



# Genome Sciences Seminar

Wednesday, 10.24.18 | 3:30 | Foege Auditorium

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## Dr. Brenda Andrews

University Professor and  
Director, The Donnelly Centre  
University of Toronto

## “From phenotypes to pathways: global exploration of cellular systems using yeast functional genomics”

### The Andrews Lab:

**Genomics:** Our lab uses synthetic genetic array (SGA) technology combined with a variety of libraries of yeast strains to genetically screen for interactions of enzymes (e.g. protein kinases, lysine deacetylases) and their targets. We create a variety of resources, databases and collections for the community with application to the SGA platform, including a selection of overexpression arrays.

**Phenomics:** We have combined SGA with high content screening (HCS) to assess changes in protein localization and abundance under a variety of genetic, environmental and chemical stresses using rapid image acquisition and analysis. SGA-HCS is also used to detect mutants that show defects in their sub-cellular morphology, such as reduced formation of DNA damage foci.

**Cell cycle regulated transcription:** Our lab has pioneered the use of SGA for genome wide analysis of reporter gene-expression, particularly for studying transcriptional changes throughout the cell cycle. We are also interested in understanding cell cycle processes and molecular players that regulate endocytosis via directed mechanistic studies.

<http://sites.utoronto.ca/andrewslab/index.shtml>

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Refreshments served outside the Auditorium at 3:20pm

Questions? Contact Brian Giebel at [bgiebel@uw.edu](mailto:bgiebel@uw.edu) or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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