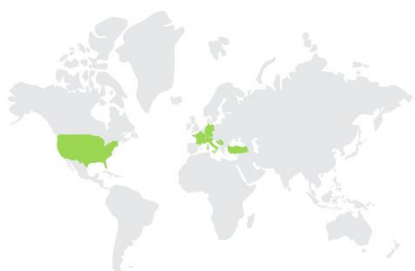


EXTERNAL ASSOCIATE



SWITZERLAND



**NAME AND
SURNAME:**

Peter F. Niederer

AFFILIATION:

Prof. em. dr. at ETH Zurich

**AREA OF
EXPERTISE:**

Biomedical Engineering

**RESEARCHER ID:
(ORCID)**

SHORT BIOGRAPHY

He obtained his Ph.D. in Engineering Mechanics from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland in 1972. He then joined the Institute of Biomedical Engineering of the University and ETH Zurich, from where he left in 1973 to work as a research engineer at the General Motors Research Laboratories in Warren, Michigan. After having returned to the Institute in Zurich, he concentrated his research mainly in the areas of biomechanics and medical optics. In 1980, he was a Visiting Faculty Member at the Department of Mechanical Engineering of the

University of Houston, Texas. In 1987 he became full Professor of Biomedical Engineering at ETH Zurich in the Departments of Electrical and Mechanical Engineering. From 1994 – 1997 he served as Head of the Division of Mechanical and Process Engineering and from 1997 – 1999 he was Head of the Department of Electrical Engineering of ETH. In 1982 he received the Georg Friedrich Götz Award and in 1984 the Technical Award of the Automobile Club of Switzerland. In 2003 he became Fellow of IAMBE, in 2009 Honorary member of the European Society of Biomechanics. The research projects of his group were mainly related to soft tissue mechanics, trauma biomechanics, tissue/fluid interaction, high-definition endoscopy, and medical applications of near-infrared spectroscopy. Besides, new technical procedures aiming at on-line 3D imaging by way of ultrasound were investigated. Projects in soft tissue mechanics included cardiodynamics in collaboration with the MRI group at the Institute, as well as modeling of organ dynamics for virtual reality-based surgical simulators. In trauma biomechanics, vehicle-pedestrian impacts as well as the analysis of minor neck injuries (“whiplash”) was in the foreground.

Peter Niederer is cofounder of various companies. This includes Scanco Medical, a manufacturer of high-precision laboratory micro CT systems and the Working Group for Accident Mechanics, each together with four of his colleagues. This Foundation is engaged in research, development and consulting in the area of injury biomechanics. It represents an independent unit and has a working agreement with the University and ETH Zurich. Furthermore, NeMoDevices, specializing in IR monitoring of brain activity was founded and the Swiss Experts Certification that certifies expert witnesses according to EU standards.

He has been a reviewer for EU programs related to biomedical engineering and he is co-editor-in-chief of the journal Technology and Health Care.