

Curriculum Vitae

JOSH STUART

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EMPLOYMENT

2004- Assistant Professor, Biomolecular Engineering, University of California, Santa Cruz
2003-2004 Acting Professor, Biomolecular Engineering, University of California, Santa Cruz
1996-1998 Research Assistant, Computer Science, University of Colorado, Boulder

EDUCATION

Ph.D. 2004 Stanford University, Biomedical Informatics.
B.A. 1996 University of Colorado, MCD Biology, *magna cum laude*.
B.S. 1996 University of Colorado, Computer Science.

HONORS & AWARDS

1995-1996 Achievement Rewards for College Scientists scholar. Awarded for molecular biology research by the ARCS Denver Chapter.
1998-2001 NLM Training Grant for graduate studies
2001-2004 NHGRI Genome Training Grant for graduate studies

PUBLICATIONS

Refereed Journal Papers

Forsberg EC, Prohaska SS, Katzman S, Heffner GC, Stuart JM, Weissman IL. "Differential Expression of Novel Potential Regulators in Hematopoietic Stem Cells." *PLoS Genet.* Sep 2;1(3):e28 (2005).

J.M. Stuart, E. Segal, D. Koller, S.K. Kim. "A Gene Coexpression Network for Global Discovery of Conserved Genetic Modules." *Science* 302(5643):249-55 (2003).

A.B. Owen, J. Stuart, K. Mach, and S.K. Kim. "A gene recommender algorithm to identify co-expressed genes in *C. elegans*." *Genome Res.* 13(8):1828-37 (2003).

P.J. Roy, J.M. Stuart, J. Lund, and S.K. Kim. "Chromosomal clustering of muscle-expressed genes in *C. elegans*." *Nature* 418:975-9 (2002).

S.K. Kim, J.Lund, M. Kiraly, K. Duke, M. Jiang, J.M. Stuart, A. Eizinger, B.N. Wylie, and G.S. Davidson. "A gene expression map for *C. elegans*." *Science* 293:2087-92.

M. Hewett, D.E. Oliver, D.L. Rubin, K.L. Easton, J.M. Stuart, R.B. Altman, and T.E. Klein. "PharmGKB: The Pharmacogenetics Knowledge Base." *Nucleic Acids Research* 30:163-5 (2001).

T.E. Klein, J.T. Chang, M.K. Cho, K.L. Easton, R. Fergerson, M. Hewett, Z. Lin, S. Yueyi I. Liu, V. Liu, D.E. Oliver, D.L. Rubin, F. Shafa, J.M. Stuart, and R.B. Altman. "Integrating genotype and phenotype information: an overview of the PharmGKB project." *Journal of Pharmacogenomics* 1:167-70 (2001).

E. Bradley and J.M. Stuart. "Using Chaos to Generate Variations on Movement Sequences." *Chaos* 8:800-7 (1998).

Conference Papers

D.E. Oliver, D.L. Rubin, J.M. Stuart, M. Hewett, T.E. Klein, and R.B. Altman. "Ontology development for a pharmacogenetics knowledge base." *Proceedings of the Pacific Symposium on Biocomputing*. Pages 65-76 (2002).

S. Raychaudhuri, J.M. Stuart, X. Liu, P.M. Small, and R.B. Altman. "Pattern recognition of genomic features with microarrays: Site typing of Mycobacterium tuberculosis strains." *Proceedings of the International Conference on Intelligent Systems for Molecular Biology* 8:286-95 (2001).

S. Raychaudhuri, J.M. Stuart, and R.B. Altman. "Principal components analysis to summarize microarray experiments: Application to sporulation time series" *Proceedings of the Pacific Symposium on Biocomputing*. 455-66 (2001).

J.M. Stuart and E. Bradley. "Learning the grammar of dance." *Proceedings of the International Conference on Machine Learning*, Madison, Wisconsin, (1998).

Invited Book Chapters

Emerging Molecular and Computational Approaches for Cross-Species Extrapolations, Society of Environmental Toxicology and Chemistry *in preparation*. A joint SETAC-SOP Pellston Workshop, Portland, OR July 18-22 (2004) *in preparation*.

Non-refereed Papers

S. Raychaudhuri, P.D. Sutphin, J.M. Stuart, and R.B. Altman. "CLEAVER : Analyzing microarray data using known biological categories." *Stanford Medical Informatics Technical Report* 2000-0839 (2000).

S. Raychaudhuri, P.D. Sutphin, J.M. Stuart, A.J. Giaccia, and R.B. Altman. "Supervised Machine Learning: Analyzing Microarray Data Using Known Biological Categories" *Stanford Medical Informatics Technical Report* 2000-0853 (2000).

E. Bradley and J.M. Stuart. "Using chaos to generate choreographic variations." *Proceedings of the Fourth Experimental Chaos Conference*. World Scientific, (1997).

OUTSIDE PROFESSIONAL ACTIVITIES & SERVICE

Invited Talks

- 2004 "Gene Discovery: Banking on Evolution". 6th Annual National Atherosclerosis Forum. Toronto ON, Canada September.
- 2004 "Identifying ancient and mammalian modules from gene expression compendiums on multiple species". 7th International Meeting of the Microarray Gene Expression Data Society. Toronto ON, Canada September.
- 2002 "Gene expression landscapes". Fifth Symposium on Functional Genomics, hosted by The Research School in Genomics and Bioinformatics and the Lundberg Institute, Göteborg University, Sweden.

Industrial Consulting

2004- Celera Diagnostics, Alameda CA

Professional Associations

2000- Member of the International Society for Computational Biology.

2000- Member of the IEEE

Journal Referee

Proceedings of the Pacific Symposium on Biocomputing (2003, 2004)

Proceedings of the National Academy of Sciences (2004)

UNIVERSITY ACTIVITIES & SERVICE

Committees

2003- Biomedical Building Planning Committee.

Departmental Service

Winter 2004 Graduate Admissions Committee

Winter 2004 Faculty Recruitment Committee

TEACHING

Students Supervised

Ph.D. Students Supervised

Martina Koeva (2004-present), Chunnuan Chen (2004-present), Charles Vaske (2004-present), Matthiew Weirauch (2004-present), David Ng (2005-present), Alex Williams (2005-present), Courtney Onodera (2005-present)

M.S. Students Supervised

Wu, Chiung-Yuan (2004), Corey Powell (2004-present), David Bernick (2005-present)

Undergraduate Students Supervised

Nathaniel Bahr (2004)

Courses Taught

2004, 2005 Computational Genomics

2004, 2005 Programming for Biologists and Biochemists

2004 Application and Analysis of Microarrays