# SPRING Meeting

**Tyler Hansen and Lindsey Guerin**
Graduate Students, Hodges Lab

**Keywords:** vcscb SPRING meetings

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## Meeting Details

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|---|---|
| **Start Date / Time** | March 10, 2021 at 9:00 AM |
| **End Date / Time** | March 10, 2021 at 10:00 AM |
| **Duration** | 1 hour(s) |
| **Location** | Zoom |
| **Presenter Name** | Tyler Hansen and Lindsey Guerin (Grad students) |
| **Presentation Title** | See below for titles |
| **Status** | This meeting has already occurred |

## Meeting Agenda/Notes

**Lindsey Guernin**

**"Joint profiling of DNA methylation and chromatin accessibility captures epigenetic dynamics in stem cell differentiation"**

Epigenetic modifications can act together to influence gene expression in many biological systems. We have applied ATAC-Me, a method that allows for joint profiling of DNA methylation and chromatin accessibility, to profile these features throughout an embryonic stem cell to neural progenitor cell differentiation. These findings inform our understanding of DNA methylation's regulatory potential, particularly during cell fate transitions.

**Tyler Hansen**

**"Investigating gene regulatory differences in primate immune cells with ATAC-STARR-seq"**

ATAC-STARR-seq, a new method recently developed in the Hodges Lab, quantifies regulatory activity, chromatin accessibility, and transcription factor binding across the genome. We apply ATAC-STARR to both human and rhesus immortalized B cell lines in order to identify the gene regulatory differences between primate B lymphocytes. These studies hold the potential to explain why humans and rhesus immune systems respond differently to certain pathogens, like Hepatis C, despite high genetic similarity."

## Attachment

SPRING_Meeting_03.10.2021.pdf - Added on March 18, 2021 at 3:28 PM by Pam Uttz