

THE  
CATHOLIC UNIVERSITY  
of AMERICA



*Department of Physics*  
Colloquium

Dr. Grege Bowman  
Johns Hopkins University

**Recognition of the Nucleosome by a Chromatin Remodeler**

Chromatin remodelers are multidomain machines that reposition nucleosomes along genomic DNA using a helicase-like ATPase motor. Yet how the remodeler ATPase can be regulated to achieve particular remodeling outcomes has been unclear. I will discuss our recent biochemical work describing the domain architecture for the Chd1 remodeler on the nucleosome. In contrast with what has been described for other remodelers, this domain organization suggests an inhibitory mechanism for sensing DNA flanking the nucleosome. I will present a model for how domain-domain communication allows Chd1 to slide nucleosomes away from bound transcription factors and generate evenly spaced nucleosome arrays.

**Wednesday, October 25, 2017**

**4:00pm**

**108 Hannan Hall**

**Refreshments will be served at 3:45**

Sponsored in part by the Graduate Student Association

For more information or if you would like to request disability accommodations, please contact:

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