**Biographical Sketch**

**Name:** Mark Gerstein **Address:** Bass 432A, 266 Whitney Ave., MB&B, Yale University, New Haven, CT 06520 USA

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**Education**: 1989: AB Harvard College (Physics) 1993: PhD Cambridge U. (Chemistry)

**Appointments:**

2006 ~ AL Williams Prof. Biomedical Informatics 2002 ~ Co-Director Yale Computational Biology & Bioinformatics Program 2001 ~ 2006 Assoc. Prof. of Mol. Biophysics & Biochem. and CS, Yale University 1997 ~ 2001 Assist. Prof. of Mol. Biophysics & Biochem. and CS, Yale University 1993 ~ 1997 post-doc, Bioinformatics, Stanford University

**Five Most Relevant Publications:**

(Selected from >22 in ’11 (to end Q2), 32 in ’10, 39 in '09 25 in '08, 45 in '07, >408 in total)

A Abyzov, R Bjornson, M Felipe, **M Gerstein** (2010). “RigidFinder: a fast and sensitive method to detect rigid blocks in large macromolecular complexes,” *Proteins* **78**: 309-24. NR Voss, **M Gerstein** (2010). “3V: cavity, channel and cleft volume calculator and extractor,”

*Nucleic Acids* Res **38**: W555-62. N Bhardwaj, **M Gerstein** (2009). “Relating protein conformational changes to packing efficiency and disorder,” *Protein* Sci **18**: 1230-40

SC Flores, KS Keating, J Painter, F Morcos, K Nguyen, EA Merritt, LA Kuhn, **MB Gerstein** (2008). “HingeMaster: normal mode hinge prediction approach and integration of complementary predictors,” *Proteins* **73**: 299-319.

S Flores, N Echols, D Milburn, B Hespenheide, K Keating, J Lu, S Wells, EZ Yu, M Thorpe, **M Gerstein** (2006). “The Database of Macromolecular Motions: new features added at the decade mark,” *Nucleic Acids* Res **34**: D296-301. .

**Five Other Significant Publications:**C Shou, N Bhardwaj, HY Lam, KK Yan, PM Kim, M Snyder, **MB Gerstein** (2011). “Measuring the evolutionary rewiring of biological networks,” *PLoS Comput Biol* **7:** e1001050.

KK Yan, G Fang, N Bhardwaj, RP Alexander, **M Gerstein** (2010). “Comparing genomes to computer operating systems in terms of the topology and evolution of their regulatory control networks,” *Proc Natl Acad Sci* U S A **107**: 9186-91.

**MB Gerstein**, ZJ Lu, EL Van Nostrand, C Cheng, S Strome, KC Gunsalus, G Micklem, XS Liu, V Reinke, SK Kim, LW Hillier, S Henikoff, F Piano, M Snyder, L Stein, JD Lieb, RH Waterston...(116 authors) (2010). “Integrative analysis of the Caenorhabditis elegans genome by the modENCODE project,” *Science* **330**: 1775-87.

PM Kim, JO Korbel, **MB Gerstein** (2007). “Positive selection at the protein network periphery: evaluation in terms of structural constraints and cellular context,” *Proc Natl Acad Sci* U S A **104**: 20274-9.

PM Kim, LJ Lu, Y Xia, **MB Gerstein** (2006). “Relating three-dimensional structures to protein networks provides evolutionary insights,” *Science* **314**: 1938-41.

**Synergistic Activities:**

Editorial Board: FIG, J Struct Funct Genomics, TCBB, BMC ProteomeScience, GenomeBiology, PLOS Comp. Bio., Mol. Sys. Biol., Mol. & Cell. Proteomics, Gen. Research

Grant reviewer for NIH, NSF, and other funding agencies Analysis Working Group co-chair: modEncode consortium and Brainspan RNA-seq consortium

**Collaborators and Other Affiliations:**

C Arrowsmith, U Toronto; Prof X Deng, Yale; A Edwards, U Toronto; D Engelman, Yale; T Gingeras, CSHL; J Greenblatt, U Toronto; B Honig, Columbia; G Montelione, Rutgers; F Slack, Yale; M Snyder, Yale; B Turk, Yale; S Weissmann, Yale; K White, Yale.

**Graduate and Post-graduate Students:**

(All students and post-docs studied at Yale, >87 in total) J Rozowsky, S Balasubramanian, A Abyzov, A Harmanci, A Sboner, B Pei, C Cheng, C Sisu, E Khurana, G Fang, K Yan, N Bhardwaj, R Alexander, R Min, C Shou, D Clarke, J Wang, J Leng, L Habegger, L Lochovsky, P Alves, R Auerbach, R Robilotto, X Mu, A Counterman , C Goh, Y Xia , Z Zhang, A Karpikov, P Kim, L Lu , C Bruce, R Sasidharan, Y Yan, Z Yu, D Zheng, J Korbel, Y Pathy, H Yu, S Flores, T Gianoulis , T Royce , M Seringhaus, A Smith, Y Yip, P Patel, Y Liu, J Du, D Lu, O Emanuelsson, Y Kluger, I Laurenzi, N Luscombe, P Harrison, J Qian, A Paccanaro, Z Zhang, Y Liu, U Lehnert, V Trifonov, N Lan, S Chung, J Junker, J Karro, W Krebs, D Milburn, H Hegyi, V Alexandrov, P Bertone, R Das, D Greenbaum, R Jansen, Johnson, S Douglas, N Echols, J Lin, A Drawid, F Schubert, B Stenger

**Former Graduate and Post-doctoral Advisors:**

Dr. C. Chothia, Cambridge; Dr R M Lynden-Bell, Cambridge; Prof M Levitt, Stanford.