

Curriculum Vitae

Name: EVA-MARI ARO

Current Position: Research Director, Academician

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Shortly: Eva-Mari Aro is a research director and professor (emeritus) of Molecular Plant Biology in the Department of Life Technologies at the University of Turku. She received the honorary title of Academician of Science in 2017 and was awarded as Commander First Class of the Order of the Lion of Finland (Suomen Leijonan I luokan komentajamerkki) in 2019. In 2018, Aro was elected as foreign fellow to the US National Academy of Sciences (NAS). She is a member of the Finnish Technical Sciences Academy (2012) and the Finnish Academy of Science and Letters (2002), and an honorary doctor of University of Helsinki (2014) and Umeå University (2012) as well as an honorary professor of the Chinese Academy of Science (2006). Aro has published over 350 peer reviewed scientific papers on biophysics, biochemistry and molecular biology of the photosynthetic apparatus and explored how the function of the photosynthetic apparatus guides plant acclimation to environmental changes. More recently, her research interests have extended to applied bioenergy research and synthetic biology approaches, in applying photosynthetic principles towards production of sustainable fuels and chemicals in cyanobacteria cell factories. Aro currently chairs a project "Opportunities of Finnish Molecular Photosynthesis Research" and co-chairs a Nordic CoE "NordAqua" project (2017-2022) with nine other partners from Nordic countries. Aro has been chairing during the years 2008-2019 two subsequent Academy of Finland Centres of Excellence (AFCoE) and was awarded an Academy of Finland Professorship for the years 1998-2008 and 2014-2019. Aro has been a partner and coordinator of several EU and Nordic research networks, and she is a foreign partner of an Australian CoE (ARC) on Plant Energy Biology (2014-2021). Aro has had many research- and science policy-related national and international duties of trust. She has been working since 2014 for the European Academies of Sciences Advisory Council (EASAC), first as a board member and 2017-2019 as a vice-president. Aro has served also the Finnish Academy of Science and Letters 2010-2015, first as a board member, then as a vice president and president, and acted during 2004-2010 as a board member, president and past president of the International Society of Photosynthesis Research. She has served in the board/search committee for big European prizes, the Millenium Prize and the Körber European Science Prize.

Education:

Candidate in Philosophy (M.Sc.), University of Turku, 1975

Doctor in Philosophy, University of Turku, 1982

Professional Experience:

Junior Researcher and Assistant Teacher in Botany, University of Turku, 1977-1980

Junior and Senior Researcher, Academy of Finland, 1981-89, 1995-97 (on leave from associate professorship)

Associate Professor in Physiological Botany, University of Turku, 1987-1998

Professor in Physiological Botany (Molecular Plant Biology), University of Turku, 1998-2020

Academy Professor, Academy of Finland, 1998-2008, 2014-2018

Studies and Research Abroad:

- Washington State Univ., Department of Agricultural Chemistry, Pullman, Washington, US, 1976
- University of California, Berkeley, California, US, Asla Fulbright Scholarship, 1978-1979
- CEN, Cadarache, Department de Biologie, Service de Radio-Agronomie, France, 1982-1983
- University of Stockholm, Department of Biochemistry, Sweden, 1989-1990
- Australian National University, Research School of Biological Sciences, Canberra, 4 months, 1992
- The Hebrew University, Jerusalem, Israel, 3 months, 1997-1998

Honours and Awards:

- Invited member of the Academia Europaea, 2021
- Commander First Class of the Order of the Lion of Finland, awarded by the President of Finland, 2019
- Invited foreign member of the US National Academy of Sciences (NAS), 2018

- Honorary Award and Honorary Medal 2018, the Finnish Academy of Science and Letters, 2018
- Academician of Science, Academy of Finland, 2017
- Academy Professor, Academy of Finland, 1998-2008 and 2014-2018
- Edward Tolbert Memorial Lecture, Michigan State University, USA, 2016
- Arnon lecture, University of California, Berkeley, USA, 2016
- Honorary Doctor of the Faculty of Agriculture and Forestry, University of Helsinki, Finland, 2014
- Professor of the Year 2013 awarded by the Finnish Professor Union
- SPPS Award for lifelong research achievements (Scandinavian Plant Physiology Society), 2013
- Honorary doctor of Umeå University, Faculty of Science and Technology, Sweden, 2012
- Invited member of the Finnish Technical Sciences Academy, 2012
- Finnish Cultural Foundation prize, 2009
- Honorary doctor of the Chinese Academy of Sciences, Department of Botany, 2006
- Knight First Class of the Order of the White Rose of Finland, 2005, awarded by the President of Finland
- Elias Tillandz prize, Finland, 2005
- Invited member to Finnish Academy of Science and Letters, 2002
- Awards and grants for several EU and Nordic research networks (as a coordinator and a partner)

Main International Academic Activities

- Committee member of ASPB Lawrence Bogorad Award for Excellence in Plant Biology, 2019-2022
- Scientific and Educational Advisory Board (SEAB) of the MICROBES project, Paris Saclay 2021-
- Member of the Swedish Strategic Evaluation board "Food, Feed and Forest Products" 2021.
- Member of the Swedish Strategic Evaluation board "SSF Agenda 2030 Research Centers (ARC) on Future Advanced Technology for Sustainability", 2019-2020
- Member of the external counselling body of the Hungarian Academy of Sciences Biological Research Centre, Szeged, 2019-2021
- Founding member (representative of UTU) of EU funded CSA action "SUNRISE – Solar Energy for a Circular Economy" <https://sunriseaction.com/>, 2019-2020
- Joint SUNRISE and ENERGY-X research agenda - kick-off, 2019, representative of Finland
- Board member of evaluation of the I2BC (Integrative Biology of the Cell) research unit, Gif-sur-Yvette, France, 2019
- Vice president of the European Academies Science Advisory Council (EASAC), 2017-2019
- Board member of the European Academies Science Advisory Council (EASAC), 2014-2016
- Member of the evaluation board for Swedish Strategic Foundation: Biological Production Systems, 2014-2015
- Member of the steering group of the Breakthroughs in Low Carbon Emission Energy Strategies of EASAC, 2013-2015
- Member of the scientific advisory board, the Max Planck Institute of Molecular Plant Physiology, Potsdam, Germany, 2011-2017
- Member of the biosciences steering panel of the European Academies Science Advisory Council (EASAC), 2010-2014
- Member of the review panel "Enhancing Photosynthesis" BBSRC Program, UK, 2010
- Member of the scientific advisory board of the Dutch Government research programme (FOM/ALW) "Towards BioSolar Cells", 2010-2015
- Member of the evaluation panel of the Dutch FOM/ALW-programme Towards BioSolar Cells, 2010
- European Plant Science Organisation (EPSO) Board member, 2009-2014
- Member of the international selection committee of Millennium Technology Prize, 2009-2014
- Member of the preparation team in ESF Science Policy Brief "Clean solar fuels for renewable domestic energy supply" (EUROSOLARFUELS), 2008
- Member of the search committee for "Körber European Science Award" 2007-2015
- Member of the international evaluation board of "Functional Genomics in Norway (FUGE) program" of The Research Council of Norway, 2006-2007
- Member of the steering committee of the European Initiative for Clean Solar Fuels, 2006-
- Member of the international evaluation board of Helsinki University, 2005
- Member of the international evaluation board of Spanish CSIC Research Centres, 2005
- Board member, President and Past President of the International Society of Photosynthesis Research, ISPR, 2004-2010
- Vice-President of the Scandinavian Plant Physiology Society (SPPS), 2001-2008

- Expert evaluator of several professorships in Finland, Sweden, Norway, Denmark, The Netherlands, Belgium, Israel, Australia, USA
- Expert evaluator in EU programs and in various European, USA and Israel governmental funding programs

Major International congresses with invited talk/plenary lecture/session chair since 2011

- Biophysics of Photosynthesis: from molecules to the field, Rome, Italy, 2019
- Symposium Celebrating Barry Osmond, Canberra, Australia, 2019
- ESP.IUPB World Congress on *Light and Life*, Barcelona, Spain, 2019
- Nordic Algae Symposium, Oslo, Norway, 2019
- Nordic Photosynthesis Congress (NPC14), Turku, 2019
- Japanese-Finnish Symposium, Kobe, Japan, 2018
- Plant Physiology & Biochemistry, VISCEA, Wien, Austria, 2018
- 1st European conference for Photosynthesis Research, ePS-1, Uppsala, Sweden, 2018
- 5th International Workshop on Solar Energy for Sustainability, Singapore, 2018
- 50 years of Plant Science, Umeå, Sweden, 2017
- 27th SPPS Congress, Naantali, Finland, 2017
- Society of Experimental Biology SEB, Gothenburg, Sweden, 2017
- FOR2092, Bavaria, Germany, 2016
- 13th Nordic Photosynthesis Congress, Copenhagen, Denmark, 2016
- Enhancing Photosynthesis in Crop Plants, The Royal Society, London, UK, 2016
- 17th International Congress on Photosynthesis, Maastricht, Netherlands, 2016
- European Networks Conference in Algal and Plant Photosynthesis, Valletta, Malta, 2016
- Arnon Lecture, Berkeley, USA 2016
- Gordon Research Conference on Mitochondria and Chloroplasts, Mount Snow in West Dover, USA, 2016
- Inno-Indico Bioeconomy Congress, New Delhi, India, 2016
- 17th International congress on Photosynthesis, Maastricht, Netherlands, 2016
- Bioenergy Congress, Umeå, Sweden, 2016
- International School on Photosynthesis, Venice, Italy, 2016
- China-Germany bilateral photosynthesis Meeting, München, Germany, 2015
- International Symposium: Dynamics and Regulation of Photosynthesis, Kyoto, Japan, 2015
- Photosynthesis Research for Sustainability, Hania, Greece, 2015
- French Photosynthesis Congress, Paris, France, 2015
- The Plant Journal Scientific Meeting, London, UK, 2015
- 1st International Solar Fuels conference (ISF-1), Uppsala, Sweden, 2015
- 56th Annual Meeting of the Japanese Society for Plant Physiologists, Tokyo, Japan, 2015
- Finnish-Japanese Joint Seminar: Design of Superior Machinery of Light Energy Conversion in Photosynthetic organisms, Sapporo, Japan, 2014
- 16th International Congress on Photobiology, Cordoba, Argentina, 2014
- Gordon Research Conference of Photosynthesis, West Dover, USA, 2014
- 18th European Bioenergetics Conference EBEC, Lisbon, Portugal, 2014
- Royal Society Artificial Photosynthesis congress, London, UK, 2014
- SEB annual conference, Manchester, UK, 2014
- Plant Biology Europe FESPB/EPSO 2014 Congress, Dublin, Ireland, 2014
- SPPS Student Congress, Uppsala, 2014
- 25th SPPS Conference, Helsingør, Denmark, 2013
- Annual Meeting of the Botanical Society of Italy, Ferrara, Italy, 2013
- Annual meeting BioSolar Cells, Ede, Netherlands, 2013
- Photosynthesis Research for Sustainability, Baku, Azerbaijan, 2013
- ESF-EMBO Symposium “Molecular Bioenergetics of Cyanobacteria, Pultusk, Poland, 2013
- 5th Umeå Renewable Energy Meeting, Umeå, Sweden, 2013
- 10th International Congress on Plant Molecular Biology, Jeju, Korea, 2012
- International Workshop on Photosynthesis: from Science to Industry, Netherlands, 2012
- 11th Nordic Photosynthesis Congress, Naantali, Finland, 2012
- The IUBMB-FEBS Congress, Sevilla, Spain, 2012
- 14th International Symposium on Phototrophic Prokaryotes ISPS, Porto, Portugal, 2012

- Gordon Research Conference on Mitochondria and Chloroplasts, Rhode Island, USA, 2012
- European Federation of Biotechnology congress “Microbial from Molecules to Systems”, Italy, 2012
- Royal Society Theo Murphy meeting “Structure and dynamics of the thylakoid membrane”, UK, 2012
- Lorenz Center Workshop “Hacking the Biological Clock, Leiden, Netherlands, 2012
- International Workshop on Photosystem II, Chengdu, China, 2011
- Conference of the Polish Society of Experimental Plant Biology, Wroclaw, Poland, 2011
- Towards Global Artificial Photosynthesis congress, Lord Howe Island, Australia, 2011
- International Meeting “Photosynthesis Research for Sustainability”, Baku, Azerbaijan, 2011
- ESF-EMBO/Molecular Bioenergetics of Cyanobacteria, San Feliu, Spain, 2011

Organizer of International Conferences since 2010

- Board member of the European Congresses on Molecular Biology of Cyanobacteria 2011-2021.
- Shaping Photosynthesis against climate change and towards efficient water and nutrient management – Joined Japanese-Finnish seminar, Kobe, Japan, 2018 (co-chair with W. Sakamoto)
- Plant Physiology & Biochemistry, VISCEA, Wien, Austria, 2018 (organizing committee)
- 1st European conference for Photosynthesis Research, ePS-1, Uppsala, Sweden, 2018 (organizing committee)
- International Congress on Arabidopsis Research ICAR2018, Turku, Finland, 2018 (org. committee)
- Horizon 2020 SE2B International Scientific Conference – Nanoscale Dynamics of the Thylakoid Pigment-Protein Complexes, Naantali, Finland, 2018 (main organizer and host)
- First Nordic Algae Symposium, Helsinki, Finland, 2018 (co-chair with Y. Allahverdiyeva)
- Photosynthesis “Plug and Play”, synthetic biology congress, Leiden, Holland, 2016 (co-chair)
- Photosynthesis Research for Sustainability, Puschino, Russia, 2014 (organizing committee)
- 12th European Congress on Molecular Biology of Cyanobacteria, Netherlands, 2014 (member of scientific organization committee).
- EASAC Breakthrough in Renewable Energy Technologies, Stockholm, Sweden, 2013
- Initiator of the Jap-Fin bi-national Congress Series since 2004, (chair and organizer 2012 and 2016)
- EPSO-FESPB congress, Freiburg, Germany, 2012 (member of organizing committee)
- International Workshop Photosynthesis: from Science to Industry, Noordwijkerhout, Netherlands, 2012 (member of organizing committee)
- 11th European Congress on Molecular Biology of Cyanobacteria, Finland, 2011 (chair)
- SPPS Congress in Stavanger, Norway, 2011 (member of organizing committee)
- 10th Nordic Photosynthesis Congress, Tartu, Estonia, 2010 (member of organizing committee)
- The EPSO Conference, Lapland, Finland, 2010 (member of int. and local organizing committees)
- 15th International Photosynthesis Congress, Beijing, 2010 (co-chair of meetings progr. committee)

Editor, Guest Editor or Member of Editorial Board of International Journals

- Editor of The Proceedings of the National Academy of Sciences USA (PNAS) 2018-
- PNAS Guest Editor (occasionally) 2015-2017
- Editor of the Plant Journal 2013-2017
- Royal Society’s Interface Editorial Board Member 2012-2018
- Member of the Review Editorial Board of Frontiers in Plant Physiology 2010-2019
- Editorial board member of BBA Bioenergetics 2009-2019
- Assistant Editor of BMC Plant Biology 2008-2016
- Advisory Editor of Plant Physiology and Biochemistry 2008-2020
- Guest Editor of Special Issues “Photosynthesis” and “Photosystem II”: Biochimica & Biophysica Acta, Bioenergetics 2006 and 2012, respectively
- Subject-editor "Physiologia Plantarum" 1998-2009
- Editorial board member of Photosynthesis Research 1995-2020

Citation report according to Thompson Web of Science, 3 March 2022

- Citations 21,122; H-index 78
- Aro has been listed in 2017, 2018 and 2020 as a “Highly Cited Researcher” in Plant Science by Clarivate Analytics (Web of Science)
- Aro has been ranked #962 in the world and #3 in Finland among Top 1000 Scientists for 2022 in Research.com in the area of Biology and Biochemistry (Microsoft Academic)