S1 Text: Ensemble time course trajectories obtained for training data

Data-driven reverse engineering of signaling pathways using ensembles of dynamic models

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1 Time-courses for training of different case-studies

1.1 Case study 1a (MAPKp)

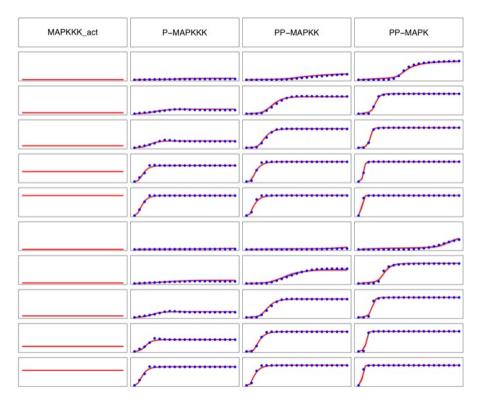


Figure 1: Ensemble time course trajectories for the case study 1a (MAPKp) (training data) The median in red is surrounded by the predicted non-symmetric 20% ,60% and 95%. Blue dots represent the pseudo-experimental data. Each row is an experiment and each column an observed signal.

1.2 Case study 1b (MAPKf)

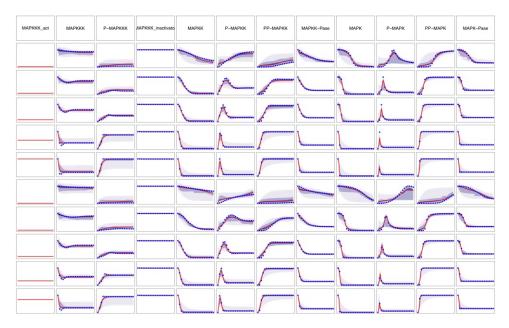


Figure 2: Ensemble time course trajectories for the case study 1b (MAPKf) $(training\ data)$ The median in red is surrounded by the predicted non-symmetric 20% ,60% and 95%. Blue dots represent the pseudo-experimental data. Each row is an experiment and each column an observed signal.

1.3 Case study 2 (SSP)

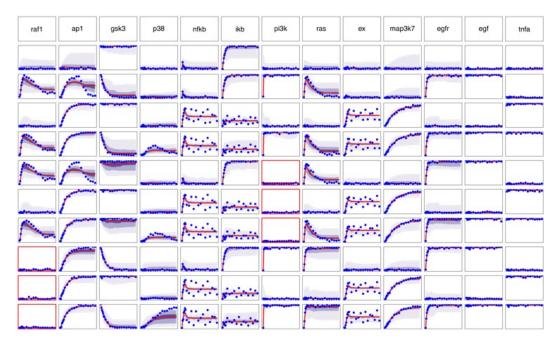
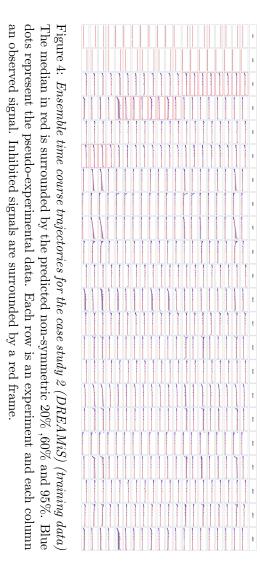


Figure 3: Ensemble time course trajectories for the case study 2 (SSP) (training data) The median in red is surrounded by the predicted non-symmetric 20%, 60% and 95%. Blue dots represent the pseudo-experimental data. Each row is an experiment and each column an observed signal.

1.4 Case study 3 (DREAMiS)



1.5 Case study 4a (DREAMBT20)

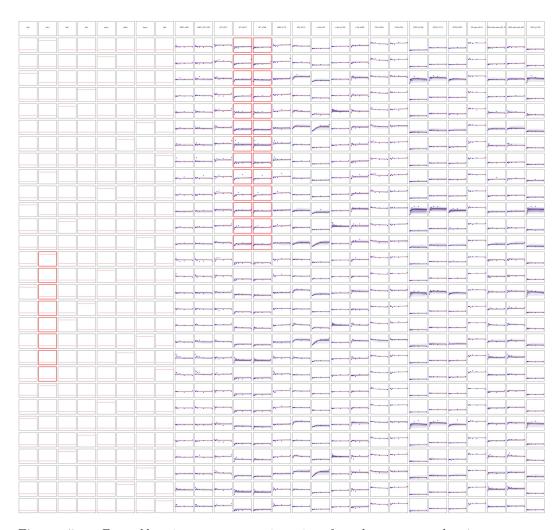


Figure 5: Ensemble time course trajectories for the case study 4a (DREAMBT20) (training data, part 1) The median in red is surrounded by the predicted non-symmetric 20%,60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

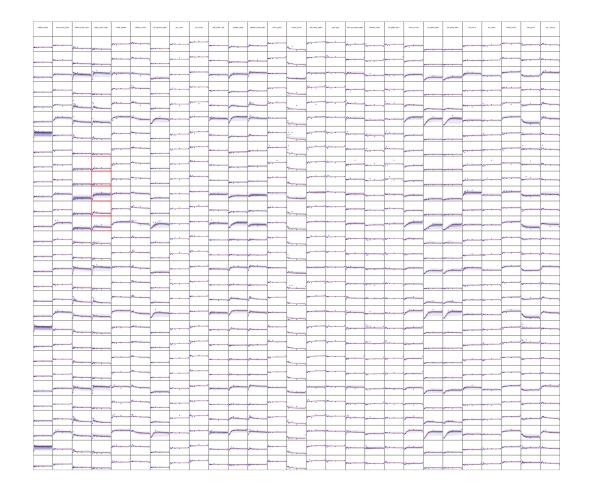


Figure 6: Ensemble time course trajectories for the case study 4a (DREAMBT20) (training data, part 2) The median in red is surrounded by the predicted non-symmetric 20%,60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

1.6 Case study 4b (DREAMBT549)

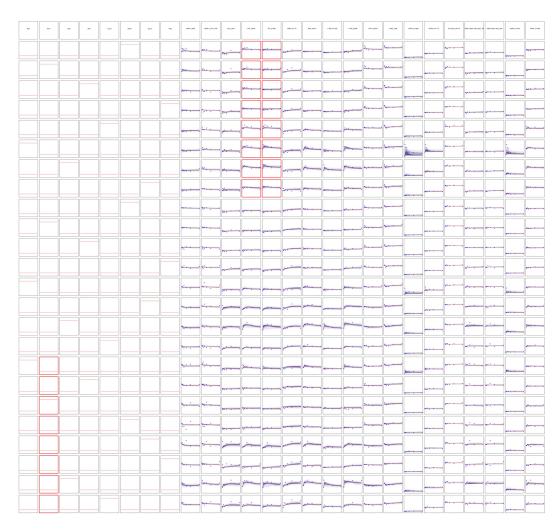


Figure 7: Ensemble time course trajectories for the case study 4b (DREAMBT549) (training data, part 1) The median in red is surrounded by the predicted non-symmetric 20%,60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

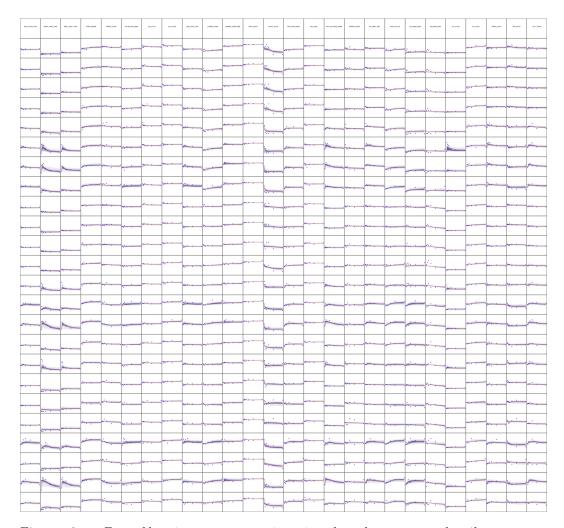


Figure 8: Ensemble time course trajectories for the case study 4b (DREAMBT549) (training data, part 2) The median in red is surrounded by the predicted non-symmetric 20%, 60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

1.7 Case study 4c (DREAMMCF7)

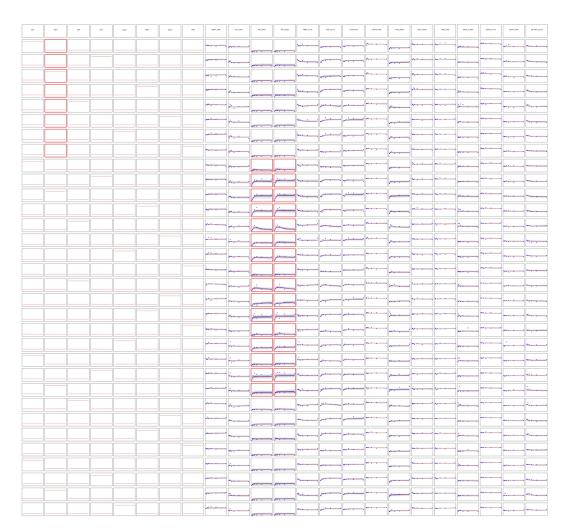


Figure 9: Ensemble time course trajectories for the case study 4c (DREAMMCF7) (training data, part 1) The median in red is surrounded by the predicted non-symmetric 20%,60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

1.8 Case study 4d (DREAMUACC812)

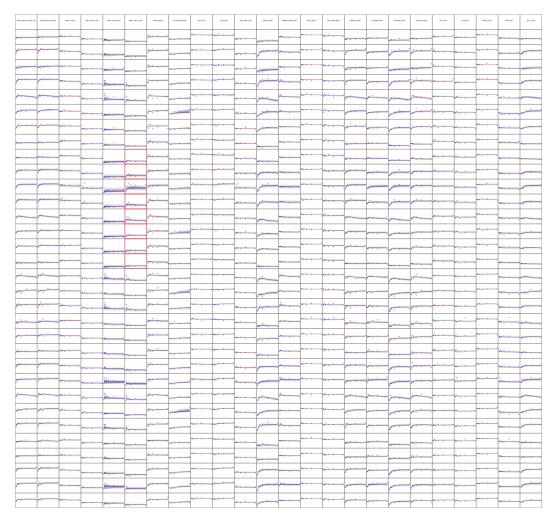


Figure 10: Ensemble time course trajectories for the case study 4c (DREAMMCF7) (training data, part 2) The median in red is surrounded by the predicted non-symmetric 20%, 60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

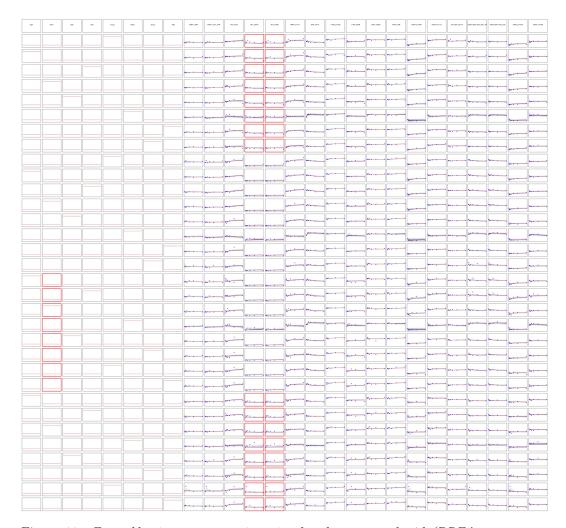


Figure 11: Ensemble time course trajectories for the case study 4d (DREA-MUACC812) (training data, part 1) The median in red is surrounded by the predicted non-symmetric 20%, 60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.

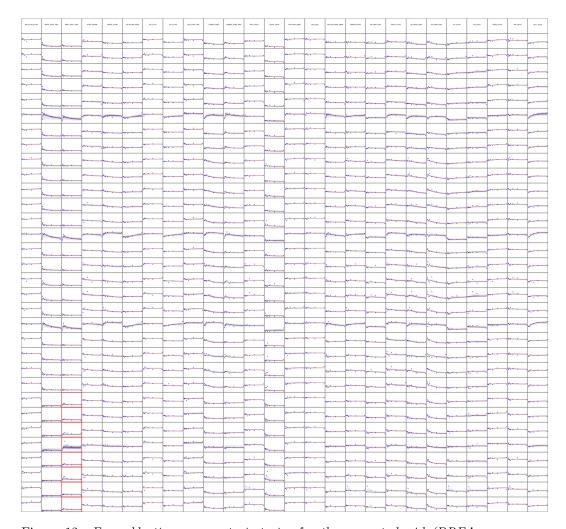


Figure 12: Ensemble time course trajectories for the case study 4d (DREA-MUACC812) (training data, part 2) The median in red is surrounded by the predicted non-symmetric 20%, 60% and 95%. Blue dots represent the experimental data. Each row is an experiment and each column an observed signal or stimuli. Inhibited signals are surrounded by a red frame and data for these experiments/signals combinations.