

# Chemistry Seminar

## "Anticancer Properties of Flavopiridol and Molecular Basis for Resistance to Flavopiridol"

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**Friday, December 4**

**12:00 noon**

**WSB-122**

**Abstract:**

Flavopiridol is a potent cyclin-dependent kinase (CDK) inhibitor that causes cell cycle arrest as well as prevent tumor cell growth via apoptosis. Cytotoxicity of flavopiridol appears to be due to inhibition of proteins involved in cell cycle regulation. Flavopiridol when used in conjunction with other chemotherapeutic agents exhibits synergy. Flavopiridol, in addition to causing apoptosis, also causes transcription suppression and anti-angiogenic effects in model systems. Preclinical as well as clinical studies have shown flavopiridol to be a successful tumor suppressing agent. In model systems, flavopiridol is shown to exported out of the cells by multidrug resistance protein thus causing resistance.