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Lindsay K Bradley* (bradley14@winthrop.edu), 2061 Dunlap Roddey Road, Rock Hill, SC 29730, and **Kristen Abernathy** and **Zachary Abernathy**. *A Mathematical Model of Chronic Myeloid Leukemia with Treatment*. Preliminary report.

Chronic Myeloid Leukemia (CML) is a prevalent type of cancer where the presence of cancer stem cells is well studied. In this talk, we modify existing Gompertzian growth models to study the dynamics of CML and the effects of treatment on CML. In the absence of treatment, we demonstrate that the cure state is always unstable. We then present conditions on treatment parameters to guarantee a locally stable cure state. We conclude with numerical simulations and remaining open questions. (Received September 19, 2016)