

**Tuesday, January 30, 2024**

11:00am–11:45am

**Andiara Schwingel**

CAS Associate 2022–23, Kinesiology &amp; Community Health

*Advancing Health Equity through  
Community Health Workers*

Professor Schwingel will discuss the pivotal role of Community Health Workers (CHWs) in addressing health disparities. Though CHWs have limited formal education in healthcare, they are frontline public health workers uniquely positioned to address complex issues impacting communities of color. Professor Schwingel's research introduces culturally sensitive tools tailored to enhance understanding and emphasize the significance of CHWs. This presentation will spotlight opportunities within the CHW educational framework, emphasizing a collaborative effort across Illinois to develop online training that prepares CHWs to serve as lifestyle coaches.

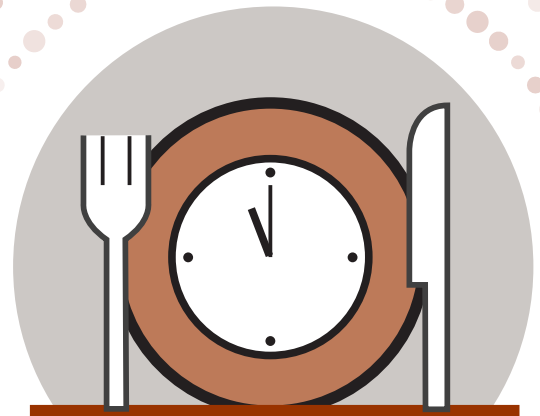
Noon–12:45pm

**Sangjin Kim**

CAS Beckman Fellow 2022–23, Physics

*Traffic of Molecular Motors on  
the Genome*

Life is defined by base sequences of DNA, a polymer that carries information on how to make proteins—a building block and a functional unit within living cells. As a first step toward making proteins, DNA is read and copied by processive molecular motors, called RNA polymerases (RNAPs). Multiple RNAPs traveling on the genomic DNA create a situation like cars on the highway. While the dynamics of this molecular traffic is important in understanding gene expression, we lack a clear understanding of how the traffic is formed and regulated inside the cell. Experimental results suggested that RNAPs can exhibit collective group dynamics by exploiting dynamic changes in DNA topology. In this talk, Professor Kim will describe our current understanding of RNAP traffic on the genome. She will also explain how biophysics can help solve remaining questions and challenges.

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