



# Bioinformatics PowerTalk Seminar Series

**Friday, October 11, 2019**

**10:15 AM—11:15 AM**

**Shelby Biomedical Research Building, Room 105  
1825 University Boulevard, Birmingham, AL 35294**

## Presenter



**Jeremy J. Day, PhD**

**Associate Professor  
Department of Neurobiology**

### *“Control-Alter-Delete: Gene Regulatory Mechanisms in Brain Function and Disease”*

Genetic and epigenetic regulatory mechanisms exert tremendous control over nearly all aspects of dopamine neurotransmission, and alterations in these processes have been linked to numerous neuropsychiatric disorders. The emergence of cutting-edge tools for genome sequencing and manipulation have enabled tremendous discovery in this area, and the molecular mechanisms by which drugs of abuse impinge on dopamine transmission to regulate long-term circuit and behavioral adaptations have received an increasing amount of attention in the last decade. The goal of this seminar is to communicate our recent discoveries into how drugs of abuse and dopamine receptor signaling alter transcriptional programs in medium spiny neurons, using novel single cell sequencing approaches and multiplexed CRISPR activation of dopamine-responsive gene programs.

Zoom link: <https://uab.zoom.us/j/491849069>

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