

Supplemental 3

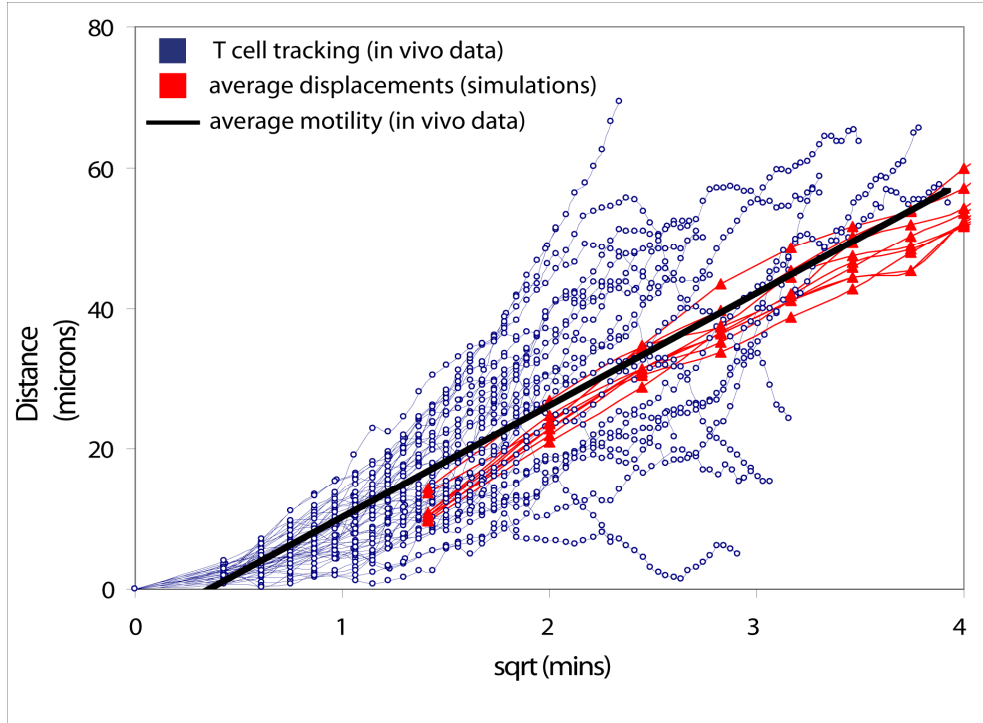


Figure 1. Comparison of T cell motility in 2PM experiments and ABM simulation. Displacement is plotted as a function of the square root of time. Blue circles represent individual T cell tracking data from 2PM experiments [published previously in Riggs et al 2008]. Data from 46 cells are shown. The black line represents the average calculated from these individual T cell data. Individual T cell tracks were also determined in ABM simulations. Red triangles represent the average displacement as a function of time for 50 individual T cells. Results from 10 different simulations are shown. Because the ABM updates T cell position every 2 minutes, the initial displacements data is marked at $1.41 \text{ min}^{1/2}$. The model was developed to incorporate two key cell movement parameters identified from 2PM studies: a mean free path (21 microns) and a T cell speed (10 microns/min), [Miller et al 2004].