

Industrial & Physical Pharmacy Seminar

IPPH 69600

Monday, April 10, 2023
3:30PM in RHPH 164

“Identification and Targeting of the Role of Oncometabolites on Natural Killer Cell Activity in the Tumor Microenvironment”



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First Seminar

Abstract:

Natural killer (NK) cells are part of innate immunity with high cytolytic activity against tumor cells, along with the ability to secrete cytokines and chemokines. However, solid tumors have been largely resistant to treatment, owing to unfavorable interactions between immune cells and tumors driven by an immunosuppressive tumor microenvironment (TME). Oncometabolites aberrantly accumulate in the TME and mediate changes in signaling pathways in cancer cells to drive oncogenesis, in turn altering immune cell responses. Among tumor-driving metabolites, we have found that adenosine (ADO), has the ability to alter the phenotypic profile of NK cells in solid tumors and enhance their cytotoxicity via inhibiting LAG-3 expression. In this study, different oncometabolites are select to be identified their effects on NK cell cytotoxicity.