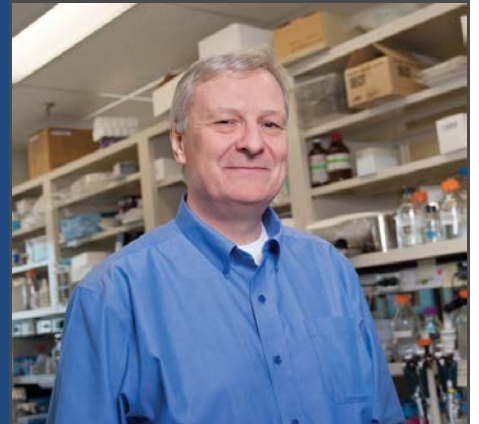


Dr. Jim Woodgett

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**“Through the eye of the needle:
understanding cellular signaling
specificity”**

(Faculty Host: Dr. Nina Jones)



**Wed. March 1st, 2017
SSC 2315 @ 10:30 am**

Cells continually receive and process a wide variety of signals from their environment, yet this is achieved through a relatively limited number of signaling systems. Moreover, many of these share common components which raises questions about specificity of signals and how information is appropriately acted upon. Indeed, the immense integration of such processes reveals the overly simplistic and linear text book models of how cells communicate. In this seminar, I'll attempt to answer some of these issues through the lens of genetic analysis (in mouse models) of a protein-serine kinase called GSK-3 (note to students, I first became interested in this protein during my PhD, some 30 years ago - scary!). Our understanding of how cellular decisions are made is critical for effective design of interventions, especially with respect to redundancies and rewiring. While we have largely documented the identity of the primary cellular regulators, we are still scraping the surface of how cells organize these molecules. The multiplicity of functions of proteins in distinct pathways also raises issues of selectivity as well as possible new means to increase precision and efficacy of drugs.

**“A GREAT OPPORTUNITY TO HEAR LEADING RESEARCHERS IN THE SCIENTIFIC COMMUNITY
DISCUSS THEIR WORK”**

*** ALL WELCOME TO ATTEND ***

*** COFFEE, TEA AND TIMBITS ***