Dr. Wenshe Liu

Associate Professor of Chemistry

Member of Professional Program in Biotechnology Member of Interdisciplinary Faculty of Toxicology

Department of Chemistry

Texas A&M University

Tel: 001-979-845-1746 MS 3255

E-mail: wliu@chem.tamu.edu College Station, TX 77843

Education: Scripps Research Institute, La Jolla, CA 2005-2007 Postdoc in Chemical Biology

University of California, Davis, CA 2000-2005 Ph.D. in Chemistry Beijing University, Beijing, China 1996-2000 B.S. in Chemistry

NSF CAREER Award Awards and Honors: 2012 **UCDavis Summer Research Award** 2004 2003 **UCDavis Travel Award** UC Biotechnology Research Training Fellow 2000-2004 1999 **Outstanding Student Leader Award** Canon Undergraduate Award 1998 1997 Huikai Undergraduate Award Geru Zen Fellow 1996-2000

Professional Affiliations: 2003-current American Chemical Society

2007-current Chinese-American Chemistry Professor Association

Research Experience:

Texas A&M University 09/2013 - current

Position: Associate Professor of Chemistry

Texas A&M University 08/2007 - 08/2013

Position: Assistant Professor of Chemistry

Research focus: 1) Develop chemical and biological tools for the synthesis of proteins with posttranslational modifications and apply these tools to studying epigenetic roles of posttranslational modifications in cell differentiation and cancer development; 2) Use bacteria and bacteria phage to construct peptide-small molecule conjugate libraries for anti-cancer drug identifications; 3) Devise simple strategies for fluorescent protein labeling and apply them to understanding protein folding diseases and developing biosensors.

Scripps Research Institute 07/2005 - 07/2007

Position: Postdoctoral Researcher **Advisor:** Dr. Peter G. Schultz

Research focus: 1) Genetic code expansion of mammalian cells for site-specific installation of unnatural amino acids in their proteins; 2) Structurally characterize evolved tyrosyl-tRNA synthetases that were used for genetic incorporation of unnatural amino acids in bacteria and yeast.

University of California-Davis 09/2000 - 06/2005

Position: Graduate Researcher **Advisor:** Dr. Michael D. Toney

Research focus: Structurally and mechanistically characterize pyridoxyl-5'-phosphate dependent enzymes.

Peer Reviewed Publications

As an independent principal investigator

1. Lee Y.-J., Kurra Y., Wang Y., Torres-Kolbus J., Deiters A. & **Liu W.R.**, "Genetically Encoded Terminal Olefins for Live Cell Labeling with Tetrazine Dyes", *Chem. Commun.*, submitted.

- 2. Zeng Y. & **Liu W.R.***, "Reassigning the Rare AGG Codon in *Escherichia coli*", *ChemBioChem*, under revision.
- 3. Kurra Y., Odoi K.A., Lee Y.-J., Lu T., Wheeler S.E., Deiters A. & **Liu W.R.***, "Two Rapid Catalyst-free Click Reactions for *In Vivo* Protein Labeling Mediated by Genetically Encoded Strain-promoted Alkene/alkyne Functionalities", *ACS Chem. Biol.*, under revision.
- 4. Tuley A., Lee Y.-J., Wu B., Wang Z.U. & **Liu W.R.***, "A Genetically Encoded Aldehyde for Rapid Protein Labeling", *Chem. Commun.*, **2014**, DOI: 10.1039/c4cc02000f.
- 5. Wan W., Tharp M.J. & **Liu W.R.***, "Pyrrolysyl-tRNA synthetase: an ordinary enzyme but an outstanding genetic code expansion tool", *Biochem. Biophys. Acta*, **2014**, 1844:1059-1070.
- 6. Tharp J.M., Wang Y.-S., Lee Y.-J. & **Liu W.R.***, "The Genetic Incorporation of Seven *Orthosubstituted Phenylalanine Derivatives"*, *ACS Chem. Biol.*, **2014**, 9:884-890.
- 7. **Liu W.R.***, "Reports from the chemical Biology of Texas Symposium at the 69th Southwest Regional Meeting of the American Chemical Society", *ACS Chem. Biol.*, **2014**, 9: 319-322.
- 8. Wang X.S., Lee Y.-J., & **Liu W.R.***, "The Nitrilimine-Alkene Cycloaddition is an Ultra Rapid Click Reaction", *Chem. Commun.* **2014**, 50: 3176-3179.
- 9. Tuley A., Wang Y.S., Fang X., Kurra Y., Reznom Y.H. & **Liu W.R.***, "The Genetic Incorporation of Thirteen Novel Non-canonical Amino Acids", *Chem. Commun.* **2014**, 50: 2673-2675.
- 10. Wang X.A., Kurra Y., Huang Y., Lee Y.-J. & **Liu W.R.***, "E1-catalyzed Ubiquitin C-terminal Amidation for the Facile Synthesis of Deubiquitinase Substrates", *ChemBioChem* **2014**, 15:37-41.
- 11. Hladilkova J., Heyda J., Rembert K.B., Okur H.I., Kurra Y., **Liu W.R.**, Hilty C., Cremer P.S.* & Jungwirth P.*, "Effects of End-group Termindation on Salting-out Constants for Triglycine", *J. Phys. Chem. Lett.*, **2013**, 4:4069-4073.
- 12. Paterova J., Rembert K., Heyda J., Kurra Y., Okur H., **Liu W.R.**, Hilty C., Cremer P.S.* & Jungwirth P.*, "Reversal of the Hofmeister Series: Specific Ion Effects on Peptides", *J. Phys. Chem. B*, **2013**, 117:8150-8158.
- 13. Lee Y.C., Wu B., Raymond J.E., Zeng Y., Fang X., Wooley K.L & **Liu W.R.**, "A Genetically Encoded Acrylamide Functionality", *ACS Chem. Biol.* **2013**, 8:1664-1670.
- 14. Odoi K.A., Huang Y., Rezenom Y.H. & **Liu W.R.***, "Nonsense and Sense Suppression Abilities of Original and Derivative *Methanosarcina mazei* Pyrrolysyl-tRNA Synthetase-tRNA^{Pyl} Pairs in the *Escherichia coli* BL21(DE3) Cell Strain ", *PLOS One*, **2013**, 8:e57035.
- 15. Wang Y.-S., Fang X., Chen H.-Y., Wu B., Wang Z.U., Hilty C.B., & **Liu W.R.***, "Genetic Incorporation of Twelve *meta*-Substituted Phenylalanine Derivatives Using a Single Pyrrolysyl-tRNA Synthetase Mutant", *ACS Chem. Biol.*, **2013**, 8: 405-415.
- 16. O'Donoghue P, Prat L., Heinemann I., Ling J., Odoi K.A., **Liu W.R.*** & Soll D.*, "Near-cognate Suppression of Amber, Opal, and Quadruplet Codons Compete with Aminoacyl-tRNA^{Pyl} for Genetic Code Expansion", *FEBS Lett.*, **2012** 586:3931-3937 (*co-corresponding authors).
- 17. Wan W, Wang Y.-S., & **Liu W.R.***, "Genetically Encoding Bioorthogonal Functional Groups for Site-selective Protein Labeling", *Organic Chem. Curr. Res.*, **2012**, 1:e111, DOI: 10.4172/2161-0401.1000e111
- 18. Wang Z.U., Wang Y.-S., Pai P.-J., Russell W.K., Russell D.H. & **Liu. W.R.***, "A Facile Method to Synthesize Histones with Posttranslational Modification Mimics", *Biochemistry*, **2012**, 51:5232-5234.

19. Wu B., Wang Z., Huang Y. & **Liu W.R.***, "Catalyst-Free and Site-Specific One-Pot Dual Labeling of a Protein Directed by Two Genetically Incorporated Noncanonical Amino Acids", *ChemBioChem*, **2012**, 13: 1405-1408.

- 20. Wang Y.-S., Fang X., Wallace A.L., Wu B. & **Liu W.R.***, "A Rationally Designed Pyrrolysyl-tRNA Synthetase Mutant Has a Broad Substrate Specificity", *J. Am. Chem. Soc.*, **2012**, 134: 2950-2953.
- 21. Weinert B.T., Wagner S.A., Horn H., Henriksen P., **Liu. W.R.**, Olsen J.V., Jensen L.J. & Choudhary C.*, "Proteome-wide Mapping of the Drosophila Acetylome Demonstrates a High Degree of Conservation of Lysine Acetylation", *Sci. Signal*, **2011**, 4: ra48.
- 22. Wang Y.-S., Russell W.K., Wang Z., Wan W., Dodd L.E., Pai P.-J., Russell D.H., & **Liu W.R.***, "The *De Novo* Engineering of Pyrrolysyl-tRNA Synthetase for Genetic Incorporation of L-phenylalanine and Its Derivatives", *Mol. BioSyst.*, **2011**, 7: 714-717.
- 23. **Liu W.R.***, Wang Y.-S. & Wan W., "Synthesis of Proteins with Defined Posttranslational Modifications Using the Genetic Noncanonical Amino Acid Incorporation Approach", *Mol. BioSyst.*, **2011**, 7: 38-47.
- 24. Wang Y.-H., Wu B., Wang Z., Huang Y., Wan W., Russell W.K., Pai P.-J., Moe Y.N., Russell D.H. & Liu W.R.*, "A Genetically Encoded Photocaged *N* -methyl-L-lysine" *Mol. Biosyst.*, **2010**, 6: 1557-1560. This was an invited submission and featured on *Molecular BioSystems 2010 Emerging Investigators Issue*.
- 25. Wan W., Huang Y., Wang Z., Russell W.K., Pai P.-J., Russell D.H. & **Liu W.R.***, "A Facile System for Genetic Incorporation of Two Different Noncanonical Amino Acids into One Protein in *Escherichia coli*", *Angew. Chem. Int. Ed.*, **2010**, 49: 3211-3214.
- 26. Huang Y., Russell W.K., Wan W., Pai P.-J., Russell D.H. & **Liu W.***, "A convenient Method for Genetic Incorporation of Multiple Noncanonical Amino Acids into One Protein in *Escherichia coli*". *Mol. BioSyst.* **2010**, 6: 683-686.
- 27. Huang Y., Wan W., Russell W.K., Pai P.-J., Wang Z., Russell D.H. & **Liu W.***, "Genetic Incorporation of An Aliphatic Keto-containing Amino Acid into Proteins for Their Site-specific Modification". *Bioorg. Med. Chem. Lett.* **2010**, 3: 878-880

Before becoming an independent investigator

- 28. Brustad E., Bushey M.L., Lee J.W., Groff D., **Liu W.** & Schultz P.G.* "A Genetically Encoded Boronate Containing Amino Acid" *Angew. Chem. Int. Ed. Engl.*, **2008**, 47: 8220-8223
- 29. Graziano, J.J., Liu, W., Perera R., Geierstanger, B.H., Lesley, S.A., & Schultz, P.G. "Selecting Folded Proteins from a Library of Secondary Structural Elements", *J. Am. Chem. Soc.*, **2008**, 130: 176-185
- 30. Tippmann, E.M.+, **Liu, W.**+, Summerer, D., Geierstanger, B., Mack, A.V., & Schultz, P.G.*, "A Genetic Encoded Diazirine Photocrosslinker in *Escherichia coli*", *ChemBioChem*, **2007**, 8: 2210-2214 (+equally contributing authors)
- 31. Liu C.C., Braustad E., **Liu W.*** & Schultz P.G.*, "Crystal Structure of a Biosynthetic Sulfo-hirudin Complexed with Thrombin", *J. Am. Chem. Soc.*, **2007**, 129: 10648-10649 (*corresponding authors in this paper)
- 32. **Liu, W.**, Brock, A., Chen, S., Chen, S. & Schultz P.G.*, "The Genetic Incorporation of Unnatural Amino Acids into Proteins in Mammalian Cells", *Nat. Methods.* **2007**, 4: 239-44
- 33. Xie, J., **Liu, W.**, & Schultz, P.G.* "A Genetic Encoded Bidentate, Metal Ion Binding Amino Acid", *Angew. Chem. Int. Ed.*, **2007**, 46: 9239-9242,
- 34. **Liu, W.**, Alfonta, L., Mack, A.V. & Schultz, P.G.* "Structural Basis for the Recognition of p-Benzoyl-L-phenylalanyl by Evolved Aminoacyl-tRNA Synthetases", *Angew. Chem. Int. Ed.*, **2007**, 46: 6073-6075,

35. **Liu, W.**, Peterson, P.E., Langston, J.A., Jin, X., Zhou, X., Fisher, A.J. & Toney, M.D.* "Kinetic and Crystallographic Analysis of Active Site Mutants of *Escherichia coli* γ-Aminobutyrate Aminotransferase", *Biochemistry* **2005**, 44: 2982-92,

- 36. Fogle, E.J., **Liu, W.**, Keller, J. & Toney, M.D.* "Role of Q52 in the Decarboxylation and Transamination of Dialkylglycine Decarboxylase", *Biochemistry* **2005**, 44: 16392-404,
- 37. **Liu W.**, Peterson P.E., Carter R.J., Zhou X., Langston J.A., Fisher A.J. & Toney M.D. Crystal Structures of Unbound and Aminooxyacetate-bound *Escherichia coli* γ-Aminobutyrate Aminotransferase. *Biochemistry* **2004**, 43: 10896-905
- 38. **Liu W.** & Toney M.D. "Kinetic and thermodynamic analysis of the interaction of cations with dialkylglycine decarboxylase", *Biochemistry* **2004**, 43: 4998-5010
- 39. **Liu W.**, Rogers C.J., Fisher A.J. & Toney M.D. "Aminophosphonate inhibitors of dialkylglycine decarboxylase: Structural basis for slow binding inhibition", *Biochemistry* **2002**, 41: 12320-28.

Patent Applications:

- 1. Liu W., "Incorporation of Two Different Noncanonical Amino Acids into A Single Protein", U.S. Application No. 61/467,728
- 2. Liu W. & Huang Y., "Methods, Cells, and Systems for Incorporating Noncanonical Amino Acids into Proteins", U.S. Application No. US20120237971
- 3. Liu W. & Schultz P.G., "Genetic Incorporation of Unnatural Amino Acids into Proteins in Mammalian Cells", U.S. Application No. 12/311,545.

Current Extramural Grants:

- 1. Welch Research Grant A-1715 \$150,000 06/01/2012-05/31/2014 "Sensors for small molecules and enzymes" Principal investigator: Wenshe Liu, Ph.D.
- 2. NIH-1R01CA161158 \$1,483,085 07/01/2011-04/30/2016 "Phage display with two genetically incorporated noncanonical amino acids" Principle investigator: Wenshe Liu, Ph.D.
- 3. NSF CAREER Award CHE-1148684 \$575,000 04/01/2012-03/31/2017 "CAREER: Site-specific dual-labeling of a protein through two genetically incorporated noncanonical amino acids" Principle investigator: Wenshe Liu, Ph.D.
- 4. Research Grant from Suzhou Origen Biotech \$40,000 03/01/2012-12/31/2014 "Selective modification of insulin" Principle Investigator: Wenshe Liu. Ph.D.
- 5. National Institute of Health \$154,032 01/01/2013-12/31/2014 "Chemical/biochemical tools for studying novel protein acyl lysine modifications" Principal investigator: Hening Lin, Ph.D. at Cornell University Co PI: Wenshe Liu, Ph.D.

Finished Extramural Grants:

1. Welch Research Grant A-1715 \$150,000 06/01/2009-05/30/2012 "Synthesis and evaluation of methyltransferase-mediated alkylating agents" Principle investigator: Wenshe Liu, Ph.D.

Pending Extramural Grants:

1. American Cancer Society \$720,000 04/01/2014-03/31/2019 "The pyrrolysine incorporation machinery as a genetic code expansion devise" Principle investigator: Wenshe Liu, Ph.D.

<u>Curriculum Vitae</u> Wenshe Liu

Invited Seminars:

- 1. Department of Chemistry, University of North Carolina, 02/19/2014
- 2. Department of Microbiology & Molecular Genetics, The University of Texas Medical School at Houston, 02/06/2014
- 3. Department of Chemistry and Biochemistry, University of Georgia, 10/10/2013
- 4. Department of Chemistry, Mercer University, 10/09/2013
- 5. Department of Biochemistry, Michigan State University, 02/21/2013
- 6. Department of Chemistry, North Carolina State University, 01/16/2013
- 7. Department of Chemistry, Duke University, 01/15/2013
- 8. Department of Chemistry, Princeton University, 11/05/2012
- 9. Department of Chemistry, University of Illinois at Urbana Champaign, 10/15/2012
- 10. Department of Chemistry, University of California-Irvine, 09/28/2012
- 11. Department of Chemistry, University of Utah, 09/06/2012
- 12. Department of Chemistry, University of California-Berkeley, 09/04/2012
- 13. Department of Chemistry, Baylor University, 08/24/2012
- 14. Department of Chemistry, Wuhan University, 07/25/2012
- 15. Department of Physics, Huazong University of Science and Technology, 07/24/2012
- 16. Department of Chemistry, Peking University, China, 06/16/2012
- 17. Department of Chemistry, University of Delaware, 05/02/2012
- 18. Department of Chemistry, University of South Carolina, 04/19/2012
- 19. Skaggs Institute of Chemical Biology, Scripps Research Institute, 04/17/2012
- 20. Department of Chemistry, University of New Mexico, 04/13/2012
- 21. Department of Chemistry, Cornell University, 04/09/2012
- 22. Department of Chemistry, Columbia University, 04/10/2012
- 23. Department of Chemistry, University of Chicago, 04/06/2012
- 24. School of Medicine, University of Miami, 03/20/2012
- 25. Department of Chemistry, Arizona State University, 03/09/2012
- 26. Department of Chemistry, Boston College, 02/14/2012
- 27. Department of Chemistry, Massachusetts Institute of Technology, 02/13/2012
- 28. Department of Chemistry, University of Nebraska-Lincoln, 02/03/2012
- 29. Department of Pharmacology, Johns Hopkins Medical School, 02/01/2012
- 30. Interdisciplinary Faculty of Toxicology, Texas A&M University, 01/23/2012
- 31. Department of Chemistry and Biochemistry, University of Texas-Austin, 01/20/2012
- 32. Department of Chemistry, Stanford University, 12/13/2011
- 33. Sutro Biopharma Inc., 12/12/2011
- 34. Department of Molecular and Cellular Oncology, UT Anderson Cancer Center, 10/12/2011
- 35. Department of Biochemistry, University of Texas Health Science Center at San Antonio, 09/30/2011
- 36. Department of Molecular Biophysics and Biochemistry, Yale University, 09/07/2011
- 37. School of Pharmacy, Wuhan University, 07/28/2011
- 38. Department of Chemistry, Shandong University, 07/8/2011
- 39. Department of Chemistry, University of California-Davis, 1/11/2011
- 40. Institute of Organic Chemistry, Chinese Academy of Science, 06/01/2010
- 41. Department of Biochemical Engineering, East China University of Science and Technology, 05/28/2010
- 42. Department of Natural Sciences, Albany State University-Georgia, 10/21/2008
- 43. Department of Chemistry, Beijing University, 01/11/2008

As an independent principle investigator

1. Liu W.R., Wang Y.-S., Fang X & Kurra Y., Engineering pyrrolysyl-tRNA synthetase for the genetic incorporation of tyrosine, phenylalanine, and histidine derivatives, Gordon Research Conference, Waterville Valley, NH, June 14-19, 2013

- 2. Liu W.R. & Lee Y.J., A genetically encoded acrylamide functionality, the 9th Sino-US Symposium on Organic Chemistry, Chengdu, China, Jul 12-14/2013 (oral)
- 3. Liu W.R. & Lee Y.J., A fascinating chemistry of a genetic encoded acrylamide, Gordon Research Conference, Proctor Academy, NH, June 9-14, 2013 (oral)
- 4. Liu W.R., A Rationally Designed Pyrrolysyl-tRNA Synthetase Has a Broad Substrate Spectrum, Gordon Research Conference, Proctor Academy, NH, June 10-15, 2012
- 5. Tharp J.M., Wang Y.-S. & Liu W.R., Increasing Insulin Yield by Fusion with Superfolder Green Fluorescent Protein, Abstracts of Papers, 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, 2012, CHED-433
- 6. Odoi K.A. & Liu W.R., Alternative Codon Study for Genetic Code Expansion in *Escherichia coli*, Abstracts of Papers, 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, 2012, BIOL-135
- 7. Wang Y.-S. & Liu W.R., Tools to Study Posttranslational Lysine Modifications of Histone, Chemistry and Biology of Peptides, Gordon Research Conference, Ventura, CA, 02/19-24/2012
- 8. Wang Y.-S. & Liu W.R., Tools to Study Posttranslational Lysine Modifications of Histone, Chromatin: Structure and Function, Aruba, 12/05-08/2011
- 9. 67th Southwest Regional Meeting of the American Chemical Society, Austin, TX, 11/09-11/2011
- 10. Wang Y.-S. & Liu W.R., Genetic Encoding of Methyl- and Acetyl-lysine Analogs into Proteins, Abstracts of Papers, 242nd ACS National Meeting & Exposition, Denver, CO, United States, August 28-September 1, 2011 (2011), BIOL-116
- 11. Jacobs K.J., Wang Y.-S. & Liu W. "Probing the active site of alanine racemase by incorporation of non-canonical amino acids". Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-352
- 12. Huang Y., Wan W. & Liu W. "Facile system for genetic incorporation of two different noncanonical amino acids into one protein in Escherichia coli". Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), BIOL-51.
- 13. Huang Y. & Liu W.R., Site-specific Installation of Two Lysine Derivatives in Histone H3, Enzyme Mechanism Conference, St. Petersburg, FL, 01/02-06/2011
- 14. Wang Y.-S., Wu B. & Liu W. "Genetically encoded photocaged *N* -methyl-L-lysine". Abstracts of Papers, 240th ACS National Meeting, Boston, MA, United States, August 22-26, 2010 (2010), BIOL-156.
- 15. Dodd L.E., Wang Y.-S. & Liu W. "Site specific post-translational modifications of protein by expanding the genetic code: Protein methylation and structure enrichment". Abstracts of Papers, 239th ACS National Meeting, San Francisco, CA, United States, March 21-25, 2010 (2010), CHED-458.¶
- 16. Wan W., Huang Y. & Liu W.R., Genetic Incorporation of Two Different Noncanonical Amino Acids into One Protein, Challenges in Organic Chemistry and Chemical Biology (ISACS1), San Francisco, 07/06-09/2010
- 17. Wan W., Huang Y. & Liu W.R., Genetic Incorporation of Two Different Noncanonical Amino Acids into One Protein, Bioorganic Chemistry, Gordon Research Conference, Proctor Academy, 06/13-18/2010

18. Liu W.R., Engineering Pyrrolysyl-tRNA Synthetase for Genetic Code Expansion, The $3^{\rm rd}$ Texas Enzyme Conference, Austin, TX, 01/80-09/2010

19. Liu W.R., The Genetic Code Expansion, The 4th Sino-US Symposium on Organic Chemistry, Beijing, China, 06/12-13/2008 (oral)

Teaching Exp	<u>perience:</u> Texas A&M University 08/2007 - current	
Fall 2012:	CHEM 228.504-Organic Chemistry II (enrolment: 69)	
Spring 2013:	ChEM 630-Bioorganic Chemistry (enrolment: 14); CHEM 681.605-Seminar	
	(enrolment: 13)	
Fall 2012:	CHEM 228.504-Organic Chemistry II (enrolment: 76)	
Fall 2011:	CHEM 228.503-Organic Chemistry II (enrolment: 68); CHEM 690.609-Theory of	
	Chemistry Research (enrolment: 5)	
Spring 2011:	CHEM 630-Bioorganic Chemistry (enrolment: 4); CHEM 681.605-Seminar	
	(enrolment: 12)	
Fall 2010:	CHEM 627-Principles of Biological Chemistry (enrolment: 19)	
Spring 2010:	CHEM 689.603-S. T. in Chemical Biology (enrolment: 6)	
Fall 2009:	CHEM 627-Principles of Biological Chemistry (enrolment: 22)	
Spring 2009:	CHEM 228-Organic Chemistry II (enrolment: 39)	
Fall 2008:	CHEM 689.603-S. T. in Chemical Biology (enrolment: 6)	
Fall 2007:	CHEM 689.603-S. T. in Chemical Biology (enrolment: 6)	
Postdoctoral Posoarchors Montorad		

Postdoctoral Researchers Mentored					
NAME	PROGRAM	DATE	Comments		
Dr. Yang Wang	Chemistry	09/2007-08/2008	Left for Novartis		
Dr. Zhiyong Wang	Chemistry	09/2008-02/2011	Left for Troy University		
Dr. Xuejuan Xin	Chemistry	07/2010-06/2011	Left for ECUST		
Dr. Yadagiri Kurra	Chemistry	07/2011-current			
Dr. Xinqiang Fang	Chemistry	09/2011-06/2012	Left for Cornell		
Dr. Yu Zeng	Chemistry	10/2011-current			
Dr. Catrina Reed	Chemistry	09/2012-current			
Dr. Yanyan Yang	Chemistry	10/2012-current			
PhD Students Mentored					

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PhD Students Mentored			
NAME	PROGRAM	DATE	COMMENTS
Ying Huang	Chemistry	10/2007-12/2011	Graduated
Yane-Shih Wang	Chemistry	10/2007-06/2012	Graduated
Bo Wu	Chemistry	10/2008-current	
Yan-Jiun Lee	Chemistry	10/2008-current	
Alfred Tuley	Chemistry	11/2011-current	
Xiaoyan Wang	Chemistry	10/2011-cureent	
Willie Hsu	Chemistry	01/2012-current	
Keturah Odoi	Chemistry	11/2009-current	
Sasha Chihak	Chemistry	11/2012-current	
Vanmayee Sharma	Chemistry	11/2012-current	
Jeffrey Tharp	Chemistry	11/2012-current	
Xiaoshan Wang	Chemistry	11/2012-current	
Wesley Wang	Chemistry	10/2013-current	
Erol Vatansever	Chemistry	04/2014-current	
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Master Students Mentored

Curriculum Vitae Wenshe Liu					
NAME	PROGRAM	DATE	COMMENTS		
Meghna Muralidhar	BIOT-non-thesis	06/2011-06/2012	Graduated		
Undergraduate Students Mentored					
NAME	PROGRAM	Dates			
Clayton Mercer	Chemistry	09/2007-06/2008			
Hiren Bhakta	Chemistry	09/2007-06/2008			
John Oliver	Chemistry	09/2008-06/2010			
Lindsey Dodd	REU Student	06/2009-08/2009			
Yin-Moe	REU Student	06/2009-08/2009			
Kimberly Jocobs	REU Student	06/2010-08/2010			
Jeff Tharp	REU Student	06/2011-08/2011			
Willie Hsu	Chemistry	01/2011-12/2011			
Ashley Wallace	Chemistry	05/2011-09/2011			
Josh Chen	Chemistry	05/2011-09/2012			
Andrew Bach	Chemistry	05/2013-08/2013			
Jeannelle Stevens	Chemistry	01/2014-current			
Lauren Fore	Chem Engineering	01/2014-current			
Yuanpeng Bi	Chem Engineering	01/2014-current			
Committee Membership:					
2007-current	Member, Undergrad	uate Student Award (Committee		
2007-current	Member, Graduate Student Recruiting Committee				
2009-current	Member, Professional Program in Biotechnology Recruiting				
	Committee	O	67	O	
2011-current	Member, Professional Program in Biotechnology Executive Committee				
2012					
2013-current	Member, Texas A&M Faculty Senate				

Editorial Board Member:

Frontiers in Chemical Biology, Scientific Reports

<u>Iournal Article Review:</u>

Nature Chemistry, Frontiers in Chemical Biology, Science China Chemistry, Angewandte Chemie, JACS, ACS Chemical Biology, Nutrition & Metabolism, Acta Biochimica et Biophysica Sinica, Molecular BioSystems, Biochemistry, FEBS Letters, Chemistry & Biology, Bioorganic & Medicinal Chemistry Letters, Applied Biochemistry & Biotechnology, ChemBioChem, Genome Research, Nucleic Acid Research, Medical Oncology, Bioconjugate Chemistry, PLOS One, Nature Communications, Chemical Communications, and Chemical Sciences.

Grant Proposal Review:	
03/2012	Panelist, National Science Foundation, Division of Chemistry
02/2013	Panelist, National Science Foundation, Division of Chemistry
04/2013	Reviewer, Israel Science Foundation
05/2013	Reviewer, National Science Foundation, Division of MCB
02/2014	Reviewer, National Institutes of Health, Study Section: BCMB
04/2014	Panelist, National Science Foundation, Division of Chemistry