Metabolic Pathway Analysis of Microbes using the Artificial Bee Colony Algorithm

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Abstract : The human gut consists of a community of microbes which has a lot of effects on human health disease. Metabolic modeling can help to predict relative populations of stable microbes and their effect on health disease. In order to study and visualize microbes in the human gut, we developed a tool that offers the following modules: Build a tool that can be used to perform Flux Balance Analysis for microbes in the human gut using the Artificial Bee Colony optimization algorithm. Run simulations for an individual microbe in different conditions, such as aerobic and anaerobic and visualize the results of these simulations.

Keywords : microbes, metabolic modeling, flux balance analysis, artificial bee colony

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