



Curriculum Vitae Prof. Dr. Aaron Ciechanover



Name: Aaron Ciechanover

Born: 1 October 1947

Main research interests: pathogenetic mechanisms of diseases, malignancies and neurodegenerative disorders, ubiquitin-mediated protein degradation

Aaron Ciechanover is a biochemist and physician. In 2004 he got the Nobel Prize in Chemistry for his discovery of ubiquitin-mediated protein degradation.

Academic and Professional Career

- since 2011 Adjunct Professor and Director, The Institute for Chemistry and Biomedical Studies (ICBS), Nanjing University, Nanjing, China
- 2004-2009 Founder and Director, The Lorry Lokey Interdisciplinary Center for Life Sciences and Engineering. Technion-Israel Institute of Technology, Haifa, Israel
- since 2002 Distinguished Research Professor, Technion - Israel Institute of Technology, Haifa, Israel
- 1993 - 2000 Director, The Rappaport Family Institute for Research in the Medical Sciences. Faculty of Medicine, Technion
- since 1992 Full Professor, Department of Biochemistry, Faculty of Medicine, Technion
- 1987 - 1992 Associate Professor, Department of Biochemistry, Faculty of Medicine, Technion
- 1984 - 1987 Senior Lecturer (with tenure), Department of Biochemistry, Faculty of Medicine, Technion
- 1981 - 1984 Post-doctoral training, Research in the laboratory of Harvey Lodish at the Whitehead Institute at Massachusetts Institute of Technology, USA
- 1981 Doctorate in biological sciences, Faculty of Medicine in the Technion
- 1979 - 1981 Lecturer, Department of Biochemistry, Faculty of Medicine, Technion

- 1977 - 1979 Research Fellow, Department of Biochemistry, Faculty of Medicine, Technion
- 1976 - 1981 Graduate studies (D.Sc.), Faculty of Medicine, Technion
- 1974 - 1979 Partial training, Department of Surgery B, "Rambam" University Medical Center and the Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel
- 1972 - 1973 Clinical Internship at "Rambam" Medical Center, Haifa, Israel
- 1974 M.D., "Hadassah" and the Hebrew University School of Medicine, Jerusalem, Israel.
- 1970 M.Sc., Medical Sciences, Faculty of Life Sciences and the Department of Biochemistry, "Hadassah" and the Hebrew University School of Medicine, Jerusalem, Israel
- 1965 - 1972 "Hadassah" and the Hebrew University School of Medicine, Jerusalem, Israel

Functions in Scientific Societies and Committees

- since 2015 Scientific Advisory Board, Faculty of Life sciences, University of Macau, Macau
- since 2015 Consultant to the President on Academic Affairs and Academic Development, University of Macau, Macau
- since 2014 President (Honorary) – IsrALS (The Israel Amyotrophic Lateral Sclerosis Society)
- since 2011 Scientific Advisory Board, Friedrich Miescher Institute (Novartis), Basel, Switzerland
- since 2010 President (Honorary), Israel Cancer Society
- since 2010 Scientific Advisory Board, Rabin-Schneider Pediatric Medical Center, Petach Tikva, Israel
- since 2009 Scientific Advisory Board, CEINGE-Biotecnologie Avanzate, Napoli, Italy
- since 2009 International Institute for Biomedical Science and Technology (IIBMST), Upstate Medical University, Syracuse, NY, USA
- since 2009 National Advisory Board, Government of Singapore
- since 2009 Scientific Advisory Board, San Raffaele Scientific Institute, Milan, Italy
- since 2009 Scientific Advisory Board, Venetian Institute of Molecular Medicine - VIMM, Padua, Italy
- since 2008 Israel National Council for Research and Development (Molmop)
- since 2008 President's council, NY Academy of Sciences, USA
- since 2007 Board of Directors, German-Israeli Foundation (GIF) for Scientific Research and Development
- since 2007 Angelman Syndrome Foundation, USA

- since 2006 Board of Governors, Israeli Academy for the Hebrew Language, Jerusalem, Israel
- since 2006 Institute of Advanced Studies, Hong Kong University of Science and Technology
- since 2006 Scientific Advisory Board, Britton Chance Center for BioMedical Photonics, Huazhong University of Science and Technology, Wuhan, China
- since 2006 International Union for Biochemistry and Molecular Biology (IUBMB)
- 2005 - 2010 Chairman, Scientific Advisory Board, Rambam Medical Center, Haifa, Israel
- since 2005 Scientific Advisory Board, National Institute of Biotechnology - NIBN, Ben Gurion University in the Negev, Beer Sheba, Israel
- since 2005 Board of Governors, Ben Gurion University in the Negev, Beer Sheba, Israel
- since 2005 Board of Governors, Haifa University, Haifa, Israel

Editorial Boards:

- since 2008 Science China - Life Sciences
- since 2007 Cell Death and Differentiation
- since 2006 Experimental Biology and Medicine
- since 2005 Structural Chemistry
- since 1999 Israel Medical Association Journal

Honours and Awarded Membership

- since 2016 Member of the German National Academy of Sciences Leopoldina
- 2013 Extraordinary Professor, TEFAF Oncology Chair, Maastricht University, The Netherlands
- since 2013 Fellow, American Academy for Cancer Research (AACR)
- since 2013 Member (Foreign), Chinese Academy of Sciences (CAS)
- since 2012 Member, American Association for Cancer Research (AACR) Academy
- since 2012 Member (Honorary), Georgian Association of Allergology and Clinical Immunology
- since 2012 Member (Foreign), Georgian Academy of Sciences, Tbilisi, Georgia
- 2012 Distinguished University Professor (Honorary), Kyushu University, Fukuoka, Japan
- 2011 IUBMB (International Union of Biochemistry and Molecular Biology) Medal for Distinct Contribution to Science, Society and the IUBMB Mission
- since 2011 Member (Foreign), Russian Academy of Sciences

since 2011 Alexander von Humboldt Fellow, Alexander von Humboldt Stiftung
 since 2011 Member (Honorary), World Immunopathology Organization (WIPO)
 since 2011 Member (Honorary), Hellenic Society for Biochemistry and Molecular Biology
 2010 Lee Kuan Yew Visiting Professorship and Award, Singapore
 since 2009 Member, Academia Europaea
 since 2009 Member (Founding), European Academy of Cancer Sciences
 since 2009 Member (Foreign), Ukrainian Academy of Sciences
 since 2008 Associate (Foreign), Institute of Medicine of the National Academies of the USA (IOM)
 since 2008 Fellow (Honorary; Foreign), American Academy of Arts and Sciences (AAAS)
 2007 Medical Magnus Medal, Polish Academy of Medicine
 since 2007 Member, Pontifical Academy of Sciences, The Vatican
 since 2007 Member, Polish Academy of Medicine
 since 2007 Member, Albert Schweitzer World Academy of Medicine
 since 2007 Member, National Academy of Science and Technology of South Korea
 since 2007 Associate (Foreign), US-National Academy of Sciences
 2006 Sir Hans Krebs Medal, Federation of the European Biochemical Societies
 since 2006 Honorary Member, Society for Experimental Biology and Medicine
 since 2006 Fellow, Federation of Asian Chemical Societies (FACS)
 since 2005 Fellow (Hon.), Royal Society of Chemistry RCS, (UK)
 since 2005 Member (Foreign), American Philosophical Society
 since 2005 Cell Stress Society international (CSSi) Medal and Distinguished Life Member
 since 2004 Member, European Academy of Arts and Sciences
 since 2004 Member, European Academy of Sciences
 since 2004 Fellow, European Academy of Sciences
 since 2004 Member, Israeli National Academy of Sciences and Humanities
 since 2004 Member (Hon.), American Chemical Society (ACS)
 2004 Nobel Prize in Chemistry (shared with Avram Hershko and Irwin A. Rose)
 2003 - 2006 Japan Society for Promotion of Science (JSPS) Eminent Scientist Award
 2003 The Israel Prize for Biology

- 2002 EMET (Truth) Prize (Israeli Prime Minister Prize), for Arts, Sciences and Culture (in Life Sciences and Medicine, along with Avram Hershko and Leo Sachs)
- 2001 The Michael Landau (Mifa'al Ha'Peis) Award in Medical Sciences (along with Avram Hershko)
- 2000 The Albert and Mary Lasker Award for Basic Medical Research (along with Avram Hershko and Alexander Varshavsky)
- 2000 The Jewish National Fund Alkaes Award for Distinguished Scientific Achievements
- since 1999 Member, Asia-Pacific IMBN (International Molecular Biology Network)
- 1999 The Austria Ilse and Helmut Wachter Prize, University of Innsbruck (along with Avram Hershko)
- since 1996 Member, Council of the European Molecular Biology Organization (EMBO)
- 1988-1989 American Cancer Society Eleanor Roosevelt Memorial Fellow
- 1983-1984 Medical Foundation and Charles A. King Trust Fellow, M.I.T., Research Career Development Award, Israel Cancer Research Fund (ICRF), USA
- 1981 - 1983 Leukemia Society of America Fellow, M.I.T., USA
- 1981 - 1984 Israel Cancer Research Fund (ICRF), USA Fellow. M.I.T., USA
- 1981 - 1984 Fulbright Fellow, Massachusetts Institute of Technology (M.I.T.), Cambridge, Massachusetts, USA (Dr. Harvey Lodish's Laboratory)

Aaron Ciechanover holds numerous honorary doctoral degrees and honorary professorships.

Major Scientific Interests

Aaron Ciechanover is a biochemist and physician. In 2004 he got the Nobel Prize in Chemistry for his discovery of ubiquitin-mediated protein degradation.

As a graduate student with Avram Hershko and in collaboration with Irwin A. Rose from the Fox Chase Cancer Center in Philadelphia, USA, they discovered that covalent attachment of ubiquitin to a target protein signals it for degradation. They deciphered the mechanism of conjugation, described the general proteolytic functions of the system, and proposed a model according to which this modification serves as a recognition signal for a specific downstream protease. As a post-doctoral fellow with Harvey Lodish at the M.I.T., he continued his studies on the ubiquitin system and made additional important discoveries.

Along the years it has become clear that ubiquitin-mediated proteolysis plays major roles in numerous cellular processes, and aberrations in the system underlie the pathogenetic mechanisms of many diseases, among them certain malignancies and neurodegenerative disorders. Consequently, the system has become an important platform for drug development.