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## Reverse Engineering of Gene Regulatory Networks in Systems Biology

Kwang-Hyun Cho

*College of Medicine and Bio-MAX Institute, Seoul National University, Seoul 151-818, Korea*

Systems biology is a multidimensional approach to the study of interactions of various cellular components within a cell. Due to constant developments of new technologies that enable us to measure quantitative gene expressions, systems biological studies on gene interactions have been getting a growing attention. Reconstructing gene regulatory networks forms a basis for dynamical analysis of gene interactions and related effects on cellular signaling pathways. In this presentation, I will review various approaches of inferring gene regulatory networks from gene expression profiles and introduce some recent developments in this direction from my group. I will also discuss the challenges and opportunities for future research in this area.

