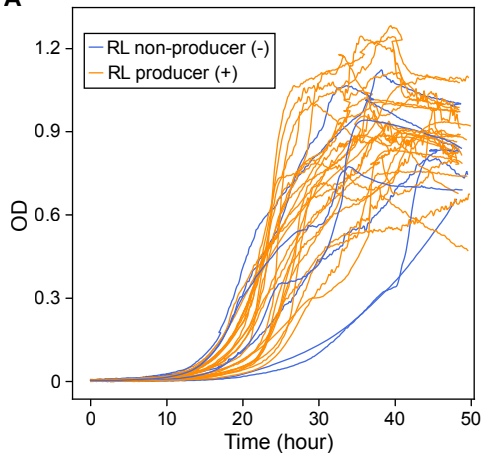


Decomposition of growth curves using Non-Negative Matrix Factorization (NNMF)

A



NNMF



Basis 1

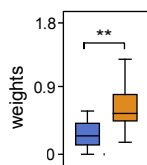
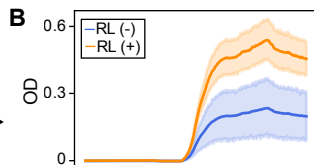


Basis 2

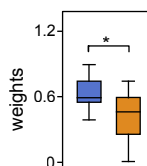
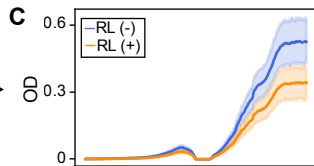


Basis 3

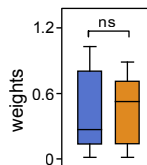
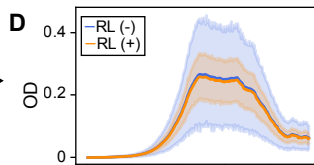
B



C

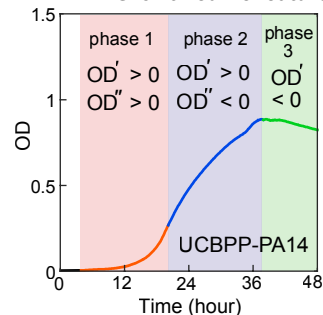


D



E

Growth curve feature extraction method



Features for each phase

start time (*start_t*)
duration (*delta_t*)
initial od (*init_od*)
od change (*delta_od*)
area under the curve (*area*)
mean specific growth rate (*sgr_mean*)
max absolute specific growth rate (*sgr_max*)

F

Feature selection using Random Forest classifier

