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## Search times of T Cells in the liver

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The prevention of diseases such as malaria require certain T cells to find all pathogens in the liver within a certain period of time (e.g., within 48 hours, which is the time required for liver-stage development of parasites in rodent malaria). This motivates the fundamental question of how many T cells are required to ensure complete coverage of the liver within a specified time, to a high probability. After describing our existing results, we will present our current thoughts and approaches. Explanations will be given of how to model the liver sinusoids, how to implement fast simulations of T cell movement, and various possibilities for how to model the movement of T cells.

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