



Donnelly Centre
for Cellular + Biomolecular Research
UNIVERSITY OF TORONTO



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Kim Lab Seminar Announcement

“The ups and downs of protein expression regulation”



Christine Vogel, PhD

Assistant Professor

Department of Biology

Center for Genomics and Systems Biology

New York University

NY

Abstract:

Gene expression is regulated by four major processes: transcription, translation, and RNA and protein degradation. These processes are adjusted, in different ways, when the cells respond to a stimulus. Many pathways are known, but their precise interaction over time is not well understood. In our lab, we use multiple time series datasets — on protein and mRNA expression changes and changes in the binding of ribosomes and other proteins — in combination with statistics approaches to disentangle the contributions of the different levels of regulation and generate hypotheses on regulatory mechanisms. We focus on yeast and mammalian cells responding to stress of the endoplasmic reticulum, but have expanded these studies in a variety of directions.

Bio:

Christine Vogel is a trained biochemist with a Master's in Mathematical Biology and a PhD in Computational Structural Biology obtained from the University of Cambridge, with Drs. Cyrus Chothia and Sarah Teichmann. After post-doctoral work with Dr. Edward Marcotte (Univ. of Texas at Austin), she joined New York University as faculty in 2011. Her lab uses a combination of proteomics, transcriptomics, computational, and targeted approaches to investigate the regulation of protein expression under stress.

Friday, April 21, 2017 | 02:00 pm

Donnelly Centre James D. Friesen | Cecil C. Yip Red Seminar Room

Host: Philip M. Kim