

**Prof. Dr. Robert Kretz**

## **CURRICULUM VITAE**

Date of birth: 15.08.1948, CH-6280 Hochdorf  
Nationality: Swiss  
Marital status: married, 2 children  
Home address: rte da la Singine 7  
**CH-1700 Fribourg** Switzerland  
Tel (026) 481 17 51  
E-mail: robert.kretz@unifr.ch

Former Work address: University of Fribourg  
Department of Medicine  
Division of Anatomy  
rte A.-Gockel 1  
**CH-1700 Fribourg** Switzerland

## **RESEARCH INTEREST**

My research interest centers on the neurobiology of vision. Specifically, I am interested in the structural and physiological analysis of the retino-geniculo-striate pathway, the dorsal lateral geniculate nucleus and the primary visual cortex and its connections, the topographic organization of the ON and OFF subsystems, the ocularity, color vision, and the interhemispheric connections in the mature and developing brain of tree shrews (*Tupaia belangeri*).

## **EDUCATION**

1963-1968 Teacher Training College  
1969-1974 Studies in Biology at the University of Zürich; M.S. thesis (Diploma in Zoology): "A Behavioral Analysis of the Spectral Sensitivity in the Ant *Cataglyphis bicolor* (Formicidae, Hymenoptera)." Advisor: Prof. Dr. Rüdiger Wehner, Institute of Zoology, Dept. of Neurobiology.

- 1974-1977 Ph.D. thesis: "A Behavioral Analysis of Color Vision in the Ant *Cataglyphis bicolor* (Formicidae, Hymenoptera)." Advisor: Prof. Dr. Rüdiger Wehner, Institute of Zoology, Dept. of Neurobiology.
- 1987 University of Fribourg, Faculty of Mathematics and Natural Sciences. Habilitation thesis: "Neural Mechanisms Underlying Short-term Synaptic Plasticity: Ca<sup>2+</sup> Current Modulation and Intracellular Ca<sup>2+</sup> Accumulation." Advisor: Prof. Dr. Günter Rager, Institute of Anatomy.

### **PROFESSIONAL EXPERIENCE**

- 1968-1969 Elementary School Teacher
- 1974-1978 Research Assistant and Teaching Assignment in the Neurobiology Course at the Institute of Zoology, University of Zürich.
- 1978-1979 Postdoctoral Fellow at the Jules Stein Eye Institute, UCLA, The Center for the Health Sciences, Los Angeles, CA 90024. Advisor: Prof. Dr. William K. Stell. Intracellular Recording Technique from Horizontal Cells Combined with Iontophoretic Tracer Injection (Lucifer Yellow and Horseradish Peroxidase) in the Goldfish Retina.
- 1979-1981 Postdoctoral Fellow at Columbia University, College of Physicians and Surgeons, Division of Neurobiology and Behavior, 630 West, 168th Street, New York, NY 10032. Advisor: Prof. Dr. Eric Kandel. Analysis of Mechanisms Underlying Short-term Synaptic Plasticity at an Identified Synapse in the Abdominal Ganglion of *Aplysia californica* by means of the Voltage-clamp Technique Combined with Pharmacological Blocking Agents.
- 1981 Lecture at the Cold Spring Harbor Course "Synapse and Sensory Transduction": Posttetanic Potentiation and Presynaptic Inhibition in the *Aplysia* Abdominal Ganglion.
- 1981-1987 Senior Assistant at the Institute of Anatomy, University of Fribourg. Teaching Assignment in the Gross Anatomy Course and in the Human Central Nervous System Course.
- 1982-2013 Teaching Assignment: Anatomy of the Peripheral Nervous System in Man for Medical Students.
- 1984-2014 Teaching Assignment: Elementary and Advanced Neurobiology Courses for General and Clinical Psychologists, and Students with Neurobiology as a Second or Third Branch.

- 1987-1988 Teaching Assignment: Neurobiology Course at the University of Zürich, Institute of Zoology, Dept. of Neurobiology.
- 1987-2013 Associate Professor in Human Anatomy, especially Neurobiology. Teaching Assignment in the Gross Anatomy Course and in the Human Central Nervous System Course.
- 1988-2013 Teaching Assignment: Angiology and Neurology of the Upper and Lower Limbs for Medical Students.
- 1997 Visiting Professor (6 months sabbatical) at Duke University, Dept. of Neurobiology, 427C Bryan Res. Bldg., Box 3209 Medical Center, Durham, NC 27710. Collaborator: Prof. Dr. David Fitzpatrick. Optical Imaging of Intrinsic Signals Combined with Electrophysiology Reveal an Ipsilateral Visual Field Representation in *Tupaia* Striate Cortex.
- 2005-2013 Teaching Assignment: The Structure and Function of the Visual System and the Lateralization of Brain Function for Medical and Biomedical Students.
- 2008-2011 President of the Department of Medicine, University of Fribourg
- 2010-2012 Head of the Gross Anatomy Chair at the University of Fribourg (ad interim)
- Since 2013 Prof. emeritus

### **HONORS AND AWARDS**

- 1978-1980 Swiss National Science Foundation: Postdoctoral Fellowship.
- 1980-1981 Janggen-Pöhn-Stiftung, St. Gallen: Postdoctoral Fellowship.
- 1997 University of Fribourg: 6 months Sabbatical

### **PROFESSIONAL SOCIETIES**

Swiss Society of Anatomy, Histology, and Embryology  
Swiss Society of Physiology  
Union of Swiss Societies for Experimental Biology  
Swiss Society for Neuroscience  
German Neuroscience Society  
International Brain Research Organization