Lisette dePillis* (depillis@hmc.edu), Harvey Mudd College, Department of Mathematics, 301 Platt Blvd., Claremont, CA 91711. Mathematical Models of Immune System Dynamics and Cancer.

The role of immune system dynamics in the context of cancer progression has become increasingly central in the development of new treatment strategies. The importance of the immune system in combating cancer has been verified clinically, as well as through mathematical models, yet open questions remain. For example, how do we think about non-uniform patient responses to treatments, and how might we personalize therapy protocols? In this talk, we will present a selection of mathematical models that yield some interesting insights. (Received September 06, 2019)