

Curriculum Vita

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FACULTY APPOINTMENT

2009-present: Associate Professor of Chemistry, Department of Biology & Chemistry, Azusa Pacific University

2007-present: Director of Undergraduate Research, Office of Research, Azusa Pacific University.

2006-2009: Assistant Professor of Chemistry, Department of Biology & Chemistry, Azusa Pacific University.

EDUCATION

Yale University, New Haven, CT, 2002-2006

National Institute of Health Postdoctoral Fellow

RNA Bioorganic Chemistry. Advisor: Dr. Scott A. Strobel

University of California, Davis, 1996-2002

Ph.D. Organic Chemistry

Organic synthesis, combinatorial chemistry: Advisor: Dr. Mark J. Kurth,

University of California, Irvine, 1991-1996

B.S. Chemistry

Undergraduate research theses:

- Amino acid ester isocyanates synthesis. Advisor: Dr. James S. Nowick (Department of Chemistry)
- Role of neuropeptide Y in the rat tail arteries. Advisor: Dr. Susan P. Duckles (Department of Pharmacology)

HONORS, GRANTS & ACTIVITIES

1. Azusa Pacific University Faculty Research Grant titled "Dynamic DNA hydrogen bonding detection using variable temperature nuclear magnetic resonance (NMR) spectroscopy." Spring 2012.
2. Project SEED research funding titled "Anthropomorphic Molecules Revisited." Funded by APU and the American Chemical Society, Summer 2009.

3. American Chemical Society Certificate of Appreciation. Recognition for commitment and outstanding service to the American Chemical Society Project SEED program. August 2008.
4. San Gabriel Valley Tribune article titled "Action hero of the molecular kind" described my undergraduate research program at APU. Local News Pg A3. July 4th, 2008.
5. APU Media relations webpage titled "Azusa High School Student Joins University Science Research Team." June 26th, 2008.
<http://www.apu.edu/media/release/scholarship/12512/>
6. Invitation to submit a full proposal to the Camille and Henry Dreyfus Special Grant Program in the Chemical Sciences titled "Project Pipeline: Early Undergraduate Research Experience as a Platform for Scholarship and Mentorship for Minority High School Students." June 17th, 2008.
7. Project SEED research funding titled "Synthesis of Azacyanines." Funded by APU and the American Chemical Society, Summer 2008.
8. APU Life article titled "Research Revisited: Scholarship Made Personal." Volume 21, front cover and page 19. Spring 2008.
9. American Chemical Society Western Regional Meeting, San Diego. Azusa High School junior Hector Correa, who conducted research under my supervision, was named one of the five recipients of the undergraduate and graduate student poster presentation awards. October 2007.
10. APU Media relations webpage titled "Local High School Student Expands Learning Through University Research." August 29th, 2007.
<http://www.apu.edu/media/release/scholarship/10872/>
11. Project SEED research funding titled "Role of Organic Synthesis in Drug Discovery." Funded by APU and the American Chemical Society, February 2007.
12. Azusa Pacific University Faculty Research Grant titled "Be Fruitful and Polymerize... Investigating the Ribosome Catalyzed Protein Synthesis." Spring 2007.
13. Azusa Pacific University Creative Teaching Grant titled "Seeing is Believing! Using Molecular Modeling Technology to Enhance the Undergraduate Organic Chemistry Curriculum." Spring 2007.

8. Ruth L. Kirschstein National Research Service Award for Individual Postdoctoral Fellowship. Sponsored by the National Institute of Health/National Institute of General Medical Sciences. 2004-2006.
9. Teaching Award in Chemistry. Sponsored by DOW Chemicals and UC Davis. 1998.
10. Chemistry Honors Program. Department of Chemistry, UC Irvine. 1996.
11. Excellence in Biological Sciences. Department of Biological Sciences, UC Irvine. 1994.

RESEARCH PUBLICATIONS

1. Kevin S. Huang,* Nicolas Carrasco,* Emmanuel Pfund, and Scott A. Strobel, "Transition state chirality and role of the vicinal hydroxyl in the ribosomal peptidyl transferase reaction," *Biochemistry*, **2008**, 47, 8822-8827 (*these authors contributed equally).
<http://pubs.acs.org/doi/abs/10.1021/bi800299u>
2. Kevin S. Huang, Joshua S. Weinger, Ethan B. Butler, and Scott A. Strobel, "Regiospecificity of the peptidyl tRNA ester within the ribosomal P-site," *Journal of the American Chemical Society*, **2006**, 128, 3108-3109.
<http://pubs.acs.org/doi/abs/10.1021/ja0554099>
3. T. Martin Schmeing, Kevin S. Huang, Scott A. Strobel, and Thomas A. Steitz, "An induced fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA," *Nature*, **2005**, 438, 520-524.
<http://www.nature.com/nature/journal/v438/n7067/full/nature04152.html>
4. T. Martin. Schmeing,* Kevin S. Huang,* Scott .A. Strobel, and Thomas A. Steitz, "The mechanism of peptidyl transferase as defined by the structure of improved ground and transition state complexes with the 50S subunit," *Molecular Cell*, **2005**, 20, 437-448 (*these authors contributed equally).
[http://www.cell.com/molecular-cell/abstract/S1097-2765\(05\)01606-0](http://www.cell.com/molecular-cell/abstract/S1097-2765(05)01606-0)
5. Kevin S. Huang, Makhluf J. Haddadin, and Mark J. Kurth, "Imidazo- and Pyridolpyrimidium bromides: synthesis and hydrolysis," *Journal of Organic Chemistry* **2002**, 67, 2382-2385.
<http://pubs.acs.org/doi/abs/10.1021/jo016387i?prevSearch=kevin%2Bhuan g%252C%2Bmark%2Bkurth&searchHistoryKey=>
6. Kevin S. Huang, Makhluf J. Haddadin, Marilyn M. Olmstead, and Mark J. Kurth, "Synthesis and reactions of some heterocyclic azacyanines," *Journal of Organic Chemistry* **2001**, 66, 1310-1315.
<http://pubs.acs.org/doi/abs/10.1021/jo001484k?prevSearch=kevin%2Bhua ng%252C%2Bmark%2Bkurth&searchHistoryKey=>

7. Kevin S. Huang, Edwin H. Lee, Marilyn M. Olmstead, and Mark J. Kurth, "Sequential 1,3-dipolar cycloadditions in the synthesis of bis-isoxazolo substituted piperidinones," *Journal of Organic Chemistry* 2000, 65, 499-503.
<http://pubs.acs.org/doi/abs/10.1021/jo991418m?prevSearch=kevin%2Bhuang%252C%2Bmark%2Bkurth&searchHistoryKey=>
8. James S. Nowick, Darren L. Holmes, Glenn Noronha, Eric M. Smith, Tram M. Nguyen, and Sheng-Lin Huang, "Synthesis of peptide isocyanates and isothiocyanates," *Journal of Organic Chemistry* 1996, 61, 3929-3934.
<http://pubs.acs.org/doi/abs/10.1021/jo984013v?prevSearch=huang%252C%2Bjames%2Bnowick&searchHistoryKey=>
9. Thomas C. Glenn, Sheng-Lin Huang, and Sue P. Duckles, "Cocaine promotes an apparent direct vasoconstrictor effect of neuropeptide Y in the rat-tail artery," *European Journal of Pharmacology* 1995, 276, 191-194.
<http://www.sciencedirect.com/science/article/pii/001429999500050U>

PROFESSIONAL RESEARCH PRESENTATIONS

1. "Bioorthogonal chemistry." Tyler M. Glendrange and Kevin S. Huang, Azusa Pacific University, Department of Biology and Chemistry, 901 East Alosta Avenue, Azusa, CA 91740. Azusa Pacific University 7th Annual Fall Research Day, September 20, 2013 (oral presentation).
2. "Synthesis of a stalling peptide inhibitor of the peptidyl transferase." Joshua Delgado and Kevin S. Huang, 901 East Alosta Avenue, Azusa, CA 91740. Azusa Pacific University 7th Annual Fall Research Day, September 20, 2013 (poster presentation).
3. "Probing the ribosome exit tunnel." Kelsey Rodin, Stephanie Thomas, and Kevin S. Huang, Azusa Pacific University, Department of Biology & Chemistry, 901 East Alosta Avenue, Azusa, CA 91740. Azusa Pacific University 6th Annual Fall Research Day, Oct 12, 2012 (poster presentation).
4. Ian Giacomuzzi, Jordan West, Clifford Gee, and Kevin S. Huang. "Dynamic DNA hydrogen bonding detection using variable temperature nuclear magnetic resonance spectroscopy." Azusa Pacific University, Department of Biology and Chemistry. American Chemical Society 243rd National Meeting, March 25-29, 2012 (poster presentation).
5. Clifford Gee^{1,2}, Kari Honda^{1,2}, Grant Zomermaand^{1,2}, Jim Harper³, and Kevin S. Huang¹. "Detecting RNA base pairing using variable temperature nuclear magnetic resonance spectroscopy."²APU undergraduates, ³Department of Chemistry, Azusa Pacific University, Azusa, CA, and

⁴Department of Chemistry, University Utah, Salt Lake City, Utah. The American Chemical Society 241st National Meeting, March 27-31, 2011 (poster presentation).

6. Hector Correa¹, Mary Hernandez^{2,3}, Christopher Saucedo^{2,3}, Mark Kurth⁴, and Kevin S. Huang³. "Solid Phase Synthesis of Pyrrolidin-3-One Oximes and 1-Oxa-7-Aza-Spiro Oximes Using a REM Linker Strategy." ¹Azusa High School & American Chemical Society Project SEED participant, ²APU undergraduates, ³Department of Biology & Chemistry, Azusa Pacific University, Azusa, CA, and ⁴Department of Chemistry, University of California, Davis, Davis, CA. The American Chemical Society Western Regional Meeting, October 9-13, 2007 (poster presentation).
7. Kevin S. Huang, T. Martin Schmeing, David E. Kitchen, Thomas A. Steitz and Scott A. Strobel,. "Investigating the ribosome catalyzed peptide bond formation using chiral transition state mimics. Department of Biophysics & Biochemistry, Yale University, New Haven, CT. 230th American Chemical Society National Meeting, Washington, DC, USA, Aug. 28-Sept. 1, 2005 (poster presentation).
8. Kevin S. Huang, Ethan B. Butler, T. Martin Schmeing, David E. Kitchen, Thomas A. Steitz and Scott A. Strobel, "Defining the regio- and stereospecificity of the peptidyl transferase reaction," Department of Biophysics & Biochemistry, Yale University, New Haven, CT. The 2005 RNA Society Meeting, Banff, Canada, May 27th, 2005 (oral presentation).
9. Kevin S. Huang, T. Martin Schmeing, David E. Kitchen, Thomas A. Steitz, Peter B. Moore, and Scott A. Strobel, "Investigating the ribosome catalyzed peptide bond formation using transition state mimics," Department of Biophysics & Biochemistry, Yale University, New Haven, CT. The 2004 RNA Society Meeting, University of Wisconsin, June 3rd, 2004 (poster presentation).
10. Mark J. Kurth, Robert E. Sammelson, Kevin S. Huang, and Makhlu J. Haddadin, "Solution and solid phase synthesis of unsymmetrical azacyanines." Department of Chemistry, University of California, Davis, Davis, CA. The 221st ACS National Meeting, San Diego, CA, April 1st, 2001 (poster presentation).

PROFESSIONAL ORGANIZATION

American Chemical Society, 1997-present.