

CURRICULUM VITAE

Jan Pavel KUCERA

Date of birth: December 24, 1968
Place of birth: Lausanne, Switzerland
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Education, academic degrees:

1984-1986 High School, Gymnase cantonal du Bugnon, Lausanne, Switzerland
July 1986 High school graduation diploma in sciences (Maturité fédérale de type C)
1986-1992 University of Lausanne, Switzerland, Medical School
December 1992 M.D. Degree (Diplôme fédéral de médecin)
1994-1998 University of Bern, Switzerland, Medical Faculty
October 1998 Doctoral Thesis
January 2008 Habilitation at the Medical Faculty of the University of Bern
in the discipline Physiology
December 2010 Nomination to Associate Professor, Medical Faculty of the University of Bern

Professional curriculum and research experience:

1993-1994 *Resident in Internal Medicine*
1994-2000 *Research assistant*
Dept. of Physiology, University of Bern, Switzerland (Proff. S. Rohr and A. G. Kléber)
Experimental studies of cardiac conduction mechanisms at the microscopic level.
Investigation of beat rate variability in spontaneously active cardiac cell cultures.
Methods: optical mapping and electrical recording of extracellular potential in patterned cultures of neonatal rat ventricular myocytes; spatiotemporal analysis of recorded data.
2000-2002 *Research scholarship*
Cardiac Bioelectricity Research and Training Center, Dept. of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, USA (Prof. Y. Rudy)
Computational studies of slow conduction in cardiac tissue with structural heterogeneities.
Methods: mathematical modeling, simulations, numerical methods.
2002-2008 *Researcher and principal investigator (Oberassistent)*
Dept. of Physiology, University of Bern, Switzerland
2008-2010 *Lecturer (Privatdozent) and principal investigator*
Dept. of Physiology, University of Bern, Switzerland
Since 2010 *Associate Professor*
Dept. of Physiology, University of Bern, Switzerland
Continuing research into the mechanisms of action potential generation and propagation in cardiac tissue using the above mentioned methods.

Present teaching activity:

Faculty of Medicine, University of Bern, Switzerland

Management (Blockleitung) of the education block “Kidney, hydroelectrolytic balance and acid-base regulation” (2nd year medical/dental students).

Lecturing:

- renal and gastrointestinal physiology (medical, dental, veterinary, pharmacy, biomedical engineering and biomedical science students)
- computer modeling of cardiac electrical function (biomedical science students)

Organization of physiology laboratory classes for preclinical medical and dental students (recruitment of auxiliary staff). Teaching in these classes.

Tutoring in the problem based learning curriculum for medical students.

Reviewer and expert activity:

Journals: Am J Physiol, Ann Biomed Eng, Biophys J, Bull Math Biol, Cardiovasc Res, Circ Arrhythm Electrophysiol, Front Physiol, Heart Rhythm, IEEE Trans Biomed Eng, J Physiol, J Theor Biol, Nat Commun, PLoS One, Proc Nat Acad Sci USA

Institutions: Swiss National Science Foundation, The Austrian Academy of Sciences, The Dutch Council for Earth and Life Sciences, The Wellcome Trust

Fellowships:

2000-2001 Prospective researcher fellowship of the Swiss National Science Foundation
2001-2002 Fellowship of the Swiss Foundation for Stipends in Biology and Medicine

Grant support (as main applicant):

2002-2005 Swiss Cardiovascular Research and Training Network
2003-2006 Swiss National Science Foundation
2006-2008 Swiss National Science Foundation (extension)
2008-2011 Swiss National Science Foundation
2011-2014 Swiss National Science Foundation
2011-2017 Swiss National Science Foundation

Most significant awards:

1996 Asher-Hess Award of the Swiss Physiological Society
1998 Cardiovascular Biology Prize of the companies Warner-Lambert and Parke-Davis
2000 Eduard Adolf Stein Award of the University of Bern

Memberships in scientific and academic organizations:

Swiss Physiological Society
Swiss Federation of Medical Doctors (FMH)
Biophysical Society
Faculty of 1000
Board member and treasurer of the Lecturers' Association of the Medical Faculty of the University of Bern

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