

# 5th International Conference on Epigenetics and Bioengineering (EpiBio)

Anibal Tornes Blanco<sup>1</sup>, Lexi Bounds<sup>2</sup>

1. University of Michigan
2. Duke University

## **Abstract**

The 5th International Conference on Epigenetics and Bioengineering (EpiBio) brought together pioneers in the field of Epigenetics and Biotechnology, working in both academia as well as industry to discuss the gaps as well as advancements in the field. The workshop included various session topics, including the Biophysics of Chromatin: Measurements and Models, Emerging Technologies, Epigenetics in Health and Development, Sensing Epigenetic Modifications, Perturbing Chromatin and Epigenetic Editing, and Nuclear Organization. The conference included various other events, including a Phase Condensate Panel, a Black in Chromatin networking session dedicated to increasing diversity in the field, and various Q&A



methods that do not retain methylation information and cannot be used in genomic regions with poor mapping quality. He demonstrated how the method can be applied to simultaneously

**Dr. Dmitri Kireev**, from the University of North Carolina, presented his work titled  
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about heterochromatin and its relation to a repressed chromatin landscape during cell development is limited, as there exists a notable gap in detailing the structural mechanism of heterochromatin formation. Using molecular simulations and setting parameters for key

## **Session 5: Epigenetics in Health and Development: Author: Anibal Tornes Blanco**

**Dr. Mary Goll** from the University of Georgia walked us through her work on the

**Dr. Greg Davis** from Sangamo

### **Saahj Gosrani**

Time Using 2-

better characterize Alzheimer's Disease (AD). Previous work by the lab members unveiled that H3K4 histone demethylase LSD1/KDM1A mislocalized to cytoplasmic neurofibrillary tau tangles (NFTs) in AD cases. By using two-photon live imaging in the LSD1 inducible knockout mouse, the group was able to visualize neurons dying in the cerebral cortex using a Thy1-YFP neuronal reporter. With this live imaging approach, the group will complement previous findings which suggested that loss of LSD1 induced inflammatory responses and therefore linking microglia to neurodegeneration. In conclusion, this

**Dr. Jessica Williams**, from the King Lab at Yale University, presented her work in a  
-Separated Heterochromatin Domains Impart Mechanical Stiffness to  
-separated heterochromatin resulting from liquid-