

# Curriculum vitae

Arne Valberg; born on December 31st, 1938

## Education and Positions

- Studies at the Univ. of Oslo and Univ. of Basle, CH 1961 - 1967
- Graduated as Cand real in Physics, Univ. of Oslo 1967
- Research associate, Univ. of Basle, CH 1968 - 1971
- Dr. philos, Univ of Oslo 1976
- Ranked 2. for a Professorship in Biophysics, Univ. of Trondheim 1976
- Research Scientist, Norwegian Research Council for Science and the Humanities, Univ. of Oslo, University of California, San Diego,
- Max Planck Inst., Göttingen and Univ. of Freiburg, BRD 1972 - 1990
- Associate Professor, Univ. of Oslo 1990
- Professor of Biophysics and Vision Science, Univ. of Oslo 1993
- Professor of Biophysics and Vision Science, NTNU 1991 to present

## Major Grants and Research Projects

- Norwegian Research Council for Science and the Humanities,
- European Science Foundation,
- Max Planck Gesellschaft,
- Deutsche Forschungsgemeinschaft,
- Schweizerische Nationalfonds zur Förderung der wissenschaftliche Forschung,
- Roche Science Foundadtion,
- IBM Norway,
- NSB Norway,
- NATO Grants for Collaborative Research,
- Thonning Owesen's Foundation
- Blindeforbundet (Norw. Association for the Blind)
- Thorstein Erbos Fund
- European Union

## From 1968 to 1994

Joint research projects in vision (psychophysics and electrophysiology) with groups from:

Univ. of Basle, Switzerland (1974);

Univ of Freiburg, BRD (1974-1980; Dr B. Breitmeyer and prof. L. Spillmann);

Max Planck Institute for biophysical Chemistry, Göttingen, BRD (1981-1990, prof. O. Creutzfeldt and dr. Barry Lee);

Univ. of California, San Diego, USA (1973);

Univ. of Chicago, USA.

## From 1994 to present

Joint research on Low vision with Tambartun Centre for Low Vision Rehabilitation (with P. Fosse) and Univ. of Oslo (J.H. Wold and T. Seim), Norway.

## From 1998 to 2001

Interdisciplinary Program at NTNU, "Information coding and functional organisation of populations of nerve cells" Together with professors E. Moser and H. Mustaparta.

## From 2000 to 2004

Strategic University Program from Norwegian Research Council, "Neural mechanisms of sensory functions and memory" (same collaborators as above). Includes one dr. student (I. Rudvin) and one master student (G. E. Nygård).

## **2002 - 2006**

Joint project with Brain Research Unit, University of Freiburg on "Lateral interactions in vision". Includes one German dr. student.

## **2002 - 2006**

EU Concerted Action together with research groups from universities of Tübingen, Manchester and Utrecht. Project title: "Photoreceptor dynamics in age-related macular degeneration".

## **Memberships International and National Societies and Committees**

- Elected Fellow of Optical Society of America; USA.
- Member of the Board and Executive Committee of the International Society for Low Vision Research and Rehabilitation.
- Norwegian Representative in Division 1: Vision and Colour of Commission Internationale d'Eclairage (CIE).
  - Member of CIE TC1-36 (Physiological system for color measurements based on cone) and CIE TC1-59 (Standard 10 degree observer).
- Association for Research in Vision and Ophthalmology, USA.
- International Society for Clinical Electrophysiology of Vision.
- European Society of Neuroscience
- Member of the Board for Master studies in Neuroscience at NTNU, Trondheim
- Lysforsk (Light Research) NTNU/SINTEF, Trondheim

## **Reviewer for the following journals and Foundations**

- Journal of the Optical Society of America
- Experimental Brain Research
- Vision Research
- Visual Neuroscience
- Perception
- Perception and Psychophysics
- Die Farbe
- Color Research and Application
- Visual Impairment Research
  
- Norwegian Research Council
- The Wellcome Trust (England)
- National Science Foundation (USA)
- The Miescher Foundation (Switzerland)

## **Organiser of Meetings and Conferences**

Arranged 5 international interdisciplinary conferences and meetings on vision; from 20 to 50 participants. Scientific Director of a NATO Advanced Research Workshop on "Advances in understanding Visual Processes" at Røros (Norway), August 1990, 70 participants from 11 countries.

1991-2002: Yearly three day courses in Low Vision for ophthalmologists, Low vision teachers, and optometrists at Tambartun Natl. Resource Centre, Melhus.

## **Editor/Author**

- From Pigment to Perception. Advances in Understanding Visual Processes. Plenum, 1991. (NATO ASI Series).
- Die Farbe (editorial board)
- Editor of Proceedings from 3 Scientific Conferences held in Norway
- Lys Syn Farge, 280 pages (Tapir, 1998)
- Light Vision Color, 460 pages (Wiley, & Sons, 2005)

## **Publications**

- About 100 full scientific papers
- About 100 abstracts/short communications/scientific reports/conference contributions
- 3 books
- Several popular science articles

## **Lecturer and Arrangement of University Courses**

- From 1973 to today lecturing at the University of Oslo and Norwegian University of Science and Technology on General Physics; Biophysics of Vision; Photometry, Colour Metrics;
- 1989-1993: Lecturer in general physics & Vision Science at Univ. of Oslo
- 1993-2008: Lecturing Light, Colour, and Vision at NTNU. 7.5 credits.
- 1995-2001: Lecturing on Vision and Perception at the Institute of Psychology, NTNU
- 1995-2008: Lecturer in EU-courses on Light and Illumination, on Colour perception Perception, etc. Arranged by Dept. of Architecture, NTNU.
- 1991-2001: Arrangement of yearly advanced University courses on Vision Problems for vision therapists, ophthalmologists, and optometrists at Tambartun Resource Center. Jointly with NTNU and Tambartun. The course "Illumination for the visually handicapped" gives three credit points at NTNU.
- 1998-2007: Initiator, coordinator and lecturer of an interdisciplinary curriculum in Neuroscience at NTNU (bachelor and master levels).
- 2001-2004: Teaching Laboratory Course in Physics, NTNU.
- 2004-2007: Invited Lecturer in the course KONS2030 (Art Conservation) at the University of Oslo.
- 2005: Invited lecturer at a course on Low Vision for Low Vision Therapists, Apeldoorn, The Netherlands.
- 2006-2008: Interdisciplinary course Experts in Teams.

## **Other professional activity**

- Member of appointment committees for University professorships.
- Tutor of about 20 students in Physics and Biophysics for the Norwegian degree of Cand. Real and Cand. Scient (master degree), and 4 students for the degree of dr. scient or equivalent.
- Invited speaker to several international conferences.
- Research Collaboration with Tambartun Centre for Low Vision Rehabilitation (Melhus) and Brain Research Unit, Univ. of Freiburg (D).
- European Union project Photage on Age-related macular degeneration, together with groups from University of Manchester, Utrecht, and Tübingen (2001-2006).

Supervisor: About 20 master students in biophysics and 4 dr. students.