

1125-AA-1904 **Doron Levy*** (dlevy@math.umd.edu), Department of Mathematics, University of Maryland, College Park, MD 20854. *The role of the autologous immune response in chronic myelogenous leukemia.*

Tyrosine kinase inhibitors (TKIs), such as imatinib (IM), have significantly improved treatment of chronic myelogenous leukemia (CML). However, the majority of patients are not cured for undetermined reasons. It turns out that many patients who otherwise responded well to IM therapy still show variations in their BCR-ABL transcripts. In this talk we will overview mathematical models for CML. Our main focus will be on our recent results concerning mathematical models that integrate CML and an autologous immune response. This is a joint work with G. Clapp, T. Lepoutre, and F. Nicolini. (Received September 19, 2016)