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**Education**

Stanford University

## Current Research Interests

Dr. Seshan's research interests are in the area of methods for the analysis of high throughput data, specifically from genomic profiling such as DNA sequencing and copy number and methylation arrays. He developed with Dr. Adam Olshen (University of California, San Francisco) the CBS algorithm for the analysis of DNA copy number data and has extended the method to allele copy number estimation. He is collaborating with Drs. Colin Begg, Adam Olshen and Irina Ostrovnya on extending these methods to distinguish second cancers from metastases. He published, in collaboration with Dr. Ronglai Shen, the FACETS algorithm to estimate allele specific copy numbers and tumor cell fraction using sequencing data. This algorithm is being adopted for use in the DNA sequencing analysis pipeline within and outside MSK. He is responsible for the research computing environment of the Department.

## Publications

Selected peer-reviewed publications:

Siegmund DO, Venkatraman ES. Using the generalized likelihood ratio statistic for sequential detection of a change-point. *Ann Stat* 1995; 23:255-271.

Olshen AB, Venkatraman ES, Lucito R, Wigler M. Circular binary segmentation for the analysis of array-based DNA copy number data. *Biostatistics* 2004; 5:557-572. PMID: 15475419.

Seshan VE, Gönen M, Begg CB. Comparing ROC curves derived from regression models. *Stat Med*. 2013 Apr 30;32(9):1483-93. PMID: 23034816. PMC3617074.

Ostrovnya I, Seshan VE, Begg CB. Using somatic mutation data to test tumors for clonal relatedness. *Ann App Stat*. 2015 9(3), 1533-48. PMC4649945.

Shen R, Seshan VE. FACETS: allele-specific copy number and clonal heterogeneity analysis tool for high-throughput DNA sequencing. *Nucleic acids research*, 2016 Jun 7. pii: gkw520. PMID: 27270079.

[Visit PubMed for a full listing of Venkatraman Seshan's journal articles.](#)

Pubmed is an online index of biomedical articles maintained by the U.S. National Library of Medicine and the National Institutes of Health.

Disclosures

Doctors and faculty members often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community.

MSK requires doctors and faculty members to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public.

Venkatraman Seshan discloses the following relationships and financial interests:

uMotif Limited  
Equity

The information published here is for a specific annual disclosure period. There may be differences between information on this and other public sites as a result of different reporting periods and/or the various ways relationships and financial interests are categorized by organizations that publish such data.

This page and data include information for a specific MSK annual disclosure period (January 1, 2022 through disclosure submission in spring 2023). This data reflects interests that may or may not still exist. This data is updated annually.

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