

SyBBI Paper Reading Class  
 Graduate Institute of Systems Biology and Bioinformatics  
 Fall term 2006  
 Supervised by HC Lee

Student Groups

Group A 錢良蕙 林俊宏 唐紹祖 陳鴻大\* 康星源\*

|    | field   | Paper  |
|----|---|--|
| A1 | <b>General</b>                                    | Computational systems biology. Kitano H. Nature. 2002 Nov 14;420(6912):206-10. Review.   |
| A2 | <b>Data base &amp; software</b>                   | GeneNet: a gene network database and its automated visualization <a href="http://www.genenetbeef.com/">http://www.genenetbeef.com/</a> |
| A3 | <b>Measurement and instrument</b>                 | Exploring the new world of the genome with DNA microarrays. Brown & Botstein, Nat. Gen. supplement. 1999, 21:33-37.                    |
| A4 | <b>Systems Biology experiment and theoretical</b> | A genomic code for nucleosome positioning. Eran Segal et al. Nature online 16 June 2006.   |
| A5 | <b>Modeling and simulation</b>                    | Network biology. Barabasi & Oltvai. Nature Rev. 2004, 5:101-114  |

Group B 林伯勳 紀永鑫 吳益盛 許梓亭 白宏益\* 范文郎\*

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| B1 | <b>General</b>                                    | Systems Biology: A Brief Overview. Hiroaki Kitano <a href="#">Science 2002, 295:1662-1664.</a>   |
| B2 | <b>Data base &amp; software</b>                   | Kyoto encyclopedia of genes and genomes (KEGG). Kanehisa & Goto, Nucl. Acids Res. (2000) 28:27-30.   |
| B3 | <b>Measurement and instrument</b>                 | Fabrication of microfluidic systems in poly (dimethylsiloxane). JC McDonald et al. Electrophoresis 2000, 21:27-40  |
| B4 | <b>Systems Biology experiment and theoretical</b> | A first-draft human protein-interaction map. Lehner & Fraser. Gen Biology 5:R93 pp1-9. <a href="http://genomebiology.com/2004/5/9/R63">http://genomebiology.com/2004/5/9/R63</a> |
| B5 | <b>Modeling and simulation</b>                    | Advances in flux balance analysis. Kauffman et al. Curr. Op. Biotech. 2003, 14:491-496   |

Group C 郭書麟 吳行展 柯懿婷 陳珮欣 曾致遠\*

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| C1 | <b>General</b>                    | The Meaning of Systems Biology. MW Kirchner. <a href="#">Cell 2005, 121:503504</a>   |
| C2 | <b>Data base &amp; software</b>   | PANTHER_A Library of Protein Families and Subfamilies Indexed by Function. <a href="http://www.pantherdb.org/">http://www.pantherdb.org/</a> |
| C3 | <b>Measurement and instrument</b> | Interpreting the protein language with proteomics...Ole N. Jensen; Nat Rev Mol Cell Biol 2006(7)391-403                                      |
| C4 | <b>Other</b>                      | Robustness of Cellular Functions. J. Sterlling et al. Cell 2004, 118:675-685.  |
| C5 | <b>Modeling and simulation</b>    | Dynamics of the p53-Mdm2 feedback loop in individual cells. Lahav et al. Nat Gen 2004, 36:147-150.   |

Group D 鍾智明 王思寰 葉紀達 康証傑 陳志瀉\* 蘇致璋\*

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|----|---|---|
| D1 | <b>General</b>                                    | Structure of biological networks: circuits, modules and motifs. Harvard_MIT Ph.D. Program ...   |
| D2 | <b>Data base &amp; software</b>                   | Systems biology mark-up language (SBML). Hucka et al. Bioinformatics 2003, 4:524-531.   |
| D3 | <b>Measurement and instrument</b>                 | A Panoramic View of Yeast Noncoding RNA Processing. WT Peng et al. Cell 2003, 113:919-933   |
| D4 | <b>Systems Biology experiment and theoretical</b> | A Protein Interaction Map of Drosophila melanogaster. Giot et al. Scienceexpress 6 November 2003 pp 1-19  |
| D5 | <b>Modeling and simulation</b>                    | Sniffers, buzzers, toggles and blinkers: dynamics of regulatory and signaling pathways in the cell. Tyson et al. Curr. Op. Cell Bio. 2003, 15:221-231 |

Group E 侯紹敏 郭嫻茜 李懿璋 張凱迪 游竣評\*

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| E1 | <b>General</b>                    | The evolution of molecular biology into systems biology. Westerhoff et al. Nature Biotech. 2004, 22:1249-1252.                                      |
| E2 | <b>Data base &amp; software</b>   | NCBI GEO mining millions of expression profiles—database and tools. <a href="http://labs.ansci.uiuc.edu/loor/">http://labs.ansci.uiuc.edu/loor/</a> |
| E3 | <b>Measurement and instrument</b> | Mass Spectrometry. R Aebersold & M Mann. Nature 2003, 422:199-207.  |
| E4 | <b>Protein Networks and Maps</b>  | Gene_Regulatory_Networks and the Evolution of Animal Body Plans. EH Davidson and DH Erwin. Science 2002, 295:1669 (2002)                            |
| E5 | <b>Modeling and simulation</b>    | (Bacterial chemotaxis) Robustness in simple biochemical networks. Barkai & Leibler. Nature 1997, 387:913-917  |

\* Students from the Lee Lab.