BRIGHAM AND WOMEN'S HOSPITAL
HARVARD MEDICAL SCHOOL

181 Longwood Avenue
Boston, Massachusetts 02115-5804

Department of Medicine
Channing Division of Network Medicine

Channing Network Science Seminar

June 2 (Friday), 2017, 11am @ 5th floor conference room

Arezou A. Ghazani, M.Sc., Ph.D., FACMG
Instructor in Medicine, Harvard Medical School
Department of Medical Oncology, Dana-Farber Cancer Institute
Associated Scientist, The Broad Institute of Harvard and MIT

It Takes Two: The Complementary Roles of Constitutional And Tumor Genomes in Clinical Interpretation of Cancer

Traditionally, interpretation of cancer genome has been different for constitutional (germline) and somatic genomes; germline sequencing results have been considered a valuable source of information for inherited cancer risk assessment while somatic results have been used for identification of therapeutic targets. The success of precision oncology in the clinical setting, however, requires an integrated approach for the interpretation of both somatic and germline alterations with clinical relevance. In this talk, we present novel methods to address these challenges. These include systematic approaches for the integrated interpretation of somatic and germline data, automated tools for interpretation of genome variants, methods for clinically-relevant classification systems of genome results, and more recently work on developing predictive models to identify networks of genome perturbations that collectively affect genome function.

Bio: Dr. Ghazani is a medical geneticist at Dana-Farber Cancer Institute and a faculty member at Harvard Medical School. Dr. Ghazani's interests include the integration of somatic and germline interpretation of large scale data in cancer. She investigates the relationship of the panoply of hereditary and non-hereditary genomic variants and their effects on cellular pathways and mechanisms. The overall goal is to incorporate comprehensive genomic information into the routine cancer care of patients. Dr. Ghazani earned both M.Sc. and Ph.D. degrees from the University of Toronto in Canada, before completing a medical genetics fellowship at Harvard Medical School and a research fellowship at the Massachusetts General Hospital. She is board-certified by the American Board of Medical Genetics and Genomics (ABMGG).

Hosted by Yang-Yu Liu