GUEST SPEAKER SEMINAR

Molecular Genetics
UNIVERSITY OF TORONTO

High-throughput profiling of protein/protein and drug/target interactions in human cells

In my postdoctoral work, I focused on the cellular chaperone Hsp90 and how it recognizes its client proteins, using quantitative high-throughput protein/protein interaction assay LUMIER with BACON. We showed that Hsp90 client recognition is a combinatorial process: a cochaperone provides specificity at the protein fold level, whereas thermodynamic parameters determine the extent of client binding. Exploiting this finding, I further showed that chaperones can be used as thermodynamic sensors to characterize drug/target interactions in living cells and to identify novel targets for existing drugs. Finally, we have started to systematically characterize the chaperone/client interaction network using a combination of AP-MS and LUMIER.

Dr. Mikko Taipale

Donnelly Centre for Cellular and Biomolecular Research
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Candidate for Cross-Appointment

Host: Dr. Barbara Funnell

Date: Friday October 3rd, 2014
Time: 1PM
Place: Medical Sciences Building, Room 4279