Leasure Hall, Room 13
Thursday, September 28, 2017
4:00 P.M.

Coffee and Cookies
Leasure Hall, Room 13 alcove
3:45 P.M.

Biochemistry & Molecular Biophysics **Seminar**

Molecular and cellular regulation of human DCIS invasive progression

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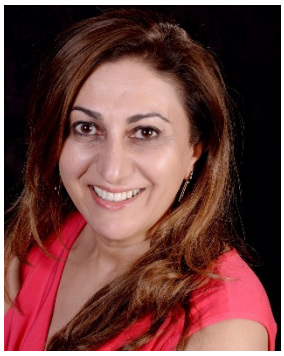

The ultimate goal of our studies is to reveal the cellular and molecular mechanisms by which some human non-invasive breast cancers, commonly known as ductal carcinoma in situ (DCIS), transition to invasive ductal carcinoma while others remain non-invasive. Not knowing a mechanism, many human DCIS are currently overtreated. To accomplish our aims, we have utilized the mouse-intraductal (MIND) models. MIND involves the injection of patient-derived primary DCIS epithelial cells and cell lines directly into the mammary ducts of immunocompromised mice. Using this approach, we have been able to recapitulate the natural evolution of DCIS "in the absence" of any external genetic manipulations. This includes the formation of in situ lesions that mimic the full spectrum of human DCIS pathology including invasive progression in a fraction of DCIS xenografts. As such, the DCIS MIND model is a valuable tool for the studies aimed at examining the role of DCIS epithelial intrinsic and extrinsic factors that regulate DCIS malignant transition.