

Figure 3. Prediction of Cell-State Dynamics with the Stochastic Cell-State Transition Model

The transition probabilities determined for the SUM159 line were used to compute the expected cell-state proportions over time for isolated subpopulations of stem-like, basal, or luminal cells. For all three isolated subpopulations, an eventual return to equilibrium cell-state proportions is predicted. The model predicts a transient increase in the proportion of SUM159 luminal cells one day after isolation of a stem-like subpopulation (red arrow).