

# Division of Biostatistics Seminar Series

**Omics data driven models for  
signaling network analysis and  
effective drug prediction**

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**When:** Friday, October 30, 2020  
12:30pm - 1:30 pm

**Registration Link  
via Zoom:**

[https://wustl.zoom.us/j/6sqTgoHtxar\\_unqPaMv-k10Aazt9ix](https://wustl.zoom.us/j/6sqTgoHtxar_unqPaMv-k10Aazt9ix)



**Fuhai Li, PhD**

**Title of talk:**

Omics data driven models for signaling network analysis and effective drug prediction

**Abstract:**

Large omics data have been generated to understand the molecular mechanisms of complex diseases, like cancers and Alzheimer's disease, even for the covid-19. Though a set of biomarkers have been identified from the omics data analyses, the signaling consequence and complex interactions among the related signaling pathways of the complex diseases remain unclear. Moreover, many of these biomarkers are not druggable. There is a lack of effective treatments for many cancer patients due to intrinsic (no effective druggable targets) or acquired drug resistance (often happen). In this presentation, I will introduce our omics data computational models to uncover the related consequence/driver signaling networks that regulate disease progress (as a network biomarker), and prioritize/predict effective drugs and drug combinations that can inhibit the activated signaling network as novel treatment regimens. Combined with experimental validation/screening models with the data-driven models, it can potentially enable personalized medicine discovery in an efficient and cost-effective manner.