



Donnelly Centre
for Cellular + Biomolecular Research
UNIVERSITY OF TORONTO



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Donnelly Seminar Series

“The Kiss of Death with Ubiquitin under Stress Conditions”



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Centre for High-Throughput Biology (CHiBi)

University of British Columbia

Thursday, December 17, 2015 | 11:00 a.m.

Donnelly Centre Red Seminar Room

Brief Summary:

Protein quality control pathways monitor the proteome to avoid the accumulation of misfolded proteins and their aggregation, which has been associated to aging, as well as many neurodegenerative diseases. Protein quality control pathways that rely on a large network chaperones and associated proteins can either assist refolding or target terminally misfolded proteins for degradation; a major challenge is to decipher how these triage decisions are made at the molecular level. In the past years, we have characterized several pathways that rely on E3 ubiquitin ligases to target cytosolic misfolded proteins for proteasome degradation. Our latest data show how one of these E3 ligases is “reprogrammed” under stress conditions in order to target misfolded proteins for proteasome degradation. Our work provide a common framework to better understand the targeting of misfolded polypeptides by quality control pathways that play a major role in protein homeostasis.

Host: Dr. Grant W. Brown