

Chittibabu (Babu) Guda

<http://bioinformatics.albany.edu/~cguda>

Department of Epidemiology and Biostatistics
Cancer Research Center

State University of New York at Albany
One Discovery Drive, Room 208, Rensselaer, NY 12144

☎: (518) 591-7155; Fax: (518) 591-7151

Email: cguda@albany.edu

Education

- 1999-2001 **University of California at San Diego**, San Diego Supercomputer Center
Post-Doctoral Researcher, *Structural Bioinformatics*
(Advisors: Ilya Shindyalov, PhD and Phil Bourne, PhD)
- 1997-1999 **Iowa State University**, Ames, IA, Genetics, Developmental & Cell Biology
Post-doctoral Research Associate, *Molecular Biology*
(Advisor: Eve Wurtele, PhD)
- 1997-1999 **Iowa State University**, Ames, IA, Computer Science
Non-degree student, *Computational Biology*
- 1992-1997 **Auburn University**, Auburn, AL, Department of Biological Sciences
PhD, Thesis Title: Expression of foreign genes in plant chloroplasts
(Advisor: Henry Daniell, PhD)
- 1990-1992 **College of Agriculture (APAU)**, Rajendranagar, India, Genetics and Plant Breeding
M.Sc.(ag), *Seed Science and Technology*
(Advisor: Anand Reddy, PhD)
- 1986-1990 **Agricultural College, (APAU)**, Bapatla, India.
B.Sc.(ag), *Agricultural Sciences*

Academic Appointments

- 2004-present **Assistant Professor**, Epidemiology and Biostatistics, and Cancer Research Center
State University of New York at Albany (SUNY-Albany)
- 2006-present **Adjunct Assistant Professor**, Department of Computer Science, SUNY-Albany
- 2005-present **Adjunct Assistant Professor**, Department of Biological Sciences, SUNY-Albany
- 2001-2004 **Project Scientist**, San Diego Supercomputer Center, University of California at San Diego (UCSD), La Jolla, CA
- 2001-2004 **Instructor of Bioinformatics**, Department of Biosciences, UCSD Extension, La Jolla, CA
- 1999-2001 **Post-doctoral Researcher**, Protein Data Bank, San Diego Supercomputer Center, UCSD, La Jolla, CA
- 1997-1999 **Post-doctoral Research Associate**, Department of Genetics, Developmental & Cell Biology (previously Dept. of Botany), Iowa State University, Ames, IA
- 1992-1997 **Graduate Teaching and Research Assistant**, Department of Biological Sciences (previously Dept. of Botany and Microbiology), Auburn University, Auburn, AL
- 1990-1992 **Post-graduate Fellow**, Department of Genetics and Plant Breeding, College of Agriculture, Rajendranagar, India

Honors and Awards

- 2009 *Invited Reviewer*, WOTRO Science for Global Development, The Netherlands
- 2009 *Distinguished Dissertation Award*, (received by my Ph.D. student, Brian King), SUNY-Albany
- 2009 *Outstanding Publication Award*, (received by my Ph.D. student, Brian King), College of Computing and Informatics, SUNY-Albany
- 2008 *Grant Review Panelist*, BIO Division, National Science Foundation (NSF)
- 2007 *Invited Panelist*, New Investigator Research Orientation, SUNY-Albany
- 2006 *Service Award for Leadership and Governance*, SUNY-Albany
- 2002 *Instructor of the Year Award*, Department of Biosciences, UCSD Extension
- 2001 *Post-doctoral Travel Award*, Department of Energy (DOE)
- 1995 *Certificate for Academic Excellence*, Auburn University
- 1994 *Student Travel Award*, Department of Biological Sciences, Auburn University
- 1994 *Student Travel Award*, UNIDO (United Nations Industrial Development Organization)
- 1990-92 *Graduate Student Fellowship*, Andhra Pradesh Agricultural University, India
- 1986-90 *Annual Awards for Academic Excellence in Professional Studies*, Andhra Pradesh State Police Department, India

Extramural Funding

Current:

- Agency: NIH/ National Institute of General Medical Sciences (1R01GM086533-01A1)
Term: 09/01/09-08/31/14
Role: PI
Title: *Cataloging the Subcellular and Suborganellar Proteomes of Sequenced Genomes*
Goals: The goal of this project is to develop a state-of-the-art computational tool that can accurately predict the subcellular and suborganellar localizations of eukaryotic proteins. The accuracy of this method will be refined by experimental validation (in Dr. Conklin's laboratory) of predicted localizations using GFP-fusion protein expression followed by confocal microscopy.
- Agency: NIH/National Institute of General Medical Sciences (1R15GM080681-01A1)
Term: 04/01/08-03/31/10
Role: PI
Title: *An Integrated Approach to Infer and Validate Domain-Domain Interactions in Proteins*
Goals: This is an AREA award (Academic Research Enhancement Award) which is intended to stimulate research at educational institutions that have not been major recipients of NIH support. The goal of this project is to develop a novel computational method to predict biologically-significant domain-domain interactions, followed by their experimental validation (in Dr. Begley's laboratory), using yeast-two-hybrid screens.
- Agency: NIH/National Human Genome Research Institute (U01-HG004571)
Term: 09/01/07-08/31/10
Role: Co-Investigator (PI: Scott Tenenbaum, SUNY-Albany)
Title: *Comprehensive Identification of ENCODE RNA-Based Cis-Regulatory Elements*
Goals: The objective of this project is to combine a tiling-array based RBP Immuno-precipitation (RIP-Chip) assay with three additional technologies including

computational approaches to comprehensively catalog cis-regulatory elements/RBP-binding sites (CREBS) present in expressed ENCODE mRNA.

Pending

1. Agency: NIH/NIAID
Term: 5/01/10-4/31/15
Role: Co-Investigator (PD: Jeff Kennedy, Wadsworth Center, NY Department of Health)
Title: Clinical epidemiology and translational immunology research on *Brucellosis*

Completed:

- 1) Agency: NIH/MARC U*STAR Curriculum Improvement Grant
Term: 08/2004-05/2010
Role: Consultant (PI: *Victor Rocha*, CalState University at San Marcos, CA)
Title: California State University San Marcos MARC U*STAR Program
Goals: This grant is issued to the MARC U*STAR (Minority Access to Research Careers-Undergraduate Student Training in Academic Research) institutions to promote and evaluate curriculum standards for the modern Biologist who is anticipated to have thorough training both in biological and quantitative disciplines.
- 2) Agency: National Partnership for Advanced Computational Infrastructure (NPACI/NSF)
Term: 04/2003-12/2003
Role: PI
Title: Developing a Standalone Tool for Multiple Protein Structure Alignment Algorithm
Goals: This award provided support for the REU (Research Experience for Undergraduates) students. The goal of this project was to develop a standalone software package called CE-MC (Combinatorial Extension-Monte Carlo optimization) for carrying out alignment of multiple protein structures in the Protein Data Bank (PDB).

Publications

I have published 40 research articles in total, which include 32 peer-reviewed original articles, two invited reviews and six book chapters. Author contributions are noted in italics for publications that were published by me as an independent investigator at SUNY-Albany (since 2005).

Peer-reviewed Journal Articles

1. **Guda C**, King BR, Pal LR, Guda P. (2009) An integrated method to infer and compare domain-domain interactions across eight model organisms, *PLoS ONE* 4:e5096.
2. Guda P, Chittur VS, **Guda C**. (2009) Comparative analysis of protein-protein interactions in cancer-associated genes. *Genomics, Proteomics and Bioinformatics* 7:25-36.
3. King BR, Latham L **Guda C**. (2009) Estimation of subcellular proteomes in bacterial species. *The Open and Applied Informatics Journal*, 3:1-11.
4. King BR, **Guda C** (2008) Semi-supervised learning for classification of protein sequence data. *Scientific Programming*, 16:5-29.

5. Meller N, Westbrook JM, Shannon JD, **Guda C**, Schwartz MA. (2008) Function of the N-terminus of zizimin1: autoinhibition and membrane targeting. *Biochemical Journal*, 409:525-533.
6. Guda P, **Guda C**, Subramaniam S. (2007) Reconstruction of pathways associated with amino acid metabolism in human mitochondria. *Genomics Proteomics and Bioinformatics*, 5:166-76
7. Saski C, Lee SB, Fjellheim S, **Guda C**, Jansen RK, Tomkins J, Rognli OA, Daniell H, Clarke JL. (2007) Complete chloroplast genome sequences of *Hordeum vulgare*, *Sorghum bicolor* and *Agrostis stolonifera*, and comparative analyses with other grass genomes. *Theoretical and Applied Genetics* 115:571-590.
8. King B, **Guda C**. (2007) ngLOC: An *n*-gram based Bayesian method for estimating the subcellular proteomes of eukaryotes. *Genome Biology*, 8:R68.
9. Guda P, Bourne PE, **Guda C** (2007) Conserved motifs in voltage-sensing and pore-forming modules of voltage-gated ion channel proteins. *Biochem. Biophys. Res. Commun*, 352:292-98.
10. **Guda C**. (2006) pTARGET: A web server for predicting protein subcellular localization. *Nucleic Acids Research*, 34:W210-213.
11. **Guda C**, Pal LR, Shindyalov IN. (2006) DMAPS: A Database of Multiple Alignments for Protein Structures. *Nucleic Acids Research*, 34:D273-276.
12. Pal LR, **Guda C**. (2006) Tracing the evolutionary origin of functional domains in human proteins. *BMC Evolutionary Biology* 6:91.
13. Acquaaah-Mensah GK, Leach SM, **Guda C** (2006) Predicting the subcellular localization of human proteins using machine learning and exploratory data analysis. *Genomics Proteomics and Bioinformatics*, 4:120-133.
14. Daniell H, Lee SB, Grevich J, Saski C, **Guda C**, Tomkins J, Jansen RK. (2006) Complete chloroplast genome sequence of *Solanum tuberosum*, *Lycopersicon esculentum* and comparative analyses with other Solanaceous genomes. *Theoretical and Applied Genetics*, 112:1503-1518.
15. Cotter D, Maer A, **Guda C**, Saunders B, Subramaniam S. (2006) LIPID MAPS Lipid Proteome Database. *Nucleic Acids Research*, 34:D507-510.
16. **Guda C**, Subramaniam S. (2005) pTARGET: A new method for predicting protein sub-cellular localization in eukaryotes. *Bioinformatics*, 21:3963-3969.
17. **Guda C**, Fahy E, Subramaniam S. (2004) MITOPRED: A genome-scale method for prediction of nuclear-encoded mitochondrial proteins. *Bioinformatics*, 20:1785-1794.
18. **Guda C**, Lu S, Scheeff ED, Bourne PE, Shindyalov IN. (2004) CE-MC: A Multiple Protein Structure Alignment Server. *Nucleic Acids Research*, 32:W100-W103.

19. **Guda C**, Guda P, Fahy E, Subramaniam S. (2004) MITOPRED: A web server for genome-scale prediction of mitochondrial proteins. *Nucleic Acids Research*, 32:W372-W374.
20. Chukkapalli G, **Guda C**, Subramaniam S. (2004) SledgeHMMER: A web server for batch searching of Pfam database. *Nucleic Acids Research*, 32:W542-W544.
21. Heine A, Canaves JM, von Delft F, Brinen LS, Dai X, Deacon AM, Elsliger M. A, Eshaghi S, Floyd R, Godzik A, Grittini C, Grzechnik SK, **Guda C**, Jaroszewski L, Karlak C, Klock HE, Koesema E, Kovarik JS, Kreusch A, Kuhn P, Lesley SA, McMullan D, McPhillips TM, Miller MA, Miller MD, Morse A, Moy K, Ouyang J, Page R, Robb A, Rodrigues K, Schwarzenbacher R, Selby TL, Spraggon G, Stevens RC, van den Bedem H, Velasquez J, Vincent J, Wang X, West B, Wolf G, Hodgson KO, Wooley J, Wilson IA. (2004) Crystal structure of O-acetylserine sulfhydrylase (TM0665) from *Thermotoga maritima* at 1.8 Å resolution. *Proteins*, 56: 387-391.
22. Schwarzenbacher R, Canaves JM, Brinen LS, Dai X, Deacon AM, Elsliger MA, Eshaghi S, Floyd R, Godzik A, Grittini C, Grzechnik SK, **Guda C**, Jaroszewski L, Karlak C, Klock HE, Koesema E, Kovarik JS, Kreusch A, Kuhn P, Lesley SA, McMullan D, McPhillips TM, Miller MA, Miller MD, Morse A, Moy K, Ouyang J, Page R, Robb A, Rodrigues K, Selby TL, Spraggon G, Stevens RC, van den Bedem H, Velasquez J, Vincent J, Wang X, West B, Wolf G, Hodgson KO, Wooley J, Wilson IA. (2004) Crystal structure of an iron-containing 1,3-propanediol dehydrogenase (TM0920) from *Thermotoga maritima* at 1.3 Å resolution. *Proteins*, 54: 174-177
23. Schwarzenbacher R, Canaves JM, Brinen LS, Dai X, Deacon AM, Elsliger MA, Eshaghi S, Floyd R, Godzik A, Grittini C, Grzechnik SK, **Guda C**, Jaroszewski L, Karlak C, Klock HE, Koesema E, Kovarik JS, Kreusch A, Kuhn P, Lesley SA, McMullan D, McPhillips TM, Miller MA, Miller MD, Morse A, Moy K, Ouyang J, Page R, Robb A, Rodrigues K, Selby T L, Spraggon G, Stevens RC, van den Bedem H, Velasquez J, Vincent J, Wang X, West B, Wolf G, Hodgson KO, Wooley J, Wilson IA. (2003) Crystal structure of uronate isomerase (TM0064) from *Thermotoga maritima* at 2.85 Å resolution. *Proteins*, 52: 142-145
24. Brinen LS, Canaves JM, Dai X, Deacon AM, Elsliger MA, Eshaghi S, Floyd R, Godzik A, Grittini C, Grzechnik SK, **Guda C**, Jaroszewski L, Karlak C, Klock HE, Koesema E, Kovarik JS, Kreusch A, Kuhn P, Lesley SA, McMullan D, McPhillips TM, Miller MA, Miller MD, Morse A, Moy K, Ouyang J, Robb A, Rodrigues K, Selby TL, Spraggon G, Stevens RC, Taylor SS, van den Bedem H, Velasquez J, Vincent J, Wang X, West B, Wolf G, Hodgson KO, Wooley J, Wilson IA. (2003) Crystal structure of a zinc-containing glycerol dehydrogenase (TM0423) from *Thermotoga maritima* at 1.5 Å resolution. *Proteins*, 50: 371-374
25. Kuhn P, Lesley SA, Mathews II, Canaves JM, Brinen LS, Dai X, Deacon AM, Elsliger MA, Eshaghi S, Floyd R, Godzik A, Grittini C, Grzechnik SK, **Guda C**, Hodgson KO, Jaroszewski L, Karlak C, Klock HE, Koesema E, Kovarik JS, Kreusch A, McMullan D, McPhillips TM, Miller MA, Miller MD, Morse A, Moy K, Ouyang J, Robb A, Rodrigues K, Selby TL, Spraggon G, Stevens RC, Taylor SS, Van Den Bedem H, Velasquez J, Vincent J, Wang X, West B, Wolf G, Wooley J, Wilson IA. (2002) Crystal structure of thyl, a thymidylate synthase complementing protein from *Thermotoga maritima* at 2.25 Å resolution. *Proteins*, 49: 142-145

26. Lesley SA, Kuhn P, Godzik A, Deacon AM, Mathews I, Kreuzsch A, Spraggon G, Klock HE, McMullan D, Shin T, Vincent J, Robb A, Brinen LS, Miller MD, McPhillips TM, Miller MA, Scheibe D, Canaves JM, **Guda C**, Jaroszewski L, Selby TL, Elslinger MA, Wooley J, Taylor SS, Hodgson KO, Wilson IA, Schultz PG, Stevens RC. (2002) Structural genomics of the *Thermotoga maritima* proteome implemented in a high-throughput structure determination pipeline. *Proceedings of the National Academy of Sciences, USA* 99: 11664-69.
27. **Guda C**, Scheeff ED, Bourne PE, Shindyalov IN. (2001) A new algorithm for the alignment of multiple protein structures using Monte Carlo optimization. *Proceedings of the Pacific Symposium on Biocomputing*, pp. 275-286.
28. **Guda C**, Lee SB, Daniell H. (2000) Stable transformation of chloroplasts using a universal integration vector. *Plant Cell Reports*, 19:257-262.
29. Brixey J, **Guda C**, Daniell H. (1997) The chloroplast psbA promoter is more efficient in *E. coli* than the T7 promoter for hyperexpression of a foreign protein. *Biotechnology Letters*, 19:395-399.
30. **Guda C**, Zhang X, McPherson DT, Xu J, Cherry JH, Urry DW, Daniell H. (1995) Hyper-expression of an environmentally friendly synthetic polymer gene. *Biotechnology Letters*, 17:745-750.
31. Zhang X, **Guda C**, Datta R, Dute R, Urry DW, Daniell H. (1995) Nuclear expression of an environmentally friendly synthetic protein based polymer gene in tobacco cells. *Biotechnology Letters*, 17:1279-1284.
32. Daniell H, Zhang X, **Guda C**, Urry D. (1995) Plastics from Plants. *Highlights of Agricultural Research*, 42:18-19.

Invited Reviews

33. Meller N, Merlot S, **Guda C**. (2005) CZH proteins-New family of Rho GEFs. *Journal of Cell Science*, 118:4937-46 (Invited review article).
34. Daniell H, **Guda C**. (1997) Biopolymer production in microorganisms and plants. *Chemistry and Industry*, 14:555-558. (Invited Review Article)

Book Chapter Publications

35. Guda P, Subramaniam S, **Guda C**. (2007) MitoProteome: Human heart mitochondrial protein sequence database In *Cardiovascular Proteomics, Methods and Protocols. Methods in Molecular Biology*, 357:375-384 (Invited book chapter).
36. **Guda C**, Scheeff ED, Bourne PE, Shindyalov IN. (2002) Comparative Analysis of Protein Structure: New Concepts and Approaches for Multiple Structure Alignment. In: *Protein Structure Prediction: Bioinformatics Approach*, pp.451-459.

37. **Guda C.** (1997) Stable expression of foreign genes in chloroplasts. Dissertation submitted to *Auburn University, Auburn, Alabama.*
38. Daniell H, **Guda C**, McPherson DT, Zhang X, Urry DW. (1997) Hyperexpression of a synthetic protein based polymer gene. *Methods in Molecular Biology*, 63: 359-371. (Cover page article).
39. Urry DW, McPherson DT, Xu J, Daniell H, **Guda C**, Gowda DC, Jing N, Parker TM. (1997) Protein-Based Polymeric Materials: Syntheses and Properties. *The Polymeric Materials Encyclopedia: Synthesis, Properties and Applications*, pp. 2645-2699, CRC Press.
40. Daniell H, **Guda C**, Singh NK, Weete JD, Cherry JH. (1995) Photosynthesis, epicuticular wax and lipid changes in cowpea cultivars grown under hyperthermic conditions. In: Biochemical and Cellular Mechanisms of Stress Tolerance in Plants (J.H. Cherry ed.) *NATO ASI Series*, Vol. H 86: 213-227, Springer-Verlag, Heidelberg.

Invited Presentations

- 2009 Third US-EU Workshop on Systems level understanding of DNA damage responses, Egmond aan Zee, The Netherlands.
- 2009 The *Emiliana huxleyi* Genome Annotation Jamboree, Falmouth, MA
- 2009 Cancer Research Center, Medical College of Georgia, Augusta, GA
- 2008 NIH/NHGRI, The Encode Analysis Workshop, Rockville, MD.
- 2007 Department of Plant Sciences, University of Hyderabad, India
- 2007 Department of Biology, Rensselaer Polytechnic Institute (RPI), Troy, NY
- 2007 Department of Neurology, Albert Einstein College of Medicine, Bronx, NY
- 2007 Bioinformatics & Computational Biology, George Mason University, Fairfax, VA
- 2007 NIH/NHLBI Workshop on Mitochondrial Proteomics, Bethesda, MD
- 2007 *Emiliana huxleyi* Genome Annotation Pre-Jamboree, Roscoff, France
- 2006 Department of Physics, State University of New York at Albany, NY
- 2005 Department of Biomedical Sciences, University of Central Florida, Orlando, FL
- 2005 Department of Computer Science, State University of New York at Albany, NY
- 2005 Ordway Research Institute, Albany, NY
- 2004 Department of Biological Sciences, Cal State University, San Marcos, CA
- 2004 Department of Biostatistics, Purdue University, West Lafayette, IN.
- 2004 Department of Biomedical Sciences, Wadsworth Center, Albany, NY
- 2004 The Samuel Roberts Noble Foundation, Ardmore, OK
- 2004 Department of Statistics, Purdue University, West Lafayette, IN
- 2003 Bioinformatics Tutorial presented at the International Conference on Computer Science & Its Applications, at the National University, San Diego, CA
- 2002 Workshop on Computer Aided Drug Design (CADD), Department of Biological Sciences, UCSD Extension, CA

Selected Conference Presentations

1. **Guda C**, King BR, Guda P, Begley TJ (2009) Inferring domain-domain interactions from protein-protein interactions: Applications to cancer interactome. **The 3rd US-EU Workshop on**

Systems level understanding of DNA damage responses, Egmond aan Zee, The Netherlands (Oral presentation).

2. The ENCODE consortium (2009) Integrative analysis of ENCODE consortium data. **The Biology of Genomes Meeting at Cold Spring Harbor Laboratory (CSHL)** (Oral presentation).
3. Guda P, Chittur SV, Guda C (2008) Global analysis of protein-protein interactions in cancer-associated genes, presented at the **CRCC Cancer Genomics Conference**, Troy, NY (Poster presentation).
4. Guda P, Chittur SV, Guda C (2008) Global analysis of protein-protein interactions in cancer-associated genes, presented at the **Intelligent Systems in Molecular Biology (ISMB '08)** conference, Toronto, Canada (Poster presentation).
5. King BR and Guda C. (2007) Semi-supervised learning for protein sequence classification, presented at the **Rocky Mountain Bioinformatics Conference (Rocky '07)**, Aspen, Colorado (Oral and poster presentations).
6. Guda C. (2007) Bioinformatics approaches to the mitochondrial proteome, **NIH (NHLBI) Workshop on Mitochondrial Proteomics**, Bethesda, MD (Oral presentation).
7. Guda C, Scheeff ED, Bourne P, and Shindyalov IN (2001) A new algorithm for the alignment of multiple protein structures using Monte Carlo optimization, presented at the **Pacific Symposium on Biocomputing (PSB '01)**, The Big Island, Hawaii (Oral presentation)
8. Guda C, Bourne PE, and Shindyalov IN (2000) Multiple protein structure alignment using Monte Carlo optimization, presented at the **Intelligent Systems in Molecular Biology (ISMB '00)** conference, San Diego, CA (Poster presentation).
9. Guda C, Daniell H (1995) Expression of a synthetic polymer gene in tobacco chloroplasts, presented at the **International Symposium on Engineering Plants for Commercial Products and Applications**, Lexington, KY (Poster presentation)
10. Guda C, Daniell H (1994) Hyperexpression of an environmentally friendly synthetic polymer gene presented at the **International Symposium on Plant Molecular Biology and Biotechnology**, New Delhi, India (Poster presentation).

Mentoring:

Post-Doctoral Researchers and Visiting Scholars

2010(anticipated) Ashok Jangam, Recipient of ICAR/NAIP fellowship from India
 2004-2009 Purnima Guda, Post-doctoral Researcher
 2005-2007 Lipika R Pal, Post-doctoral Researcher

Students

I have an adjunct appointment in the Department of Computer Science (CS). Most of my students hail from the CS department. The following students have been supported and/or supervised by me.

Doctoral students:

2009-current	Ru Shen	Computer Science	Committee Chair
2009-current	Sudheer Tumu	Computer Science	Committee Chair
2009-current	Akram Mohammed	Computer Science	Committee Chair
2005-2008	Brian King (graduated '08)	Computer Science	Committee Chair
2006-2008	Lance Latham	Computer Science	Committee Chair

2008-current	Ben Carle	Computer Science	Committee Member
2006-current	Joshua Strauss	Biomedical Sciences	Committee Member
2009	Indra Dev Sahu	Physics	Committee Member
2009	Laxman Mainali	Physics	Committee Member

Masters' Students:

2009-current	Krupa Somasekhar	Computer Science	Project Supervisor
2009-current	Chintan Mistry	Computer Science	Project Supervisor
2009-current	Nitant Patel	Computer Science	Project Supervisor
2009	Xianong Lu (graduated '09)	Epi/Biostatistics	Committee Member
2007-2008	Quazi Shoyweeb	Computer Science	Project Supervisor
2006	Stacey Gaddis (graduated '06)	Computer Science	Project Supervisor

Undergraduate/High School Students:

2009-current	Varun Vijay	Niskayuna High School, NY	High School intern
2009	Christina Salami	CUNY, NY	UASRP intern
2008-2009	Calvin Yoon	Berkshire High School, MA	High School intern
2008	Chinmay Karanjkar	SUNY-Buffalo, NY	Summer intern
2006-2007	Kavitha Siddi	Albany, NY	Student intern
2006	Mike Galimore	Salem High School, NY	High School intern
2003	Sifang Lu	UC San Diego, CA	REU intern

Professional Service

2009 – present	<i>Editorial Board Member, The Open Systems Biology Journal</i>
2009	<i>Grant Reviewer, WOTRO Science for Global Development, The Netherlands</i>
2008	<i>Review Panel member, BIO Division, NSF</i>
2008	<i>Adhoc Grant Reviewer, NSF</i>
2004 – 2006	<i>External consultant, MARC U*STAR grant, NIH</i>
2003	<i>Panel speaker, International Conference on Computer Science & Its Applications, National University, San Diego, CA</i>
2003	<i>Bioinformatics Training Consultant, Pfizer Global R&D, La Jolla, CA</i>
2003 – present	<p><i>Developer and web master for the following bioinformatic web servers that have been accessed by tens of thousands of researchers from around the world.</i></p> <ul style="list-style-type: none"> • pTARGET: prediction of protein subcellular localization using protein functional domains (http://bioapps.rit.albany.edu/pTARGET). • MITOPRED: A tool for predicting mitochondrial proteins. Available online at http://bioapps.rit.albany.edu/MITOPRED. • SledgeHMMER: An online web server for batch searching the Pfam database (http://bioapps.rit.albany.edu/sledgeHMMER). • CE-MC: A tool for aligning multiple protein structures using Monte Carlo Optimization. The CE-MC web server and the standalone software are available at http://pathway.rit.albany.edu/~cemc. • DMAPS: A database of multiple alignments for protein structures covering all structures in the PDB (http://bioapps.rit.albany.edu/DMAPS).

Adhoc Journal Reviewer

- Nucleic Acids Research
- Bioinformatics
- Cancer Informatics
- PLoS Computational Biology
- BMC Bioinformatics
- BMC Genomics
- Pacific Symposium on Biocomputing (PSB)
- FEBS Letters
- IEEE Proceedings
- Expert Review of Proteomics
- Mitochondrion
- Medical Science Monitor
- Drug Discovery Today
- Experimental Cell Research
- Journal of Weed Science
- Virology