

Speakers CVs



Professor Dr. Wolfgang F. Graier

Professor of Molecular Biology at the Medical University of Graz, Austria; head of the Nikon-Center of Excellence for Super-Resolution Microscopy;

is Full Professor of Molecular Biology at the Medical University of Graz, Austria. Initially he studied pharmacy and did his Ph.D. in pharmacology at the Karl Franzens University of Graz (Graz, Austria). Thereafter, he joined the Dalton Cardiovascular Research Center at the University of Missouri (Columbia, USA). Afterwards, he became Assistant Professor and finally, in 2009, Full Professor and chair of the Institute of Molecular Biology and Biochemistry at the Medical University of Graz (Graz, Austria), and, finally head of the Gottfried-Schatz-Research-Center in 2018. Prof. Graier is an expert in the regulation of mitochondrial ion homeostasis and organelle functions, and the contribution of mitochondria in diabetes mellitus, cancer and aging. His main research focus is on the molecular mechanisms, regulation and functions of cellular and mitochondrial Ca²⁺ homeostasis and their impact on physiological and pathophysiological processes. Recently he focuses on the potential of mitochondria-endoplasmic reticulum interaction as potential target against aging, cancer and neuro-degenerative disease and designs test-compounds for such applications. To follow cellular changes in real time and in super-resolution, his laboratory specializes in cutting-edge microscopy like structured illumination microscopy (SIM). Since 2015 he is head of the Nikon-Center of Excellence for Super-Resolution Microscopy where his team continuously pushes the limits of light microscopic techniques. Moreover, his group creates, characterizes and employs organelle-targeted genetically-encoded biosensors to follow, for instance, changes in spatial Ca²⁺, organelle ATP and sub-cellular NO• or K⁺ levels. This intensive focus led Prof. Graier to co-found a spin-off company, Next Generation Fluorescence Imaging (NGFI, www.ngfi.eu), that intends to develop affordable microscopic analyzers for molecular/cell biologists to help to establish high-content single cell analyses in more laboratories worldwide.