

**Bruce Alberts, Ph.D.**

## **CURRICULUM VITAE**

**Date of Birth** April 14, 1938

**Place of Birth** Chicago, Illinois

**Current Address** UCSF MC 2200

Genentech Hall N312C

600-16th Street

San Francisco, CA 94158

### **EDUCATION AND POSITIONS HELD**

1956-1960 Undergraduate (A.B. 1960), Biochemical Sciences, summa cum laude. Harvard College, Cambridge, Massachusetts

1960-1965 Predoctoral Fellow in Biophysics (Ph.D. 1965), National Science Foundation, Laboratory of Professor Paul Doty, Harvard University, Cambridge, Massachusetts

1965-1966 Postdoctoral Fellow, National Science Foundation, Laboratories of Professors A. Tissieres and R. Epstein,

Institut de Biologie Moleculaire, Geneva, Switzerland

1966-1971 Assistant Professor, Department of Chemistry, Princeton University, Princeton, New Jersey

1971-1973 Associate Professor, Department of Biochemical Sciences, Princeton University, Princeton, New Jersey

1973-1976 Damon Pfeiffer Professor of Life Sciences, Department of Biochemical Sciences, Princeton University (1973-74 Acting Chairman, 1974-75 Associate Chairman)

1976 On sabbatical leave from Princeton, Laboratory of Professor Lewis Wolpert, Middlesex Hospital Medical School, London, England; January through August.

1976-1981 Professor and Vice Chairman, Department of Biochemistry and Biophysics, University of California, San Francisco

1981-1985 American Cancer Society Lifetime Research Professor, Department of Biochemistry and Biophysics, University of California, San Francisco (1981-82 Acting Chairman)

1985-1990 Professor and Chairman, Department of Biochemistry and Biophysics, University of California, San Francisco

1990-1993 American Cancer Society Lifetime Research Professor, Department of Biochemistry and Biophysics, University of California, San Francisco

1993-2005 President, National Academy of Sciences, Washington, D.C.  
2000- 2009 Co-chair, InterAcademy Council, Amsterdam.  
2007-2008 President, American Society for Cell Biology (2007) Past President, ASCB (2008)  
2009- 2011 United States Science Envoy  
2008- 2013 Editor-in-chief, Science  
2005- present Professor Emeritus, Department of Biochemistry and Biophysics, University of California, San Francisco

## **HONORS AND AWARDS**

Phi Beta Kappa, Harvard College (1960)  
Summa cum laude in Biochemical Sciences, Harvard College (1960)  
Eli Lilly Award in Biological Chemistry, American Chemical Society (1972)  
U.S. Steel Foundation Award in Molecular Biology, National Academy of Sciences (1975)  
Fellow, American Academy of Arts and Sciences (elected 1978)  
American Cancer Society Lifetime Research Professorship (awarded 1980)  
Member, National Academy of Sciences (elected 1981)  
Faculty Research Lecturer, University of California, San Francisco (1985)  
Fellow, American Association for the Advancement of Science (1987)  
Baxter Award for Distinguished Research in the Biomedical Sciences, Association of American Medical Colleges (1992)  
President-elect, American Society for Biochemistry and Molecular Biology (1992)  
Outstanding Volunteer Coordinator, California School Volunteer Partnership (1993)  
Associate Member, European Molecular Biology Organization (EMBO) (elected 1993)  
Sixth Annual Donald Ware Waddell Award (1993)  
Foreign Member, The Royal Society, London (elected 1993)  
Distinguished Service Award, National Association of Biology Teachers (NABT) (1994)  
University of California, San Francisco Medal (1994)  
Foreign Member, Academia Europaea (elected 1994)  
American Philosophical Society (elected 1994)  
Member, European Academy of Arts & Sciences (elected 1995)  
Honorary Fellow, California Academy of Sciences (elected 1995)  
Gairdner Foundation International Award (1995)  
Honorary Degree, Michigan State University (1996)  
Honorary Degree, University of Massachusetts (1996)  
Honorary Degree, Princeton University (1997)  
Outstanding Educator Award, Exploratorium in San Francisco (1997)

Honorary Degree, Mount Sinai School of Medicine, City University of New York (1998)

Honorary Degree, Emory University (1998)

Honorary Degree, Columbia University (1998)

Honorary Fellow, St. Edmund's College, Cambridge (elected 1999)

Honorary Degree, Yale University (1999)

Honorary Degree, State University of New York at Stony Brook (1999)

Foreign Fellow, The National Academy of Sciences, India (elected 1999)

Leadership in Education Award, The Keystone Center (2000)

The Jawaharlal Nehru Birth Centennary Medal of the Indian National Science Academy (awarded 2000)

The Ray Wu Society for Life Sciences Award (2001)

Honorary Degree, Clark University (2001)

Honorary Degree, University of Arizona (2001)

Honorary Degree, Bates College (2001)

Associate Fellow, Third World Academy of Sciences (elected 2002)

Member, National Academy of Education (elected 2003)

Foreign Member, Russian Academy of Sciences (elected 2003)

Honorary Degree, Case Western Reserve University (2003)

Foreign Fellow, Indian National Science Academy (elected 2004)

Presidential Achievement Award 2004, Association of American Geographers

Honorary Member, National Academy of Sciences-Republic of Korea (elected 2004 - reappointed in 2008 through 2012)

Honorary Member, Mongolian Academy of Sciences (elected 2004)

Honorary Degree, Cold Spring Harbor Laboratory, Watson School of Biological Sciences (2005)

Honorary Degree, Tel Aviv University (2005)

Viktor Hamburger Outstanding Educator Prize, American Society for Developmental Biology (2005)

Distinguished Honoree of the National Academy of Engineering (2005)

Commander of the Order of the British Empire (2005)

Member, New York Academy of Sciences (elected 2006)

Lawrence Hall of Science Award for Excellence in Science Education (2006)

Honorary member, Romanian Academy (elected 2006)

Honorary Degree, Rockefeller University (2006)

Honorary Degree, Beloit College (2007)

Honorary Degree, University of Toronto (2007)

American Educational Research Association Public Service Award (2008)

American Institute of Biological Sciences Educaiton Award (2009)

Vannevar Bush Award (2010)

DiNA Award, Science Festival Bay Bio (2011)

#### **CURRENT MEMBER OF EDITORIAL BOARDS**

Member, Editorial Board, ASCB journal, Cell Biology Education-Life Sciences Education (CBE-LSE) (2001-present)

Honorary Member, Editorial Board, University of Chicago journal Molecular and Cell Biology Reviews (2007-present)

Cell & Developmental Biology Member, Advisory Board, Princeton University Press Science Essentials Series (2007-present)

Member, Advisory Board, Center for American Progress Science Publication, Science Progress (2007-present)

#### **CURRENT MEMBER OF ADVISORY BOARDS (ALL NON-PROFIT INSTITUTIONS)**

Chair, Scientific Advisory Board, Scleroderma Research Foundation (1992-present).

Member, Board of Directors, California Foundation for Molecular Biology (1994-present).

Member, Advisory Board, Merck Institute for Science Education (1999-present).

Member, External Advisory Committee, University of Texas Southwestern Medical Center's Endowed Scholars Program in Biomedical Research (1999-present).

Member, Board of Directors, William J. Rutter Foundation (1999-present).

Member, UCSF Administrative Advisory Board, Science & Health Education Partnership (SEP) (2005-present).

UCSF-SFUSD Liaison, SF Mayor's Committee for the Mission Bay Science School (2005-present).

Member, Board of Directors and Council, Science and Technology in Society Forum (2005-present).

Member, Board of Trustees, Gordon and Betty Moore Foundation (2005-present).

Member, Advisory Board, MIT OpenCourseWare (2005-present).

President and Chairman, Board of Directors, Strategic Education Research Partnership (SERP) (2005-present).

Member, Exploratorium Advisory Council (2005-present).

Member, Executive Committee, UC Science Mathematics Initiative Group (SMI) (2006-present).

Member, Board of Directors, California Council on Science and Technology (CCST) (2006-present).

Member, Board of Directors, The Elsevier Foundation (2006-Present).

Member, Advisory Board, Life Sciences Research Foundation (2006-present).

Member, Advisory Board, Lawrence Berkeley National Lab (2006-present).

Member, Jury, Purkwa Prize (2006-present).

Member, Board of Directors, National Math and Science Initiative, Inc. (NMSI) (2007-present).

Member, UC Global Health Initiative African Institutes of Science and Technology Tanzania Subcommittee (2007-present).

Member, American Society for Biochemistry and Molecular Biology (ASBMB) President's Leadership Council Group (2007-present).

Senior Advisory Committee, Planning for University of California School of Global Health (2007-present).

Member, Advisory Committee, (LEAD) International (2007-present).

Member, Advisory Board, Science Content, WestEd Proposal to Institute of Education Sciences Team (IES)  
(2007-present).

Member, UCSF – California Academy of Sciences Task-Force (2007-present).

Member, Carnegie-IAS Commission on Mathematics and Science Education; Co-chair of Building Teacher Capacity  
Working Group (2007-present).

Member, Regional Executive Coordination Council K-12 Math and Science Education Resource Center (MSERC)  
(2007-present).

Member, Advisory Committee for the AERA-NAED Assessment of Education Research Doctorate programs in U.S.  
Universities (2008-present).

Board of Trustees, Bay Area Elementary Science Consortium (2008-present).

Member, Marian Koshland Science Museum Advisory Board (2008–2013).

Member, Board of Trustees, Bibliotheca Alexandrina (2008-2014).

Member, UNESCO International STI Centre (2008-present).

Member, Advisory Board, San Diego Science Festival (2008-present).

Critical Advisor, Mobilizing STEM Education for a Sustainable Future Project, University of Wisconsin (2008-present).

Supporter, National Center for Science Education (2008-present).

Member, UCSF Medicine into Graduate Education Initiative Review Board (2009-present).

Member, Advisory Board, Public Agenda (2009-present).

Chair, Advisory Committee, Search for New Vice Provost, Education Partnerships, UC Office of the President (2009-  
present).

Member, Advisory Committee, California Science and Technology Policy Fellowships (2009-present).

Member, UCSF Committee for H. Boyer and G. Boyer Jr. Faculty Endowed Chair (2009-present).

Member, Burroughs Wellcome Fund Board (2009-present).

Member, Advisory Board, UCSF Internships for Career Exploration (ICE) (2009-present).

Trustee, California Academy of Sciences (2009-present).

Member, Inter-Academy Panel (IAP) General Assembly Biodiversity Conference Steering Committee. (2009-present).

Member, Howard Hughes Medical Institute Science Education Advisory Board (2009-present).

Member, NAS Committee on Women in the Academy (2009-present).

Chair, American Society for Cell Biology (ASCB) Nominating Committee (2009-present).

Member, Asian University for Woman's Support Foundation (AUW) International Council of Advisors (2009- present)

Member, Biotechnology Institute Board of Directors (2010-present).

Member, Scaling and Studying the Colorado Learning Assistant Model of teacher Education and Institutional Change  
Advisory Board  
(2010-present).

Member, Miraikan International Advisory Board (2010-present).

Advisor, SERP Investing in Innovations (I3) Project (2010-present).

Member, Science Initiative Group (SIG) of the Institute for Advanced Study (IAS) (2010- present).

Member, GYA Global Young Academy Advisory Board (2010- present).

Member, Interdisciplinary Quantitative Biology (IQ Biology) Advisory Board, University of Colorado, Boulder (2010-present).

Member, International Advisory Board to Jorge Huete's program in Nicaragua (2010- present).

Member, Academics/Education subcommittee of the Human Biology Initiative Task Force (2011-present).

Member, Scientific Advisory Committee, Israel Science Foundation (ISF) I-CORE Project (2011- present).

Member, Advisory Board, Global Young Academy (2011- present).

Member, HHMI's Science Education Advisory Board (SEAB) (2011- 2015).

Reviewer, NIH Director's New Innovator Awards (2011- present).

Member, Foothill Science Learning Institute Advisory Board (2011 – present).

Member, International Advisory Board, Faculty 1000 (2011- present).

Member, Advisory Board, Central American Marine Genomic Biodiversity Archive and Reference Library (2011-present).

Member, Board of Trustees, Bibliotheca Alexandrina (2012-2014).

Member, Advisory Board, UC Santa Cruz Institute for Scientist and Engineer Educators Project: Transforming Undergraduate STEM Experiences Through the Next Generation of Scientist and Engineer Educators (2012- present).

Member, Selection Committee, Golden Goose Award (2012- present).

Member, Advisory Committee, Directorate for Education and Human Resources (NSF EHR) (2012-2015).

Board Member, Advisory Board, California STEM Learning Network (CSLNET) (2012- present).

Member, CA Science Expert Panel (SEP) for the Next Generation Science Standards (NGSS). (2013- present.)

Member, Board of Trustees, The Future University, Sudan (2013- present).

Chair, Advisory Board, *Cultures*, publication of ASM International (2013- present).

#### **PREVIOUS EXTRAMURAL APPOINTMENTS**

Member, Board of Directors, Genentech Foundation for Biomedical Sciences (1989-2009).

Trustee, Cold Spring Harbor Laboratory (1972-1975).

Advisory Panel for Human Cell Biology, National Science Foundation (1974-76).

Member, Board of Scientific Counselors, National Institutes of Health, Division of Arthritis and Metabolic Diseases (1974-1978).

Editorial Board, Journal of Biological Chemistry (1976-1982).

Member, Board of Scientific Advisors, Jane Coffin Childs Memorial Fund for Medical Research (1978-1985).

Member, Corporation Visiting Committee for the Department of Biology, Massachusetts Institute of Technology (1978-1998).

Member, Advisory Council for the Departments of Biochemical Sciences and Molecular Biology, Princeton University

(1979-1985).

Chairman, Visiting Committee for the Department of Biochemistry and Molecular Biology, Harvard College (1983-1986).

Member, Visiting Committee of the Department of Embryology, Carnegie Institution of Washington (1983-1989).

Member, Molecular Cytology Study Section of the National Institutes of Health (1982-1986); Chairman (1984-1986).

Editorial Board, Journal of Cell Biology (1984-1987).

Associate Editor, Annual Reviews of Cell Biology (1984-1993).

Councilor, American Society of Biochemistry & Molecular Biology (1984-1993).

Member, Scientific Advisory Board, Markey Foundation (1984-1997).

Chairman, National Research Council Committee on Mapping and Sequencing the Human Genome (1986-1988).

Member, Advisory Board, Bethesda Research Laboratories, Life Technologies, Inc.

Member, Program Advisory Committee for the NIH Human Genome Project (1988-1991).

Member, Scientific Advisory Committee for the Marine Biological Laboratory at Woods Hole (1988-1992).

Member, Scientific Advisory Board, Fred Hutchinson Cancer Research Center, Seattle (1988-1996).

Chairman, Commission on Life Sciences of the National Research Council, National Academy of Sciences (1988-1993).

Member, Advisory Board of the National Science Resources Center, National Academy of Sciences and Smithsonian Institution (1990-1993).

Member, Editorial Advisory Board, BioEssays (1990-2001).

Editorial Board, Seminars in Cell Biology, Saunders Scientific Publications (1990-1994).

Essay Editor, Molecular Biology of the Cell (1991-1997).

Member, National Committee on Science Education Standards and Assessment, National Academy of Sciences (NCSESA) (1992-1993).

Member, Committee on National Education Support System for Teachers and Schools (NESSTS), National Academy of Sciences (1992-1993).

Member, ex officio, The President's Committee on the National Medal of Science (1994-2005).

Member, Council of Scientific Advisors, Marine Biological Laboratory (1996-2001).

Member, Scientific Advisory Board, Restless Legs Syndrome Foundation (1996-2008).

Co-chair, Science and Strategy Committee for the System Review Panel, Consultative Group on International Agricultural Research (CGIAR) (1997-1998).

Member, Executive Committee, Funding First (a program of Lasker Trust) (1997-2005).

Member, Board of Trustees, Donald Danforth Plant Science Center (1998-2008).

Member, Ocean Research Advisory Panel, Department of the Navy (1998-2003).

Chair, Center for Scientific Review Panel on Scientific Boundaries, National Institutes of Health (1998-2004).

Member, ex officio, U.S. Department of Education National Commission on Mathematics and Science Teaching for the 21st Century ("Glenn Commission") (1999-2000).

Member, Board of Directors, Teach for America (1999-2003).

Member, Scientific Advisory Board, "The Green Room" television show (1999-2003).

Member, NSTA Building a Presence for Science National Advisory Council (1999-2005).

Member, Board of Trustees, Carnegie Corporation of New York (2000-2008).

Member, Scientific Advisory Board, BioLab (2000-2001).

Member, Advisory Committee, LEAD USA (2000-2005).

Scientific Advisor, Sustainable Sciences Institute (2000-2005).

Co-Chair, InterAcademy Council Advisory Institution in Amsterdam governed by the presidents of 15 science academies  
from around the world (2000-2009).

Member, Board of Directors, Science Matters, Inc. (2001-2003).

Member, National Council on Science and Technology Education, AAAS (2001-2004).

Member, BEST National Leadership Council (2001-2004).

Member, Advisory Board, DC ACTS program (2001-2005).

Member, Harvard Board of Overseers (2001-2007).

Member, Visiting Committee, Harvard Graduate School of Education (2001-2007).

Member, Advisory Committee, Carnegie Initiative on the Doctorate, Carnegie Foundation for the  
Advancement of Teaching (2002-2006).

Member, Mathematical Sciences Research Institute Education Advisory Committee (2003-2008).

Co-Chair, NIH Blue Ribbon Panel on Conflict of Interest Policies, A Working Group of the Advisory Committee to the  
Director, National Institutes of Health (2004).

Member, Advisory Committee, National Innovation Initiative, Council on Competitiveness (2004).

Member, American Society for Biochemistry and Molecular Biology (ASBMB) Nominating Committee (2005-2008).

Member, Advisory Board, Aquaya Institute (2005-2008).

Member, Keck Graduate Institute Advisory Council (2005-2007).

Member, UCSF Strategic Planning Committee (2005-2008).

Member, Advisory Board, NSF Change and Sustainability in Higher Education (CASHE) (2006).

Member, Advisory Board for COSMOS, University of California (2005- 2008).

Member, Board of Directors, Dan David Prize (2005-2008).

Chair, Strategy Committee on Molecules, Genes and Cells; The Wellcome Trust, London, UK (2005-2007).

Chair, Science Service Blue Ribbon Commission (2006).

Chair, UC Riverside Life Sciences Review (2006-2007).

Member, National Academy of Sciences, Committee on Science and Creationism (2006-2007).

Member, Human Frontier Science Program Review Committee (2006-2007).

Member, Advisory Board, Stanford School of Medicine Career Center Assembly for Life Science Career Development  
(2006-2008).



Member, Advisory Board, World Science Festival (2006-2008).

Member, Internal Advisory Committee, UCSF Institute for Regeneration Medicine (2007-2008).

Member, Research!America, Scientists and Public Engagement Task Force (2007-2008).

Member, National Institutes of Health Advisory Committee to the Director Working Group on Peer Review (2007-2008).

Member, National Science Teachers Association (NSTA) Blue Ribbon Panel (2007).

Reviewer, NIH Director's New Innovator Awards (2007).

Reviewer, NIH Director's Pioneer Awards (2007).

Member, Harvard's Committee to Visit the Department of Molecular and Cellular Biology (2008).

Member, Advisory Board, Genome Biology (2010).

Member, Executive Committee, and Director, Science and Innovation, UCSF Global Health Sciences (2005-2010).

Member, CREF BOT Cyprus Board (2010).

Member, Advisory Board, Lawrence Berkeley National Laboratory (LBNL) (2011).

Member, The Cell: An Image Library Advisory Board (2011).

Member, Editorial Board, Current Opinion in Cell Biology, Elsevier Science London. (1988-2011).

Chair, American Society for Cell Biology (ASCB) Nominating Committee (2009).

Member, American Society for Cell Biology International Affairs Committee (IAC) (2006- 2011).

Member, Teaching Advisory Committee, Intitution Research and Career Development Award (2012).

Co-chair, Basic Science, UCSF Faculty Bridge Funding Committee (2007- 2009).

Member, National Sciences Resources Center's (NSRC) National Advisory Board. (2009-2012).

Reviewer, College Center for Scientific Review (CSR), NIH (2010- 2012).

Member, Gordon Commission of the Future of Assessment in K – 12 (2011- 2012).

#### **MEMBER OF PROFESSIONAL SOCIETIES**

American Society for Biochemistry and Molecular Biology

American Society for Cell Biology

American Society for Microbiology

Genetics Society of America

Sigma Xi

American Association for Advancement of Science

#### **TELEVISION**

**Charlie Rose Show (April 7, 2008) "Charlie Rose Science Series: The Imperative Science"**

**Charlie Rose Show (July 15, 2010) "Creativity"**