



**Donnelly Centre**  
for Cellular + Biomolecular Research  
UNIVERSITY OF TORONTO



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## *“Sweet Patterns: Revelations from Systems-Based Glycan Analysis”*



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**Thursday, May 30, 2013**

11:00 a.m. - 12:00 p.m.

James Friesen/Cecil Yip

Red Seminar Room

Donnelly Centre

### **Abstract:**

Glycosylation, which creates a diverse array of carbohydrate epitopes attached to cell surface proteins and lipids, is an inherently complex system that is poorly understood. Carbohydrates play crucial roles in a diverse array of medically relevant biological processes from viral pathogenesis to tumor cell metastasis and stem cell differentiation. Systems-based approaches to biology, in which large datasets are analyzed using bioinformatic algorithms, provide an important avenue for exploring the mechanics of complex systems that cannot be predicted a-priori. Recent work in my laboratory has begun to apply systems-based approaches to glycosylation research through the use of lectin microarray technology, a glycomic analysis technique we pioneered. This approach has led to new insights into glycan regulation mechanisms and the role of post-transcriptional regulation in determining the glycome.

**Host: Dr. Igor Stagljar**