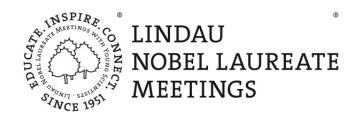
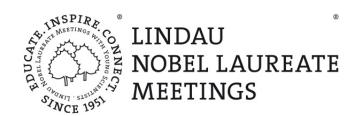


Laureates attending the 70th Lindau Nobel Laureate Meeting (as of 11 February 2020)

#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
1	Peter Agre	Chemistry	2003	For discoveries concerning channels in cell membranes	1949	2018 2017 2015 2014 2013 2011 2010 2009 2006 2005
2	Hiroshi Amano	Physics	2014	For the invention of efficient blue light-emitting diodes which has enabled bright and energy-saving white light sources	1960	2016
3	Frances H. Arnold	Chemistry	2018	For the directed evolution of enzymes	1956	
4	Barry C. Barish	Physics	2017	For decisive contributions to the LIGO detector and the observation of gravitational waves	1936	
5	Françoise Barré-Sinoussi	Physiology or Medicine	2008	For their discovery of human immunodeficiency virus	1947	2015 2014 2010
6	J. Georg Bednorz	Physics	1987	For their important break- through in the discovery of superconductivity in ceramic materials	1950	2019 1997 1995 1994 1991 1988
7	Eric Betzig	Chemistry	2014	For the development of super-resolved fluorescence microscopy	1960	2015
8	Bruce A. Beutler	Physiology or Medicine	2011	For their discoveries concerning the activation of innate immunity	1957	2018 2015 2014
9	J. Michael Bishop	Physiology or Medicine	1989	For their discovery of the cellular origin of retroviral oncogenes	1936	2018 2015 2014
10	Elizabeth H. Blackburn	Physiology or Medicine	2009	For the discovery of how chromosomes are protected by telomeres and the enzyme telomerase	1948	2018 2015 2014 2011



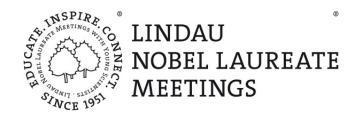
#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
11	Michael S. Brown	Physiology or Medicine	1985	For their discoveries concerning the regulation of cholesterol metabolism	1941	
12	Mario R. Capecchi	Physiology or Medicine	2007	For their discoveries of principles for introducing specific gene modifications in mice by the use of embryonic stem cells	1937	
13	Martin Chalfie	Chemistry	2008	For the discovery and development of the green fluorescent protein, GFP	1947	2018 2017 2015 2014 2013 2010 2009
14	Steven Chu	Physics	1997	For development of methods to cool and trap atoms with laser light	1948	2019 2018 2016 2015 2014 2013 2001 2000
15	Aaron Ciechanover	Chemistry	2004	For the discovery of ubiquitin-mediated protein degradation	1947	2018 2017 2016 2015 2014 2013 2011 2010 2009 2007 2006 2005
16	Johann Deisenhofer	Chemistry	1988	For the determination of the three-dimensional structure of a photosynthetic reaction centre	1943	2019 2017 2016 2014 2010 2008 2006 2002 2000 1998 1996 1994 1992 1990 1989
17	Martin J. Evans	Physiology or Medicine	2007	For research on embryonic stem cells and the switching off of individual genetic information in mammals	1941	2014 2011 2010
18	Joachim Frank	Chemistry	2017	For developing cryo- electron microscopy for the high-resolution structure determination of biomolecules in solution	1940	2019 2018
19	Andre K. Geim	Physics	2010	For groundbreaking experiments regarding the two-dimensional material graphene	1958	
20	Ivar Giaever	Physics	1973	For their experimental discoveries regarding tunneling phenomena in semiconductors and superconductors, respectively	1929	2015 2012 2010 2008 2005 2004 2001 2000 1999 1997 1994 1991 1988 1985 1982 1979 1976



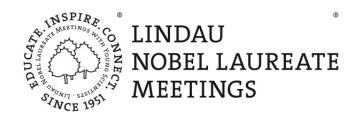
#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
21	Walter Gilbert	Chemistry	1980	For their contributions concerning the determination of base sequences in nucleic acids	1932	2018 2015 2014 2013 1999 1983
22	David J. Gross	Physics	2004	For the discovery of asymptotic freedom in the theory of the strong interaction	1941	2019 2016 2015 2012 2010 2008 2005
23	F. Duncan M. Haldane	Physics	2016	For theoretical discoveries of topological phase transitions and topological phases of matter	1951	2019
24	Theodor W. Hänsch	Physics	2005	For their contributions to the development of laser- based precision spectroscopy, including the optical frequency comb technique	1941	2019 2016 2015 2013 2012 2010 2009 2008 2006 1997 1991
25	Serge Haroche	Physics	2012	For ground-breaking experimental methods that enable measuring and manipulation of individual quantum systems	1944	2019 2016 2015 2013
26	Harald zur Hausen	Physiology or Medicine	2008	For his discovery of human papilloma viruses causing cervical cancer	1936	2019 2018 2017 2015 2014 2013 2012 2011 2010
27	Stefan W. Hell	Chemistry	2014	For the development of super-resolved fluorescence microscopy	1962	2019 2018 2017 2016 2015
28	Richard Henderson	Chemistry	2017	For developing cryo- electron microscopy for the high-resolution structure determination of biomolecules in solution	1945	
29	Avram Hershko	Chemistry	2004	For the discovery of ubiquitin-mediated protein degradation	1937	2018 2017 2015 2013 2010,2011 2007
30	Jules A. Hoffmann	Physiology or Medicine	2011	For their discoveries concerning the activation of innate immunity	1941	2018 2015 2014



#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
31	Gerardus 't Hooft	Physics	1999	For elucidating the quantum structure of electroweak interactions in physics	1946	2016 2010 2008 2004 2000
32	Robert Huber	Chemistry	1988	For the determination of the three-dimensional structure of a photosynthetic reaction centre	1937	2019 2018 2017 2016 2015 2014 2013 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001 2000 1999 1998 1995 1989
33	Tim Hunt	Physiology or Medicine	2001	For their discoveries of key regulators of the cell cycle	1943	2018 2014 2010 2007
34	Louis J. Ignarro	Physiology or Medicine	1998	For their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system	1941	2018
35	Brian D. Josephson	Physics	1973	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	1940	2019 2016 2012 2010 2008 2005 2004 2001 1997 1991 1990 1988 1982 1976
36	William G. Kaelin, Jr.	Physiology or Medicine	2019	For their discoveries of how cells sense and adapt to oxygen availability	1957	
37	Klaus von Klitzing	Physics	1985	For the discovery of the quantized Hall effect	1943	2019 2017 2016 2015 2010 2008 2005 2004 2001 2000 1997 1995 1994 1991 1988 1987
38	J. Michael Kosterlitz	Physics	2016	For theoretical discoveries of topological phase transitions and topological phases of matter	1943	2019
39	Michael Levitt	Chemistry	2013	For the development of multiscale models for complex chemical systems	1947	2018
40	Rudolph A. Marcus	Chemistry	1992	For his contributions to the theory of electron transfer reactions in chemical systems	1923	2017 2015 2013 2010 2009 2006 2005 2003 2000 1998 1995



#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
41	Michel Mayor	Physics	2019	For the discovery of an exoplanet orbiting a solar- type star	1942	
42	William E. Moerner	Chemistry	2014	For the development of super-resolved fluorescence microscopy	1953	2019 2017 2015
43	Mario J. Molina	Chemistry	1995	For their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone	1943	2017 2013 2012 2009 1998
44	Edvard I. Moser	Physiology or Medicine	2014	For their discoveries of cells that constitute a positioning system in the brain	1962	2018
45	Gérard A. Mourou	Physics	2018	For their method of generating high-intensity, ultra-short optical pulses	1944	2019
46	Ferid Murad	Physiology or Medicine	1998	For their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system	1936	2018 2017 2015 2014 2011 2010 2007
47	Erwin Neher	Physiology or Medicine	1991	For their discoveries concerning the function of single ion channels in cells	1944	2018 2017 2015 2014 2013 2012 2011 2010 2009 2007 2006 2003 2000 1999 1996 1993
48	Ryoji Noyori	Chemistry	2001	For their work on chirally catalysed hydrogenation reactions	1938	2015 2010 2009 2006
49	Christiane Nüsslein- Volhard	Physiology or Medicine	1995	For their discoveries concerning the genetic control of early embryonic development	1942	2010 2007 2005 2003 1996
50	Venkatraman Ramakrishnan	Chemistry	2009	For studies of the structure and function of the ribosome	1952	2015



#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
51	Carlo Rubbia	Physics	1984	For their decisive contributions to the large project, which led to the discovery of the field particles W and Z, communicators of weak interaction	1934	2019 2016 2015 2012 2010 2008
52	Jean-Pierre Sauvage	Chemistry	2016	For the design and synthesis of molecular machines	1944	2017
53	Brian P. Schmidt	Physics	2011	For the discovery of the accelerating expansion of the Universe through observations of distant supernovae	1967	2019 2017 2016 2015 2014 2012
54	Dan Shechtman	Chemistry	2011	For the discovery of quasicrystals	1941	2019 2018 2017 2016 2015 2013 2012
55	George P. Smith	Chemistry	2018	For the phage display of peptides and antibodies	1941	
56	George F. Smoot	Physics	2006	For their discovery of the blackbody form and anisotropy of the cosmic microwave background radiation	1945	2019 2017 2016 2015 2012 2010 2008
57	Donna Strickland	Physics	2018	For their method of generating high-intensity, ultra-short optical pulses	1959	2019
58	Samuel C. C. Ting	Physics	1976	For their pioneering work in the discovery of a heavy elementary particle of a new kind	1936	2016 2000 1994 1991 1988 1985 1982 1979
59	Olga Tokarczuk	Literature	2018	For a narrative imagination that with encyclopedic passion represents the crossing of boundaries as a form of life	1962	
60	Harold E. Varmus	Physiology or Medicine	1989	For their discovery of the cellular origin of retroviral oncogenes	1939	2018 2015



#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
61	John E. Walker	Chemistry	1997	For their elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP)	1941	2018 2017 2014 2013 2010 2006
62	Arieh Warshel	Chemistry	2013	For the development of multiscale models for complex chemical systems	1940	2015 2014
63	M. Stanley Whittingham	Chemistry	2019	For the development of lithium-ion batteries	1941	
64	Robert W. Wilson	Physics	1978	For their discovery of cosmic microwave background radiation	1936	2015 2010 1982
65	Gregory P. Winter	Chemistry	2018	For the phage display of peptides and antibodies	1951	
66	Kurt Wüthrich	Chemistry	2002	For his development of nuclear magnetic resonance spectroscopy for determining the three-dimensional structure of biological macromolecules in solution	1938	2019 2018 2017 2016 2015 2014 2013 2012 2010 2009 2006 2005
67	Ada E. Yonath	Chemistry	2009	For studies of the structure and function of the ribosome	1939	2019 2018 2017 2016 2015 2014 2013 2011 2010
68	Michael W. Young	Physiology or Medicine	2017	For their discoveries of molecular mechanisms controlling the circadian rhythm	1949	2018

ACM Turing Award (Heidelberg Lecture):

#	Name	Discipline	Year of Award	Reasoning for Award	Year of Birth	Attendance in Lindau
69	Jeffrey A. Dean	ACM Prize in Computing	2012	For their leadership in the science and engineering of Internet-scale distributed systems.	1968	