Curriculum Vitae: Tamer Kahveci

Professor
University Term Professor
Associate Chair of Academic Affairs
Department of Computer and Information Science and Engineering
University of Florida, Gainesville, FL 32611-6120, USA

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Research Interests: Bioinformatics. Computational Biology. Indexing, querying, and mining bioinformatics data. Comparison and analysis of genomic, metabolomic, proteomic data and biological networks.

Education

1999 - 2004	Doctor of Philosophy in Computer Science University of California, Santa Barbara Dissertation: Indexing and querying of sequence databases.
1993 - 1997	B.S. in Computer Engineering and Information Science University of Bilkent, Ankara, Turkey

Teaching Experience

2015-now	Professor, CISE, University of Florida
2010-2015	Associate Professor, CISE, University of Florida
2004-2010	Assistant Professor, CISE, University of Florida
1999-2000	Teaching Assistant, University of California, Santa Barbara
1997-1999	Teaching Assistant, University of Bilkent, Ankara, Turkey

Positions

2015-now	Professor, Associate Chair of Academic Affairs, CISE, University of Florida
2010-2015	Associate Professor, CISE, University of Florida
2004-2010	Assistant Professor, CISE, University of Florida

Graduate Advisor

Ambuj Singh, Computer Science Department, University of California, Santa Barbara

Honors

2022	Best student paper award at the ACM International Conference on Bioinformatics and Computational Biology
2018	University term professor Award
2018	Best paper award at the ACM International Conference on Bioinformatics and Computational Biology
2011	Honorary best paper award at the ACM International Conference on Bioinformatics and Computational Biology
2010	Best student paper award at the ACM International Conference on Bioinformatics and

Computational Biology
2009 NSF Career Award
2008 University of Florida, Research Initiative Award.
2008 Best paper award at the International Conference on Computational Systems Biology.
2006 ORAU Powe Junior Faculty Enhancement Award
1993 Silver medal at International Mathematics Olympiads

Professional Organizations

Member of ACM, IEEE, ICSB, SIG-BIO

Journal publications

1. Simone Marini; Marco Oliva; Ilya Slizovskiy; Rishabh Aryan Das; Noelle Robertson Noyes; Tamer Kahveci; Christina Boucher; Mattia Prosperi. "AMR-meta: a k-mer and metafeature approach toclassify antimicrobial resistance fromhigh-throughput short-read metagenomics data". Gigascience. 2022.
2. Yujing Gao, Daniel Wallach, Toshihiro Hasegawa, Liang Tang, Ruoyang Zhang, Senthold Asseng, Tamer Kahveci, Leilei Liu, Jianqiang He, Gerrit Hoogenboom, "Evaluation of crop model prediction and uncertainty using Bayesian parameter estimation and Bayesian model averaging". Agricultural and Forest Meteorology. Vol 311. 2021.
3. Yuanfang Ren, Aisharjya Sarkar, Pierangelo Veltri, Ahmet Ay, Alin Dobra, Tamer Kahveci. "Pattern discovery in multilayer networks". IEEE/ACM Transactions on Computational Biology and Bioinformatics. 2021.
4. Elise S Morrison, P Thomas, A Ogram, T Kahveci, Benjamin L Turner, Jeffrey P Chanton. "Characterization of bacterial and fungal communities reveals novel consortia in tropical oligotrophic peatlands". Microbial Ecology 82 (1), 188-201. 2021.
5. Aisharjya Sarkar, Prabhat Mishra and Tamer Kahveci, "Data perturbation and recovery of time series gene expression data," in *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, doi: 10.1109/TCBB.2021.3058342. 2021.
6. Irfan Kosesoy, Murat Gok, Tamer Kahveci, "Prediction of host-pathogen protein interactions by extended network model", Turk J Biol. Apr 20;45(2):138-148. 2021.
7. Yujing Gao, Daniel Wallach, Bing Liu, Michael Dingkuhn, Kenneth J Boote, Upendra Singh, Senthold Asseng, Tamer Kahveci, Jianqiang He, Ruoyang Zhang, Roberto Confalonieri, Gerrit Hoogenboom. *Comparison of three calibration methods for modeling rice phenology.* Agricultural and Forest Meteorology. 280:107785. 2020.
8. Juan Carlos Rivera-Mulia, Sebo Kim, Haitham Gabr, Abhijit Chakraborty, Ferhat Ay, Tamer Kahveci, David M Gilbert. Replication timing networks reveal a link between transcription regulatory circuits and replication timing control. Genome Research. 29:9. pages 1415-1428. 2019.
9. Kevin Chow, Ahmet Ay, Aisharjya Sarkar, Rasha Elhesha, Tamer Kahveci. *ANCA: Alignment based network construction Algorithm.* IEEE/ACM Transactions on Computational Biology and Bioinformatics.
10. Yuanfang Ren, Ahmet Ay, Alin Dobra, Tamer Kahveci. *Characterizing Building Blocks of Resource Constrained Biological Networks.* BMC Systems Biology. 20:12. pages 318. 2019.
11. Rasha Elhesha, Aisharjya Sarkar, Christina Boucher, Tamer Kahveci. *Identification of co-evolving temporal networks*. BMC Genomics. 20:6. pages 434. 2019.
12. Aisharjya Sarkar, Yilmaz Atay, Alana Lorraine Erickson, Ivan Arisi, Cesare Saltini, Tamer Kahveci. *An efficient algorithm for identifying mutated subnetworks associated with survival in*

cancer. IEEE/ACM Transactions on Computational Biology and Bioinformatics. vol. 17, no. 5, pp. 1582-1594, 1 Sept.-Oct. 2020.

13. Kingshuk Mukharjee, Bahar Alipenahi, Leena Salmela, Tamer Kahveci, Christina Boucher. *Aligning optical maps to De-Brujin graphs*. Bioinformatics. 2019.
14. Yuanfang Ren, Ahmet Ay, Tamer Kahveci. S*hortest Path Counting in Probabilistic Biological Networks. BMC Bioinformatics*. 19:1. pages 465. 2019.
15. Aisharjya Sarkar, Yuanfang Ren, Tamer Kahveci. *ProMotE: An efficient algorithm for counting independent motifs in uncertain network topologies*. BMC Bioinformatics.19:1. Pages 242. 2019.
16. Volkan Altuntas, Murat Gok, Tamer Kahveci. *Stability analysis of networks' diffusion states.* IEEE/ACM Transactions on Computational Biology and Bioinformatics. 2018.
17. Yuanfang Ren, Ahmet Ay, Travis Gerke, Tamer Kahveci. *Identification of jointly correlated gene sets*. Journal of Bioinformatics and Computational Biology. 16:5. 2018.
18. Md Abdul Alim, Ahmet Ay, Md Mahmudul Hasan, My Thai and Tamer Kahveci. *Construction of Signaling Pathways with RNAi Data and Multiple Reference Networks*. IEEE/ACM Transactions on Computational Biology and Bioinformatics. 15:4. pages 1079-1091. 2018.
19. Aisharjya Sarkar, Yuanfang Ren, Rasha Elhesha, Tamer Kahveci. *A new algorithm for counting independent motifs in probabilistic networks*. IEEE/ACM Transactions on Computational Biology and Bioinformatics. 2018.
20. Kingshuk Mukharkee, Mahmudul Hasan, Christina Boucher, Tamer Kahveci. Counting motifs in dynamically evolving network topologies. BMC Systems Biology. 12:1. pages 6. 2018.
21. Rasha Elhesha, Benjamin Baiser, Tamer Kahveci. *Motif Centrality in Food Web Networks.* Complex Networks. 2017.
22. Rasha Elhesha, Tamer Kahveci. *Identification of large disjoint motifs in biological networks.* BMC Bioinformatics. 17:408. 2016.
23. Sebo Kim, Varsha Sundaresan, Lei Zhou, Tamer Kahveci. *Integrating domain specific knowledge and network analysis to predict drug sensitivity of cancer cell lines.* PLoS ONE Journal. 11:9. 2016.
24. Yuanfang Ren, Qiyao Wang, Mahmudul Hasan, Ahmet Ay, Tamer Kahveci. *Identifying the topology of signaling networks from partial RNAi data.* BMC Systems Biology. 1:10. 2016.
25. Haitham Gabr, Juan Carlos Rivera-Mulia, David M. Gilbert, Tamer Kahveci. *Computing interaction probabilities in signaling networks*. EURASIP Journal on Bioinformatics and Systems Biology. 2016.
26. Benjamin Baiser, Rasha Elhesha, Tamer Kahveci. *Motifs in the assembly of food web networks.* OIKOS Journal. Vol 125:4, pages 480-491. 2015.
27. Haitham Gabr, Tamer Kahveci. *Signal reachability facilitates characterization of probabilistic signaling networks.* BMC Bioinformatics. Vol 16:17. 2015.
28. Md Mahmudul Hasan and Tamer Kahveci. *Indexing a protein-protein interaction network expedites network alignment.* BMC Bioinformatics. Vol 16. 2015.
29. Juan Carlos Rivera-Mulia, Quinton Buckley, Takayo Sasaki, Jared Zimmerman, Ruth A. Didier, Kristopher Nazor, Jeanne F. Loring, Zheng Lian, Sherman Weissman, Allan J. Robins, Thomas C. Schulz, Laura Menendez, Michael J. Kulik, Stephen Dalton, Haitham Gabr, Tamer Kahveci, David M. Gilbert. *Dynamic changes in replication timing and gene expression during human development.* Genome Research. 8:1091-103. 2015.
30. Ahmet Ay, Dihong Gong, Tamer Kahveci. *Hierarchical Decomposition of Dynamically Evolving Regulatory Networks.* BMC Bioinformatics. 16:161. 2015.
31. Mouse ENCODE Consortium. *A comparative encyclopedia of DNA elements in the mouse genome.* Nature. 515: 355-364. 2014.
32. Benjamin D. Pope, Tyrone Ryba, Vishnu Dileep, Feng Yue, Weisheng Wu, Olgert Denas, Daniel L. Vera, Yanli Wang, R. Scott Hansen, Theresa K. Canfield, Robert E. Thurman, Yong Cheng, Günhan Gülsoy, Jonathan H. Dennis, Michael P. Snyder, John A. Stamatoyannopoulos, James Taylor, Ross C. Hardison, Tamer Kahveci, Bing Ren and David

M. Gilbert. *Topologically associating domains are stable units of replication-timing regulation.* Nature. 515: 402-405. 2014.

33. Haitham Gabr, Andrei Todor, Alin Dobra, Tamer Kahveci. *Reachability analysis in probabilistic biological networks.* IEEE/ACM Transactions on Computational Biology and Bioinformatics (IEEE/ACM TCBB). 12:1. pages 53-66. 2014.

34. Ahmet Ay, Dihong Gong, Tamer Kahveci. *Network-based prediction of cancer under genetic storm.* Cancer Informatics. Suppl. 3: 15-31. 2014.

35. Andrei Todor, Haitham Gabr, Alin Dobra, Tamer Kahveci. *Large scale analysis of signal reachability.* Bioinformatics. (International Conference on Intelligent Systems for Molecular Biology (ISMB)). 12: i96-i104. 2014.

36. Andrei Todor, Alin Dobra, Tamer Kahveci. *Characterizing topology of probabilistic biological networks.* IEEE/ACM Transactions on Computational Biology and Bioinformatics Journal (IEEE/ACM TCBB). 10:4, 2013.

37. Mahmudul Hasan, Yusuf Kavurucu and Tamer Kahveci. *A scalable method for discovering significant subnetworks.* BMC Systems Biology. 7:4, 2013.

38. Saad Sheikh, Tamer Kahveci, Sanjay Ranka, Gordon Burleigh. *Stability Analysis of Phylogenetic Trees,* Bioinformatics, 29:2, 2013.

39. Jesse F. Gregory, Youngja Park, Yvonne Lamers, Nirmalya Bandyopadhyay, Yueh-Yun Chi, Kichen Lee, Steven Kim, Vanessa da Silva, Nicholas Hove, Sanjay Ranka, Tamer Kahveci, Keith E. Muller, Robert D. Stevens, Christopher B. Newgard, Peter W. Stacpoole, and Dean P. Jones. *Metabolomic Analysis Reveals Extended Metabolic Consequences of Marginal Vitamin B-6 Deficiency in Healthy Human Subjects.* PloS ONE, 8:6, 2013.

40. Andrei Todor, Alin Dobra, Tamer Kahveci. *Probabilistic Biological Network Alignment,* IEEE/ACM Transactions on Computational Biology and Bioinformatics Journal (IEEE/ACM TCBB). 10:1, 2013.

41. Seyedsasan Hashemikhabir, Eyup Serdar Ayaz, Yusuf Kavurucu, Tolga Can, Tamer Kahveci. *Large scale signaling network reconstruction.* IEEE/ACM Transactions on Computational Biology and Bioinformatics Journal. 9:6, 2012.

42. Gunhan Gulsoy, Nirmalya Bandhyopadhyay, Tamer Kahveci. *HIDEN: Hierarchical decomposition of regulatory networks.* BMC Bioinformatics, 13:250, 2012.

43. Avinash Ramu, Gordon Burleigh, Tamer Kahveci. *A scalable method for identifying frequent subtrees in sets of large phylogenetic trees,* BMC Bioinformatics, 13:250, 2012.

44. Gunhan Gulsoy, Bhavik Gandhi, Tamer Kahveci. *TOPAC: Alignment of gene regulatory networks using topology aware coloring*, Journal of Bioinformatics and Computational Biology (JBCB), 10:1, 2012.

45. Daniel Marbach, Sushmita Roy, Ferhat Ay, Patrick E. Meyer, Rogerio Candeias, Tamer Kahveci, Christopher A. Bristow, and Manolis Kellis. *Predictive regulatory models in Drosophila melanogaster by integrative inference of transcriptional networks*, Genome Research, 22 (7): 1334-49, 2012.

46. Nirmalya Bandyopadhyay, Manas Somaiya, Sanjay Ranka, Tamer Kahveci. *CMRF: Analyzing Differential Gene Regulation in Two Group Perturbation Experiments*, BMC Genomics, 13:2, 2012.

47. Michael Dang, Ferhat Ay, Tamer Kahveci. *Metabolic network alignment in large scale by network compression*, BMC Bioinformatics vol 13, 2012.

48. Gunhan Gulsoy, Tamer Kahveci. *RINQ: Reference-based Indexing for Network Queries*,

Bioinformatics, 27 (13): i149-i158. (International Conference on Intelligent Systems for Molecular Biology (ISMB), 2011)

49. Basma El Yacoubi, Isabelle Hatin, Christopher Deutsch, Tamer Kahveci, Jean-Pierre Rousset, Dirk Iwata-Reuyl, Alexey G Murzin and Valerie de Crecy-Lagard. *A role for the universal Kae1/Qri7/YgjD (COG0533) family in tRNA modification*, The EMBO Journal advance online publication 1 February 2011; doi:10.1038/emboj.2010.363.

50. Ferhat Ay, Manolis Kellis, Tamer Kahveci. *SubMAP: Aligning metabolic pathways with subnetwork mappings*, Journal of Computational Biology, 18(3):1-17, 2011.

51. Bin Song, I. Esra Buyuktahtakin, Sanjay Ranka, Tamer Kahveci. *Manipulating the steady state of metabolic pathways,* IEEE/ACM Transactions on Computational Biology and Bioinformatics (IEEE TCBB), 8(3), pages 732-747, 2011.

52. Jayendra Venkateswaran, Bin Song, Tamer Kahveci, Christopher Jermaine. *TRIAL: A Tool for Finding Distant Structural Similaritie,* IEEE/ACM Transactions on Computational Biology and Bioinformatics (IEEE TCBB), 8(3), pages 819-831, 2011.

53. Nirmalya Bandyopadhyay, Sanjay Ranka, Y. Sun, Steve Goodison, Tamer Kahveci. *Pathway based Feature Selection for Cancer Microarray Data*, Journal of Advances in Bioinformatics, accepted for publication.

54. Nirmalya Bandyopadhyay, Tamer Kahveci. *GBA Manager: An online tool for querying low complexity regions in proteins*, Journal of Computational Biology,17(1):73-7, 2010.

55. Ferhat Ay, Fei Xu, Tamer Kahveci. *Scalable Steady State Analysis of Boolean Biological Regulatory Networks,* PLoS ONE 4(12), pages e7992, 2009.

56. Jun Liu, Nirmalya Bandyopadhyay, Sanjay Ranka, Michael Baudis, Tamer Kahveci. Inferring Progression Models for CGH data, Bioinformatics, 25:15, pages 2208-2215, 2009.

57. Ferhat Ay, Tamer Kahveci, Valerie de Crecy-Lagard. *A Fast and Accurate Algorithm For Comparative Analysis Of Metabolic Pathways*, Journal of Bioinformatics and Computational Biology (JBCB), 7:3, pages 389-428, 2009.

58. Bin Song, Padmavati Sridhar, Tamer Kahveci and Sanjay Ranka. *Double Iterative Optimization for Metabolic Network-Based Drug Target Identification*, International Journal of Data Mining and Bioinformatics, 3:2, pages 145-159, 2009.

59. Jun Liu, Sanjay Ranka, Tamer Kahveci. *Classification and Feature Selection Algorithms for Multi-class CGH data*, Bioinformatics, 24 (13): i86-i95. (International Conference on Intelligent Systems for Molecular Biology (ISMB), 86-95, 2008)

60. Xuehui Li, Tamer Kahveci, and A. Mark Settles. *A Novel Genome-Scale Repeat Finder Geared towards Transposons*, Bioinformatics, 24(4): 468-476, 2008.

61. Jayendra Venkateswaran, Deepak Lachwani, Tamer Kahveci, Christopher Jermaine. *Reference-Based Indexing for Metric Spaces with Costly Distance Measures*, the VLDB Journal, 17:5, pages 1231 - 1251, 2008.

62. Xu Zhang, Tamer Kahveci. *QOMA: Quasi-Optimal Multiple Alignment of Protein Sequences*, Bioinformatics, 23:2, pages 162-168, 2007.

63. Jun Liu, Sanjay Ranka, Tamer Kahveci. *Markers improve clustering of CGH data*, Bioinformatics, 23:4, pages 450-457, 2007.

64. Xuehui Li, Tamer Kahveci. *A novel algorithm for identifying low-complexity regions in a protein sequence*, Bioinformatics, 22:24, pages 2980-2987, 2006.

65. Jun Liu, Jaaved Mohammed, James Carter, Sanjay Ranka, Tamer Kahveci, Michael Baudis.

Distance-based Clustering of CGH Data, Bioinformatics, 22:16, pages 1971-1978, 2006.

66. Tamer Kahveci and Ambuj K. Singh. *Optimizing Similarity Search for Arbitrary Length Time Series Queries*, IEEE Transactions on Knowledge and Data Engineering (TKDE), 16:4, pages 418-433, 2004.
67. Orhan Camoglu, Tamer Kahveci and Ambuj K. Singh. *Towards Index-based Similarity Search for Protein Structure Databases*, Journal of Bioinformatics and Computational Biology (JBCB), 2:1, pages 99-126, 2004.
68. Tamer Kahveci, Vebjorn Ljosa and Ambuj K. Singh. *Speeding up Whole Genome Alignment by Indexing Frequency Vectors*, Bioinformatics, 20:13, pages 2122-2134, 2004.
69. Tamer Kahveci and Ambuj K. Singh. *Progressive Searching of Biological Sequences*, IEEE Database Engineering Bulletin, 2004.
70. Orhan Camoglu, Tamer Kahveci, Ambuj K. Singh. *PSI: Indexing Protein Structures for Fast Similarity Search*, Bioinformatics (2003) 19: i81-i83. (International Conference on Intelligent Systems for Molecular Biology (ISMB), 2003)

Peer reviewed conference publications

71. Y Ren, A Sarkar, A Bumin, K Huang, P Veltri, A Dobra, T Kahveci, "Identification of co-existing embeddings of a motif in multilayer networks", ACM International Conference on Bioinformatics, Computational Biology and Health Informatics, 2022.
72. A Sarkar, A Singh, R Bailey, A Dobra, T Kahveci. "Optimal separation of high dimensional transcriptome for complex multigenic traits", ACM International Conference on Bioinformatics, Computational Biology and Health Informatics, 2022.
73. A Bumin, A Ritz, D Slonim, T Kahveci, K Huang. "FiT: fiber-based tensor completion for drug repurposing", ACM International Conference on Bioinformatics, Computational Biology and Health Informatics, 2022.
74. TS Torabi, S Gottipati, T Kahveci, K Graim. "Abstract A020: Multi-species regulatory analysis of osteosarcoma to reduce clinical trial failure rates", Cancer Research 82 (10_Supplement), A020-A020. 2022
75. Marco Oliva, Massimiliano Rossi, Jouni Sirén, Giovanni Manzini, Tamer Kahveci, Travis Gagie and Christina Boucher, "Efficiently merging R-indices", IEEE Data Compression Conference, 2021
76. G. Tradigo, P. Guzzi, T. Kahveci and P. Veltri, "A method to assess COVID-19 infected numbers in Italy during peak pandemic period," IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, Korea (South), 2020 pp. 3017-3020.
77. G. Tradigo, P. Guzzi, P. Veltri, and **T. Kahveci**, "Assessing reliable COVID-19 infected number: the Italian case", Biokdd 2020.
78. Giuseppe Tradigo, Pietro Hiram Guzzi, Tamer Kahveci, and Pierangelo Veltri , "A method to assess COVID-19 infected numbers in Italy during peak pandemic period", Helpline Workshop at ECAI 2020.
79. Yuanfang Ren, Aisharjya Sarkar, Ahmet Ay, Alin Dobra, Tamer Kahveci. *Finding Conserved Patterns in Multilayer Networks*. ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2019.
80. Rasha Elhesha, Aisharjya Sarkar, Pietro Cinaglia, Christina Boucher, Tamer Kahveci. *Co-evolving Patterns in Temporal Networks of Varying Evolution*. ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2019.

81. Yuanfang Ren, Ahmet Ay, Alin Dobra, Tamer Kahveci. *Characterizing Building Blocks of Resource Constrained Biological Networks.* International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC). 2018.
82. Rasha Elhesha, Aisharjya Sarkar, Christina Boucher, Tamer Kahveci. *Identification of coevolving temporal networks.* International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC). 2018.
83. *Kevin Chow, Ahmet Ay,* Rasha Elhesha, Tamer Kahveci. *ANCA: Alignment based network construction Algorithm*. ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2018.
84. Yuanfang Ren, Ahmet Ay, Travis Gerke, Tamer Kahveci. *Searching Jointly Correlated Gene Combinations.* International Conference on Bioinformatics and Computataional Biology (BiCoB) 2018. (**Best paper award**)
85. Aisharjya Sarkar, Prabhat Mishra, Tamer Kahveci. *Identifying temporal variation of transcription in populations.* International Conference on Bioinformatics and Computational Biology (BiCoB) 2018.
86. Kingshuk Mukharkee, Mahmudul Hasan, Christina Boucher, Tamer Kahveci. *Counting motifs in dynamic networks. Asia Pacific Bioinformatics Conference*. 2018.
87. Aisharjya Sarkar, Yuanfang Ren, Rasha Elhesha, Tamer Kahveci. *Counting independent motifs in probabilistic networks.* ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2016.
88. Qiyao Wang, Yaunfang Ren, Md Mahmudul Hasan, Ahmet Ay, and Tamer Kahveci. *Construction of signaling networks with incomplete RNAi data.* IEEE International Conference on Bioinformatics and Biomedicine (BIBM). 2015.
89. Haitham Gabr, Alin Dobra and Tamer Kahveci. *Estimating Reachability in Dense Biological Networks.* International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2015.
90. Andrei Todor, Alin Dobra and Tamer Kahveci. *Counting Motifs in Probabilistic Biological Networks.* International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2015.
91. Md Abdul Alim, Ahmet Ay, Md Mahmudul Hasan, My Thai and Tamer Kahveci. *Multiple Reference Networks Improve Accuracy of Signaling Network Construction.* International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2015.
92. Md Mahmudul Hasan and Tamer Kahveci. *Incremental Network Querying in Biological Networks.* 8th International Workshop on Biomolecular Network Analysis (IWBNA 2014) at ACM-BCB 2014.
93. Rasha Elhesha, Ryan Cobb, Gordon Burleigh and Tamer Kahveci. *Extracting phylogenetic signals from gene trees and its significance for species tree construction.* International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2014.
94. Haitham Gabr, Tamer Kahveci. *Characterization of probabilistic signaling networks through signal propagation*. IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2014.
95. Mahmudul Hasan, Tamer Kahveci. *Color distribution can accelerate network alignment.* International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2013.
96. Haitham Gabr, Andrei Todor, Helia Zandi, Alin Dobra, Tamer Kahveci. *PReach: Reachability in Probabilistic Signaling Networks*. International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2013.
97. Haitham Gabr, Alin Dobra, Tamer Kahveci, *From uncertain protein interaction networks to signaling pathways through intensive color coding,*

Pacific Symposium on Biocomputing (PSB), 2013.

98. Gunhan Gulsoy, Tamer Kahveci. *Inferring gene functions from metabolic reactions*. IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS), 2012.

99. Andrei Todor, Alin Dobra, Tamer Kahveci, *Uncertain interactions affect degree distribution of biological networks,* International Conference on Bioinformatics and Computational Biology (IEEE-BIBM), 2012.

100. Mahmudul Hasan, Yusuf Kavurucu, Tamer Kahveci, *SiS: Significant Subnetworks in Massive Number of Network Topologies, International Conference,* On Bioinformatics and Computational Biology (IEEE-BIBM), 2012.

101. Nirmalya Bandyopadhyay, Manas Somiya, Sanjay Ranka, Tamer Kahveci. *SSLPred : Predicting Synthetic Sickness Lethality,* Pacific Symposium on Biocomputing (PSB), 2012.

102. Gunhan Gulsoy, Bhavik Gandhi, Tamer Kahveci, *Topology aware coloring of gene regulatory networks*, International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2011.

103. Michael Dang, Ferhat Ay, Tamer Kahveci, *A Novel Framework for Large Scale Metabolic Network Alignments by Compression*, International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2011. **(Honorary best paper)**

104. Nirmalya Bandyopadhyay, Manas Somiya, Sanjay Ranka, Tamer Kahveci, *Identifying Differentially Regulated Genes*, IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS), 2011.

105. Ferhat Ay, Gunhan Gulsoy, Tamer Kahveci, *Finding Steady States of Large Scale Regulatory Networks through Partitioning*, IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS), 2010.

106. Nirmalya Bandyopadhyay, Manas Somiya, Sanjay Ranka, Tamer Kahveci, *Modeling Perturbations using Gene Networks*, International Conference on Computational Systems Biology (CSB), 2010.

107. Ferhat Ay, Tamer Kahveci, *SubMAP: Aligning metabolic pathways with subnetwork mappings*, International Conference on Research in Computational Biology (RECOMB), 2010.

108. Bin Song, Sanjay Ranka, Tamer Kahveci, *Enzymatic target identification with dynamic state*s, International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2010. **(Best student paper award)**

109. Ferhat Ay, Tamer Kahveci, *Functional Similarities of Reaction Sets in Metabolic Pathways*, International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2010.

110. Nirmalya Bandyopadhyay, Mark Settles, Tamer Kahveci, *RepFrag: A Graph based Method for Finding Repeats and Transposons from Fragmented Genomes*, International Conference On Bioinformatics and Computational Biology (ACM-BCB), 2010.

111. Ferhat Ay, Thang N. Dinh, My T. Thai, Tamer Kahveci, *Finding Dynamic Modules of Biological Regulatory Networks*, IEEE International Conference on Bioinformatics and Bioengineering (BIBE), 2010.

112. Fei Xu, Ravi Jampani, Mingxi Wu, Chris Jermaine, Tamer Kahveci, *Surrogate Ranking for Very Expensive Similarity Queries*, International Conference on Data Engineering (ICDE), 848-859, 2010.

113. Ferhat Ay, Fei Xu, Tamer Kahveci, *Scalable Steady State Analysis of Boolean Biological Regulatory Networks*, RECOMB RG/SB/DREAM, 2009.

114. Ferhat Ay, Tamer Kahveci, Valerie de Crecy-Lagard, *Consistent alignment of metabolic pathways without any abstraction in modeling*, International Conference on Computational Systems Biology (CSB), 2008. **(Best paper award)**

115. Padmavati Sridhar, Bin Song, Tamer Kahveci and Sanjay Ranka, *Mining metabolic networks for optimal drug targets*, Pacific Symposium on Biocomputing (PSB), 13: 291-302, 2008.

116. Xu Zhang, Tamer Kahveci, *QOMA2: Optimizing the alignment of many sequences*, IEEE International Conference on Bioinformatics and Bioengineering (BIBE), 780-787, 2007.

117. Padmavati Sridhar, Tamer Kahveci, Sanjay Ranka, *An iterative algorithm for metabolic network-based drug target identification,* Pacific Symposium on Biocomputing (PSB), 88-99, 2007.

118. Xuehui Li, Tamer Kahveci, *Quality-based similarity search for biological sequence databases*, BIOCOMP, 567-573, 2007.

119. Jun Liu, Sanjay Ranka, and Tamer Kahveci, *A web server for mining Comparative Genomic Hybridization (CGH) data*, Data mining, systems analysis and optimization in biomedicine, pages 144-131, 2007.

120. Jayendra Venkateswaran, Deepak Lachwani, Tamer Kahveci, Christopher Jermaine, *Reference-based Indexing of Sequence Databases*, International Conference on Very Large Databases (VLDB), 906-917, 2006.

121. Jayendra Venkateswaran, Tamer Kahveci, Orhan Camoglu, *Finding Data Broadness via Generalized Nearest Neighbors*, International Conference on Extending Database Technologies (EDBT), 645-663, 2006.

122. Xu Zhang, Tamer Kahveci. *A New Approach for Alignment of Multiple Proteins*, Pacific Symposium on Biocomputing (PSB), 339-350, 2006.

123. Yue Li, Lan Luo, Tao Li and Tamer Kahveci, *Microarchitecture Characteristics and Implications of Alignment of Multiple Bioinformatics Sequences*, Workshop on Unique Chips and Systems (Held in conjunction with IEEE International Symposium on Performance Analysis of Systems and Software), 2006.

124. Tamer Kahveci, Venkatakrishnan Ramaswamy, Han Tao, Tao Li, *Approximate Global Alignment of Sequences*, IEEE International Conference on Bioinformatics and Bioengineering (BIBE), 81-88, 2005.

125. Abhijit Pol, Tamer Kahveci, *Highly Scalable and Accurate Seeds for Subsequence Alignment*, IEEE International Conference on Bioinformatics and Bioengineering (BIBE), 27-31, 2005.

126. Yue Li, Tao Li, Tamer Kahveci, Jose Fortes, *Workload Characterization of Bioinformatics Applications on Pentium 4 Architecture*, MASCOTS, 15-22, 2005.

127. Arnab Bhattacharya, Tolga Can, Tamer Kahveci, Ambuj K. Singh, Yuan-Fang Wang, *ProGreSS: Simultaneous Searching of Protein Databases by Sequence and Structure*, Pacific Symposium on Biocomputing (PSB), 264-275, 2004.

128. Orhan Camoglu, Tamer Kahveci, Ambuj K. Singh, *Towards Index-based Similarity Search for Protein Structure Databases*, International Conference on Computational Systems Biology (CSB), 148-158, 2003.

129. Tamer Kahveci, Christian Lang, Ambuj K. Singh, *Joining Massive High-Dimensional Databases*, International Conference on Data Engineering (ICDE), 264-276, 2003.

130. Tamer Kahveci, Ambuj K. Singh*, MAP: Searching Large Genome Databases*, Pacific

Symposium on Biocomputing (PSB), 303-314, 2003.

131. Tamer Kahveci, Ambuj K. Singh, and Aliekber Gurel, *Similarity Searching for Multi-Attribute Sequences*, Statistical and Scientific Database Management (SSDBM), 2002.

132. Tamer Kahveci and Ambuj K. Singh. *An Efficient Index Structure for String Databases*, International Conference on Very Large Databases (VLDB), 2001.

133. Tamer Kahveci and Ambuj K. Singh, *Variable Length Queries for Time Series Data*, International Conference on Data Engineering (ICDE), 2001, pages 273-282.

134. Tuba Yavuz-Kahveci, Tamer Kahveci and Ambuj K. Singh, *Buffering of Index Structures*, SPIE, 2000.

Book chapters

- Mahmudul Hasan, Gunhan Gulsoy, Yusuf Kavurucu, Tamer Kahveci. *Indexing for Similarity Queries in Biological Networks.* in "Biological Data Mining and its Applications in Healthcare Bioinformatics", editor Xiao Li, See-Kiong Ng and Jason T. L. Wang, World Scientific
- Bin Song, I. Esra Büyüktahtakin, Nirmalya Bandyopadhyay, Sanjay Ranka and Tamer Kahveci. *Identifying Enzyme Knockout Strategies on Multiple Enzyme Associations*. Bioinformatics - Trends and Methodologies, Mahmood A. Mahdavi (Ed.), ISBN: 978-953-307-282-1, InTech 2011.
- Ferhat Ay, Gunhan Gulsoy, Tamer Kahveci. *Mining biological networks for similar patterns*. in "DATA MINING: Foundations and Intelligent Paradigms-- Volume 3", editor Dawn E. Holmes and Lakhmi Jain, Springer, 2011.
- Tamer Kahveci, Ambuj K. Singh. *Index Structures for Approximate Matching in Sequence Databases*. in "Handbook on Computational Biology", editor Srinivas Aluru, CRC Press

Other Publications

- Byung-Jun Yoon, Xiaoning Qian, Tamer Kahveci, Ranadip Pal. *Selected research articles from the 2017 International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC).* BMC Bioinformatics. 20 (12). 2019.
- Amarda Shehu, Giuseppe Pozzi, Tamer Kahveci. Guest Editorial for the ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics. IEEE/ACM Transactions on Computational Biology and Bioinformatics. 16:5. 2019.
- Tamer Kahveci, Giuseppe Pozzi, Amarda Shehu, May Dongmei Wang
- Guest editorial on the special issue on informatics on biomedical data learning, reasoning, and representation. IEEE Journal of Biomedical and Health Informatics (IEEE-JBHI). 23:1. 2019.
- Byung-Jun Yoon, Xiaoning Qian, Tamer Kahveci. *Selected research articles from the 2017 International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC).* BMC Bioinformatics. 19 (3). 2018.
- Amarda Shehu, Tamer Kahveci, Giuseppe Pozzi. *Highlight talks at ACM BCB.* ACM International Conference on Bioinformatics and Computational Biology (BCB) 2017.
- Byung-Jun Yoon, Xiaoning Qian, Tamer Kahveci. *CNB-MAC'17: The Fourth International Workshop on Computational Network Biology: Modeling, Analysis, and Control.* Proceedings of the 8th ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics. 2017.

- Andrei Todor, Haitham Gabr, Alin Dobra, Tamer Kahveci. *Reachability Analysis in Large Probabilistic Biological Networks*. International Conference on Bioinformatics and Computational Biology (ACM-BCB), 2013 (poster paper).
- Xu Zhang, Tamer Kahveci, A New Approach for Multiple Sequence Alignment, RECOMB, 2005 (poster paper).
- Arnab Bhattacharya, Tamer Kahveci, Ambuj K. Singh, Motif Finding and Multiple Alignment through Vector-Space Embeddings of Protein Sequences, RECOMB, 2004 (poster paper).
- Tamer Kahveci, Ambuj K. Singh, Fast Alignment of Large Genome Databases, International Conference on Data Engineering (ICDE), pages 768-770, 2003 (demo paper).
- Tamer Kahveci, Ambuj K. Singh, and Aliekber Gurel, An Efficient Index Structure for Shift and Scale Invariant Search of Multi-Attribute Time Sequences, International Conference on Data Engineering (ICDE), 2002 (poster paper)

Professional Activities

- ***Editorial activities***
  - Associate Editor, IEEE/ACM Transactions on Computational Biology and Bioinformatics. Since 2014.
  - Associate Editor, EURASIP Journal on Bioinformatics and Systems Biology. Since 2014.
  - Editorial Board, ISRN Bioinformatics. Since 2013.
  - Guest editor, IEEE/ACM Transactions on Computational Biology and Bioinformatics. Twice in 2013. (Edited 10 + 6 articles in the two issues)
  - Editorial Board, Frontiers in Cancer Genetics. Since 2010.
  - Editorial Board, Frontiers in Genomic Assay Technology. Since 2010.
  - Editorial Board, Network Modeling and Analysis in Health Informatics and Bioinformatics. Since 2010.
  - Editorial Review Board, International Journal of Knowledge Discovery in Bioinformatics (IJKDB). Since 2009.
  -
- ***Program Committee Chair***
  - Workshop on: Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC). 2015, 2016, 2017, 2018, 2019
  - Workshop on Epigenomics and Cell Function (ECF). 2013
  - International Conference On Bioinformatics and Computational Biology (ACM-BCB). 2012, 2017
  - Bio-KDD. 2012

- ***Conference Organization***
  - Tutorials chair for ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB). 2015.
  - Tutorials chair for IEEE International Conference on Bioinformatics and Biomedicine (BIBM). 2015
  - Workshops chair for ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB). 2014.

- ***Program Committee Member***
  - **2022**
    - International Conference on Intelligent Systems on Molecular Biology (ISMB),
    - International Conference on Research in Computational Molecular Biology (RECOMB)
    - IEEE Conference on Bioinformatics and Biomedical Engineering (BIBE).

- **2021**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB).
- **2020**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB).
- **2019**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB).
- **2018**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
- **2017**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
- **2016**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB).
- **2015**
  - IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - International Conference on Bioinformatics and Computational Biology (BICoB)
  - Asia Pacific Bioinformatics Conference (APBC)
- **2014**
  - IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
  - International Conference on Intelligent Systems on Molecular Biology (ISMB),
  - International Conference on Research in Computational Molecular Biology (RECOMB)
  - International Conference on Bioinformatics and Computational Biology (BICoB)
  - Asia Pacific Bioinformatics Conference (APBC)
  - IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS)
  - Biotechnology and Bioinformatics Symposium (BIOT)
  - Bio-KDD
- **2013**

- IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
- International Conference on Intelligent Systems on Molecular Biology (ISMB),
- International Conference on Research in Computational Molecular Biology (RECOMB)
- International Conference on Bioinformatics and Computational Biology (BICoB)
- ASE/IEEE International Conference on BioMedical Computing (BioMedCom)
- Asia Pacific Bioinformatics Conference (APBC)
- IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS)
- Biotechnology and Bioinformatics Symposium (BIOT)

- **2012**
  - IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
  - International Conference on Bioinformatics and Computational Biology (BICoB)
  - International Conference on Intelligent Systems on Molecular Biology (ISMB)
  - International Symposium on Health Informatics and Bioinformatics (HIBIT)
  - IEEE International Conference on Data Mining (ICDM)
  - The International Conference on Very Large Data Bases (VLDB).
  - IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS)
- **2011**
  - IEEE International Conference on Bioinformatics and Biomedicine (BIBM)
  - International Conference on Bioinformatics and Computational Biology (ACM-BCB)
  - International Conference on Intelligent Systems on Molecular Biology (ISMB)
  - International Symposium on Health Informatics and Bioinformatics (HIBIT)
  - IEEE International Conference on Data Engineering (ICDE)
  - IEEE International Conference on Data Mining (ICDM)
  - International Conference on Computational Systems Biology (CSB)
- **2010**
  - International Conference on Intelligent Systems on Molecular Biology (ISMB)
  - International Conference on Computational Systems Biology (CSB)
  - IEEE International Conference on Data Engineering (ICDE)
  - International Symposium on Computer and Information Sciences (ISCIS),
  - International Conference on Bioinformatics and Computational Biology (ACM-BCB)
  - International Symposium on Health Informatics and Bioinformatics (HIBIT)
  - Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
  - The International Conference on Very Large Data Bases (VLDB).
- **2009**
  - International Workshop on Biological Data Management (BIDM)
  - International Conference on Computational Systems Biology (CSB)
  - IEEE International Conference on Data Mining (ICDM)
  - International Symposium on Computer and Information Sciences (ISCIS)
  - International Symposium on Health Informatics and Bioinformatics (HIBIT)
  - Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
  - The International Journal on Very Large Data Bases (VLDB)
- **2008**
  - Biotechnology and Bioinformatics Symposium (BIOT),
  - International Conference on Intelligent Systems for Molecular Biology (ISMB)
  - International Conference on Data Warehousing and Knowledge Discovery (DAWAK),
  - IEEE International Conference on Data Mining (ICDM),
  - ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)

        - International Symposium on Health Informatics and Bioinformatics (HIBIT)
        - Machine Learning in Biomedicine and Bioinformatics (MLBB)
        - IEEE International Conference on Data Mining (ICDM)
    - **2007**
        - IEEE International Conference on Data Engineering (ICDE)
        - International Conference on Data Warehousing and Knowledge Discovery (DAWAK)
        - Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
        - Database Systems for Advanced Applications (DASFAA)
        - International Symposium on Health Informatics and Bioinformatics (HIBIT)
        - The International Journal on Very Large Data Bases (VLDB)
    - **2006**
        - IEEE International Conference on Data Mining (ICDM)
        - IEEE Workshop on High Performance Computing in Medicine and Biology (HiPCoMB)
        - International Conference on Data Warehousing and Knowledge Discovery (DAWAK)
        - ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)
    - **2005**
        - IEEE International Conference on Data Mining (ICDM)
        - International Workshop on Biological Data Management (BIDM)
- ***Reviewer in scholarly journals***
    - IEEE Transactions on Parallel and Distributed Systems (TPDS)
    - Very Large Data Base Journal (VLDBJ)
    - IEEE Transactions on Knowledge and Data Engineering (TKDE)
    - ACM/IEEE Transactions on Computational Biology and Bioinformatics (TCBB)
    - Transactions on Database Systems (TODS)
    - Data & Knowledge Engineering (DKE)
    - International Journal of Knowledge Discovery in Bioinformatics (IJKDB)
    - Journal of Bioinformatics and Computational Biology (JBCB)
    - Journal of Computational Biology (JCB)
    - PLoS Computational Biology
    - Bioinformatics Journal
    - BMC Bioinformatics
    - Journal of Advances in Bioinformatics.
- ***Reviewer of research proposals***
    - ABI panel, National Science Foundation
    - IIS panel, National Science Foundation
    - National Institute of Health
- ***Professional Committees***
    - ISCB Publications Committee Member.
    - ACM SIG-Bio Awards Committee Member.
- ***Outreach and Community Services***
    - Founder and vice chair of the Sweetwater Branch Academy Elementary and Middle School.

Post-doctoral students

- Saad Sheikh
- Murat Gok
- Yusuf Kavurucu

- Ahmet Ay

Ph.D. students
(Chronological order of graduation date)

- Jayendra Venkateswaran, “Indexing techniques for metric databases with costly searches”, 2007.
- Xu Zhang, “Multiple sequence alignment solutions and applications”, 2007.
- Xuehui Li, “Identification and application of repetitive biological sequences”, 2007.
- Jun Liu, “Mining comparative genomic hybridization data”, 2007.
- Bin Song, “New in silico approaches for metabolic engineering”, 2010.
- Ferhat Ay, “A comparative study on biological networks: alignment and structural properties”, 2011.
- Nirmalya Bandyopadhyay, “Modeling perturbations in gene regulatory and signaling networks”, 2011.
- Gunhan Gulsoy, Querying of large biological network databases, 2013.
- Andrei Todor, Querying probabilistic networks, 2014.
- Haitham Gabr, Pathway identification in uncertain networks, 2015
- Md. Mahmudul Hasan, Network motif identification, 2016
- Rasha Elhesha, Network motif identification, 2018
- Yuanfang Ren, Probabilistic network analysis, 2018
- Aisharjya Sarkar, 2020

M.S. students
- Padmavati Sridhar, Mining metabolic networks, 2006.
- Qiyao Wang, 2015.
- Preethu Thomas, 2015.

Research support

1. NSF, “CNS Core: Small: Novel biologically inspired methods for analzing multilayer networks”, 05/01/21-04/30/24, (PI)

2. NSF, “EAGER: Solving bait learning problem for large scale DNA enrichment”, 08/01/21-07/31/23 (Co-PI)

3. Navy, “Agassiz’s Desert Tortoises (Gopherus Agassizii) Post-Translocation”, 09/28/18 - 09/27/22 $413,652 (Co-PI)

4. VA, “Defining omic-signatures in recurrent Clostridium difficile infection”, 08/01/17-07/31/21, $650,000 (Co-PI).

5. NSF, “An integrative approach to quantifying the response of ecological assemblages to anthropogenic stressors”, 06/01/2015-05/31/2018, $896,105 (Co-PI).
6. UF Gatorade, “Unrestrained Pro-Inflammatory Alveolar Macrophage Activation Suggests a Damaging Role for iron accumulation in Idiopathic Pulmonary Fibrosis”, 05/01/17-04/30/18, $100,000 (Co-PI)

7. UF HCC, “Inferring the genetic architecture of gene expression in prostate cancer”, 05/01/2015-04/30/2016, $60,000 (Co-PI)
8. UF Informatics Institute Seed Fund, “Integrating Omics Data with Domain Specific Knowledge for Predicting Cellular Sensitivity to Chemotherapy And Radiotherapy”, 08/01/2014 –

07/31/2015, $49,000 (Co-PI).

9. UF Informatics Institute Seed Fund, “Identification of phylogenetic and functional networks of prokaryotes that control methane production in peatlands”, 08/01/2014 – 07/31/2015, $39,000 (Co-PI).
10. AFE, “Gene mining in impatiens for resistance to infection by the downy”, 07/01/2014 – 06/30/2015, $29,033 (Co-PI).
11. NSF (CCF-1251599), “CIF: EAGER: Modeling and Querying of Probabilistic Biological Networks”, 08/01/13 - 07/31/15, $174,925 (PI).
12. NSF (DBI-1262451), “ABI Innovation: Querying Massive Dynamic Biological Network Databases”, 07/01/13 - 06/30/16, $492,584 (PI).
13. NSF (CCF-1048217), “CiC: EAGER: Inferring Pattern and Processes of Genome Evolution Through Cloud Computing Beyond”, 01/01/11 – 12/31/13, $300,000 (Co-PI).
14. NSF (IIS-1244794), “Student Travel Sponsorship for Third ACM BCB Conference, 2012”, 09/01/12 - 08/31/13, $24,000 (Co-PI).
15. NSF (IIS-0845439), “CAREER: New technologies for querying pathway databases”, 06/01/09 – 05/31/14, $400,000 (PI)
16. NSF (CCF-0829867), “EMT/BSSE: Biological networks as a communication model for entities with complex interactions”, 09/01/08 - 08/31/11, $300,000 (PI).
17. NSF (DUE-0920151), “Sequencing Gators: Building a Genome Science Curriculum at the University of Florida and Beyond”, 01/01/10 – 12/31/13, $499,888 (Co-PI)
18. NSF (IOS-0606607), "Dosage dependent genes affecting seed composition and weight", 09/2006-08/2010, $1,227,302, (major collaborator).
19. UF Research Initiative Grant, “Constructing Stable Phylogenetic Trees”, 05/2010-04/2012, $100,000, (co-PI)
20. UF Research Initiative Grant, “Identification of repeats in genomes in the presence of transposons”, 05/2008-04/2010, $80,000, (PI)
21. UFGI Seed Grant, “Sequence Indexed Maize Transposon Insertion Sites for Cereal Functional Genomics”, 06/2006 – 05/2008, $100,000 (co-PI).
22. Oak Ridge Associated Universities (OARU) Ralph E. Powe Junior Faculty Enhancement Award, 06/2006 – 01/2007, $10,000, (PI).