1125-92-866 **Nessy Tania*** (ntania@smith.edu), Department of Mathematics and Statistics, 44 College Lane, Northampton, MA 01063. *Modeling Actin Regulations in Motility Structures of Cancer Cells.* Preliminary report.

The actin cytoskeleton is an important part of cellular motility. Expressions of actin regulators are altered in metastatic carcinomas. In this talk, I will discuss an ongoing research on modeling two distinct motility structures involved in cancer metastasis, namely lamellipodia and invadopodia. Actin growth shows distinct dynamics during the formation of the two structures, which suggests that key regulators may be playing different roles. One regulator called cofilin severs capped actin-filaments spurring further growth in the lamellipodia. However, its role in the formation of invadodia is less clear, and may be highly dependent on the availability of actin monomers. (Received September 12, 2016)