

2014 Spring Departmental Research Seminar**Title:** The Effects of Fluid Shear Stress on Cancer Stem Cells**Time:** 3-Apr, Thursday 11:25~11:50 am.**Place:** AIME 110 (coffee and snacks will be provided)**Speaker:****Ursula Triantafillu***PhD. Pre-Candidate***Abstract:**

Cancer is the second leading cause of death in the United States. Despite improvement in treatment options, understanding more about the origins of cancer is an important step in cancer treatment. It has been theorized that cancer stem cells play an important role in patients undergoing relapse. As a growing theory, it is important to understand more about these cancer stem cells and how they are affected by different environment. The physical environment that cancer stem cells experience can lead to various cell signaling. Fluid shear stress is one of the external effects that cancer cells experience. Fluid shear stress results within the body especially within the blood stream of patients undergoing metastasis where cancer cells detach from the primary tumor and enter the blood stream as circulating tumor cells to form secondary tumors. This research simulates fluid shear stress experienced by both circulating tumor cells and individual cancer cells in the vascular system of the human body and focuses on how fluid shear stress impacts cancer stem cell viability and specific biochemical signaling.

Biography:

Ursula Triantafillu graduated from the University of Alabama in 2012 with her B.S. in Chemical Engineering. She is currently pursuing her PhD in Chemical Engineering working with Dr. Kim's research group.