

Curriculum Vitae

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature: 

Date: Feb 6, 2015

I. Personal Information

A. UID, Last Name, First Name, Contact Information

111624614

Hannenhalli, Sridhar

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B. Current Academic Appointment

- | | |
|-------|--|
| 2010- | Associate professor, Department of Cell and Molecular Biology (50%) |
| 2010- | Associate professor, University of Maryland Institute for Advance Computer Studies (50%) |
| 2010- | Affiliate Associate Professor, Department of Computer Science |

C. Other Academic and/or Administrative Appointments while at UMD

- | | |
|--------------|--|
| 2011-present | Adjunct Associate Professor of Genetics, University of Pennsylvania School of Medicine, Philadelphia |
| 2012-2013 | Interim Director, Center for Bioinformatics and Computational Biology, UMD |
| 2013-present | Director, Computational Biology Concentration of BISI Ph.D. program, UMD |

D. Employment Background

1997-2000	Senior Computational Biologist, Glaxo Smith Kline
2000-2003	Principle Computational Biologist, Celera Genomics
2003-2009	Assistant Professor of Genetics, University of Pennsylvania School of Medicine
2009-2010	Associate Professor of Genetics, University of Pennsylvania School of Medicine
2010-present	Associate Professor of Cell Bio and Molecular Genetics, UMD, College Park
2010-present	Affiliate Associate Professor of Computer Science, UMD, College Park
2011-present	Adjunct Associate Professor of Genetics, University of Pennsylvania School of Medicine, Philadelphia
2012-2013	Interim Director, Center for Bioinformatics and Computational Biology, UMD
2013-present	Director, Computational Biology Concentration of BISI Ph.D. program, UMD

E. Educational Background

1990	B.Tech.	Computer Science, Indian Institute of Technology, Varanasi, India
1992	M.S.	Computer Science, University of Central Florida, Orlando, FL
1996	PhD	Computer Science, Pennsylvania State University, University Park, PA In the lab of Dr. Pavel Pevzner <i>Thesis: Computational theory of genome evolution via rearrangements</i>
1997	Postdoc	Department of Mathematics, University of Southern California, LA

II. Research, Scholarly and Creative Activities

A. Books (include full citation information and ISBN)

1. Book Chapters (*include page numbers*)

1. S. Hannenhalli S. and P. Pevzner: Towards a computational theory of genome rearrangements. Lecture Notes in Computer Science 1000: 184-202, 1995.

2. S. Hannenhalli, S., E. Hubbell, R. Lipshutz and P. Pevzner: Combinatorial Analysis for design of DNA Arrays. Chip Technology J. Hoheisel (eds.). Springer-Verlag, Page: 1-19, 2002.
3. Hannenhalli, S.: Eukaryotic Transcriptional Regulation: Signals, Interactions and Modules. Computational Genomics Stojanovich, N. (eds.). Horizon Bioscience, Page: 55-82, 2007.
4. Hannenhalli, S.: Modeling regulatory motifs. Bioinformatics for Biologist. Pavel Pevzner and Ron Shamir (eds.). Cambridge University Press, 126-147, 2011.

B. Articles in Refereed Journals

Refereed Journal and Conference papers are not separated because in computational areas conference papers are considered no less competitive than the journal papers. Conference papers in Computational Biology should not be equated with 'Meeting Abstracts' in life sciences.

*Wherever I am the first author, I will claim technical and/or intellectual leadership. Wherever I am last author I claim intellectual leadership. I will highlight in **bold** the places where I am Corresponding (or co-corresponding) but non-last author.*

Postdoc mentored by me

\$ Graduate Student mentored by me

% Undergraduate student mentored by me

Refereed Research Articles

1. K. Hua and S. Hannenhalli: Parallel transitive closure computations using topological sort. Proc. of Intl. Conf. on Parallel and Distributed Information Systems 1991.
2. S. Hannenhalli, K. Perumalla, N. Chandrasekharan and R. Sridhar: A distributed algorithm for ear decomposition. Proc. of Intl. Conf. on Computing and Information Page: 180-184, 1993.
3. M. Borah, S. Hannenhalli, R. Bajwa and M. Irwin: A SIMD solution to the sequence comparison problem on the MGAP. Proc. of Intl. Conf. on Application Specific Array Processing Page: 336-345, 1994.
4. N. Chandrasekharan and S. Hannenhalli: Efficient algorithms for computing matching and chromatic polynomials in series-parallel graphs. Journal of Combinatorial Mathematics and Combinatorial Computing 15: 19-32, 1994.

5. S. Hannenhalli and P. Pevzner: Transforming cabbage into turnip (polynomial algorithm for sorting signed permutations by reversals). Proc. 27th Annual ACM Symposium on the Theory of Computing Page: 178-189, 1995.
6. S. Hannenhalli and P. Pevzner: Transforming men into mice (polynomial algorithm for genomic distance problem). 36th Annual IEEE Symposium on Foundations of Computer Science Page: 581-592, 1995.
7. S. Hannenhalli, C. Chappey, E. Koonin and P. Pevzner: Genome sequence comparison and scenarios for gene rearrangements: A test case. Genomics 30: 299-311, 1995.
8. P. Berman and S. Hannenhalli: Fast sorting for reversal. Combinatorial Pattern Matching Page: 168-185, 1996.
9. S. Hannenhalli: Polynomial algorithm for computing translocation distance between genomes. Journal of Discrete Applied Math (Special Issue on Computational Molecular Biology) 1: 137-152, 1996.
10. S. Hannenhalli and P. Pevzner: To cut ... or not to cut (applications of comparative physical maps in molecular evolution). Seventh Annual ACM-SIAM Symposium on Discrete Algorithms Page: 304-313, 1996.
11. S. Hannenhalli, P. Pevzner, H. Lewis, S. Skeina and W. Feldman: Positional sequencing by hybridization. Bioinformatics (formerly CABIOS) 12: 19-24, 1996.
12. R. Agarwala, S. Batzoglou, V. Dancik, S. Decatur, S. Hannenhalli, M. farach, S. Muthukrishnan and S. Skiena: Local rules for protein folding on a triangular lattice and generalized hydrophobicity in HP model. Journal of Computational Biology 4: 275-296, 1997.
13. V. Dancik, S. Hannenhalli and S. Muthukrishnan: Hardness of flip-cut problems from optical mapping. Journal of Computational Biology 4: 119-125, 1997.
14. **S. Hannenhalli**, W. Hayes, A. Hatzgeorgiou and J. Fickett: Bacterial start site prediction. NAR 27: 3577-3582, 1999.
15. S. Hannenhalli and R. Russell: Analysis and prediction of protein functional subtype from protein sequence alignments. Journal of Molecular Biology 202: 61-76, 2000.
16. V. Bafna, **S. Hannenhalli**, K. Rice and L. Vawter: Ligand-receptor pairing via tree comparison. Journal of Computational Biology 7: 59-70, 2000.
17. **S. Hannenhalli** and S. Levy: Promoter prediction in human genome. Bioinformatics 17: S90-S96, 2001.
18. S. Levy, S. Hannenhalli and C. Workman: Enrichment of regulatory signals in conserved non-coding genomic sequence. Bioinformatics 1: 1-7, 2001.
19. Venter et al: The human genome. Science 291: 1304-1351, 2001. (43rd author among over 250 authors)
20. P. Berman, S. Hannenhalli and M. Karpinski: Approximation algorithm for sorting by reversals. ESA 1: 375, 2002.

21. **S. Hannenhalli** and S. Levy: Predicting transcription factor synergism. Nucleic Acids Research 30: 4278-4284, 2002.
22. S. Levy and **S. Hannenhalli**: Identification of transcription factor binding sites in the human genome. Mammalian Genome 13: 510-514, 2002.
23. **S. Hannenhalli** and S. Levy: Transcriptional regulation of protein complexes and pathways. Mammalian Genome 14: 611-619, 2003.
24. Istrail, S., Sutton, G. G., Florea, L., Halpern, A. L., Mobarry, C. M., Lippert, R., Walenz, B., Shatkay, H., Dew, I., Miller, J. R., Flanigan, M. J., Edwards, N. J., Bolanos, R., Fasulo, D., Halldorsson, B. V., Hannenhalli, S., Turner, R., Yooseph, S., Lu, F., Nusskern, D. R., Shue, B. C., Zheng, X. H., Zhong, F., Delcher, A. L., Huson, D. H., Kravitz, S. A., Mouchard, L., Reinert, K., Remington, K. A., Clark, A. G., Waterman, M. S., Eichler, E. E., Adams, M. D., Hunkapiller, M. W., Myers, E. W., and Venter, J. C.: Whole-genome shotgun assembly and comparison of human genome assemblies. PNAS 101(7): 1916-21, 2004.
25. V. Bafna and D. Gusfield and S. Hannenhalli and S. Yooseph: A Note on Efficient Computation of Haplotypes via Perfect Phylogeny. Journal of Computational Biology 11(5): 858-866 2004.
26. J. Wang and S. Hannenhalli: Generalized Markov models for sequence classification. BMC Bioinformatics 6(1): 219-230, 2005.
27. L.S. Wang, S.T. Jensen, S. Hannenhalli: An Interaction-dependent model for transcription factor binding. RECOMB-Regulation 2005.
28. M. K. Lewinski, D. Bisgrove, P. Shinn, H. Chen, S. Hannenhalli, E. Verdin, C. C. Berry, J. R. Ecker, and F. D. Bushman: Genome-wide analysis of chromosomal feature repressing HIV transcription. J. Virology 79(11): 6610-6619, 2005.
29. **S. Hannenhalli** and L.S. Wang: Enhanced position weight matrices using mixture models. Bioinformatics 21(suppl 1): i204-212 2005.
30. C. Berry, S. Hannenhalli, J. Leipzig and F. Bushman : Selection of Target Sites for Mobile DNA Integration in the Human Genome. PLoS Comput Biol 2(11): e157, 2006.
31. D. A. Ross, S. Hannenhalli, J. Tobias, N. Cooch, R. Shiekhattar and T. Kadesch: Functional analysis of Hes-1 in preadipocyte. Mol Endocrinol 20: 698-705, 2006.
32. D. Hadley, T. Murphy, O. Valladares, S. Hannenhalli, L. Ungar, J. Kim, M. Bucan: Patterns of Sequence Conservation in Presynaptic Neural Genes. Genome Biology 7(11): R105, 2006.
33. Hanno Hinsch[§] and Sridhar Hannenhalli: Recurring genomic breaks in independent lineages support genomic fragility. BMC Evolutionary Biology 6: 90, 2006.
34. J. Wang[#] and S. Hannenhalli: A mammalian promoter model links cis elements to genetic networks. Biochem Biophys Res Commun 347(1): 166-177, 2006.

35. L. Everett[§], L.S. Wang, and S. Hannenhalli: Dense subgraph computation via stochastic search: application to detect transcriptional modules. Bioinformatics 22(14): e117-e123, 2006.
36. Lewinski, M. K., Yamashita, H., Emerman, M., Shinn, P., Leipzig, J., Hannenhalli, S., Berry, C., Ecker, J. R., Bushman, F.D.: Retroviral gag and integrase act synergistically to determine integration target specificity. PLoS Pathogens 2(6): e60, 2006.
37. M.B. Keeley, M. Wood, C. Isiegas, J. Stein, K. Hellman, S. Hannenhalli, T. Abel: Differential Transcriptional Response to Non-Associative and Associative Components of Classical Fear Conditioning in the Amygdala and Hippocampus. Memory and Learning 13: 135-142, 2006.
38. P. Evans[§], G. Donahue[§] and S. Hannenhalli: Conservation patterns in cis-elements reveal compensatory mutations. RECOMB-Comparative Genomics, Lecture Notes in Computer Science. A. McLysaght, J. Lagergren and D. Sankoff (eds.). Springer Berlin 4205: 186-199, 2006.
39. S. Hannenhalli, M. Putt, J. Gilmore, J. Wang, M. Parmacek, J. Epstein, E. Morrissey, K. Margulies and T. Cappola: Transcriptional genomics associates FOX transcription factors with human heart failure. Circulation 2006.
40. S. Hannenhalli, R. P. Middleton, S. Levy, B. Perroud, J. A. Holzwarth, K. McDonald, and S. S. Hannah: Identification and Cross-Species Comparison of Canine Osteoarthritic Gene Regulatory cis-Elements. OSTEOARTHRITIS AND CARTILAGE 14(8): 830-838, 2006.
41. Wang, J.[#], **Hannenhalli, S.** & Ungar, L.: MetaProm: a neural network based meta-predictor for alternative human promoter prediction. BMC Genomics 8: 374-386, Oct 2007.
42. Larry N. Singh[#], Li-San Wang, and Sridhar Hannenhalli: TREMOR - A tool for retrieving transcriptional modules by incorporating motif covariance. NAR 35(21): 7360-71, 2007.
43. Minkah, N., Hwang, Y., Perry, K., Van Duyne, G. D., Hendrickson, R., Lefkowitz, E. J., Hannenhalli, S., Bushman, F. D.: Variola virus topoisomerase: DNA cleavage specificity and distribution of sites in Poxvirus genomes. Virology 365(1): 60-9, 2007.
44. S. Vardhanabhuti[§], J. Wang[#], S. Hannenhalli: Position and distance specificity are important determinants of cis-regulatory motifs in addition to evolutionary conservation. NAR 35: 3339-3354, 2007.
45. S. Yang, K. Wang, O. Valladares, **S. Hannenhalli** and M. Bucan: Genome-wide expression profiling and bioinformatics analysis of diurnally regulated genes in the mouse prefrontal cortex. Genome Biology 8(11): R247, 2007.

46. Y. Zhang, N. Rath, S. Hannenhalli, Z. Wang, T. Cappola, S. Kimura, E. Atochina-Vasserman, M.M. Lu, M. Beers, and E.E. Morrisey: GATA and Nkx factors synergistically regulate tissue specific gene expression and development in vivo. Development 134(1): 189-98, 2007.
47. L. Singh[#] and S. Hannenhalli: Functional diversification of paralogous transcription factors via divergence in DNA binding site motif and in expression. PLoS ONE 3(e2345), April 2008.
48. K. Essien[#], S. Hannenhalli, C.J. Stoeckert Jr: Computational analysis of constraints on noncoding regions, coding regions and gene expression in relation to Plasmodium phenotypic diversity. PLoS ONE 3(9): e3122, August 2008.
49. P. Sethupathy[#], H. Giang, J. Plotkin, S. Hannenhalli: Genome-wide analysis of natural selection on human cis-elements. PLoS ONE 3(9): e3137, Aug 2008.
50. D.R. Fermin, A. Barac, S. Lee, S.P. Polster, S. Hannenhalli, T Bergemann, S.M. Grindle, D.B. Dyke, F.D. Pagani, L.W. Miller, S. Tan, C. dos Remedios, T.P. Cappola, K.B. Margulies, and J.L. Hall1 : Sex and Age Dimorphism of Myocardial Gene Expression in Nonischemic Human Heart Failure. Circulation Cardiovascular Genetics CIRCGENETICS.108.802652, December 2008.
51. Wan, L.B., Pan, H., Hannenhalli, S., Cheng, Y., Ma, J., Fedoriw, A., Lobanenkov, V., Latham, K.E., Schultz, R.M. & Bartolomei, M.S.: Maternal depletion of CTCF reveals multiple functions during oocyte and preimplantation embryo development. Development 135: 2729-2738, 2008.
52. Rachana Shah, Yun Lu, Christine C Hinkle, Fiona C McGillicuddy, Roy Kim, Sridhar Hannenhalli, Thomas Cappola, Sean Heffron, XingMei Wang, Nehal Mehta, Mary Putt, Muredach P. Reilly: Gene profiling of human adipose tissue during evoked inflammation in vivo. Diabetes 58(10): 2211-2219, June 2009.
53. Rui Liu, **Sridhar Hannenhalli**, Maja Bucan: Motifs and cis-regulatory modules mediating the expression of genes co-expressed in presynaptic neurons Genome Biology 10(7): R72, June 2009 Notes: * co-corresponding author.
54. A.N. Qasim, T.S. Metkus, M. Lehrke, S. Restine, M.L. Wolfe, T. Cappola, S. Hannenhalli, M. Tadesse, D.J. Rader, M.P. Reilly: Resistin Gene Variation is Associated with Systemic Inflammation but not Plasma Adipokine Levels, Metabolic Syndrome or Coronary Atherosclerosis in non-Diabetic Caucasians. Clinical Endocrinology 70(5): 698-705, July 2009.
55. K. Essien[#], S. Vigneau, S. Apreleva[#], L.N. Singh[#], M.S. Bartolomei and S. Hannenhalli: CTCF binding site classes exhibit distinct evolutionary, genomic, epigenomic and transcriptomic features. Genome Biology 10(11): R131, Nov 2009.
56. Everett, L.^{\$}, Vo, A.[%], Hannenhalli, S.: PTM-Switchboard--a database of posttranslational modifications of transcription factors, the mediating enzymes and target genes. Nucleic Acids Res 37(Database issue): D66-71, 2009.

57. Putt, M., Hannenhalli, S., Lu, Y., Haines, P., Chandruptla, H., Morrissey, E.E., Margulies, K.B., Cappola, T.: Evidence for co-regulation of myocardial gene expression by MEF2 and NFAT in human heart failure. Circulation: Cardiovascular Genetics 2(3): 212-219, 2009.
58. Matthew Hansen[#], Logan Everett^{\$}, Larry Singh[#], Sridhar Hannenhalli: Mimosa - Mixture model of co-expression to detect modulators of regulatory interaction Algorithms in Mol Biology. Stephen Salzberg and Tandy Warnow (eds.). 5: 4, September 2010 Notes: Accepted at the conference "Workshop on Algorithms in Bioinformatics"
59. A. Vishnoi[#], S. Kryazhimskiy, G.A. Bazykin, **S. Hannenhalli**, J.B. Plotkin: Young proteins experience more variable selection pressures than old proteins. Genome Research 20(11): 1574-1581, 2010.
60. C.M. Trivedi, W. Zhu, Q. Wang, C. Jia, H.J. Kee, L. Li, S. Hannenhalli, and J.A. Epstein: Hopx and Hdac2 interact to modulate Gata4 acetylation and embryonic cardiac myocyte proliferation. Developmental Cell 19(3): 450-459, 2010.
61. Larry N singh[#] and Sridhar Hannenhalli: Correlated changes between regulatory cis elements and condition-specific expression in paralogous gene families. NAR 38(3): 738-49, 2010.
62. Rohlfing, A. K. Miteva, Y., Hannenhalli, S. and Lamitina, T.: Genetic and physiological activation of osmosensitive gene expression mimics transcriptional signatures of pathogen infection in *C. elegans*. PLoS ONE 5(2): e9010, 2010.
63. Anchal Vishnoi[#], Praveen Sethupathy^{\$}, Daniel Simola, Joshua B. Plotkin, and Sridhar Hannenhalli: Genome-wide survey of natural selection on functional, structural, and network properties of polymorphic sites in *Saccharomyces paradoxus*. Molecular Biology and Evolution 28(9): 2615-2627, 2011.
64. Dewey F.E., Perez, M.V., Wheeler, M.T., Watt, C., Spin, J., Langfelder, P., Horvath, S., Hannenhalli, S., Cappola, T.P., Ashley, E.A.: Gene coexpression network topology of cardiac development, hypertrophy, and failure. Circulation: cardiovascular genetics 4(1): 26-35, 2011.
65. Everett, L. ^{\$}, Jensen, S., and Hannenhalli, S.: Transcriptional regulation via TF-modifying enzymes -- an integrative model-based analysis Nucleic Acids Research 39(12): e78, 2011.
66. M. Khaladkar[#], M. Smyda[%], and S. Hannenhalli: Epigenomic and RNA Structural Correlates of Polyadenylation. RNA Biology 8(3): 529-537, 2011.
67. Sergey Yaklichkin[#], Diana Darnel, Maricella Pierand, Parker B. Antin, and Sridhar Hannenhalli: Accelerated evolution of 3'avian FOXE1 Genes and thyroid specific expression of chicken FoxE1. BMC Evolutionary Biology 11: 302, 2011.
68. Y. Tian, Y. Zhang, L. Hurd, S. Hannenhalli, F. Liu, M.M. Lu, and E. Morrissey: Regulation of lung endoderm progenitor cell behavior by miR302/367 Development 138(7): 1235-1245, 2011.

69. Alexander J. Stewart, Sridhar Hannenhalli and Joshua B. Plotkin: Why Transcription Factor Binding Sites Are Ten Nucleotides Long. Genetics 192(3): 973-985, 2012.
70. Avinash D. Sahu[§], R. Aniba[#], Y.C. Chang, S. Hannenhalli : Epigenomic model of cardiac enhancers with application to Genome wide association studies. Proceedings of the Pacific Symposium on Biocomputing 2012.
71. Christopher G. Vecsey, Lucia Peixoto, Jennifer H.K. Choib, Mathieu Wimmerb, Devan Jaganathb, Pepe J. Hernandezb, Jennifer Blackwellb, Karuna Medab, Alan J. Parkb, Sridhar Hannenhalli and Ted Abel: Genomic analysis of sleep deprivation reveals translational regulation in the hippocampus. Physiological Genomics 44(20): 981-991, 2012.
72. Gita Mahmoudabadi, Krithika Rajagopalan, Robert H. Getzenberg, Sridhar Hannenhalli, Govindan Rangarajan, and Prakash Kulkarni: Intrinsically Disordered Proteins and Conformational Noise: Implications in Cancer. Cell Cycle 12(1): 26-31, Dec 2012.
73. Jia Zeng[#] and Sridhar Hannenhalli: Inferring Evolution of Gene Duplicates Using Probabilistic Models and Nonparametric Belief Propagation. BMC Genomics 14 Suppl 1: S15, 2012.
74. Jian Li, Nina Bowens, Lan Cheng, Mary Chen, Sridhar Hannenhalli, Xiaohong Zhu, Thomas P. Cappola, and Michael S. Parmacek: Myocardin-like Protein (MKL)-2 Regulates TGF- β Signaling in Embryonic Stem Cells and the Developing Vasculature Development 139(19): 3531-3542, 2012.
75. Joseph Carl[#], Joanne Trgovcich and Sridhar Hannenhalli: Widespread evidence of viral miRNAs targeting host pathways. BMC Bioinformatics 14 Suppl 2: S3, 2012.
76. Mugdha Khaladkar[#], Sridhar Hannenhalli: Functional Divergence of Gene Duplicates: a Domain-centric view BMC Evolutionary Biology 12:126, 2012.
77. Elfalem Alemu[%], Joseph W. Carl Jr.[#], Hector Corrada-Bravo and Sridhar Hannenhalli: Determinants of expression variability. NAR 42(6): 3503-14, 2013.
78. Hao Wang, Geet Duggal, Rob Patro, Michelle Girvan, Sridhar Hannenhalli and Carl Kingsford: Topological properties of chromosome conformation graphs reflect spatial proximities within chromatin. ACM BCB 2013 2013.
79. Kun Wang[§], Avinash Das[§], Zheng-Mei Xiong, Kan Cao and Sridhar Hannenhalli: Identification of gene clusters with phenotype-dependent expression with application to normal and premature ageing. ACM BCB 2013 2013.
80. Malin, Justin[§], Aniba, Mohamed[#], Hannenhalli, Sridhar: Enhancer networks revealed by correlated DNase hypersensitivity states of enhancers. NAR 41(14): 6828-6838, 2013.

81. Plasschaert, Robert; Vigneau, Sebatien; Tempera, Italo; Gupta, Ravi; Maksimoska, Jasna; Everett, Logan; Davuluri, Ramana; Marmorstein, Ronen; Lieberman, Paul; Schultz, David; **Hannenhalli, Sridhar**; Bartolomei, Marisa: CTCF binding site sequence differences are associated with unique regulatory and functional trends during embryonic stem cell differentiation. NAR 42(2): 774-789, 2013.
82. R. Mukherjee[§], L.N.S. Singh[#], P. Evans, S. Hannenhalli: Correlated evolution of positions within mammalian cis elements. PLoS ONE 8(2): e55521, 2013.
83. Robert Kim[%], Prakash Kulkarni and Sridhar Hannenhalli: Derepression of Cancer/Testis Antigens in Cancer is Associated with Distinct Patterns of DNA Hypomethylation. BMC Cancer 13: 144, 2013.
84. Diana K. Darnell, Li S. Zhang, Sridhar Hannenhalli and Sergey Yu. Yaklichkin: Developmental Expression of chicken FOXN1 and putative target genes during feather development. Int J Dev Biol 58(1): 57-64, 2014.
85. Yun Lu, Mary Putt, Sridhar Hannenhalli, Thomas Cappola: An Evaluation of MC Logic and logicFS Motivated by a Study of the Regulation of Gene Expression in Heart Failure. Journal of Applied Statistics 41(9): 1956-75, 2014.
86. Seung Gu Park, **Sridhar Hannenhalli**, Sun Shim Choi: Conservation in first introns is positively associated with the number of exons within genes and the presence of regulatory epigenetic signals. BMC Genomics 15(526), 2014.
87. Kun Wang[§], Avinash Das[§], Zheng-Mei Xiong, Kan Cao and Sridhar Hannenhalli: Phenotype-dependent coexpression gene clusters: application to normal and premature ageing. TCBB (doi:TCBB.2014.2359446), 2014
88. Liu, Y., M. Morley, J. Brandimarto, S. Hannenhalli, Y. Hu, E. A. Ashley, W. H. Tang, C. S. Moravec, K. B. Margulies, et al. "RNA-Seq identifies novel myocardial gene expression signatures of heart failure." Genomics 105(2): 83-89, 2015

Refereed Review Articles

1. F. Bushman, M. Lewinski, A. Ciuffi, S. Barr, J. Leipzig, S. Hannenhalli, C. Hoffmann: Genome-wide analysis of retroviral DNA integration. Nat Rev Microbiol 3(11): 848-58, 2005.
2. Hannenhalli, S.: Eukaryotic transcription factor binding sites--modeling and integrative search methods. Bioinformatics 24(11): 1325-31, 2008.
3. Praveen Sethupathy[§] and Sridhar Hannenhalli: A tutorial of the Poisson Random Field model in population genetics. Advances in Bioinformatics vol. 2008: 9 Pages, 2008 Notes: Article ID 257864.

4. Sridhar Hannenhalli and Klaus Kaestner: The evolution of FOX genes and their role in development and disease. Nat Rev Genet 10: 233-40, April 2009.
5. Sun Shim Choi and Sridhar Hannenhalli: Three Independent Determinants of Protein Evolutionary Rate. J Mol Evol 76(3): 98-111, February 2013.
6. Shruti Sarda^{\$} and Sridhar Hannenhalli: Next Generation Sequencing and Epigenomics research - A hammer in search of nails. Genomics Inform, 12(2): 2-11, 2013, Sangsoo Kim (eds.)

C. Conferences and Workshops: Talks, Abstracts and Other Contributions

Here I am listing only the invited seminars and not numerous conference talks, which I have delivered over the years but unfortunately have not kept track of. All conference papers were accompanied by a talk, mostly by me.

1. Keynote Speeches

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| Oct, 2013 | Distal enhancers and genotype-phenotype mapping , Keynote lecture at <i>Translational Bioinformatics Conference</i> , Seoul, South Korea |
| Jan, 2015 | Identifying causal regulatory variants underlying phenotypic variability, Keynote lecture at <i>Big Data Analysis and Translation in Disease Biology</i> , New Delhi, India |

2. Invited Talks (departmental seminars)

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|-----------|---|
| May, 2003 | Transcriptional Regulation: Signals, Interactions and Modules, Penn State University, State College, PA |
| Feb, 2004 | Computational analysis of transcriptional regulation, Villanova University, Villanova, PA |
| Nov, 2004 | Computational analysis of transcriptional regulation, Childrens Hospital of Philadelphia, PA |
| Dec, 2005 | Transcription regulation analysis: theory and applicaiton, Thomas Jefferson University, Philadelphia, PA |
| Jun, 2006 | Transcription factor DNA binding specificity (or lack thereof), Bertinoro Bioinformatics Meeting, Bertinoro, Italy. |
| Aug, 2006 | Deciphering Gene Regulatory Networks by in silico approaches, BIODDD international conference, Philadelphia, PA |

Oct, 2006 Deciphering Gene Regulatory Networks by in silico approaches, George Washington University, Washington D.C.

Nov, 2006 Deciphering Gene Regulatory Networks by in silico approaches, Brown University, Providence

Jul, 2007 Signals, interactions and Networks, Center for Gene Regulation, Barcelona, Spain

Aug, 2007 Computational Analysis of Transcriptional Regulation, Emerging Information and Technology Conference, Princeton University, Princeton, USA

Oct, 2007 In silico approaches to transcriptional regulation and evolution. NHGRI, NIH, Bethesda, MD

Nov, 2007 In silico approaches to transcriptional regulation and its evolution, Princeton, NJ

Dec, 2007 Deciphering Gene Regulatory Networks by in silico approaches, IIT Delhi, India

Feb, 2008 Computational analysis of eukaryotic transcriptional regulation and its evolution, Center for comp bio and bioinformatics, Indiana University, Indianapolis.

Mar, 2008 Computational analysis of eukaryotic transcriptional regulation and its evolution, Carnegie Mellon University, Pittsburgh.

Apr, 2008 Computational analysis of eukaryotic transcriptional regulation and its evolution, J Craig Venter Institute, Rockville.

May, 2008 A tutorial on computational analysis of transcriptional regulation, Program for research in immune modeling and experimentation, Yale

Aug, 2008 Computational Investigation of Gene Regulation, DIMACS, Rutgers University

Mar, 2009 Survival of the fittest: detecting natural selection, UCSD, San Diego

Mar, 2009 Comparative genomics of the paralogs, UCSD, San Diego

Nov, 2009 Comparative genomics of transcriptional regulation, University of Maryland, College Park, MD

Jan, 2010 Comparative genomics of transcriptional regulation, Jawaharlal Nehru University, India

Feb, 2010 Comparative genomics of transcriptional regulation, Rutgers University. NJ

Aug, 2011 Computational investigation of gene transcription, Suzhou university, China

Aug, 2011 A tutorial on computational biology, Suzhou University, China

Aug, 2011 A tutorial on computational biology, Fudan University, China

Feb, 2012 Computational analysis of transcriptional regulation, Georgetown University

Mar, 2012 Ambiguities in transcriptional regulation analysis, New Mexico, NMBIST program

May, 2012 Computational Analysis of Transcriptional Regulation - Learning from Ambiguities, University of Denver, CO

May, 2012 Computational Analysis of Transcriptional Regulation - Learning from Ambiguities, Pasteur Institute, Paris, France

Mar, 2013 Distal enhancers - identification and architecture, Institute of Life Sciences, Bhubaneswar, Orissa, India

Apr, 2013 Characterizing distal enhancers, University of Delaware, DE

Aug, 2013 Computational Epigenomics, National Institute of Mental Health Training Workshop

Oct, 2013 Computational Biology Bioinformatics and Genomics, Kangwon National University, Chuncheon, South Korea

Jul, 2014 Distal enhancers and their role in mediating genotype-phenotype associations, Ecole Polytechnique Federale, Lausanne, Switzerland

Jul, 2014 Distal enhancers and their role in mediating genotype-phenotype associations, University of Tübingen, Germany

D. Sponsored Research

1. Grants

ACTIVE

NIH R01HL105993 (UPENN) Integrative Genomics of Human Heart Failure
 8/1/2011 – 4/30/2016
 Role: PI on UMD subcontract
 Direct Annual: \$52,781

NIH R01GM100335 Conundrums in Transcriptional Regulation
 9/20/2012 – 6/30/2016
 Role: PI
 Direct Annual: \$213,172

NIH HL088120 (UM Medicine) Genetic and Functional Analyses of
Hypertension Susceptibility Genes
4/22/2013 – 3/31/2018
Role: PI on UMD subcontract
Direct Annual: \$43,348

NIH HG007104 (CMU) Algorithms for Managing Uncertainty in 3C
9/23/2013 – 6/30/2016
Role: PI on UMD subcontract
Direct Annual: \$48,952

UMCP-UMB CHIB Seed grant Identification of DSE polymorphisms involved
in Poly-A usage
Role: MPI (Co-PI: Christy Chang at UMB)
04/01/2014-03/31/2015
Total: \$25,000

PENDING

See under ‘Work in Progress’ below.

COMPLETED

NIH R01GM085226 Methods of Evolutionary Analysis of Eukaryotic
Transcriptional Regulation
11/1/2008 – 5/31/2014
Role: PI
Direct Annual: \$196,000

NSF IIS-1341410 ACM BCB 2013: Conference on Bioinformatics and
Computational Biology
5/1/2013 – 31/12/2014
Role: PI
Direct Annual: \$20,000
Goal: Participant support for conference held in September 2013 in Washington, DC.

UMIACS Seed grant Computational Genome Geometry
1/2011-12/2011
Role: MPI (Co-PIs: Carl Kingsford, Michelle Girvan)
Total: \$71,000

NIH R21HL092379 Transcriptional modules in human heart failure
8/2008-5/2010
Role: MPI (co-PI: Thomas Cappola, UPENN)
Direct Annual: \$150,000

NIH, R01CA127334 Methods for genomic data with graphical structures
7/2007-6/2010
Role: Co-investigator (PI: Hongzhe Li, UPENN)
Direct Annual: \$190,000

NIH R03 Network Analysis of Transcription in pancreas
9/2006-8/2007
Role: Co-PI (PI: Klaus Kaestner, UPENN)
Total: \$69,414

NIH, R21GM078203 Algorithms to investigate transcriptional networks
7/2006-6/2009
Role: PI
Annual Direct: \$121,375

NIH, U19AI066290 Lentivirus-based Immunogene Therapy for HIV Infection
9/2005-2/2009
Role: Consultant (PI: Carl June, UPENN)
Direct Annual: \$200,000

UPENN seed grant Computational Analysis of HIV-1 Integration
8/2005-7/2006
Role: PI
Total: \$40,000

NIH Supplement Transcriptional Genomics in Human Heart Failure
8/2005-7/2006
Role: Collaborator (PI: Tom Cappola, UPENN)
Total: \$25,000

Commonwealth of PA Computational Prediction of GC-poor polIII Promoters
11/2003-10/2005
Role: PI
Direct Annual: \$125,000

NIH, K23HL071562 Transcriptional control in failing hearts
8/2003-7/2008
Role: Consultant (PI: Tom Cappola, UPENN)
Direct Annual: \$143,262

E. Work in Progress

1. Grant Applications

NIH R01 Interpreting Genotype-Phenotype Association in Light of
 Transcriptional Networks
7/1/2014 – 6/30/2018
Role: MPI (Co-PI Shane Jensen at U Penn)
Direct Annual: \$336,097
This proposal had earlier received a percentile score of 25 and is resubmitted as an A0.

NSF14-533 Developmental mechanisms underlying fleshy fruit diversity in
 Rosaceae
10/01/14-9/30/2019
Role: Co-PI (PI: Zhongchi Liu)
Total: \$3,029,222

2. Manuscripts Under Review

1. Avinash Das[§], Michael Morley, Christine Moravec, WH Wilson Tang, Hakon Hakonarson, MAGNet Consortium, Kenneth B. Margulies, Thomas P. Cappola, Shane Jensen, and Sridhar Hannenhalli: Bayesian integration of genetics and epigenetics detects causal regulatory SNPs underlying expression variability.
2. Nivedita Rangarajan[%], Prakash Kulkarni and Sridhar Hannenhalli: Evolutionarily conserved network properties of intrinsically disordered proteins.

F. Centers for Research and Scholarship

1. Centers Directed

2012-2013 Interim Director, Center for Bioinformatics and Computational Biology, University of Maryland

2. Symposia Organized (**leadership roles at international conferences listed below**)

2012 Founding chair and organizer, UMD Omics Day, a symposium to foster collaboration across all UM campuses in high-throughput Biology

III. Teaching, Mentoring and Advising.

A. Courses Taught

I arrived at UMD in Oct 2010. The following reflects my teaching since Spring 2011.

Term	Institution	Course	Units	Students	Responsibility
2011F	UMCP	CBMG688P-Programming for Biology	2	11	4 hr lecture
2011F	UMCP	CBMG688Y-Bioinformatics and Genomics	2	13	4 hr lecture
2011F	UMCP	BSCI380-Bioinformatics and Integrative Genomics	4	27	50%
2012S	Georgetown	Introduction to Computational Biology	4	~30	2 hr lecture
2012F	UMCP	CBMG688P-Programming for Biology	2	10	4 hr lecture
2012F	UMCP	CBMG688Y-Bioinformatics and Genomics	2	13	4 hr lecture
2012F	UMCP	BSCI411-Bioinformatics and Integrative Genomics	4	38	50%
2012F	UMCP	BISI-898-Pre-candidacy research	1	1	100%
2012F	UMCP	CBMG898-Pre-candidacy research	1	1	100%
2012F	UMCP	CBMG898-Pre-candidacy research	1	1	100%
2013S	Georgetown	Introduction to Computational Biology	4	~30	2 hr lecture
2013S	UMCP	BISI898-Pre-candidacy research	1	2	100%
2013S	UMCP	CBMG898-Pre-candidacy	1	2	100%

		research			
2013F	UMCP	CBMG688P-Programming for Biology	2	4	4 hr lecture
2013F	UMCP	CBMG688Y-Bioinformatics and Genomics	2	14	4 hr lecture
2013F	UMCP	BSCI411-Bioinformatics and Integrative Genomics	4	40	50%
2013F	UMCP	CMSC898-Pre-candidacy research	2	1	100%
2013F	UMCP	BISI898-Pre-candidacy research	1	2	100%
2013F	UMCP	CBMG898-Pre-candidacy research	2	1	100%
2014S	UMCP	CMSC898-Pre-candidacy research	2	1	100%
2014S	UMCP	CMSC898-Pre-candidacy research	3	1	100%
2014S	UMCP	BISI898-Pre-candidacy research	1	1	100%
2014S	UMCP	BISI898-Pre-candidacy research	6	1	100%
2014S	UMCP	CBMG898-Pre-candidacy research	2	1	100%
2014S	UMCP	CMSC499A-INDP UNGRD RSRCH	1	1	100%

B. Course or Curriculum Development

I will teach a new graduate level course on “*Evolution of eukaryotic transcriptional regulation*” in Spring 2015. The syllabus is included as supplement.

C. Teaching Innovations

1. Software, Applications, Web Pages, Online Education

The software tools are available through the lab website.

- i. [PSPA](#): *Position-specific propensity analysis - a tool for eukaryotic core promoter prediction.*
- ii. [PTM-Switchboard](#): *A database of post-translational-modification mediated regulation of transcription factor activity.*
- iii. [PWM-SCAN](#): *A tool to scan DNA sequences with positional weight matrices*

- iv. [Mimosa](#): *A tool to partition expression samples into relevant and non-relevant subsets with respect to co-expression of a given pair of genes.*
- v. S. Hannenhalli and R. Russell: *Analysis and prediction of protein functional sub-types from protein sequence alignments.* European Patent Number # EP1096411, 2000

2. Instructional Workshops and Seminars Established

2011- present (Re)Established ‘Research in Progress’ in Computational Biology at university of Maryland and organizer.

3. Other Teaching Innovations (Extension Activities)

A major personal goal of mine is to establish an undergraduate major in Bioinformatics at UMCP. Lack of bioinformatics skill is turning to be a major bottleneck in most biological labs and we will be at a major disadvantage by not having a strong undergraduate program on campus, which will feed into the research efforts. I have initiated and led an effort in this last year to start a conversation with Vice provost of education and design a 4-year curriculum, which is currently with Dr. Bob Infantino. I have attached the white paper in the supplement.

D. Advising: Research Direction

1. Undergraduate (**shown in bold are students whose work in the lab was published**)

Year	Name	Institution	Placement (in 2014)
2006-2006	Elizabeth Schmutter	U Penn	-
2008-2008	Swetha Garimalla	U Penn	Doctoral student at Georgia Tech
2009-2009	Shriya Raghunathan	U Penn	Google
2009-2009	Antony Vo	U Penn	Software developer
2009-2010	Mark Smyda	U Penn	Entrepreneur, Game developer
2007-2009	Saran Vardhanabhuti	U Penn	Research Scientist, Harvard
2011-2012	Robert Kim	JHU	M.D. PhD. Student at Columbia
2012-2013	Mary Allison Abad	UMCP	-
2013-2013	Diana Jing	Wellesley	-
2012-present	Elfalem Alemu	UMCP	Moving on as software engineer
2012-present	Emily Jones	UMCP	Going to UCSF grad school (manuscript under preparation)
2014-present	Daniel Galdi	UMCP	-

2013-present	Nivedita Rangarajan	ISER,India	Selected for summer internship at Rockefeller University (manuscript under review)
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2. Doctoral – Primary Adviser

Year	Name	Home institution	Placement
2007-2010	Logan Everret	U Penn	Postdoc, U Penn (denied tenure-track offer from U Conn in 2013 due to two-body reasons)
2006-2008	Praveen Sethupathy	U Penn	Assistant professor at UNC, Chapel Hill
2012-present	Kun Wang	UMCP	
2012-present	Shrutii Sarda	UMCP	
2012-present	Justin Malin	UMCP	
2012-present	Avinash Sahu	UMCP	
2013-present	Mahfuza Sharmin	UMCP	

3. Doctoral – Rotation

A total of 16 doctoral students have done their lab rotations with me, 11 at U Penn, and 5 at UMD in the last 4 years. These projects have directly resulted in 4 journal publications.

4. Doctoral – Thesis Committee member

Year	Name	Institution
2003-2006	Elena Zaslavsky	Princeton
2003-2005	Michael Keeley	U Penn
2004-2007	Gary Chen	U Penn
2004-2008	Amit Bahl	U Penn
2004-2009	Kobby Essien	U Penn
2004-2009	John Chen	U Penn
2004-2008	Sharon Diskin	U Penn
2005-2008	Irina Bochkins	U Penn
2005-2007	Huan-Wen chen	U Penn
2006-2008	Geetu Tuteja	U Penn

2006-2008	Heather Marshall	U Penn
2007-2010	Adam Ewing	U Penn
2007-2009	Caiyan Li	U Penn
2008-2010	Perry Evans	U Penn
2012-2012	Mohammadreza Ghodsi	UMCP
2012-2012	Bo Liu	UMCP
2013-present	Sefa Cilic	UMBC
2013-2013	Daehwan Kim	UMCP
2013-present	Laura Dillon	UMCP
2013-present	Hao Wang	CMU
2014-present	Di Wu	UMCP
2014-present	Rebecca Just	UMCP
2014-2014	Nishanth Nair	Ecole Polytechnique Federale, Lausanne
2014-present	Ku Wai Lim	UMCP
2014-present	Chen-Hsin Yu	UMCP
2014-present	Botong Shen	UMCP
2014-present	Jicai Jiang	UMCP

5. Postdoctoral

Below I have excluded a few postdocs whose stay in the lab was either short or otherwise inconsequential to the lab's research program

Year	Name	Institution	Placement (2014)
2004-2007	Junwen Wang	U Penn	Associate professor, Hong Kong U
2005-2009	Larry Singh	U Penn	Senior scientist, Children's Hospital of Philadelphia (CHOP)
2008-2010	Mugdha Khaladkar	U Penn	Staff scientist, U Penn
2008-2010	Matt Hansen	U Penn	Postdoc, Temple University
2009-2010	Kobby Essien	U Penn	IMS Health
2008-2010	Anchal Vishnoi	U Penn	Research professor, Jawaharlal Nehru University, India
2008-2009	Sofia Apreleva	U Penn	Scientist, Merck Pharmaceuticals

2010-2012	Jia Zeng	UMCP	Professor, Suchow University, Suchow, China
2010-2012	Joseph Carl	UMCP	Scientist, United Therapeutics
2010-2012	Radhouane Aniba	UMCP	Staff scientist, UBC, Canada
2012-2013	Leonid Sukharnikov	UMCP	IMC consulting, MD
2014-present	Seung Gu Park	UMCP	
2014-present	Hiren Karathia	UMCP	
2015-present	Mahashweta Basu	UMCP	

6. Visiting scholar

Year	Name	Institution
2012-2013	Sun Shim Choi	Associate professor, Kangwon National University, S. Korea

E. Advising (Other than Research Direction)

1. Undergraduate

2 – 4 undergraduate students per year on educational and career opportunities in Bioinformatics.

IV. Service and Outreach

A. Editorships, Editorial Boards and Reviewing Activities

Include participation for journals and other learned publications (print and electronic).

1. Editorships

2002	Editor of Poster proceedings of Research in Computational Molecular Biology conference (as the General Chair of the conference)
2008-2011	Academic editor, PLoS ONE
2010-present	Academic editor, BMC Genomics
2009	Editor of the Proceedings of Workshop in Bioinformatics (as Program chair for the conference WABI 2009 in Philadelphia)
2013	Editor of Abstracts Proceeding of ACM-Bioinformatics and Computational Biology conference (as the General Chair of the conference)

2. International Conference leadership and organization

- 2002 Conference chair for Research in Computational Molecular Biology (RECOMB), Washington DC
- 2007 Program committee co-chair, Workshop on Algorithms in Bioinformatics (WABI), Philadelphia
- 2013 Conference co-chair, ACM Bioinformatics and Computational Biology (ACM-BCB), Washington D.C.

3. Program committee membership at international conferences

- 2001-2006 Research in Computational molecular biology (RECOMB)
- 2008 BIOT conference, Princeton
- 2006 - 2009 Asia Pacific Bioinformatics Conference (ACBC)
- 2009 Workshop on Algorithms in Bioinformatics (WABI)
- 2004-2006, 2008-present RECOMB conference on Regulatory Genomics
- 2013 ACM Bioinformatics and Computational Biology (ACM-BCB)
- 2006, 2009, 2012-present Intelligent Systems for Molecular Biology (ISMB)

4. Reviewing Activities for Journals and Presses

1996-present Genome Research, Genome Biology, Molecular Systems Biology, PLoS Genetics, PLoS Computational Biology, Trends in Genetics, Molecular Biology and Evolution, Nucleic Acids Research, Bioinformatics, BMC Genomics, BMC Bioinformatics, PLoS ONE, FEBS letters, Cancer Research, Journal of Computational Biology, Theoretical Comp Science, Mammalian Genome, Algorithms for Molecular Biology, Transactions in Algorithms and Bioinformatics, and numerous Bioinformatics conferences.

5. Reviewing Activities for Agencies and Foundations

NATIONAL

- 2007 NSF (Review panel member, Computer Science Division)
- 2008 NIH (Reviewer, CMIA study section)
- 2008 NIH (Review panel member, Special emphasis panel for SCORE awards targeting schools with 50% minority)
- 2009 NIH (Reviewer, Special emphasis Panel at BDMA study section)
- 2011 NIH (Review panel member, GCAT study section)
- 2012 American Cancer Society (Review panel member)
- 2013 NIH (Review panel member, Molecular Genetics A study section)
- 2013 NIH (Review panel member, Special emphasis panel for developmental biology)
- 2014 American Cancer Society (Reviewer)
- 2014 NIH (Review panel member, Special emphasis panel for developmental biology)
- 2014 NIH (Review panel member, Computational Epigenomics RFA)
- 2014 NIH (ad hoc member of GCAT study section)

In 2011, I was solicited to join the NIH's BDMA study section, which I had declined in consideration of long-term time commitment and my other priorities at that time.

INTERNATIONAL

- 2008 Israel Science Foundation (Reviewer)
- 2009 INDO-US Science and Technology Forum (Reviewer)
- 2010 US-Israel science foundation (Reviewer)
- 2011 Netherland Research Organization (Reviewer)
- 2013 The Wellcome Trust India Alliance (Reviewer)
- 2014 US-Israel science foundation (Reviewer)

B. Campus Service

1. Departmental

- 2013 Member, Funding Committee to prepare for departmental external review
- 2014 Member, Departmental merit increase committee
- 2014-present Member, Strategic vision

2014-present Chair, Affiliate and Adjunct appointments

2. College

- 2010 Member, Admissions committee, graduate concentration in *Computational Biology, Bioinformatics, and Genomics*
- 2011–2012 Member, Search committee, Center for Bioinformatics director
- 2014 Chair and organizer, symposium on ‘Developmental Genomics’ during UMD BioScience day to foster collaboration between UMD and NICHD
- 2010–present Member, Rita Colwell travel award committee
- 2011–present Director and organizer, Center for Computational Biology summer internship program; Fostered relationship with industry to procure funds
- 2011–present Director and organizer, Computational Biology ‘Research in Progress’

3. University

- 2012 Founding chair and organizer, UMD Omics Day, a symposium to foster collaboration across all UM campuses in high-throughput Biology
- 2012 Member, Search committee, Director for the Bioinformatics Core Facility

4. Special Administrative Assignments

- 2012 - 2013 Interim Director, Center for Bioinformatics and Computational Biology
- 2013–present Chair, graduate concentration in *Computational Biology, Bioinformatics, and Genomics*

V. Awards and Honors

A. Research Fellowships, Prizes and Awards

- 1986-1990 Merit Award (tuition reimbursement and living expenses) for undergraduate education, IIT, Varanasi, India
- 1995 DIMACS (Princeton-Rutgers) postdoctoral fellowship in Computational Biology (declined)

2005	PENN Center for Aids Research award for collaborative research (\$50,000)
2010	UMIACS Innovative research award (\$50,000)
2011	Empower UMCP-UMB joint award for collaborative research (\$50,000)
2014	Empower CHIB UMCP-UMB collaborative research award (\$25,000)

B. Awards won by undergraduates while doing research with me

Year	Name	Award
2014	Elfalem Alemu	Outstanding undergraduate
2014	Emily Jones	NSF doctoral thesis award
2014	Nivedita Rangarajan	Rockefeller university summer internship

C. Teaching Awards

2014	Nominated for ‘Graduate mentor of the year’ award.
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