



The University of Chicago
Department of Statistics

Seminar Series

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The University of Chicago

**Architecture and Regulation of Human Protein Interaction
Network: A View of Systems Biology**

**THURSDAY, March 13, 2008 at 12:00 PM
110 Eckhart Hall, 5734 S. University Avenue**

Joint seminar with Ecology and Evolution

ABSTRACT

Recently available large-scale genomic data enables us to examine complex interactions among functional components at the system level. For this purpose, protein-protein interaction networks provide a major platform. First, I will present some different architectural rules between yeast and human protein interaction networks, which suggests different driving forces in the evolution of the interaction networks. Second, in the context of the human protein interaction network, I will discuss the regulatory role of microRNAs, a major class of post-transcriptionally regulatory genes in higher eukaryotes. I found a global correlation between protein connectivity and microRNA regulation complexity in the corresponding genes, and that microRNA regulation likely coordinates the behavior of interacting partners.

Please send email to Mathias Drton (drton@galton.uchicago.edu) for further information. Information about building access for persons with disabilities may be obtained in advance by calling Karen Gonzalez (Department Administrator and Assistant to Chair) at 773.702.8335 or by email (karen@galton.uchicago.edu).