

## **KRISTIAN DONNER: CURRICULUM VITAE**

**Date and place of birth:** 22 February 1952, Helsinki, Finland

### **Current position**

Professor of Zoology (Animal Physiology) since 1998  
Head of the Laboratory of Neurophysiology, Department of Biosciences (previously at the Department of Zoology and the Department of Biological and Environmental Sciences), University of Helsinki since 1990

### **Education and training**

MSc 1976 (University of Helsinki)  
Phil.Lic. 1979 (University of Helsinki)  
Major subject: animal physiology, other subjects: mathematics, physics, chemistry, biochemistry  
PhD 1985 (University of Helsinki).  
Title of dissertation: The Ganglion Cells of the Frog Retina: Receptive Field Mechanisms and Adaptational Changes in These

### **Previous professional appointments**

Head of the Division of Physiology at the Department of Biological and Environmental Sciences, University of Helsinki 2000-2009  
Associate Professor of Zoology at the University of Helsinki 1996-1998  
Senior Researcher at the Academy of Finland 01.08.1996-31.12.1999  
Docent in Zoology at the University of Helsinki 1987-1996  
Assistant at the Department of Ecology and Systematics, University of Helsinki 1991-95  
Academy Researcher (Academy of Finland) 1989-91  
Assistant at the Department of Zoology, Univ. Helsinki, various periods 1979-1987 (total 1.5 years)  
Research assistant at the University of Helsinki and Helsinki University of Technology, various periods 1980-1985 (total 2.8 years)

### **Supervision of doctoral theses**

**Completed** (17): Ari Koskelainen, DScTech (Helsinki University of Technology) 1995; Kaj Djupsund, MD (University of Oulu) 1995; Ann-Christine Aho, PhD (University of Helsinki) 1997; Nanna Fyhrquist, PhD (University of Helsinki) 1999; Hannele Kettunen, PhD (University of Helsinki) 2001; Petri Ala-Laurila, DScTech (Helsinki University of Technology) 2003; Johan Pahlberg, PhD (University of Helsinki) 2007; Marja Liinasuo, PhD (University of Helsinki) 2008; Soile Nymark, DScTech (Helsinki University of Technology) 2009; Mirka Jokela-Määttä, PhD (University of Helsinki) 2009; Outi Villet, PhD (University of Helsinki) 2009; Hanna Heikkinen, DScTech (Aalto University) 2010; Markku Kilpeläinen, PhD (University of Helsinki) 2012; Pia Saarinen, PhD (University of Helsinki) 2012, Henry Pihlström, PhD (University of Helsinki) 2012, Tuomas Pernu, PhD (University of Helsinki) 2013, Tiina Etelälahti, PhD (University of Helsinki) 2017.  
(Sole supervisor of Fyhrquist, Pahlberg, Jokela-Määttä and Pihlström, shared supervision for the others).

**In progress:** Martta Viljanen (for PhD, est. 2018), Sanna Koskela (for PhD, est. 2018).

### **Other academic and professional activities**

**Responsible leader** of the multidisciplinary research consortium "Information Processing in the Visual System: Mechanisms and Constraints" (Academy of Finland and University of Helsinki) 1991-95  
**Principal investigator** in research projects funded by the Academy of Finland 1996-2012

**Finnish coordinator** of joint projects of the Academy of Finland and the Russian Academy of Sciences: "Noise in Photoreceptors" 1992-1997; "Molecular mechanisms of adaptation to different light environments in the invertebrate eye", continued – 2017.

**Chairman of the Organizing Committee** of the 20th European Conference on Visual Perception, Helsinki-Espoo, Finland 1997.

**Organizer** of several Scandinavian, Finnish-Russian and international vision symposia 1984-90 and 2005-12 (e.g. "Visionariums" at Tvärminne Zoological station; symposia at the 2008 and 2012 Annual Meetings of the Scandinavian Physiological Society); the symposium "Receptor and network adaptation revisited" at the 9th International Congress of Eye Research (ICER), Helsinki, Finland 1990 (together with Robert S. Shapley, New York University); The Ragnar Granit Centenary Symposium, Helsinki 2000.

**Board member** of The Scandinavian Physiological Society (1996-2004), The Nordenskiöld Society (1995-2012), The Otto A. Malm Foundation 1994-- (secretary 1995--), The Ella and Georg Ehrnrooth Foundation 2002-- (chairman 2008--), The Oskar Öflund Foundation 2005-- (chairman 2014--).

**Member of the Editorial Board** of the State Calendar of Finland 2007--

**Member of the Finnish Zoological and Botanical Publishing Board** 2008--

**Member of the steering committee** of Dept. Zoology (1992-94), Dept. Ecology and Systematics (1995-98), Dept. Biosciences (2001-03), Dept. Biological and Environmental Sciences (2004-06), The Viikki Center for Experimental Animals (2005-07), all at the University of Helsinki.

**Chairman of the steering committee of the Master's Degree Programme in Neuroscience**, University of Helsinki, 2007-2016.

**Head of the Laboratory for Experimental Animals at Biocenter 3 (Viikki)**, 2002--

**Chairman of the Ethical Committee for Research on Animals**, University of Helsinki 2011--.

**Deputy member of the Senate** of the University of Helsinki (1995-98).

**Member of the Collegium** of the University of Helsinki (2001-03).

**Member of the Council of the Faculty of Science** of the University of Helsinki (1998-2003).

**Member of the Council of the Faculty of Biosciences (since 1.1.2010 the Faculty of Biological and Environmental Sciences)** of the University of Helsinki 2004--.

## Scientific activities abroad

**Research work.** Institute for Problems of Information Transmission, USSR Academy of Sciences, Moscow, Russia 1987; Department of Ophthalmology and Physiology, University of California School of Medicine, San Francisco, USA 1988; Sechenov Institute for Evolutionary Physiology and Biochemistry, USSR (Russian) Academy of Sciences, Leningrad (St. Petersburg), Russia, several periods 1988-92; Department of Biophysics and Physiology, Boston University School of Medicine, USA 2005, 2006.

**Invited lectures in countries other than Finland:** Nordita Vision Conference, Copenhagen, Denmark (1986); 8<sup>th</sup> International Congress of Eye Research, San Francisco, USA (1988); Taniguchi Symposium, Kataka, Japan (1990); Vision Symposium, Northwestern University, Evanston-Chicago, USA (1995); Department of Ophthalmology, University of Florida, Gainesville, USA (1995); Laboratoire de Psychophysique Sensorielle, Université Louis Pasteur, Strasbourg, France (1996); Zoological Institute, University of Zürich, Switzerland (1999); Department of Ophthalmology, University of Gothenburg, Sweden (2000); Conference on Visual Localization, University of Sussex, Brighton, England (2002); 29<sup>th</sup> European Conference on Visual Perception, St. Petersburg, Russia (2006); 2<sup>nd</sup> International Conference on Invertebrate Vision, Bäckaskog Castle, Sweden (2008); University of Washington, Seattle, USA (2008), Australian National University, Canberra (2008), Russian Physiology Congress, Kaluga, Russia (2010), "Close to Nature's Secrets" vision symposium San Francisco, USA (2013), "Vision in Dim Light" symposium, Bäckaskog Castle, Sweden (2013), Nordic Congress of Ophthalmology, Stockholm, Sweden (2014), XII International Congress of Neuroethology, Montevideo, Uruguay (2016).

## Academic expert assignments

**Assessing applications for promotion to professor** (4): Eric Warrant (University of Lund) 2002; Roland Kröger (University of Lund) 2005; Seppo Saarela (University of Oulu) 2010; Joseph Corbo (University of Washington in St. Louis) 2016.

**Professorship appointment committees** (13): Cell and Molecular Biology 2005 (chairman), Population Biology (evolutionary genetics) 2006, Biophysics (Electrophysiology) 2008 (chairman), Cell and Molecular Biology 2008, Ecology and Evolutionary Biology (Protection Biology) 2010, General Microbiology 2011, Pharmacological Toxicology and Drug Safety 2012, Mathematical Ecology 2013, Ecology and Evolutionary Biology 2013, Neuropsychology 2014, Cell and Molecular Biology 2014 (Swedish-language tenure track), Ecology 2017 (all these at the University of Helsinki), Systems Neuroscience 2013 (Aalto University).

**External expert at the appointment** of Associate Professor in Zoological Organism Biology at Stockholm University 2016.

**Tenure committee member** for Associate Professors Arild Husby (Evolutionary Genomics) (2016); Susanna Fagerholm (Cell and Molecular Biology) (2016) (both at the University of Helsinki).

**External examiner (Opponent) at doctoral dissertations** (3): Juvi Mustonen, PhD (University of Aston, Birmingham, UK) 1995; Antti Iivanainen, MD (University of Helsinki) 1996, Jan-Olof Seyer, PhD (Lund University, Sweden) 1998.

**Pre-examiner of doctoral theses** (9): Tomi Taira 1995, Pekka Paalasmaa 1997, Leila Virkki 1997, Sirpa Nummela 1999, Karri Lämsä 2000, Jukka Häkkinen 2006 (all these at the University of Helsinki), Mikko Vähäsöyrinki 2004, Iikka Salmela 2013 (the two last at the University of Oulu), Rachel Warrington (University of Western Australia) 2015.

**External examiner of licentiate theses** (2): Mika Kauranen 2001, Essi Keskinen 2003 (Univ, Oulu).

**Reviewer of applications for docentship** (12): Irmeli Palmberg, PhD (Åbo Akademi Univ. 1992), Juha Voipio, DScTechn (Univ. Helsinki 1993); Magnus Lindström, PhD (Univ. Helsinki 1995), Raimo Uusitalo, MD (Univ. Oulu 1999), Tönis Timmusk, MD (Univ. Helsinki 2000), Erkki Heinonen, MD (Univ. Helsinki 2005), Tomi Streng, PhD (Univ. Turku 2006), Simo Vanni, MD (Univ. Helsinki 2006), Liisa Peltonen, PhD (Univ. Oulu 2006), Henri Huttunen, PhD (Univ. Helsinki 2008), Juha Silvanto, PhD (Univ. Helsinki 2011), Vootele Vöikar (Univ. Helsinki 2012).

**Member of doctoral thesis committees** (8): Sampsa Sipilä (MD 06), Topi Tanskanen (PhD 08), Ron Liebkind (MD 08), Tero Viitanen (PhD 10), Lauri Nurminen (PhD 13), Anniina Mattila (PhD 13), Iikka Salmela (PhD 13), Jonas Englund (est. PhD 17) (Salmela at Univ. Oulu, all the others at Univ. Helsinki).

**Member of the Editorial Board of the journal *Sensory Systems*** 2015-

**Evaluation of zoological research in Estonia** (member of 3-person expert team appointed by the Higher Education Assessment Center of Estonia) 2000.

**External referee for journals** *Nature*; *Science*; *Proceedings of the National Academy of Sciences of the USA*; *Vision Research*; *Visual Neuroscience*; *Journal of Vision*; *The Journal of Neuroscience*; *The Journal of Physiology (London)*; *The Journal of Experimental Biology*; *Acta Physiologica*; *Brain, Behavior and Evolution*; *Archives of Ophthalmology*; *Journal of the Optical Society of America*; *Animal Behaviour*; *BioMed Central*; *Journal of Comparative Physiology A*, *Journal of the Marine Biological Association of the UK*; *Aquatic Toxicology*; *Aquaculture*; *Journal of Visualized Experiments*; *Current Biology*; *Proceedings of the Royal Society B*; *Scientific Reports (npg)*; *Frontiers in Ecology and Evolution*; *Philosophical Transactions of the Royal Society B: Biological Sciences*.

**Editor** of special issue of the journal *Perception* 1999 (28:12): "Progress and Paradigm Shifts in Vision Research"

**External referee of grant applications** for the Academy of Finland, University of Helsinki, National Science Foundation (USA), Biotechnology and Biological Sciences Research Council BBSRC (UK), The Wellcome Trust (UK), Science Research Council of Sweden, Estonian Science Foundation, INTAS (EU), NATO. Member of the BioPanel of the Academy of Finland 1998, 1999, 2002, 2003. Member of the Organismic Biology Panel of the Science Research Council of Sweden 2001. Member of the expert panel in bio-and geosciences of Suomen Kulttuurirahasto (The Finnish Cultural Foundation) 1997, 2004, 2010.

**ERC Panel Member** for Neurosciences and Neural Disorders in the Consolidator Grant 2017 evaluation.