

GENOME SCIENCES DEPARTMENT RETREAT 2011

Sleeping Lady Resort September 21-23, 2011

Janet Rowley, Keynote Speaker



Janet D. Rowley, M.D. is the Blum-Riese Distinguished Service Professor in the Departments of Medicine, in Molecular Genetics and Cell Biology and in Human Genetics. She received her M.D. from the University of Chicago in 1948. She joined the research faculty at the University of Chicago in 1962 and became a Professor in 1977. Dr. Rowley has contributed significantly to advances in understanding of genetic changes in cancer. She focused on chromosome abnormalities in human leukemia and lymphoma and in 1972, using new techniques of chromosome identification, she discovered the first consistent chromosome translocation in any human cancer. During her career she has identified more than a dozen different recurring translocations. These discoveries have revolutionized the view of hematologists/oncologists and cancer biologists regarding the critical importance of recurring chromosome abnormalities in cancer cells. Moreover, she showed that many different tumors were each associated with specific cytogenetic abnormalities that reflect critical genetic changes in the malignant cells of that tumor. Her early insights have culminated in specific treatments for two of the translocations she discovered namely, all-trans-retinoic acid (ATRA) for the 15;17 translocation in acute promyelocytic leukemia and STI571 (GLEEVEC/Imatinib) for the 9;22 translocation in chronic myelogenous leukemia. In addition, collaborating with hematologists, she showed that recurring chromosome abnormalities in acute leukemia were among the most important prognostic indicators of a patient's likelihood of response to treatment and survival. She and her colleagues have cloned a number of different translocations breakpoints, providing insights into the identity of new genes involved in leukemia.

Dr. Rowley's laboratory has been supported by grants from the Department of Energy and from the National Cancer Institute. She had an Outstanding Investigator Grant from NCI from 1984 to 2000. She has published over 400 papers and book chapters describing her research in leukemia and related areas. She has received numerous awards including Dameshek Prize (1982), Kuwait Cancer Prize (1984), Karnofsky Prize (1987), Prix Antoine Lacassagne (1987), King Faisal Prize (1988), Clowes Award (1989), Mott Prize (1989), Allen Award (1991), Gairdner Award (1996), Medal of Honor (ACS, 1996), Lasker Award (1998), Medal of Science (1998), and American Academy of Achievement (1999), Benjamin Franklin Award (2003), Henry Stratton Award (2003) and the Dorothy P. Landon Award (2005), Gruber Genetics Prize (2009), Presidential Medal of Freedom (2009), and the Jesse Kovalenko Award from NAS (2010). She is a member of the National Academy of Sciences (1984), Institute of Medicine (1985), American Academy of Arts and Sciences (1991), and American Philosophical Society (1993). She has received thirteen honorary degrees.