## **Biomedical Informatics Grand Rounds**

Wednesday, Nov. 3, 2021, 3:00 pm - 4:00 pm

## Clinical computational oncology for precision cancer medicine



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## **Remote Access**

**Join Zoom Meeting** https://stonybrook.zoom.us/j/95617197636?pwd=KytzZ2pVRG9SZGpKZUtpNXJISjNjZz09 Meeting ID: 956 1719 7636 Passcode: 924293

**Bio:** Dr. Van Allen is an Associate Professor of Medicine at Harvard Medical School, Chief of the Division of Population Sciences at the Dana-Farber Cancer Institute, and an Associate Member at the Broad Institute of MIT and Harvard. His research focuses on computational cancer genomics, the application of new molecular profiling technologies to advance precision cancer medicine, and studying resistance to cancer therapeutics. As both a computational biologist and medical oncologist, he has specific expertise in clinical computational oncology and the development of algorithms to analyze and interpret genomic data for clinically focused questions. Overall, his research contributes to the field of precision cancer medicine and resistance to targeted therapeutics via expertise and study in translational and clinical bioinformatics.

Originally from Los Angeles, CA, he studied Symbolic Systems at Stanford University, obtained his M.D. from UCLA, and completed a residency in internal medicine at UCSF before coming to Boston and completing a medical oncology fellowship at the Dana-Farber/Partners Cancer Care program.

**Abstract:** The advent of large-scale molecular profiling at the point of care paired with advances in computation may guide clinical and biological discoveries in oncology, although new strategies are needed to guide this science in an interdisciplinary approach. In this presentation, I will present ongoing efforts in my lab to develop clinical interpretation algorithms for precision oncology purposes, and explore how focused studies of therapeutic resistance in clinical contexts and large cohort analyses of cancer patients can guide novel biological discoveries with clinical impact.

**Educational Objects**: Upon completion, participants should be able to:

- Understanding current challenges and pitfalls to precision oncology
- Learning how patient-centered analysis can inform cancer drug resistance mechanisms
- Distinguishing biological investigation and biomarker development for immuno-oncology

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