



# Genome Sciences Seminar

Wednesday, 2.14.18 | 3:30 | Foege Auditorium

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## Dr. Michael Bassik

Assistant Professor of Genetics

Stanford University

<http://bassiklab.stanford.edu/>

# "Development of new CRISPR/Cas9-based tools to study the cellular response to drugs and endocytic pathogens"

### **Bassik Lab:**

We study how endocytic pathogens such as bacterial toxins, viruses, and protein aggregates enter the cell, disrupt homeostasis, and cause apoptosis. More broadly, we seek to understand how cells respond to diverse stresses induced by biological and chemical agents. A complementary interest is in the characterization of novel small molecule drugs and identification of synergistic drug interactions, with the aim of finding new treatments for diseases such as cancer and neurodegeneration.

To accomplish these goals, we develop and use new technologies for high-throughput functional genomics. These include ultra-complex CRISPR/Cas9 and RNAi-based libraries for genome-wide screens, systematic pairwise genetic interaction maps, and strategies for targeted mutagenesis. Together with collaborators, we use these tools to annotate the genome in health and disease states.

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Refreshments served outside the Auditorium at 3:20pm

Questions? Contact Brian Giebel at [bgiebel@uw.edu](mailto:bgiebel@uw.edu) or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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