1115-35-279 **Wenrui Hao*** (hao.50@osu.edu), 1735 Neil Ave., Columbus, OH 43210. *The LDL-HDL Profile Determines the Risk of Atherosclerosis.*

In this talk, I will describe a recent mathematical model that predicts the formation of a plaque as a function of the combined levels of (LDL, HDL) in the blood. The cholesterol levels in the blood reveal the risk of plaque growth in the artery. The model is given by a system of partial differential equations within the plaque. I will also briefly talk about some ongoing projects about aneurysm and red blood cell aggregation, which would have some potential blood biomarkers for diagnosis of AAA. (Received September 21, 2015)