

CURRICULUM VITAE - Olav Sand

Date and place of birth

August 28, 1946, Vefsn, Norway

Education

1973: *Dr. philos.* degree at UiO. Thesis: "Studies in fish hearing".

1970: *Cand.real.* degree at The University of Oslo (UiO). Main subjects: biology and chemistry.

Academic positions

2014-present: *Professor emeritus*, Dept. of Biosciences, UiO

2013: *Professor*, Dept. of Biosciences, UiO

2004-2012: *Professor*, Dept. of Molecular Biosciences, UiO

1990-2003: *Professor*, Dept. of Biology, UiO

1989-1990: *Associate Professor*, Division of General Physiology, Dept. of Biology, UiO.

1982-1988: *Associate Professor*, The Center for School Science, Dept. of Biology, UiO.

1978-1981: *Associate Professor*, The Norwegian College of Veterinary Medicine.

1976-1978: *Research Fellow*, UiO

1971-1975: *Research Fellow*, Norwegian Research Council

Spring 1971: *Research assistant* at UiO.

Research experience abroad

- June 1971-June 1972: Research on auditory mechanisms in fish at *Marine Laboratory, Aberdeen, Scotland*; in cooperation with Dr. A.D. Hawkins and Dr. C.J. Chapman.
- January 1974-February 1975: Research on cellular electrophysiology at *Department of Physiology, School of Medicine, University of California, Los Angeles, USA*; in cooperation with Dr. S. Hagiwara and Dr. S. Ozawa. Our work was concerned with the transducer mechanism in hair cells and the membrane properties of egg cells.
- June-July 1976: Research on directional hearing in fish at the field station of Marine Laboratory at *Loch Torridon, Scotland*; in cooperation with Dr. A.D. Hawkins.
- November 1976-May 1977: Research on the electrophysiological properties of pituitary cells at *Jichi Medical School, Japan*, in cooperation with Dr. S. Ozawa.
- September 1977: Research on the mechanical properties of the otolith system in teleosts at *University of Odense, Denmark*, in cooperation with Dr. A. Michelsen.
- February-April 1978: Research on ion pumps in the lateral line neuromasts at *University of Sussex, Brighton, England*; in cooperation with Dr. I. Russell.
- October-December 1985: Behavioural studies of lateral line function at *Scripps Institute of Oceanography, La Jolla, USA*; in cooperation with Dr. A.J. Kalmijn.
- January-May 1986: Research on the electrical membrane properties of developing spinal neurons at *Jerry Lewis Research Center, University of California, Los Angeles, USA*; in cooperation with Dr. Y. Kidokoro.
- February-March 1988: Studies of the hearing in cephalopods at *Stazione Zoologica, Naples, Italy*; in cooperation with Dr. A. Packard.
- February-April 1989: Research on the secretion mechanism of pituitary cells at *Electrotechnical Laboratory, Tsukuba-shi, Japan*; in cooperation with Dr. T. Iijima and Dr. G. Matsumoto.
- October 1993 - March 1994: Research on the distribution of ion channels in the apical- and basolateral membrane of thyroid cells at *Department of Physiology, and Vision, Touch and Hearing Research Centre, University of Queensland, Brisbane, Australia*; in cooperation with Drs. J.R. Bourke and G.J. Huxham.

- March 1996: Research on the secretion mechanism of adrenal chromaffin cells at *Electrotechnical Laboratory, Tsukuba-shi, Japan*; in cooperation with Dr. T. Iijima and Dr. Y. Kidokoro.
- November 1999-April 2000: Research on the role of L-type Ca²⁺ channels on evoked release of ACh in embryonic neuromuscular junctions at *Jerry Lewis Research centre, UCLA School of Medicine, LA, USA*; in cooperation with Dr. A.D. Grinnell.
- Autumn 2003: Research on the behavioural effects of intense infrasound on cyprinids in the River Meuse, Belgium, in cooperation with Dr. Damien Sonny, *University of Liege, Laboratory of Fish Demography and Hydroecology, 4500 Tihange, Belgium*.
- January-February 2008: Research on the membrane-permeabilizing effects of the bacterial peptide PlnA at *Graduate School of Life Sciences, Tohoku University, Sendai, Japan*; in cooperation with Dr. T. Iijima and Dr. S. Ohara.
- September 2008: Research on fish behaviour and acoustic abundance assessments in *Lough Hyne, Ireland*, in collaboration with Dr. Tony Hawkins and *Cork University*.
- Winter 2008-2009: Research on synaptic transmission in the developing neuro-muscular junction at *UCLA, USA*, in collaboration with Dr. A. D. Grinnell and Dr. Y. Kidokoro.

Scientific cooperation in Norway

- *Hormone Laboratory, Aker Hospital, Oslo*
- *Institute of Medical Biochemistry, UiO*
- *Norwegian Radium Hospital, Oslo*
- *Research Institute of the Norwegian Defence Department, Kjeller*
- *Institute of Physiology, UiO*
- *National Hospital of Norway, Oslo*
- *Ullevål Hospital, Oslo*
- *Norwegian Agricultural University, Ås*

Publications

More than 100 scientific publications in international journals. Co-author of textbooks in human physiology, fish physiology, and veterinary physiology. For a complete list, see:

<http://www.cristin.no/as/WebObjects/cristin.woa/8/wa/fres?action=sok&pnr=21848&la=en&sort=ar>

Teaching experience

Teaching of general and comparative physiology at all levels from undergraduate to Ph.D. for 40 years. Supervisor of a large number of graduate students and Ph.D. students.

Rewards and honorary memberships

1988: "Nansen Reward" from The Norwegian Academy of Science.

1992: Elected member of The Norwegian Academy of Science.

1998: Irisawa Memorial Reward from the Physiological Society of Japan.