Biographical Sketch

Susan M. Gasser

Director of the Friedrich Miescher Institute for Biomedical Research in Basel

Prof. Susan M. Gasser studied biophysics at the University of Chicago, prior to completing her PhD at the University of Basel in biochemistry. She studied human mitotic chromosome structure at the University of Geneva, and then launched her own research program on chromatin and chromosome organization in budding yeast, combining genetics, microscopy and biochemical approaches. After 15 years at the Swiss Institute for Experimental Cancer Research in Epalinges/Lausanne, she returned to the University of Geneva as Professor of Molecular Biology. In 2004, she was recruited as Director of the Friedrich Miescher Institute for Biomedical Research in Basel, where she is Professor of Molecular Biology at the University of Basel. Susan Gasser studies how nuclear and chromosomal context establishes and maintains heritable patterns of gene expression. From the telomere position effect in yeast, to the inheritance of repressed tissue-specific genes in C. elegans, her studies have examined how the spatial organization of heterochromatin in the nucleus contributes to heritable gene silencing. In parallel to these studies, the Gasser laboratory optimized live imaging techniques to pioneer the analysis of chromatin dynamics with time-lapse fluorescence imaging. This brought her to the study of chromatin remodelers, among which figured INO80, particularly in the context of replication stress and double strand break repair. Dr Gasser was elected to the Académie de France, EMBO and the Swiss Academy of Medical Sciences, and received the INSERM International Prize in 2011, the FEBS | EMBO Women in Science Award in 2012, and the Weizmann Institute Women in Science award in 2013.