austria
	"for his discovery of human blood groups"	
1922	Meyerhof, Otto Fritz	Germany
	"for his discovery of the fixed relationship between the consumption of oxygen and the metabolism of lactic acid in the muscle"	
1914	Barany, Robert	Austria
	"for his work on the physiology and pathology of the vestibular apparatus"	
1908	Ehrlich, Paul	Germany
	"for their work on immunity"	
1908	Mechnikov, Elie	Russia
	"for their work on immunity"	

Total number of Jewish Laureates: 49

2006	Kornberg, Roger. D. "for his studies of the molecular basis of eukaryotic transcription"	USA
2004	Ciechanover, Aaron "for the discovery of ubiquitin-mediated protein degradation"	Israel
2004	Hershko, Avram "for the discovery of ubiquitin-mediated protein degradation"	Hungary
2004	Rose, Irwin "for the discovery of ubiquitin-mediated protein degradation"	USA
2000	Heeger, Alan J. "for the discovery and development of conductive polymers"	USA
1998	Kohn, Walter "for his development of the density-functional theory"	Austria
1994	Olah, George A. "for his contribution to carbocation chemistry"	Hungary
1992	Marcus, Rudolph A. "for his contributions to the theory of electron transfer reactions in chemical systems"	Canada
1989	Altman, Sidney "for their discovery of catalytic properties of RNA"	Canada
1985	Hauptman, Herbert A. "for their development of direct methods for the determination of crystal structures"	USA
1985	Karle, Jerome "for their development of direct methods for the determination of crystal structures"	USA
1982	Klug, Aaron "for his development of crystallographic electron microscopy and his structural elucidation of biologically important nucleic acid-protein complexes"	Lithuania
1981	Hoffmann, Roald "for their theories, developed independently, concerning the course of chemical reactions"	Poland
1980	Berg, Paul "for his fundamental studies of the biochemistry of nucleic acids, with particular regard to recombinant-DNA"	USA
1980	Gilbert, Walter "for their contributions concerning the determination of base sequences in nucleic acids"	USA
1979	Brown, Herbert C. "for their development of the use of boron- and phosphorus-containing compounds, respectively, into important reagents in organic synthesis"	Ukraine
1977	Prigogine, Ilya "for his contributions to non-equilibrium thermodynamics, particularly the theory of dissipative structures"	Russia

1972	Anfinsen, Christian B. "for his work on ribonuclease, especially concerning the connection between the amino acid sequence and the biologically active conformation"	USA
1972	Stein, William H. "for their contribution to the understanding of the connection between chemical structure and catalytic activity of the active center of the ribonuclease molecule"	USA
1962	Perutz, Max F. "for their studies of the structures of globular proteins"	Austria
1961	Calvin, Melvin "for his research on the carbon dioxide assimilation in plants"	USA
1943	de Hevesy, George "for his work on the use of isotopes as tracers in the study of chemical processes"	Hungary
1918	Haber, Fritz "for the synthesis of ammonia from its elements"	Germany
1915	Willstätter, Richard M. "for his researches on plant pigments, especially chlorophyll"	Germany
1910	Wallach, Otto "for his pioneer work in the field of alicyclic compounds"	Germany
1906	Moissan, Henri "for his investigation and isolation of the element fluorine, and for the adoption in the service of science of the electric furnace called after him"	France
1905	von Baeyer, J. F. W. Adolf "for his services in the advancement of organic chemistry and the chemical industry, through his work on organic dyes and hydroaromatic compounds"	Germany
2007	Hurwicz, Leonid "for having laid the foundations of mechanism design theory"	Russia
2007	Maskin, Eric S. "for having laid the foundations of mechanism design theory"	USA
2007	Myerson, Roger B. "for having laid the foundations of mechanism design theory"	USA
2005	Aumann, Robert J. "for having enhanced our understanding of conflict and cooperation through game-theory analysis"	Germany
2002	Kahneman, Daniel "for having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty"	Israel
2001	Akerlof, George A. "for their analyses of markets with asymmetric information"	USA
2001	Stiglitz, Joseph E. "for their analyses of markets with asymmetric information"	USA
1997	Scholes, Myron S. "for a new method to determine the value of derivatives "	Canada

1994	Harsanyi, John C. "for their pioneering analysis of equilibria in the theory of non-cooperative games"	Hungary
1993	Fogel, Robert W. "for having renewed research in economic history by applying economic theory and quantitative methods in order to explain economic and institutional change"	USA
1992	Becker, Gary S. "for having extended the domain of microeconomic analysis to a wide range of human behavior and interaction, including nonmarket behavior"	USA
1990	Markowitz, Harry M. "for their pioneering work in the theory of financial economics"	USA
1990	Miller, Merton H. "for their pioneering work in the theory of financial economics"	USA
1987	Solow, Robert M. "for his contributions to the theory of economic growth"	USA
1985	Modigliani, Franco "for his pioneering analyses of saving and of financial markets"	Italy
1980	Klein, Lawrence R. "for the creation of econometric models and the application to the analysis of economic fluctuations and economic policies"	USA
1978	Simon, Herbert A. "for his pioneering research into the decision-making process within economic organizations"	USA
1976	Friedman, Milton "for his achievements in the fields of consumption analysis, monetary history and theory and for his demonstration of the complexity of stabilization policy"	USA
1975	Kantorovich, Leonid V. "for their contributions to the theory of optimum allocation of resources"	Russia
1973	Leontief, Wassily "for the development of the input-output method and for its application to important economic problems"	Russia
1972	Arrow, Kenneth J. "for their pioneering contributions to general economic equilibrium theory and welfare theory"	USA
1971	Kuznets, Simon "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"	USA
1970	Samuelson, Paul A. "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"	USA

Total number of Jewish Laureates: 23

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Year	Nobel Laureate	Country of birth
2005	Glauber, Roy J. "for his contribution to the quantum theory of optical coherence"	USA
2004	Gross, David J. "for the discovery of asymptotic freedom in the theory of the strong interaction"	USA
2004	Politzer, H. David "for the discovery of asymptotic freedom in the theory of the strong interaction"	USA
2003	Abrikosov, Alexei A. "for pioneering contributions to the theory of superconductors and superfluids"	Russia
2003	Ginzburg, Vitaly L. "for pioneering contributions to the theory of superconductors and superfluids"	Russia
2000	Alferov, Zhores I. "for basic work on information and communication technology"	Russia
1997	Cohen-Tannoudji, Claude "for development of methods to cool and trap atoms with laser light"	Algeria
1996	Lee, David M. "for their discovery of superfluidity in helium-3"	USA
1995	Perl, Martin L. "for the discovery of the tau lepton "	Russia
1995	Reines, Frederick "for the detection of the neutrino"	USA
1992	Chapak, Georges "for his invention and development of particle detectors, in particular the multiwire proportional chamber"	Poland
1990	Friedman, Jerome I. "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"	USA
1988	Lederman, Leon M. "for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino"	USA
1988	Schwartz, Melvin "for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino"	USA
1988	Steinberger, Jack "for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino"	Germany
1979	Glashow, Sheldon L. "for their contributions to the theory of the unified weak and electromagnetic interaction between elementary particles, including inter alia the prediction of the	USA

	weak neutral current"	
1979	Weinberg, Steven "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"	USA
1978	Penzias, Arno A. "for their discovery of cosmic microwave background radiation"	Germany
1976	Richter, Burton "for their pioneering work in the discovery of a heavy elementary particle of a new kind"	USA
1975	Mottelson, Ben Roy "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"	USA
1973	Josephson, Brian D. "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"	UK
1972	Cooper, Leon N. "for their jointly developed theory of superconductivity, usually called the BCS-theory"	USA
1971	Gabor, Dennis "for his invention and development of the holographic method"	Hungary
1969	Gell-Mann, Murray "for his contributions and discoveries concerning the classification of elementary particles and their interactions"	USA
1967	Bethe, Hans A. "for his contributions to the theory of nuclear reactions, especially his discoveries concerning the energy production in stars"	Germany
1965	Feynman, Richard P. "for their fundamental work in quantum electrodynamics, with deep-ploughing consequences for the physics of elementary particles"	USA
1965	Schwinger, Julian "for their fundamental work in quantum electrodynamics, with deep-ploughing consequences for the physics of elementary particles"	USA
1963	Wigner, Eugene P. "for his contributions to the theory of the atomic nucleus and the elementary particles, particularly through the discovery and application of fundamental symmetry principles"	Hungary
1962	Landau, Lev D. "for his pioneering theories for condensed matter, especially liquid helium"	Azerbaijan
1961	Hofstadter, Robert "for his pioneering studies of electron scattering in atomic nuclei and for his thereby achieved discoveries concerning the structure of the nucleons"	USA

1960	Glaser, Donald A. "for the invention of the bubble chamber"	USA
1959	Segre, Emilio Gino "for their discovery of the antiproton"	Italy
1958	Frank, Il'ja M. "for the discovery and the interpretation of the Cherenkov effect"	Russia
1958	Tamm, Igor Y. "for the discovery and the interpretation of the Cherenkov effect"	Russia
1954	Born, Max "for his fundamental research in quantum mechanics, especially for his statistical interpretation of the wavefunction"	Germany
1952	Bloch, Felix "for their development of new methods for nuclear magnetic precision measurements and discoveries in connection therewith"	Switzerland
1945	Pauli, Wolfgang "for the discovery of the Exclusion Principle, also called the Pauli Principle"	Austria
1944	Rabi, Isidor Isaac "for his resonance method for recording the magnetic properties of atomic nuclei"	Austria
1943	Stern, Otto "for his contribution to the development of the molecular ray method and his discovery of the magnetic moment of the proton"	Germany
1925	Franck, James "for their discovery of the laws governing the impact of an electron upon an atom"	Germany
1922	Bohr, Niels "for his services in the investigation of the structure of atoms and of the radiation emanating from them"	Denmark
1921	Einstein, Albert "for his services to Theoretical Physics, and especially for his discovery of the law of the photoelectric effect"	Germany
1908	Lippmann, Gabriel "for his method of reproducing colors photographically based on the phenomenon of interference"	Luxembourg
1907	Michelson, Albert A. "for his optical precision instruments and the spectroscopic and metrological investigations carried out with their aid"	Poland

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2005	Pinter, Harold "who in his plays uncovers the precipice under everyday prattle and forces entry into oppression's closed rooms"	UK
2002	Kertesz, Imre "for writing that upholds the fragile experience of the individual against the barbaric"	Hungary

	arbitrariness of history"	
1991	Gordimer, Nadine "who through her magnificent epic writing has - in the words of Alfred Nobel - been of very great benefit to humanity"	South Africa
1987	Brodsky, Joseph "for an all-embracing authorship, imbued with clarity of thought and poetic intensity"	Russia
1981	Canetti, Elias "for writings marked by a broad outlook, a wealth of ideas and artistic power"	Bulgaria
1978	Singer, Isaac Bashevis "for his impassioned narrative art which, with roots in a Polish-Jewish cultural tradition, brings universal human conditions to life"	Poland
1976	Bellow, Saul "for the human understanding and subtle analysis of contemporary culture that are combined in his work"	Canada
1966	Agnon, Shmuel Yosef "for his profoundly characteristic narrative art with motifs from the life of the Jewish people"	Ukraine
1966	Sachs, Nelly "for her outstanding lyrical and dramatic writing, which interprets Israel's destiny with touching strength"	Germany
1958	Pasternak, Boris L. "for his important achievement both in contemporary lyrical poetry and in the field of the great Russian epic tradition"	Russia
1927	Bergson, Henri "in recognition of his rich and vitalizing ideas and the brilliant skill with which they have been presented"	France
1910	Heyse, Paul "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"	Germany

Total number of Jewish Laureates

Peace:

- 1911 - Alfred Fried
- 1911 - Tobias Michael Carel Asser
- 1968 - Rene Cassin
- 1973 - Henry Kissinger
- 1978 - Menachem Begin
- 1986 - Elie Wiesel
- 1994 - Shimon Peres
- 1994 - Yitzhak Rabin

