

***Bayesian network inference in systems biology - Jonathan Keith and Sarah Boyd***

The growth of cells is tightly regulated by an intricate network of biological molecules. Experimental techniques allow us to measure the actions of these molecules, but do not tell us exactly how they work together to regulate growth - this information needs to be inferred from the experimental data.

This project will develop Bayesian latent variable models to infer the structure of metabolic networks, using experimental data from yeast. The project will focus on integrating and modelling diverse data, recreating known structures, and identifying potentially uncharacterised network structures.