

## **Genome Sciences Seminar**

Wednesday, 4.10.19 | 3:30 | Foege Auditorium



**Dr. Jesse Zalatan**Assistant Professor of Chemistry
University of Washington

## "Scaffold-mediated regulation of a multifunctional kinase: the role of Axin in the Wnt pathway"

**The Zalatan research group** studies the molecular mechanisms that allow living cells to process, integrate, and coordinate signals. We are interested in understanding how complex and interconnected signaling pathways are organized to direct signals to specific outputs. We focus on individual reaction steps at key decision points in signaling networks, using a wide range of tools from biochemistry, enzymology, synthetic biology, and cell biology. This approach allows us to draw connections between molecular events and cellular behaviors, providing a framework to identify new therapeutic targets and to engineer synthetic pathways for cell-based therapeutics and devices.

We are also interested in the organization of metabolic pathways. We have developed new tools to synthetically rewire gene expression programs, and we are applying these tools to understand how chemical precursors are routed through metabolic networks. This approach will enable us to engineer these pathways for small molecule biosynthesis.

https://depts.washington.edu/jzlab/drupal/

Refreshments served outside the Auditorium at 3:20pm Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at http://www.gs.washington.edu/news/seminars.htm

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