Special Article

The Nobel Prize

The Nobel Prize is an international award administered by the Nobel Foundation in Stockholm, Sweden in Memory of Alfred Nobel, founder of the Nobel Prize. Alfred Nobel had an active interest in medical research. Through Karolinska Institutet he came into contact with Swedish physiologist Jöns Johansson around 1890. Johansson worked in Nobel's laboratory in Sèvran, France for a time that year. Physiology or medicine was the third prize area Nobel mentioned in his will.

In 1901, Emil von Behring was awarded the first Nobel Prize in Physiology or Medicine for his work on serum therapy, particularly for its use in the treatment of diphtheria. The Medicine Prize has subsequently highlighted a number of important discoveries including penicillin, genetic engineering and blood-typing.

The Nobel Prize in Physiology or Medicine is awarded by the Nobel Assembly at Karolinska Institutet.

All Nobel Laureates in Medicine

Mansfield

The Nobel Prize in Physiology or Medicine has been awarded 100 times to 195 Nobel Laureates between 1901 and 2010

- 2010 - Robert G. Edwards. • 🗆 2009 - Elizabeth H. Blackburn, Carol W. Greider, Jack W. Szostak 2008 - Harald zur Hausen, Françoise Barré-Sinoussi, Luc Montagnier • 🗆 2007 - Mario R. Capecchi, Sir Martin J. Evans, Oliver Smithies • 2006 - Andrew Z. Fire, Craig C. Mello 2005 - Barry J. Marshall, J. Robin Warren • • 2004 - Richard Axel, Linda B. Buck • 🗆 2003 - Paul C. Lauterbur, Sir Peter
- ·□ 2002 Sydney Brenner, H. Robert Horvitz, John E. Sulston
- $\cdot\Box$ 2001 Leland H. Hartwell, Tim Hunt, Sir Paul Nurse
- $\cdot\Box$ 2000 Arvid Carlsson, Paul Greengard, Eric R. Kandel

•	1999 - Günter Blobel			
•	1998 - Robert F. Furchgott, Louis J.			
Ignarro, Ferid Murad				
•	1997 - Stanley B. Prusiner			
•	1996 - Peter C. Doherty, Rolf M.			
Zinkern	agel			
•	1995 - Edward B. Lewis, Christiane			
Nüsslein-Volhard, Eric F. Wieschaus				
•	1994 - Alfred G. Gilman, Martin Rodbell			
•	1993 - Richard J. Roberts, Phillip A. Sharp			
•	1992 - Edmond H. Fischer, Edwin G. Krebs			
•	1991 - Erwin Neher, Bert Sakmann			
•	1990 - Joseph E. Murray, E. Donnall			
Thomas				
•	1989 - J. Michael Bishop, Harold E.			
Varmus				
•	1988 - Sir James W. Black, Gertrude B.			
Elion, George H. Hitchings				
•	1987 - Susumu Tonegawa			
•	1986 - Stanley Cohen, Rita Levi-Montalcini			
• 🗆	1985 - Michael S. Brown, Joseph L.			
Goldstein				
·□ 1984 - Niels K. Jerne, Georges J.F. Köhler,				
César Milstein				
•	1983 - Barbara McClintock			
· 🗌	1982 - Sune K. Bergström, Bengt I.			
Samuelsson, John R. Vane				
· [1981 - Roger W. Sperry, David H. Hubel, N. Wiesel			
George	1980 - Baruj Benacerraf, Jean Dausset, D. Snell			
·	1979 - Allan M. Cormack, Godfrey N.			
Hounsfi				
•	1978 - Werner Arber, Daniel Nathans,			
Hamilton O. Smith				
•	1977 - Roger Guillemin, Andrew V.			
Schally, Rosalyn Yalow				
•	1976 - Baruch S. Blumberg, D. Carleton			
Gajdusek				
· 🗆	1975 - David Baltimore, Renato Dulbecco,			

Howard M. Temin

1999 - Günter Blobel

•	1974 - Albert Claude, Christian de Duve,		1946 - Hermann J. Muller	
George E. Palade		•	1945 - Sir Alexander Fleming, Ernst B.	
·□ 1973 - Karl von Frisch, Konrad Lorenz,		Chain, Sir Howard Florey		
Nikolaas Tinbergen			1944 - Joseph Erlanger, Herbert S. Gasser	
· 🗆	1972 - Gerald M. Edelman, Rodney R.	•	1943 - Henrik Dam, Edward A. Doisy	
Porter ·□ 1971 - Earl W. Sutherland, Jr.		·□ alloca	1942 - The prize money was with 1/3 ated to the Main Fund and with 2/3 to the	
·□ 1970 - Sir Bernard Katz, Ulf von Euler,			al Fund of this prize section	
Julius	s Axelrod	•	1941 - The prize money was with 1/3	
·□ 1969 - Max Delbrück, Alfred D. Hershey, Salvador E. Luria		allocated to the Main Fund and with 2/3 to the Special Fund of this prize section		
·□ 1968 - Robert W. Holley, H. Gobind		•	1940 - The prize money was with 1/3	
Khorana, Marshall W. Nirenberg			ated to the Main Fund and with 2/3 to the	
•	1967 - Ragnar Granit, Haldan K. Hartline,	Special Fund of this prize section		
Georg	ge Wald	•	1939 - Gerhard Domagk	
•	1966 - Peyton Rous, Charles B. Huggins	•	1938 - Corneille Heymans	
•	1965 - François Jacob, André Lwoff,	•	1937 - Albert Szent-Györgyi	
Jacques Monod			1936 - Sir Henry Dale, Otto Loewi	
•	1964 - Konrad Bloch, Feodor Lynen	• 🗆	1935 - Hans Spemann	
·□ 1963 - Sir John Eccles, Alan L. Hodgkin, Andrew F. Huxley		·□ 1934 - George H. Whipple, George R. Minot, William P. Murphy		
•	1962 - Francis Crick, James Watson,	•	1933 - Thomas H. Morgan	
Maur	ice Wilkins	•	1932 - Sir Charles Sherrington, Edgar	
•	1961 - Georg von Békésy	Adria		
•	1960 - Sir Frank Macfarlane Burnet, Peter	•	1931 - Otto Warburg	
Medawar		•	1930 - Karl Landsteiner	
• 🗆	1959 - Severo Ochoa, Arthur Kornberg	•	1929 - Christiaan Eijkman, Sir Frederick	
· 🗌	1958 - George Beadle, Edward Tatum,	Hopkins		
Joshua Lederberg		•	1928 - Charles Nicolle	
• 🗆	1957 - Daniel Bovet	•	1927 - Julius Wagner-Jauregg	
• 1956 - André F. Cournand, Werner		•	1926 - Johannes Fibiger	
Forssmann, Dickinson W. Richards		•	1925 - The prize money was allocated to	
• 🗌	1955 - Hugo Theorell	the Sp	pecial Fund of this prize section	
· 🗌 Erada	1954 - John F. Enders, Thomas H. Weller,	•	1924 - Willem Einthoven	
Frederick C. Robbins		•	1923 - Frederick G. Banting, John Macleod	
. 🗆	1953 - Hans Krebs, Fritz Lipmann	•	1922 - Archibald V. Hill, Otto Meyerhof	
• 🗆	1952 - Selman A. Waksman	•	1921 - The prize money was allocated to	
•	1951 - Max Theiler	the Sp	pecial Fund of this prize section	
• 1950 - Edward C. Kendall, Tadeus		•	1920 - August Krogh	
Reichstein, Philip S. Hench			1919 - Jules Bordet	
• 🗆	1949 - Walter Hess, Egas Moniz	• 🗆	1918 - The prize money was allocated to	
• 🗆	1948 - Paul Müller	the Sp	pecial Fund of this prize section	
· 1947 - Carl Cori, Gerty Cori, Bernardo Houssay			1917 - The prize money was allocated to pecial Fund of this prize section	

- 1916 The prize money was allocated to the Special Fund of this prize section
- 1915 The prize money was allocated to the Special Fund of this prize section
- · 1914 Robert Bárány
- · 1913 Charles Richet
- · 1912 Alexis Carrel
- · 1911 Allvar Gullstrand
- · 1910 Albrecht Kossel
- · 1909 Theodor Kocher
- · 1908 Ilya Mechnikov, Paul Ehrlich
- · 1907 Alphonse Laveran
- · 1906 Camillo Golgi, Santiago Ramón y Cajal
- · 1905 Robert Koch
- · 1904 Ivan Pavlov
- · 1903 Niels Ryberg Finsen
- · 1902 Ronald Ross
- · 1901 Emil von Behring

In the January 2010 issue of the BMJ, the short biography the three Nobel scholars of 2009 was published; continuing from that arrangement, here, biography with summary of the works of Nobel laureates in Physiology or Medicine for the year 2010 is uttered.

The Nobel Prize in Physiology or Medicine 2010 is awarded to Robert G. Edwards "for the development of in vitro fertilization".

Summary

Robert Edwards is awarded the 2010 Nobel Prize for the development of human in vitro fertilization (IVF) therapy. His achievements have made it possible to treat infertility, a medical condition afflicting a large proportion of humanity including more than 10% of all couples worldwide.

As early as the 1950s, Edwards had the vision that IVF could be useful as a treatment for infertility. He worked systematically to realize his goal, discovered important principles for human fertilization, and succeeded in accomplishing fertilization of human egg cells in test tubes (or more precisely, cell culture dishes). His efforts were finally crowned by success on 25 July, 1978, when the world's first "test tube baby" was born. During the following years, Edwards and his co-workers

refined IVF technology and shared it with colleagues around the world.

Approximately four million individuals have so far been born following IVF. Many of them are now adult and some have already become parents. A new field of medicine has emerged, with Robert Edwards leading the process all the way from the fundamental discoveries to the current, successful IVF therapy. His contributions represent a milestone in the development of modern medicine.



The Laureate

Robert G. Edwards was born in 1925 in Batley, England. After military service in the Second World War, he studied biology at the University of Wales in Bangor and at Edinburgh University in Scotland, where he received his PhD in 1955 with a Thesis on embryonal development in mice. He became a staff scientist at the National Institute for Medical Research in London in 1958 and initiated his research on the human fertilization process. From 1963, Edwards worked in Cambridge, first at its university and later at Bourn Hall Clinic, the world's first IVF centre, which he founded together with Patrick Steptoe. Edwards was its research director for many years and he was also the editor of several leading scientific journals in the area of fertilization. Robert Edwards is currently Professor Emeritus at the University of Cambridge.

Source: http://nobelprize.org/nobel_prizes/medicine/laureates