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Donnelly Centre for Cellular and Biochemical Research,
University of Toronto

Charlie Boone 教授によるセミナー

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Global Mapping of Genetic and Chemical-Genetic Networks in Yeast

Synthetic Genetic Array (SGA) analysis automates yeast genetics, enabling a number of different large-scale/systematic studies. In one of our major projects, we are attempting to generate the complete synthetic genetic interaction map for yeast cells. This map can be used to define complexes and pathways in the cell, but perhaps more importantly, it adds functional information to the protein-protein interaction map, identifying complexes and pathways that work together and buffer one another. Because a gene deletion mutation provides a model for the effect a target-specific inhibitor, the genetic network provides a key for interpreting chemical-genetic interaction profiles of the complete set of yeast mutants. We are expanding our genetic and chemical-genetic approaches in yeast, to study dosage suppression, dosage lethality, and high-content cell imaging in the context of different genetic backgrounds.

≪参考文献≫
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