**Steven Chu**

The William R. Kenan, Jr. Professor of Physics, Professor of Molecular and Cellular Physiology, School of Medicine, Stanford University,2013 - present

**Education:**

A.B., Mathematics, University of Rochester, 1970

B.S., Physics, University of Rochester, 1970

Ph.D., Physics, University of California, Berkeley, 1976

**Previous Positions:**

U.S. Secretary of Energy, January 2009 – April 2013

Director, Lawrence Berkeley National Laboratory, 2004 – 2009

Professor of Physics and of Molecular and Cell Biology, University of California, Berkeley, 2004–2008

Chair of Physics Department, Stanford University, 1990-1993, 1999-2001   
 Theodore and Frances Geballe Professor of Physics and Applied Physics, Stanford 1990 – 2008  
 Professor of Physics and Applied Physics, Stanford University, 1987 – 2008

Head, Quantum Electronics Research Department, Bell Laboratories, Holmdel, 1983 – 1987  
 Member of Technical Staff, Bell Laboratories, Murray Hill, 1978 – 1983  
 Postdoctoral Research Fellow, University of California at Berkeley, 1976 - 1978

**BIO:**

Steven Chu is the William R. Kenan, Jr., Professor of Physics and Professor of Molecular & Cellular Physiology in the Medical School at Stanford University. He is President elected of the American Association for the Advancement of Science, the world's largest multidisciplinary scientific society and the publisher of the Science family of journals. He becomes president in February 2019. He has published nearly 300 papers in atomic physics, polymer physics, biophysics, molecular biology imaging, ultrasound imaging, nanoparticle synthesis, batteries and other electrochemical applications and other energy technologies. He holds 10 patents, and has 11 more patent filings since 2015.

Dr. Chu was the 12th U.S. Secretary of Energy from January 2009 until the end of April 2013. As the first scientist to hold a Cabinet position in U.S. history. As the longest serving Energy Secretary, he recruited outstanding scientists and engineers into the Department of Energy. He began several initiatives including ARPA-E (Advanced Research Projects Agency – Energy), the Energy Innovation Hubs, the annual Clean Energy Ministerial meetings in 2009, was personally tasked by President Obama to assist BP in stopping the Deepwater Horizon oil leak.

From 2004 – 2009, he was director of the Lawrence Berkeley National Laboratory, where he was active in pursuit of renewable and other forms of clean energy technologies. Previously, he was the Theodore and Francis Professor of Physics and Applied Physics at Stanford University. He was twice Chair of the Physics Department (1990-1993, 1999-2001), helped launch Bio-X in 1998, a multi-disciplinary institute combining the physical and biological sciences with medicine and engineering, and the Kavli Institute for Particle Astrophysics and Cosmology in 2002. Before joining the Stanford faculty in 1987, he was head of the Quantum Electronics Research Department at AT&T Bell Laboratories.

Dr. Chu is the co-recipient of the 1997 Nobel Prize in Physics for his contributions to laser cooling and atom trapping, and has received numerous other awards. He is a member of the National Academy of Sciences, the American Philosophical Society, the American Academy of Arts and Sciences, the Academia Sinica, and is a foreign member of the Royal Society, the Royal Academy of Engineering, the Chinese Academy of Sciences, the Korean Academy of Sciences and Technology, the National Academy of Sciences of Belarus and a member of the Pontifical Academy of Sciences. He received an A.B. degree in mathematics and a B.S. degree in physics from the University of Rochester, and a Ph.D. in physics from the University of California, Berkeley, has been awarded 32 honorary degrees.

**Partial list of Honors:** Co-winner, Nobel Prize in Physics, 1997  
 Fellow, American Physical Society, 1987

  Broida Prize for Laser Spectroscopy, Am. Phys. Soc., 1987  
 Fellow, Optical Society of America, 1990  
 Richtmyer Memorial Prize Lecturer (Am. Phys. Soc./Am Assoc. Physics Teachers) 1990  
 Member, American Academy of Arts and Sciences, 1992  
 Co-winner, King Faisal International Prize for Science, 1993  
 Arthur Schawlow Prize for Laser Science, (Am. Phys. Soc.) 1994  
 William Meggers Award for Spectroscopy, (Opt. Soc. of Am.) 1994  
 Distinguished Traveling Lecturer, Am. Phys. Soc. Division of Laser Science, 1994-96

National Academy of Sciences, 1993  
 Academia Sinica, 1994   
 Humboldt Senior Scientist Award, 1995  
 Science for Art Prize (Sponsored by LVMH), 1995  
 Guggenheim Fellowship, 1996

American Philosophical Society, 1998

Chinese Academy of Sciences, Foreign Member, 1998

Korean Academy of Sciences and Technology, Foreign Member, 1998

Honorary Lifetime Member, Opt. Soc. of Am., 2004

Institute of Physics, Honorary Fellow, 2009

# Hutchinson Medal for Distinguished Public Service, University of Rochester, 2009

# Arthur L. Schawlow Award, the Laser Institute of America, 2010

Honorary Fellowship, the Institute of Physics, 2010

University of California-Berkeley Alumnus of the Year, 2011

Royal Academy of Engineering, Foreign Member, 2011

Harold Berger Award, 2011

Hans Bethe Award, Federation of American Scientists, 2011   
 Franklin Founder Award, 2012

George Eastman Medal, University of Rochester, 2013

Royal Society, Foreign Member, 2014  
 Fellow, National Academy of Inventors, 2014

Richard Ernst Medal, 2015

Robert Fletcher Award, 2015

Silk Road Award, 2015

National Academy of Sciences of Belarus, Foreign Member, 2017

Fitzpatrick Institute for Photonics, Pioneer Award, 2018

Member, Pontifical Academy of Sciences (2018 – present)  
  
  
**32 Honorary Degrees**

Colgate College

University of Rochester

International Technological University

Chinese University of Hong Kong

Boston University

Hong Kong University of Science and Technology

Shantou University

Duke University

Gustavus Adolphus College

Graduate School of Biological Sciences, City of Hope

Harvard University

Tongji University

Yale University

Washington University at Saint Louis

Tianjin University

Cincinnati State Technical and Community College

St. Petersburg State Mining University

University of Strathclyde

Pomona College

Polytechnic Institute of New York University

Russian Academy of Sciences

Penn State University

Rensselaer Polytechnic Institute

Clarkson University

Williams College

Australian National University

Dartmouth College

St. Petersburg Academic University

Peking University

Univerisity of Mass., Lowell, Mass.

Amherst College

**Partial List of Professional Service:**

American Association for the Advancement of Science, President elect, 2018, President, 2019

American Academy of Arts and Sciences, “Restoring the Foundation,” 2013 – 2015  
National Academies, “America’s Energy Future”, 2007- 2009

American Academy of Arts and Sciences, “Alternative Models of Federal Funding of Science Committee,” 2007-2008

Council of Competitiveness, Energy, Security, Innovation & Sustainability Steering Committee,   
 2007-2009

National Academies Augustine Committee, “Rising Above the Gathering Storm,” 2005-2006

See also “Rising Above the Gathering Storm, Revisited: Rapidly Approaching Category 5”

Co-Chair of Inter-Academy Council study, “Lighting the Path: Towards a Sustainable Energy Future,” 2005-2007

National Nuclear Security Agency (NNSA), Advisory Committee to the Director, 2001-2002

National Institutes of Health (NIH), Advisory Committee to the Director, 1999-2000

Executive Committee, NAS Board on Physics and Astronomy, 1996-99

NAS Committee, Atomic, Molecular and Optical Physics, 1992-94

Chair, American Phys. Soc. Div. of Laser Science, 1989-90

NSF Physics Advisory Committee, 1990-93

NAS studies "Optical Science and Engineering", 1995-96; "Free Electron Lasers", 1993-94

**Partial List of Other Activities:**

Siemens Science Innovation and Technology Council, 2015 – present

Shell Science Council, 2015 - present

Board of Directors, Richard Blum Center for Economic Development (2013-present)

Board of Trustees, University of Rochester (1999-2009)

Board of Directors, William and Flora Hewlett Foundation (2003- 2009)

Board of Directors, Nvidia (2004 -2009)

Governing Board, Okinawa Institute of Science and Technology (until-2009)

Scientific Board, Gordon and Betty Moore Foundation (2005- 2009)

Scientific Board, MacArthur Foundation (until 2009)

Scientific Board, Helicos (until 2009)

Chair of physics visiting committee, Case Western Reserve, 2004

Chair of physics visiting committee, Ecole Normale Superieur, 1999

Chair of physics visiting committee, Harvard University, 1999, and member 1992, 1995

Visiting Committees, at Yale, 1996, UC Berkeley, 2002