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Robert Bing Prize goes to Cristina Granziera, Mira Katan Kahles and Johannes Gräff

The Robert Bing Prize 2022 goes to three remarkable clinical and experimental neuroscientists: Cristina Granziera and Mira Katan Kahles, Professors of Neurology at the University Hospital in Basel, are each distinguished for their work on biomarkers for the diagnostics and monitoring of disorders such as multiple sclerosis and stroke. Johannes Gräff, Professor at EPFL, is awarded the Prize for his research on the epigenetic mechanisms of memory processing in healthy and pathological contexts such as Alzheimer's disease and post-traumatic stress disorder. Each prize is worth CHF 20 000.

The Prize, bestowed every two years by the Swiss Academy of Medical Sciences (SAMS), originates from a generous bequest of Basel neurologist Robert Bing (1878 – 1956). In accordance with the donor's will, the Prize is awarded to researchers who have done outstanding work to improve the recognition, treatment and cure of diseases of the nervous system. The award ceremony will take place on 1 June 2023 in Bern. Further information and an overview of past Bing Prize laureates are available on the SAMS website: sams.ch/bing-prize.

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Portraits of the three laureates can be downloaded from the SAMS website: sams.ch/media

Cristina Granziera short CV



Cristina Granziera is a clinician-researcher trained in Padova, who deepened her interest in neuroimaging during her PhD at the University of Lausanne and at Harvard Medical School (Boston, USA), before completing her specialization in Neurology at CHUV. She then joined the Massachusetts General Hospital and Harvard Medical School, as an assistant professor in Radiology and assistant in Biomedical Engineering. Since 2018, she has held a SNSF Professorship in Neurology and Biomedical Engineering at the University of Basel, and is a senior consultant neurologist at the University Hospital in Basel.

Cristina Granziera's unique expertise, at the interface of clinical neurology, neuroradiology and medical physics, allows her to develop and apply highly innovative, advanced neuroimaging methods, to better characterize the changes occurring in the brain and spinal cord of patients suffering from multiple sclerosis. Her group was the first to describe the interplay between myelin and axon damage that drives the accumulation of disability in those patients. In her recent work focusing on brain repair and neurodegeneration, she identified biomarkers that offer a very promising foundation for novel diagnostic procedures.

Prof. Granziera's results, internationally recognized and validated in large longitudinal clinical studies, already have a direct impact on the treatment and follow-up of patients with multiple sclerosis. She is the recipient of numerous competitive research grants and awards in recognition of her research work, at the interface of biomedical imaging and clinical neurology.

Mira Katan Kahles short CV

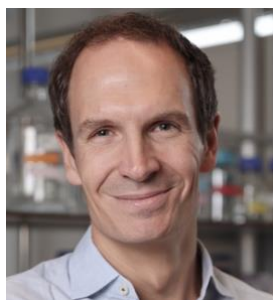


Mira Katan Kahles studied medicine and obtained her MD at the University of Zurich, before completing her clinical Neurology residency in Basel. She then went to the USA for a research fellowship where she completed her training with a master's degree in Biostatistics at Columbia University in New York. She came back to Zurich in 2014 to establish her own research group with the support of a SNSF Ambizione grant. Professor of Neurology, deputy chief physician and Head of the Stroke Unit at the University Hospital in Basel, she is also research group leader at the University Hospital and the University of Zurich.

Prof. Katan Kahles has a unique, internationally recognized expertise in the identification of biomarkers for stroke. In recent years, with the support of her team and valuable collaborations, she conducted large multicenter international clinical and translational studies, contributing significantly to the improvement of early risk stratification after stroke. These studies further allowed to identify new risk factors in primary prevention, and to optimize individual assignment of the most likely stroke cause. Her work has been distinguished by several awards and is supported by competitive grants.

Remarkably, Mira Katan Kahles has managed to span the arc from the identification of new blood biomarkers to their implementation in routine clinical practice in just a few years. One of these biomarkers reflects an underlying atrial disease in stroke patients and is now used to guide diagnostics in several national and international stroke centers.

Johannes Gräff short CV



Johannes Gräff is currently Associate Professor at EPFL, where he heads the Laboratory of Neuroepigenetics. Trained as a biologist at the University of Lausanne, Johannes Gräff obtained his PhD in Neuroscience at ETH Zurich before pursuing his postdoctoral studies at the Picower Institute of Learning and Memory at the Massachusetts Institute of Technology in Boston, USA. Since joining EPFL in 2013 as assistant professor on tenure track, Prof. Gräff has received an ERC Starting and Consolidator Grant, and has been distinguished by several prestigious scientific awards.

His team studies the molecular and cellular underpinnings of memory formation, storage and change, with a particular emphasis on epigenetic mechanisms. In his career, Prof. Gräff has made several important discoveries that have shown that epigenetic changes not only contribute to healthy, but also to aberrant memory processing. But that – owing to their reversibility – epigenetic mechanisms may also provide a potential treatment for disorders characterized by cognitive changes. These disorders include memory loss occurring with Alzheimer's disease, or inadvertently strong memories such as those occurring in post-traumatic stress disorder.

Prof. Gräff's highly innovative research is uniquely situated at the crossroads of fundamental and translational neuroscience, as well as at the intersection of neurobiology and psychology. His results, which enjoy high international visibility, form the basis of ongoing translational and clinical studies aimed at exploiting the reversibility of epigenetic marks to treat memory disorders.