

Paper Reading Class 2009 Fall Term Suggested Reading list

Wet-lab: More biochemistry

1. Janet Jansson, et al. (2009) Metabolomics reveals metabolic biomarkers of Crohn's disease. [PLoS One 2009, 28:4\(7\):e6386](#)
2. J. Sterling, et al. (2004) Robustness of cellular functions. [Cell 2004, 118:675-685.](#)
3. Samir M. Hanas et al. (2008) Mining the plasma proteome for cancer biomarkers. [Nature 2008, 452, 571-579](#)
4. Jeremy K. Nicholson, et al. (2008) Systems biology: Metabonomics. [Nature 2008, 455, 1054-1056](#)
5. Paula D. Bos, et al. Genes that mediate breast cancer metastasis to the brain. [Nature 2009, 459\(7249\):1005-9.](#)
6. Kim JI, et al. (2009) A highly annotated whole-genome sequence of a Korean individual. [Nature 2009, 20:460\(7258\):1011-5](#)
7. He L and Hannon GJ (2004) MicroRNAs: small RNAs with a big role in gene regulation. [Nature Reviews Genetics 5, 522-531.](#)

System biology: wet and dry

1. Beisel, C. L., T. S. Bayer, et al. (2008). "Model-guided design of ligand- regulated RNAi for programmable control of gene expression." [Mol Syst Biol 4: 224.](#)
2. Brynildsen, M. P. and J. C. Liao (2009). "An integrated network approach identifies the isobutanol response network of Escherichia coli." [Mol Syst Biol 5: 277.](#)
3. Gal-Yam, E. N., G. Egger, et al. (2008). "Frequent switching of Polycomb repressive marks and DNA hypermethylation in the PC3 prostate cancer cell line." [Proc Natl Acad Sci U S A 105\(35\): 12979-84.](#)
4. Hood, L., J. R. Heath, et al. (2004). "Systems biology and new technologies enable predictive and preventative medicine." [Science 306\(5696\): 640-3.](#)
5. Jothi, R., S. Balaji, et al. (2009). "Genomic analysis reveals a tight link between transcription factor dynamics and regulatory network architecture." [Mol Syst Biol 5: 294.](#)
6. Kim, P. M., A. Sboner, et al. (2008). "The role of disorder in interaction networks: a structural analysis." [Mol Syst Biol 4: 179.](#)
7. Lamb, J., E. D. Crawford, et al. (2006). "The Connectivity Map: using gene- expression signatures to connect small molecules, genes, and disease." [Science 313\(5795\): 1929-35.](#)
8. Nguyen, D. H. and P. D'Haeseleer (2006). "Deciphering principles of transcription regulation in eukaryotic genomes." [Mol Syst Biol 2: 2006 0012.](#)
9. Reuter, J. A., S. Ortiz-Urda, et al. (2009). "Modeling inducible human tissue neoplasia identifies an extracellular matrix interaction network involved in cancer progression." [Cancer Cell 15\(6\): 477-88.](#)
10. Skotheim, J. M., S. Di Talia, et al. (2008). "Positive feedback of G1 cyclins ensures coherent cell cycle entry." [Nature 454: 291-296.](#)
11. Yanai, I., L. R. Baugh, et al. (2008). "Pairing of competitive and topologically distinct regulatory modules enhances patterned gene expression." [Mol Syst Biol 4: 163.](#)
12. Lage, K, Hansen NT, et al. (2008) A large-scale analysis of tissue-specific pathology and gene expression of human disease genes and complexes. [Proc Natl Acad Sci USA 105:20870-20875.](#)
13. Lehner B & Fraser AG. (2004) A first-draft human protein-interaction map. [Gen Biology 5:R93 pp1-9](#)
14. Goh KI et al. (2007) The human disease network. [PNAS 104:8685-8690.](#)