
DAN COOMBS, University of British Columbia

Multistate modelling and parameter inference for cell surface receptor tracking analysis

T and B cells of the immune system detect and respond to foreign invaders using surface receptor molecules. These molecules can be labelled and their motion tracked on an individual basis on live cells. I will present recent work on quantitative methods for studying single receptor motion using hidden Markov models, including constrained and infinite state models. This is joint work with Rebeca Cardim Falcao, Tommi Muller and Dr. Libin Abraham.