Gene Mutations & Cancer - The Rest of the Story

Bruce Boman
Director, Cancer Genetics and Stem Cell Biology
Center for Translational Cancer Research
Helen F Graham Cancer Center and Research Institute
Associate Professor of Biological Sciences, University of Delaware

ABSTRACT:
From the perspective of geneticists, cancer is caused by gene mutations. In fact, based on The Cancer Genome Atlas Project, any given cancer carries large numbers of mutations and other molecular alterations – hundreds to thousands of somatic mutations are often identified in a single cancer. From the pathologists’ perspective, on the other hand, cancer is caused by tissue disorganization. Indeed, cancer diagnosis universally rests on microscopic evidence of tissue disorganization, invasion and metastasis. This talk will tell “the rest of the story” by discussing mechanisms that fill the gap between the pathologists’ and the geneticists’ perspectives on cancer.