

1 Personal data

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Date of CV: 2019-09-13

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2 Education and degrees awarded

05/2001: Dosentti (Adjunt professor), in Plant Physiological Ecology, University of Joensuu (currently University of Eastern Finland).

23/11/1991: Ph. D. in Science, Institute of Ecology and Resource Management, University of Edinburgh, Scotland, U.K.

15/12/1989: Magister Scientiae, en Producción Vegetal, Facultad de Agronomía, Universidad de Buenos Aires, Argentina. (M. Sc. in Plant Production).

15/12/1982: Ingeniero Agrónomo, orientación Fitotecnia, Facultad de Agronomía, Universidad de Buenos Aires. (Agricultural Engineer with specialization in Crop Breeding).

3 Linguistic skills

Mother tongue: Spanish
Other languages: English, fluent
Finnish, good communication skill
French, basic reading skill

4 Present positions

01/06/2006→: Yliopistonlehtori (university lecturer) in Physiological Plant Ecology at the Faculty of Biological and Environmental Sciences, University of Helsinki.

01/12/2009→: Principal investigator at the Faculty of Biological and Environmental Sciences, University of Helsinki.

5 Previous work experience

5.1 Teaching positions

1/10/2001–31/05/2006: Yliassistentti (associate professor) at the University of Jyväskylä. Environmental statistics and metrics. (Teaching statistics, plant physiology and ecology. Research in environmental plant physiology.)

23/08/1991–30/11/1991: Jefe de Trabajos Prácticos (eq. junior lecturer) at UBA¹. Plant ecophysiology.

01/06/1983–22/08/1991 Ayudante de primera, ad-honorem (teaching assistant) at UBA, on leave 20/04/1988–22/08/91. Plant ecophysiology.

24/01/1983–01/04/1983 Ayudante de primera (teaching assistant) at UBA. Plant ecophysiology.

01/06/1980–23/01/1983 Ayudante de segunda (teaching assistant) at UBA. Plant ecophysiology.

5.2 Research-only positions

01/08/2001–30/09/2001: Vanhempi tutkija (senior researcher) at Finnish Forest Research Institute, Suonenjoki Research Station.

02/01/2001–31/07/2001: Akatemiatutkija (research fellow) Academy of Finland, for work at the Faculty of Forestry, University of Joensuu.

01/10/1996–31/12/2001: Ulkopuolinen tutkija (collaborating researcher) at Finnish Forest Research Institute, Joensuu Research Station.

01/09/2000–30/10/2000: Tutkija (researcher) at the Department of Biology, University of Joensuu.

01/04/1999–30/04/1999: Tutkija (researcher) at Finnish Forest Research Institute, Suonenjoki Research Station.

01/02/1999–31/03/1999: Tutkija (researcher) at the Department of Biology, University of Joensuu.

01/10/1996–31/09/1998: Tutkija (researcher) at the Faculty of Forestry, University of Joensuu.

01/07/1995–31/12/1997: Ulkopuolinen tutkija (collaborating researcher) at Finnish Forest Research Institute, Suonenjoki Research Station.

¹UBA: University of Buenos Aires.

01/01/1992–30/04/1995: Varttunut tutkija (researcher) at Finnish Forest Research Institute, Suonenjoki Research Station.

01/12/1991–31/12/1991: Tutkija (researcher) at Finnish Forest Research Institute, Suonenjoki Research Station.

6 Research funding, leadership and supervision

6.1 Major recent research funding

As project leader.

01/09/2011–31/08/2015 Project grant, Academy of Finland, 417 698 €.

01/01/2007–31/12/2010 Project grant, Academy of Finland, 366 800 €.

6.1.1 Postdoctoral supervisor

2007–2009 Riitta Tegelberg, Department of Biosciences, University of Helsinki.

2010–2011 T. Matthew Robson, Department of Biosciences, University of Helsinki.

2011–2014 Krõõt Aasamaa, Department of Biosciences, University of Helsinki.

2014 Luis O. Morales, Department of Biosciences, University of Helsinki.

6.2 Doctoral supervisor

Graduated

1995–2002 Tania de la Rosa, Faculty of Forestry, University of Joensuu. Metsäekologia graduate school. (Delay due to maternity leave.) Thesis: *Responses of forest tree seedlings to far-red and ultraviolet-B signals*.

1997–2002 Riitta Tegelberg, Department of Biology, University of Joensuu. Ympäristövaikutusten fysiologia, molekyylibiologia ja ekoteknologia graduate school. Thesis: *Impact of elevated ultraviolet-B radiation on three northern deciduous woody plants*.

1998–2004 Marjoriitta Möttönen, Faculty of Forestry, University of Joensuu. Metsäekologia graduate school. (Delay due to maternity leave.). Thesis: *Boron supply and drought responses in Norway spruce (Picea abies)*.

1996–2005 Eeva-Maria Luomala, University of Kuopio, Metsäpuiden biologia ja bioteknologia graduate school. (Workplace: Suonenjoki Research Station, Finnish Forest Research Institute.) (Delay due to maternity leave.) Thesis: *Photosynthesis, chemical composition and anatomy of Scots pine and Norway spruce needles under elevated atmospheric CO₂ concentration and temperature* (Main supervisor: Dr. Elina Vapaavuori.)

2004–2010 Titta Kotilainen, Department of Biological and Environmental Science, University of Jyväskylä. Finnish Graduate School in Environmental Science and Technology (EnSTe). Thesis: *Solar UV radiation and plant responses:*

Assessing the methodological problems in research concerning stratospheric ozone depletion.

2007–2014 Luis Morales, Department of Biosciences, University of Helsinki. Graduate School in Forest Sciences. Thesis: *Molecular responses of plants to solar UV-B and UV-A radiation.*

2011–2014 Tendry Randriamanana, Department of Biology, University of Eastern Finland. Thesis: *Global change and sexual dimorphism in two Salicaceous species* (Main supervisor: Prof. Riitta Julkunen-Tiitto.)

In course

2009→(2020) Fang Wang, Department of Biosciences, University of Helsinki. Doctoral Programme in Plant Sciences. Subject: *Light-dependent stomatal opening and its timing through the day.* Thesis expected to be submitted by end 2019 (maternity () plus later part-time dedication during or inactive as student between 2016–2019).

2012→(2020) Sari Siipola, Department of Biosciences, University of Helsinki. Doctoral Programme in Plant Sciences. Subject: *Role of UV- and VIS radiation in natural and grower-managed regulation of phenolics in plants.* Thesis expected to be submitted by December 2020 (part-time dedication (2015–2017) and inactive as student during academic year 2018–2019).

2014→(2020) Neha Rai, Department of Biosciences, University of Helsinki. Doctoral Programme in Plant Sciences. Subject: *The genomics behind UV-induced preemptive acclimation to drought.* Thesis expected to be submitted by July 2020.

2015→(2020) Yan Yan, Department of Biosciences, University of Helsinki. Finnish Graduate School in Plant Biology. Subject: *The metabolomics and genomics of preemptive drought acclimation in contrasting accessions and cultivars.* Thesis expected to be submitted by February of 2020.

2014→ Cyntia Ayala González, Posgrado Interinstitucional en Ciencia y Tecnología (PICYT) del Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco (CIATEJ), México. Subject: *The role of exposure to UV- and VIS- radiation in the control of the metabolism switch in facultative CAM plants.* (Main supervisor was late Dr. Eva Noemí Obledo Vázquez.)

7 Other academic merits

7.1 Doctoral examination

1996, pre-examiner Kaiyung Wang, Faculty of Forestry, University of Joensuu. *‘Effects of long-term CO₂ and temperature elevation on gas exchange of Scots pine’.*

2005, pre-examiner Satu Turtola, Department of Biology, University of Joensuu. *‘The effects of drought stress and enhanced UV-B radiation on the growth and secondary chemistry of boreal conifer and willow seedlings’.*

- 2008, opponent** Eve Eensalu, University of Tartu, Estonia. *'Acclimation of stomata in tree canopies to variation in light and increased CO₂ concentration'*.
- 2011, pre-examiner** Jaana K. Haapala, Faculty of Science and Forestry, University of Eastern Finland, Joensuu. *'Mire Plants and Carbon Dioxide Dynamics Under Increased Ozone Concentration and UV-B Radiation'*.
- 2012, substitute tribunal member** Gabriel Fabón Anchelergues, Universidad de La Rioja, Spain. *'Ultraviolet radiation and aquatic bryophytes: physiological damage and protection mechanisms under laboratory and field conditions'*
- 2016, tribunal member** Ángela Contreras, Universidad Politécnica de Madrid, Spain. *'Nuevos mecanismos moleculares de tolerancia a sequía y otros tipos de estrés abiótico en especies arbóreas de interés económico'*
- 2017, tribunal member** Feng Xu, University of Alberta, Canada. *'Effects of Mineral Nutrition and Iron Supply on Growth and Physiological Responses of Selected Boreal Plant Species to Root Zone pH'*.
- 2019, tribunal member** María Ángeles del Castillo Alonso, Universidad de La Rioja, Spain. *'Ultraviolet radiation as a regulator of grapevine leaf physiology and berry and wine quality'*.

7.2 Evaluation of academic/scientific competence

- 2010** Member of 'Plant Ecology' university lecturer ad hoc selection committee. Department of Biosciences, University of Helsinki.
- 2014-2017** Member of the advisory committee of a project run by the Finnish Forest Research Institute (Punkaharju) on the use of LEDs in cell-culture multiplication of conifers, funded by EU and local government administration.
- 2017** Expert evaluation on qualification for employment for School of Agriculture & Biology, Shanghai Jiao Tong University.

7.3 Evaluation of grant and research-job applications

- 2000, 2001, 2003, 2004, 2006, 2007, 2008, 2011, 2013, 2015** Reviewer of grant applications for the Agencia Nacional de Promoción Científica y Tecnológica and/or CONICET (Argentina). (Total 12 applications reviewed.)
- 2003** Reviewer of a VIDI proposal for the Council for the Earth and Life Sciences, of the Netherlands Organization for Scientific Research.
- 2004** Reviewer of a TIE-TDA/BARD Program research proposal for BARD, the United States – Israel Binational Agricultural Research & Development Fund. (Year 2004.)
- 2010** Reviewer of a grant application for the BSRC (Biotechnology and Biological Sciences Research Council), UK.
- 2010** Reviewer of a grant application for the OTKA-EPR (Hungarian Scientific Research Fund), Hungary.

- 2013** Reviewer of a research project application for The Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO)
- 2013** Reviewer of a research grant application for Deutsche Forschungsgemeinschaft (DFG, Germany)
- 2014** Reviewer of a Large Grant application for NERC (National Environmental Research Council, U.K.)
- 2014** Reviewer of a research project application for The Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO)
- 2014** Reviewer of a research grant application for Deutsche Forschungsgemeinschaft (DFG, Germany)
- 2015** Reviewer of a research grant application for Agence Nationale de la Recherche (ANR, France)
- 2017, 2018** Reviewer of research grant applications for Swiss National Science Foundation (SNSF)

7.4 Scientific and scholarly societies

Communications officer, 2014→ The International Association for Plant UV Research, 'UV4Plants' (elective term ends 2022).

Member European Society of Photochemistry and Photobiology.

Member Society for Experimental Biology.

Member British Ecological Society.

Member Scandinavian Plant Physiology Society.

Member Sociedad Argentina de Fisiología Vegetal.

Member The Finnish Society of Forest Science.

Member Foundation for Open Access Statistics.

Member T_EX User's Group.

7.5 Scientific networking

2009–2014 Coordinator of Finnish participation in COST action FA0906 "UV-B radiation: A specific regulator of plant growth and food quality in a changing climate". Leader of a Technical Working Group (TG-UV technology) within the same action. Member of Management Committee.

2009–2010 Coordinator of the Working Group 3 of the COST action FA0906 (details above).

2010–2014 Coordinator of the Technical Group 1 "UV-B technology" of the COST action FA0906 (details above).

2016→ Scientific coordinator of RCAFi, network of Argentinean researchers in Finland (officially recognized by the Argentinean government in 2019).

7.6 International expert reports

2001, 2006, 2010, 2014, 2018 Invited reviewer of the *Environmental effects of ozone depletion. 2002, 2006, 2010, 2014 and 2018 assessments* of the UNEP (United Nations Environment Programme).

7.7 Editorial activities

2015→ *UV4Plants Bulletin*, Editor-in-Chief.

2013–2014 *Plant Cell & Environment*, Guest Editor (Special Issue on UV research).

February 2012–September 2015 *Spanish Journal of Agricultural Research*, Section Editor.

November 2005–May 2006 *Jyväskylä Studies in Biological and Environmental Science*. (Editorial board member, Responsible for environmental science.)

2004, 2005 *Tree Physiology*, Editorial review board member.

7.8 Referee for scientific journals

Acta Oecologica, Annales Botanici Fennici, Annals of Botany, Annals of Forest Science, Applied Vegetation Science, Botanical Bulletin of Academia Sinica, British Ecological Society Symposium Series, Canadian Journal of Forest Research, Canadian Journal of Plant Science, Crop Science, Ecography, Ecología Austral, Environmental and Experimental Botany, Environmental Pollution, Evolutionary Ecology, Field Crops Research, Forest Ecology and Management, Functional Ecology, Functional Plant Biology, Global Change Biology, Journal of Ecology, Journal of Experimental Botany, Journal of Photochemistry and Photobiology B: Biology, Journal of Tropical Forest Science, Journal of Vegetation Science, New Phytologist, Nordic Journal of Botany, Oecologia, Photochemical and Photobiological Sciences, Photochemistry and Photobiology, Physiologia Plantarum, Planta, Plant Biology, Plant Biosystems, Plant Cell and Environment, Plant Ecology and Diversity, Plant Physiology, Plant Physiology and Biochemistry, Plant Signaling and Behavior, Plant and Soil, Scientia Horticulturae, Silva Fennica, Soil Biology and Biochemistry, Spanish Journal of Agricultural Research, Tree Physiology, Trees — Structure & Function, and UV4Plants Bulletin.

7.9 Reviewer of book proposals

2010 Garland Science (Taylor & Francis Group), U.K., 'Plant Ecology and Conservation' textbook.

2012 Springer, U.S., 'Photobiology: The Science of Life and Light, Third Edition' Lars Olof Björn (ed).

2013 Garland Science (Taylor & Francis Group), U.K., 'Ecological Plant Biochemistry' textbook.

2014 Wiley, U.K., 'Mapping UV-B Research from Past to Recent Advancements: the changing scenario in UV-B research'.

7.10 Conference organization

2013 Finnish Plant Science Days, Helsinki. Member of organizing committee.

2013–2014 16th International Congress on Photobiology, Córdoba, Argentina. Member of scientific committee.

2017–2018 OECD-CRP sponsored conference: "Making Science Useful to Agriculture", Adelaide, Australia, 26–29 November 2018.

7.11 Recent invited and keynote lectures

2014 *Changing views in plant UV-research: From damage to protection to source of information.* OMI 10th Anniversary Seminar, Finnish Meteorological Institute, Helsinki, August 2014.

2014 *The role of optical feedback in CRY and UVR8 signalling in plants.* 16th International Congress on Photobiology, Córdoba, Argentina, September 2014. (Talk cancelled due to illness).

2014 *LEDs: visible and invisible features important in plant research.* Phytotron Research Conference, Munich, Germany, October 2014.

2015 *Role of optical feedback on the perception of UVB radiation.* European Society for Photobiology Congress, Aveiro, Portugal, August–September 2015.

2016 *Ultimate vs. proximate questions: Can plants use UVB to predict the future?.* UV4Plants conference, Pécs, Hungary, 30–31 May 2016.

2018 *The 'R for photobiology' packages.* Seminar on "UV research in Finland", Helsinki, 22 March 2018.

2018 *The importance of context in plant biology.* OECD-CRP sponsored conference: "Making Science Useful to Agriculture", Adelaide, Australia, 26–29 November 2018, <https://msua.aweb.net.au/>