

James E. Haber (opening lecture) - USA

Rosenstiel Basic Medical Sciences Research Center and Department of Biology, Brandeis University, Waltham, Massachusetts, United States of America.

James Haber is Professor of Biology and Director of the Rosenstiel Basic Medical Sciences Research Center at Brandeis University. He received his A.B. degree in Biochemical Sciences at Harvard College and his Ph.D. in Biochemistry at U.C. Berkeley. After postdoctoral training at the University of Wisconsin in Madison he joined the faculty at Brandeis University. He is a Fellow of the American Academy of Arts and Sciences and member of the US National Academy of Sciences. His lab has pioneered the real-time monitoring of the repair of double-strand chromosome breaks in yeast cells and have characterized many of the molecular steps in different mechanisms of double-strand break repair, both by homologous recombination and nonhomologous end-joining. Work on recombination and repair of site-specific chromosome breaks in yeast laid the groundwork for the recent advances in gene editing in mammalian cells. Recent work has focused on: the regulation of the DNA damage checkpoint; the high rate of mutation accompanying DNA synthesis during DSB repair; and the roles of DNA damage-associated chromatin modifications.