

Regulatory interactions for iron homeostasis in *Aspergillus fumigatus* inferred by a Systems Biology approach.

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Abstract

In System Biology, iterations of wet-lab experiments followed by modelling approaches and model-inspired experiments describe a cyclic workflow. This approach is especially useful for the inference of gene regulatory networks based on high-throughput gene expression data. Experiments can verify or falsify the predicted interactions allowing further refinement of the network model. *Aspergillus fumigatus* is a major human fungal pathogen. One important virulence trait is its ability to gain sufficient amounts of iron during infection process. Even though some regulatory interactions are known, we are still far from a complete understanding of the way iron homeostasis is regulated.

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