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TORSTEN N. WIESEL

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
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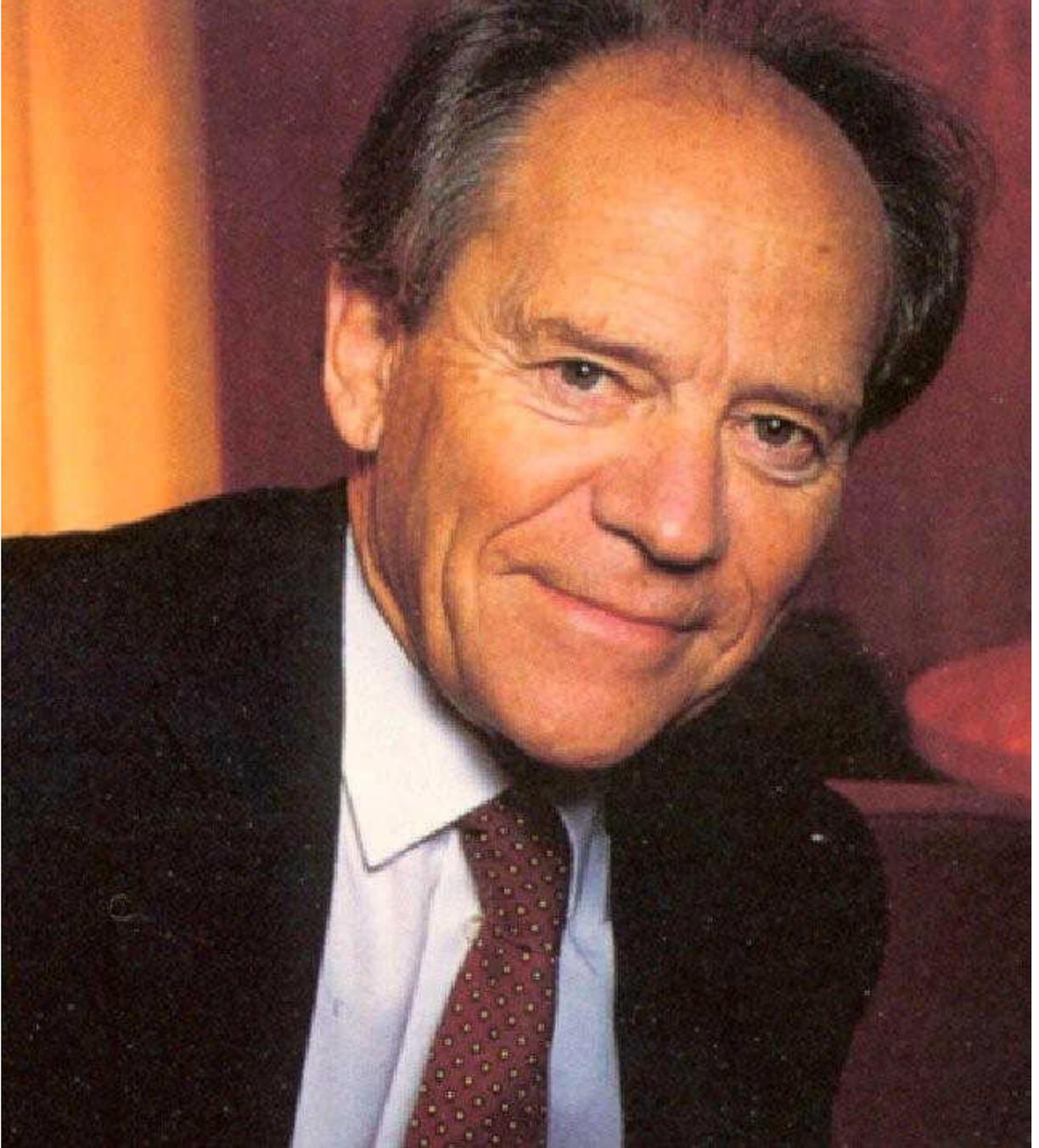
Arthur Daemrich and David Caruso

at

Rockefeller University
New York, New York

on

4 May and 1 October 2007
(With Subsequent Corrections and Additions)



Torsten N. Wiesel

ACKNOWLEDGEMENT

This oral history is part of a series supported by a grant from the Pew Charitable Trusts based on the Pew Scholars Program in the Biomedical Sciences. This collection is an important resource for the history of biomedicine, recording the life and careers of young, distinguished biomedical scientists and of the Pew Scholars Program in the Biomedical Sciences Advisory Committee members.

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TORSTEN N. WIESEL

1924 Born in Uppsala, Sweden on 3 June

Education

1954 M.D., Karolinska Institute, Stockholm, Sweden

Professional Experience

Karolinska Institute, Stockholm, Sweden
1954-1955 Instructor, Department of Physiology
1954-1955 Assistant, Department of Child Psychiatry, Karolinska Hospital

Johns Hopkins University Medical School, Baltimore, Maryland
1955-1958 Fellow in Ophthalmology
1958-1959 Assistant Professor, Ophthalmic Physiology

Harvard Medical School, Boston, Massachusetts
1959-1960 Associate Professor, Neurophysiology/Neuropharmacology
1960-1964 Assistant Professor, Neurophysiology/Neuropharmacology
1964-1967 Assistant Professor, Psychiatry
1967-1968 Professor, Physiology
1968-1983 Professor, Neurobiology
1973-1982 Chairman, Neurobiology
1974-1983 Robert Winthrop Professor, Neurobiology

Rockefeller University, New York, New York
1983-1994 Vincent & Brooke Astor Professor
1991-1998 President
1994 Professor Emeritus, Vincent & Brooke Astor Professor
1999 President Emeritus

Society Affiliations and Directorships

1978-1979 President, Society for Neuroscience
1992-present Chair, Advisory Board, Pew Scholars in the Biomedical Sciences
1992-present Chair, Advisory Board, Pew Latin American Fellows Program
1994-2004 Chairman, Committee on Human Rights, National Academy of Sciences
1995-2001 Board of Directors, Aaron Diamond AIDS Research Center

1995-present	Board of Directors, Montreal Neurological Institute
1996-present	Board of Governors, New York Academy of Sciences
1996-present	Board of Directors, National Alliance for Eye and Vision Research
1997-present	Advisory Board, National Space Biomedical Research Institute
1997-2000	Chair of Advisory Board, Human Rights Watch, Arms Division
1998-2000	President, McKnight Neuroscience Program
1998-2004	President, International Brain Research Organization
1998-present	Board of Directors, Pew Center on Global Climate Change
1999-present	Director, The Shelby White and Leon Levy Center for the Mind, Brain, and Behavior
1999-2008	Board of Directors, Population Council
1999-2000	Deans Council, Harvard School of Public Health
1999-2001	Vice-chair, Board of Governors, New York Academy of Sciences
2001-2006	Chairman, Board of Governors, New York Academy of Sciences
2000-present	Board of Directors, Hospital for Special Surgery
2000-present	Secretary General, Human Frontier Science Program
2000-present	International Advisory Board, Institute of Biology and Molecular Genetics (BIOGEM)
2000-2002	Board of Directors, Marine Biological Laboratory
2000-2002	Chairman, Board of Trustees, Borderline Personality Disorder Research Foundation
2001-present	Board of Directors, McGovern Institute for Brain Research
2001-2007	International Advisory Board, Institute of Neuroscience, Chinese Academy of Sciences
2001-present	Board of Directors, Natal International Neuroscience Institute, Brazil
2002-present	Co-Chairman, Board of Government, Okinawa Institute of Science and Technology (OIST)
2002-present	Chairman, Scientific Advisory Board, European Brain Research Institute
2002-present	Chairman, Friends of the International Brain Research Organization
2003-present	Scientific Advisory Board, NOVA Vision
2003-present	Board of Trustees, American-Scandinavian Foundation
2003-2006	Advisory Committee, 'LIFE,' Learning in Informal and Formal Environments
2003-2009	Chairman, International Scientific Council, Israeli-Palestinian Science Organization (IPSO)
2003-present	Chairman, Scientific Advisory Board, National Institute of Biological Science, Beijing
2004-present	Board of Visitors, Columbia University Medical Center
2004-present	Advisory Board, Hong Kong University of Science and Technology
2005-present	Advisory Council, Picower Institute for Learning and Memory at Massachusetts Institute of Technology (MIT)
2005-present	Scientific Council, Institut de Genetique et de Biologie Moleculaire et Cellulaire (IGBMC)
2005-present	International Advisory Board, University of British Columbia, Institute of Mental Health

- 2007-present Honorary Chairman, Torsten Wiesel Research Institute at West China Hospital, Sichuan University, Chengdu, China
- 2007-present Scientific Council, Stazione Zoologica di Napoli (SZN)

Honors

- 1967 Honorary A.M., Harvard University
- 1971 The Dr. Jules C. Stein Award, Research to Prevent Blindness
- 1972 The Lewis S. Rosenstiel Prize, Brandeis University
- 1972 Ferrier Lecture, Royal Society of London
- 1975 The Friedenwald Award, Association for Research in Vision and Ophthalmology
- 1976 The Grass Lecture, Society for Neuroscience
- 1977 The Karl Spencer Lashley Prize, American Philosophical Society
- 1978 The Louisa Gross Horwitz Prize, Columbia University
- 1979 The Dickson Prize, University of Pittsburgh
- 1980 The George Ledlie Prize, Harvard University
- 1980 Society for Scholars, Johns Hopkins University
- 1981 The Nobel Prize in Physiology or Medicine
- 1982 Doctor of Medicine (honoris causa), Linkoping University
- 1982 Doctor of Medicine and Surgery (honoris causa), Ancona University
- 1982 Doctor of Science (honorary), University of Pennsylvania
- 1983 William D. Stubenbord Visiting Professor, Cornell University Medical College
- 1987 Doctor of Science (honorary), New York University
- 1987 Doctor of Science (honorary) University of Bergen, Norway
- 1989 W. H. Helmerich III Award, The Woodlands, Texas
- 1989 Doctor of Medicine (honorary), Karolinska Institute
- 1990 Doctor of Humane Letters (honorary), Johns Hopkins University
- 1992 Doctor of Science (honorary), Harvard Medical School
- 1993 Doctor of Science (honorary), University of Connecticut, Storrs
- 1994 Doctor of Science (honorary), Ohio State University, Columbus
- 1995 Doctor of Science (honorary), State University of New York, College of Optometry, New York City
- 1995 Doctor of Science (honorary), Wesleyan University
- 1996 Doctor of Science (honorary), University of Arizona, Tucson
- 1996 Helen Keller Prize for Vision Research
- 1998 Presidential Award, Society for Neuroscience
- 1998 Doctor Honoris Causa, Universidad Miguel Hernandez, Alicante, Spain
- 2003 Doctor of Science (honorary), Rockefeller University
- 2004 Doctor of Science (honorary), Charles University, Prague, Czech Republic
- 2004 Doctor of Science (honorary), Bowdoin College, Brunswick, Maine
- 2005 Institute of Medicine David Rall Medal

2005
2006

National Medal of Science, U.S.A.
Spanish National Research Council, Consejo Superior de Investigaciones
Científicas (CSIC) Gold Medal

ABSTRACT

Torsten N. Wiesel was born and grew up near Stockholm, Sweden, the youngest of five children. His father was a psychiatrist at Beckomberga Hospital, a mental institution comprising 30-40 fenced acres, and the whole family lived in the compound, as did other staff members and their families. Wiesel attended a private school in Stockholm, but was more interested in soccer and orienteering than studying. When he was in his teens his parents divorced, and he decided to become a doctor. He attended medical school at Karolinska Institute and worked there for a few years before coming to the United States as a postdoc in Stephen Kuttler's lab at Johns Hopkins University. There he worked on epilepsy. One of his brothers had become schizophrenic; this, along with his frustration with the lack of insightful care for the mentally ill in the 1940's and 1950's, prompted Torsten's interest in neuroscience.

Working in Kuttler's lab with Kenneth Brown, he dealt with retinal ganglion receptive fields/responses to light stimulation, using cats and monkeys as his lab animals. David Hubel arrived at Hopkins, and the two men began a very long collaboration that in 1981 garnered them the Nobel Prize in Physiology or Medicine. Eventually, after moving through several departments at Harvard University, Wiesel ended up in the neurobiology department, where he ultimately became the chairman.

In 1983, after Torsten had been chairman for ten years, he and Charles Gilbert, with whom he was then working, moved to Rockefeller University. There he became chairman of the faculty, and was thus asked to be president when David Baltimore resigned. Wiesel brought together again the disillusioned faculty and, with a substantial gift from David Rockefeller, recruited more good scientists. He now spends some time in Sweden, where he visits his two sisters and one brother twice a year, and in Strasbourg, where he is Secretary General of the Human Frontier Science Program. He has many professional affiliations and directorships; he has won many, many awards, and he has published much.

INTERVIEWERS

Arthur Daemmrich is an assistant professor in Business, Government, and International Economy at Harvard Business School (HBS) and a Senior Research Fellow at the Chemical Heritage Foundation. His research and teaching focus on business in regulated environments and international comparative analysis of risk and regulation. At HBS he also plays an active role in an interdisciplinary Healthcare Initiative, advancing scholarship and developing applied lessons for the business of creating and delivering health services and health-related technologies. Daemmrich was previously the director of the Center for Contemporary History and Policy at the Chemical Heritage Foundation. He earned a Ph.D. in Science and Technology Studies from Cornell University in 2002 and has held fellowships at the Social Science Research Council/Berlin Program for Advanced German and European Studies, the Kennedy School of Government at Harvard University, and the Chemical Heritage Foundation. He has published widely on pharmaceutical and chemical regulation, biotechnology business and policy, innovation, and the history of science.

David J. Caruso earned a B.A. in the History of Science, Medicine, and Technology from the Johns Hopkins University in 2001 and a Ph.D. in Science and Technology Studies from Cornell University in 2008. His graduate work focused on the interaction of American military and medical personnel from the Spanish-American War through World War I and the institutional transformations that resulted in the development of American military medicine as a unique form of knowledge and practice. David is currently the Program Manager for Biomedical Sciences and Technologies at the CHF. His current research interest focuses on the discipline formation of biomedical science in 20th-century America and the organizational structures that have contributed to such formation.

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<p>Various foundations' funding policies. National Institutes of Health funding requirements. Wiesel's theory that too much money leads to mediocre science. Political pressures on government funding. Measuring the success of a program. Promoting research rather than a project. Tension for a young scientist between building his reputation and exploring new fields.</p>	
Early Years	23
<p>Grew up near Stockholm, Sweden, in mental hospital compound, where his father was psychiatrist. Liked soccer and orienteering. Parents divorced when Torsten in midteens, and he decided to become a doctor so as to be able to support himself. One brother's schizophrenia led to interest in neuroscience. Also interested in politics.</p>	
Medical School	28
<p>Matriculated at Karolinska Institute. Lived Spartan life. Lack of good treatment for mentally ill in 1940's and 1950's led to desire to study neuroscience. Research in Einar Bohm's lab at Uppsala Universitet, studying epilepsy.</p>	
Postdoctoral Years	35
<p>Recruited by Stephen Kuttler at Johns Hopkins University, where he worked on retinal ganglion responses to light stimulation. David Hubel came to Kuttler's lab, and the two began a long collaboration. Both went to Harvard. Wiesel changed departments, worked with Hubel all along. Then Wiesel moved to neurobiology, where he eventually became chairman. In 1981 the two won the Nobel Prize.</p>	
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<p>With Charles Gilbert Wiesel moved to Rockefeller University, later succeeding David Baltimore as president. As well as chairing the Pew Scholars program, he now works for Human Frontier Science Program, based in Strasbourg, France, and travels to Sweden to visit two sisters and one brother.</p>	
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