WEIGUANG YAO, University of Western Ontario, London, Ontario
Estimate of the population of memory cells and application in drug treatment

The effector stage of a primary immune response is a transient process. We propose to estimate the maximal value of the population of activated immune cells during the transient process. The value is expressed in system parameters allowing an analysis on the contribution of these parameters including drug when a treatment is performed. Since the population of memory cells is proportional to the maximal value and the memory cells play an essential role in the memory stage on protecting the host from secondary challenges, we apply the estimate to designing optimal drug treatment.

This is a joint work with Lindi Wahl.