

Jonathan G. Rudick

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POSITIONS HELD

Member (2012 – Present)	Chemical Biology Training Program, Stony Brook University
Project Member (2011 – Present)	Institute for Chemical Biology & Drug Discovery, Stony Brook University
Assistant Professor (2010 – Present)	Department of Chemistry, Stony Brook University
Postdoctoral Researcher (2007 – 2010)	with Prof. William F. DeGrado, University of Pennsylvania <i>Rational Design and Synthesis of Peptides</i>
Scientist (2005 – 2007)	The Procter & Gamble Company, Beauty Technology Division
Graduate Research (2001 – 2005)	with Prof. Virgil Percec, University of Pennsylvania <i>Synthesis and Characterization of Dendronized Polymers</i>

EDUCATION

University of Pennsylvania , Philadelphia, PA	<i>Ph. D.</i> , Chemistry (2005) Thesis: <i>Helical Dendronized Polyphenylacetylenes</i>
Case Western Reserve University , Cleveland, OH	<i>B. S. (Cum Laude)</i> , Chemistry (2000)

AWARDS

CAREER Award, National Science Foundation (2013)
Ruth L. Kirschstein NRSA for Individual Postdoctoral Fellowship, National Institutes of Health (2008 – 2010)
Phi Lambda Upsilon, Chemistry Graduate Honors Fraternity, University of Pennsylvania (2001 – 2005)
Graduated *Cum Laude*, Case Western Reserve University (2000)
Case Alumni Association Scholarship, Case Western Reserve University (1998 – 1999)
Case Alumni Association Summer Research Scholarship, Case Western Reserve University (1998)
Dean's Honor List, Case Western Reserve University (Fall 1996, Spring 1997, Spring 1998, Fall 1999)
Provost Scholarship, Case Western Reserve University (1996 – 2000)
Van Horn Scholarship, Case Western Reserve University (1996 – 2000)

PUBLICATIONS

- J. E. Marine, S. Song, X. Liang, M. D. Watson & J. G. Rudick. "Bundle-forming α -helical peptide-dendron hybrid." *Chemical Communications* **2015**, Accepted. (doi: 10.1039/c5cc05468k)
- S. Song & J. G. Rudick. "Efficient syntheses of star-branched, multifunctional mesogens." *Organic Letters* **2015**, *17*, 3244-3247. (doi: 10.1021/acs.orglett.5b01388)
- D. A. Barkley, T. Koga & J. G. Rudick. "Homeotropically aligned self-organizing dendronized polymer." *Macromolecules* **2015**, *48*, 2849-2854. (doi: 10.1021/ma502522s)
- J. E. Marine, X. Liang, S. Song & J. G. Rudick. "Azide-rich peptides via an on-resin diazotransfer reaction." *Biopolymers* **2015**, *104*, 419-426. (doi: 10.1002/bip.22634)
- J.-A. Jee, S. Song & J. G. Rudick. "Enhanced reactivity of dendrons in the Passerini three-component reaction." *Chem. Commun.* **2015**, *51*, 5456-5459. (doi: 10.1039/c4cc10091c)
(2015 Emerging Investigators Themed Issue.)
- X. Liang, M. K. Sen, J.-A. Jee, O. Gelman, J. E. Marine, K. Kan, M. K. Endoh, D. A. Barkley, T. Koga & J. G. Rudick. "Poly(oxanorbornenedicarboximide)s dendronized with amphiphilic poly(alkyl ether) dendrons." *J. Polym. Sci., Part A: Polym. Chem.* **2014**, *52*, 3221-3239.
- J. G. Rudick, M. M. Laakso, A. C. Schloss, W. F. DeGrado. "Template-constrained cyclic sulfopeptide HIV-1 entry inhibitors." *Org. Biomol. Chem.* **2013**, *11*, 7096-7100. (doi: 10.1039/c3Ob41395K)
- J. G. Rudick. "Nanomechanical function arising from the complex architecture of dendronized helical polymers." *Adv. Polym. Sci.* **2013**, *262*, 345-362. (doi: 10.1007/12_2013_241)
- J. G. Rudick. "Innovative macromolecular syntheses via isocyanide multicomponent reactions." *J. Polym. Sci., Part A: Polym. Chem.* **2013**, *51*, 3985-3991. (doi: 10.1002/pola.26808)
- J.-A. Jee, L. A. Spagnuolo & J. G. Rudick. "Convergent synthesis of dendrimers via the Passerini three-component reaction." *Org. Lett.* **2012**, *14*, 3292-3295.

16. J. G. Rudick & V. Percec. "Nanomechanical function made possible by suppressing structural transformations of polyarylacetylenes." *Macromol. Chem. Phys.* **2008**, *209*, 1759–1768.
(Part of a Special Article Series entitled "New Frontiers in Functional Polymers.")
15. J. G. Rudick & V. Percec. "Induced helical backbone conformations of self-organizable dendronized polymers." *Acc. Chem. Res.* **2008**, *41*, 1641–1652.
(Nanoscience Special Issue.)
14. V. Percec, J. G. Rudick, M. Peterca & P. A. Heiney. "Nanomechanical function from self-organizable dendronized helical polyphenylacetylenes." *J. Am. Chem. Soc.* **2008**, *130*, 7503–7508.
(Highlighted on the *Nature Chemistry* website & in B. L. Feringa & W. R. Browne. *Nat. Nanotech.* **2008**, *3*, 383–384.)
13. V. Percec, J. G. Rudick, M. Peterca, M. E. Yurchenko, J. Smidrkal & P. A. Heiney. "Supramolecular structural diversity among first generation hybrid dendrimers and twin-dendrons." *Chem. – Eur. J.* **2008**, *14*, 3355–3362.
12. V. Percec, M. Peterca, M. E. Yurchenko, J. G. Rudick & P. A. Heiney. "Thixotropic twin-dendritic organogelators." *Chem. – Eur. J.* **2008**, *14*, 909–918.
11. V. Percec, M. Peterca, J. G. Rudick, E. Aqad, M. R. Imam & P. A. Heiney. "Self-assembling phenylpropyl ether dendronized helical polyphenylacetylenes." *Chem. – Eur. J.* **2007**, *13*, 9572–9581.
10. V. Percec, J. G. Rudick, M. Peterca, E. Aqad, M. R. Imam & P. A. Heiney. "Synthesis, structural and retrostructural analysis of helical dendronized poly(1-naphthylacetylene)s." *J. Polym. Sci., Part A: Polym. Chem.* **2007**, *45*, 4974–4987.
9. J. G. Rudick & V. Percec. "Helical chirality in dendronized polyarylacetylenes." *New J. Chem.* **2007**, *31*, 1083–1096.
8. V. Percec, E. Aqad, M. Peterca, J. G. Rudick, L. Lemon, J. C. Ronda, B. B. De, P. A. Heiney & E. W. Meijer. "Steric communication of chiral information observed in amphiphilic dendronized polyacetylenes." *J. Am. Chem. Soc.* **2006**, *128*, 16365–16372.
7. V. Percec, J. G. Rudick, M. Wagner, M. Obata, C. M. Mitchell, W.-D. Cho & S. N. Magonov. "AFM Visualization of individual and periodic assemblies of a helical dendronized polyphenylacetylene on graphite." *Macromolecules* **2006**, *39*, 7342–7351.
6. V. Percec, J. G. Rudick, M. Peterca, S. R. Staley, M. Wagner, M. Obata, C. M. Mitchell, W.-D. Cho, V. S. K. Balagurusamy, J. N. Lowe, M. Glodde, O. Weichold, K. J. Chung, N. Ghionni, S. N. Magonov & P. A. Heiney. "Synthesis, structural analysis, and visualization of a library of dendronized polyphenylacetylenes." *Chem. – Eur. J.* **2006**, *12*, 5731–5746.
5. V. Percec, J. G. Rudick, M. Peterca, M. Wagner, M. Obata, C. M. Mitchell, W.-D. Cho, V. S. K. Balagurusamy & P. A. Heiney. "Thermoreversible *cis*–*cisoidal* to *cis*–*transoidal* isomerization of helical dendronized polyphenylacetylenes." *J. Am. Chem. Soc.* **2005**, *127*, 15257–15264.
4. V. Percec, J. G. Rudick & E. Aqad. "Diminished helical character in *para*–substituted *cis*–*transoidal* polyphenylacetylenes due to intramolecular cyclization." *Macromolecules* **2005**, *38*, 7205–7206.
3. V. Percec & J. G. Rudick. "Independent electrocyclization and oxidative chain cleavage along the backbone of *cis*–poly(phenylacetylene)." *Macromolecules* **2005**, *38*, 7241–7250.
2. V. Percec, M. Obata, J. G. Rudick, B. B. De, M. Glodde, T. K. Bera, S. N. Magonov, V. S. K. Balagurusamy & P. A. Heiney. "Synthesis, structural analysis, and visualization of poly(2–ethynyl–9–substituted carbazole)s and poly(3–ethynyl–9–substituted carbazole)s containing chiral and achiral minidendritic substituents." *J. Polym. Sci., Part A: Polym. Chem.* **2002**, *40*, 3509–3533.
1. V. Percec, J. G. Rudick, P. Nombel & W. Buchowicz. "Dramatic decrease of the *cis*–content and molecular weight of *cis*–*transoidal* polyphenylacetylene at 23 °C in solutions prepared in air." *J. Polym. Sci., Part A: Polym. Chem.* **2002**, *40*, 3212–3220.

ABSTRACTS & PREPRINTS (Unrefereed)

11. J. G. Rudick. "Multifunctional and multivalent molecular architectures via multicomponent reactions." Presented at the 248th National Meeting of the American Chemical Society, San Francisco, CA, August 10–14, 2014.

10. J. G. Rudick. "Synthesis of triblock dendrimers." Presented at the 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
9. J. G. Rudick. "Translating de novo protein design rules for hybrid biomaterials." Presented at the 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
8. J. G. Rudick. "Design and synthesis of bundle-forming peptide-dendron conjugates." Presented at the 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
7. J. G. Rudick, M. Laakso, R. W. Doms & W. F. DeGrado. "Rationally designed cyclic sulfopeptides for HIV-1 entry inhibition." Presented at the 240th National Meeting of the American Chemical Society, Boston, MA, August 22–26, 2010
6. J. G. Rudick, M. M. Laakso, R. W. Doms & W. F. DeGrado. "Rationally designed cyclic sulfopeptides for inhibition of HIV-1 entry." Poster presented at the 238th National Meeting of the American Chemical Society, Washington, DC, August 16–20, 2009.
5. V. Percec, J. G. Rudick, M. Peterca & P. A. Heiney. "Nanomechanical function from self-organizable dendronized helical polyphenylacetylenes." Poster presented at the 236th National Meeting of the American Chemical Society, Philadelphia, PA, August 17–21, 2008.
4. V. Percec, J. G. Rudick, M. Wagner, V. S. K. Balagurusamy, M. Peterca, S. N. Magonov, M. Obata, J. N. Lowe, C. M. Mitchell, W.-D. Cho & P. A. Heiney. "Self-organizable polyphenylacetylenes." Presented at the 228th National Meeting of the American Chemical Society, Philadelphia, PA, August 22–26, 2004. *Polym. Mater. Sci. Eng.* **2004**, *91*, 200–201.
3. V. Percec, J. G. Rudick, M. Wagner, S. Magonov, M. Obata, V. S. K. Balagurusamy & P. A. Heiney. "Monodendron-jacketed polyphenylacetylenes." Poster presented at the 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002. *Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)* **2002**, *43(2)*, 428–429.
2. V. Percec, M. Obata & J. G. Rudick. "Monodendron substituted poly(ethynylcarbazole)s." Poster presented at the 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002. *Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)* **2002**, *43(2)*, 426–427.
1. V. Percec, J. G. Rudick, W. Buchowicz, P. Nombel, G. Han & M. Obata. "Thermal degradation of polyphenylacetylene and polypentadeuterophenylacetylene." Poster presented at the 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002. *Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)* **2002**, *43(2)*, 1244–1245.

PRESENTATIONS

39. "Multifunctionality in branched monodisperse macromolecules." Invited Oral Presentation. 250th National Meeting of the American Chemical Society, Boston, MA, August 16–20, 2015.
38. "Taming precision and complexity in dendrimers." Invited Oral Presentation. 9th International Dendrimer Symposium, Montreal, Quebec (Canada), July 12-17, 2015.
37. "Scaling up precision synthesis for macromolecules." Contributed Poster Presentation. Polymers Gordon Research Conference, South Hadley, MA, June 14–19, 2015.
36. "Precision, complexity, and efficiency in macromolecular chemistry." Invited Oral Presentation. University of Rhode Island, Kingston, RI, April 2015.
35. "Dendronized helix bundle assemblies designed de novo." Invited Oral Presentation. 249th National Meeting of the American Chemical Society, Denver, CO, March 22–26, 2015.
34. "Scaling up precision synthesis for macromolecules." Invited Oral Presentation. New York University, New York, NY, March 2015.
33. "Design and synthesis of soft nanomaterials." Invited Oral Presentation. Fordham University, Bronx, NY, March 2015.
32. "Multifunctional and multivalent molecular architectures via multicomponent reactions." Invited Oral Presentation. 248th National Meeting of the American Chemical Society, San Francisco, CA, August 10–14, 2014.
31. "Translating de novo protein design rules for hybrid biomaterials." Invited Oral Presentation. Symposium in Honor of William F. DeGrado. University of California, San Francisco, San Francisco, CA, August 9, 2014.

30. "Molecular design of dendrimers and peptides for hierarchically ordered nanomaterials." Invited Oral Presentation. Bloomsburg University, Bloomsburg, PA, April 2014.
29. "Synthesis of triblock dendrimers." Contributed Oral Presentation. 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
28. "Design and synthesis of bundle-forming peptide-dendron conjugates." Contributed Oral Presentation. 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
27. "Translating de novo protein design rules for hybrid biomaterials." Contributed Oral Presentation. 247th National Meeting of the American Chemical Society, Dallas, TX, March 16–20, 2014.
26. "Translating de novo protein design rules for hybrid biomaterials." Contributed Oral Presentation. BioDesign MegaMeeting, City College of New York, New York, NY, February 2014.
25. "Design and synthesis of soft nanomaterials." Invited Oral Presentation. St. Mary's College of Maryland, St. Mary's City, MD, November 2013.
24. "Design and synthesis of soft nanomaterials." Invited Oral Presentation. Muhlenberg College, Allentown, PA, October 2013.
23. "Synthesis of multiblock dendrimers via isocyanide multicomponent reactions." Invited Oral Presentation. Bard College, Hudson-on-Annandale, NY, October 2013.
22. "Bioinspired molecular architectures for soft materials." Invited Oral Presentation. Syracuse University, Syracuse, NY, October 2013.
21. "Bioinspired molecular architectures for soft materials." Invited Oral Presentation. Ursinus College, Colledgeville, PA, September 2013.
20. "Bioinspired and biohybrid dendrimer architectures." Contributed Poster Presentation. Polymers Gordon Research Conference, South Hadley, MA, June 9–14, 2013.
19. "Dendronized helix bundle assemblies." Contributed Poster Presentation. Self-Assembly & Supramolecular Chemistry Gordon Research Conference, Les Diablerets, Switzerland, May 5–9, 2013.
18. "Synthesis of multiblock dendrimers via isocyanide multicomponent reactions." Invited Oral Presentation. Stony Brook University, Stony Brook, NY, February 2013.
17. "Synthesis of multiblock dendrimers via isocyanide multicomponent reactions." Invited Oral Presentation. Rowan University, Glassboro, NJ, November 2012.
16. "Dendronized helix bundle assemblies." Contributed Poster Presentation. 1st Bioinspired Materials Gordon Research Conference, Davidson, NC, June 24–29, 2012.
15. "Rationally designed cyclic sulfopeptides for HIV-1 entry inhibition." Contributed Oral Presentation. 240th National Meeting of the American Chemical Society, Boston, MA, August 22–26, 2010.
14. "Developing new tools for nanotechnology and chemical biology via chemical synthesis and self-assembly." Invited Oral Presentation. Clemson University, Clemson, SC, March 2010.
13. "Developing new tools for nanotechnology and chemical biology via chemical synthesis and self-assembly." Invited Oral Presentation. Stony Brook University, Stony Brook, NY, January 2010.
12. "Developing new tools for nanotechnology and chemical biology via chemical synthesis and self-assembly." Invited Oral Presentation. New York University, New York, NY, January 2010.
11. "Developing new tools for nanotechnology and chemical biology via chemical synthesis and self-assembly." Invited Oral Presentation. University of Alabama at Birmingham, Birmingham, AL, January 2010.
10. "Rationally designed cyclic sulfopeptides for inhibition of HIV-1 entry." Contributed Poster Presentation. 238th National Meeting of the American Chemical Society, Washington, DC, August 16–20, 2009.
9. "Nanomechanical function from self-organizable dendronized helical polyphenylacetylenes." Contributed Poster Presentation. 236th National Meeting of the American Chemical Society, Philadelphia, PA, August 17–21, 2008.
8. "Helical chirality in dendronized polyarylacetylenes." Invited Oral Presentation. University of Akron, Akron, OH, February 2007.
7. "Helical chirality in dendronized polyarylacetylenes." Invited Oral Presentation. Texas Tech University, Lubbock, TX, November 2006.

6. "Polyarylacetylenes: Helical scaffolds for self-organizable dendron-jacketed polymers." Invited Oral Presentation. Reckitt Benckiser, Parsippany, NJ, April 2005.
5. "Polyarylacetylenes: Helical scaffolds for self-organizable dendron-jacketed polymers." Invited Oral Presentation. The Procter & Gamble Company, Cincinnati, OH, March 2005.
4. "Self-organizable polyphenylacetylenes." Contributed Oral Presentation. 228th National Meeting of the American Chemical Society, Philadelphia, PA, August 22–26, 2004.
3. "Monodendron-jacketed polyphenylacetylenes." Contributed Poster Presentation. 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002.
2. "Monodendron substituted poly(ethynylcarbazole)s." Contributed Poster Presentation. 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002.
1. "Thermal degradation of polyphenylacetylene and polypentadeuterophenylacetylene." Contributed Poster Presentation. 224th National Meeting of the American Chemical Society, Boston, MA, August 18–22, 2002.

PRESENTATIONS (Supervised co-workers)

- D. A. Barkley, T. Koga & J. G. Rudick. "Homeotropically aligned self-organizing dendronized polymer." Contributed Oral Presentation. 4th Northeast Complex Fluids and Soft Matter Workshop (NCS4), Stony Brook University, Stony Brook, NY, June 12, 2015.
- S. Song & J. G. Rudick. "Synthesis of three-arm star-branched liquid crystals." Contributed Poster Presentation. 15th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 31, 2014.
- J.-A. Jee & J. G. Rudick. "Synthesis of isocyanide multicomponent dendrimers via the Passerini reaction." Contributed Poster Presentation. 15th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 31, 2014.
- D. Barkley, T. Koga & J. G. Rudick. "Self-assembling dendronized polymers." Contributed Poster Presentation. 15th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 31, 2014.
- S. Song & J. G. Rudick. "Synthesis of three-arm star-branched liquid crystals." Contributed Poster Presentation. 248th National Meeting of the American Chemical Society, San Francisco, CA, August 10–14, 2014.
- J. E. Marine & J. G. Rudick. "Synthesis and characterization of dendronized helix bundle assemblies." Contributed Poster Presentation. 248th National Meeting of the American Chemical Society, San Francisco, CA, August 10–14, 2014.
- S. Song & J. G. Rudick. "Synthesis and modifications of 1,3-propanediol dendrons." Contributed Poster Presentation. 14th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 4, 2013.
- J. E. Marine & J. G. Rudick. "Toward dendronized helix bundles." Contributed Poster Presentation. 14th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 4, 2013.
- X. Liang, M. K. Sen, T. Koga, J. G. Rudick. "Synthesis and polymerization of amphiphilic 1,3-propanediol macromonomers." Contributed Poster Presentation. 14th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 4, 2013.
- J.-A. Jee & J. G. Rudick. "Synthesis of isocyanide multicomponent dendrimers via the Passerini reaction." Contributed Poster Presentation. 14th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, October 4, 2013.
- J. E. Marine & J. G. Rudick. "The synthesis of atomically accurate molecular materials via hydrophobic patterning." Contributed Oral Presentation. BioDesign MegaMeeting, Stony Brook University, June 14, 2013.
- J.-A. Jee, L. A. Spagnuolo & J. G. Rudick. "Convergent synthesis of conventional and surface-block dendrimers via the Passerini and Ugi multicomponent reactions." Contributed Poster Presentation. 13th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, January 18, 2013.
- X. Liang, J. G. Rudick. "Synthesis and polymerization of amphiphilic 1,3-propanediol macromonomers." Contributed Poster Presentation. 13th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, January 18, 2013.

- J.-A. Jee, L. A. Spagnuolo & J. G. Rudick. "Convergent synthesis of conventional and surface-block dendrimers via the Passerini and Ugi multicomponent reactions." Contributed Poster Presentation. 6th Annual Symposium of the Institute for Chemical Biology & Drug Discovery, Stony Brook, NY, October 12, 2012.
- J. E. Marine & J. G. Rudick. "Biohybrid materials: Synthesis of an amphiphilic dendronized coiled coil protein." Contributed Poster Presentation. 244th National Meeting of the American Chemical Society, Philadelphia, PA, August 19–23, 2012.
- J.-A. Jee, L. A. Spagnuolo, J. G. Rudick, "Convergent synthesis of dendrimers via the Passerini reaction." Contributed Poster Presentation. 244th National Meeting of the American Chemical Society, Philadelphia, PA, August 19–23, 2012.
- J. E. Marine & J. G. Rudick. "Biohybrid materials: Synthesis of an amphiphilic dendronized coiled coil protein." Contributed Poster Presentation. 12th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, November 18, 2011.
- J.-A. Jee, L. A. Spagnuolo, J. G. Rudick, "Convergent synthesis of multifunctional dendrimers via multicomponent reactions" Contributed Poster Presentation. 12th Annual Stony Brook University Chemistry Research Day, Stony Brook, NY, November 18, 2011.

TEACHING EXPERIENCE

- Stony Brook University, *CHE 501: Instrumental Methods in Chemistry*, Spring semester (2013, 2014, 2015). Determination of molecular structure using spectroscopic techniques. One 80-minute lecture two times per week; 25 graduate students.
- Stony Brook University, *CHE 385: Tools of Chemistry*, Spring semester (2014). Guest discussion panelist: "Discussion about Grad School/Career."
- Stony Brook University, *CHE 619: Readings of Topics in Chemistry/CHE 696: Organic Chemistry Seminar*, Fall semester (2013). Graduate student seminar course. One 105-minute meeting per week; 22 graduate students.
- Stony Brook University, *CHE 327: Organic Chemistry Laboratory*, Fall semester (2011, 2012, 2014). Introductory organic laboratory lecture course for non-majors. One 55-minute lecture per week; 190-240 undergraduate students.
- Stony Brook University, *CHE 387/518: Materials Chemistry*, Spring semester (2012). Materials chemistry course for advanced undergraduate and graduate students. One 55-minute lecture three times per week; 25 undergraduate and 21 graduate students.
- Stony Brook University, *CHE 134: General Chemistry Laboratory II*, Spring semester (2011). Second semester introductory laboratory course. One 55-minute lecture per week, and one 3-hour laboratory session per week; 290 undergraduate students.
- Stony Brook University, *CHE 606: Catalysis in Organic Synthesis*, Spring semester (2011). Guest lecture: "Catalysis in Iterative Synthesis."
- Stony Brook University, *CHE 461: Topics in Chemistry/CHE 589: Directed Study*, Fall semester (2010). Physical organic chemistry for advanced undergraduate and graduate students. One 55-minute lecture per week; 12 undergraduate and 14 graduate students.

MENTORSHIP EXPERIENCE

Graduate Students

9. Deborah A. Barkley (1/2014 – Present) (co-advised by Tadanori Koga)
8. Shuang Song (1/2012 – Present)
7. Jeannette E. Marine (1/2011 – Present)
6. Jo-Ann Jee (1/2011 – 6/2015) (2013 Dr. Mow Shiah Lin Scholarship Award from Brookhaven National Laboratory)

Former Graduate Students

5. Maisha Rahman (1/2014 – 10/2014)

4. Xiaoli Liang, (1/2011 – 12/2013). “Synthesis of clickable amphiphilic 1,3-propanediol dendrons.” M.S., Stony Brook University, Stony Brook, NY, 2011.
3. Yue Wu (1/2012 – 12/2013) (completed requirements for M.S. degree; currently enrolled in the Ph.D. program at Syracuse University) M.S. Thesis Title: Synthesis of 1,3-propanediol dendrons with peripheral end groups to promote solubility in water
2. Oleg Gelman (9/2011 – 12/2013), B.S. (2012)/M.S. (completed requirements for degree)
1. Lauren A. Spagnuolo (1/2011 – 3/2012) (joined Peter Tonge’s lab to complete Ph.D.)

Former Undergraduate Students

5. Sarah Afzal (1/2013 – 8/2013)
4. Christa Martin (9/2012 – 5/2013), (currently enrolled in the M.A. in Teaching program at Stony Brook University)
3. Justine Mays (9/2011 – 12/2011), B.S. (2012) (currently an office assistant at a law firm)
2. Kenneth Kan (1/2011 – 5/2012), B.S. (2013) (URECA Summer Research Fellowship, 2011; currently a graduate student at Yale University with David A. Spiegel)
1. Hilal Diedrich (1/2011 – 5/2011), B.S. (2011) (currently a veterinary assistant)

High School Students

2. Rachele David (07/2013 – 08/2013), North Shore Hebrew Academy High School
1. Emma C. Oberstein (6/2013 – 8/2013), North Shore Hebrew Academy High School (Simons Summer Research Program)

SERVICE

Intramural

- Chemistry Graduate Student Admissions Committee, 2013–2015
- Institute for Chemical Biology & Drug Discovery Annual Symposium Organizing Committee, 2013
- Chemistry Graduate Student Recruiting Committee, 2010–2013; Chair, Spring 2012
- Chemistry Seminar Committee, 2010–2013
- Chemistry Research Committee, 2013–2014
- Chemistry Faculty Search Committee, Emerging Energy and Environment Challenges, 2013
- Chemistry NMR Committee, 2012–2013
- Undergraduate Research & Creative Activities (URECA) Summer Research Fellowship Applications, 2012
- Chemistry Department Chair Search Committee, 2012
- New Faculty Orientation, New Faculty Panel Discussion, 2012
- “Research Panel Discussion,” National Society of Collegiate Scholars-Sponsored Panel Discussion of Undergraduate Research, 2013
- “Research 102,” Women In Science and Engineering (W.I.S.E)-Sponsored Panel Discussion of Undergraduate Research, 2011
- Ad Hoc Committee to Appoint Oleg Gang (BNL) as an Affiliated Faculty Member, 2011
- Chemistry Computing & Website Committee, 2010–2011
- Advancement to Candidacy Committee Chair for: Yang Zang (2010–2014), Rui Yang (2011–2014), Xiuzhu Ang (2011–present), Deokkyu Choi (2012–present), Longfei Wei (2012–present), Christina Cama (2013–present)
- Advancement to Candidacy Committee Member for: Zhe Wang, (2010–2014), Bo Liu (2011–2013, Ph.D.), Lingling Jiang (AMS, 2011–2015), Xianzhi Liu (2012–2013, M.S.), Xiao Liu (2013–present)
- M.S. Thesis Committee Chair for: Matthew Freitag (2013) Xiao Liu (2013),
- M.S. Thesis Committee Member for: Daniel Raphaely (2011), Chai K. Ngai (2011), Steven Gao (2012)
- Reader, Master of Arts in Teaching Science Project Term Paper: Brittney R. Bothwell (2011)
- Postdoctoral Affairs Mentoring Program, Mentor to: Chunhe Lee (2013–present)

Extramural

- Panel Reviewer, NSF, October 2013
- Participant, NIH Mentoring Workshop for New Faculty in Organic and Biological Chemistry (May 14-16, 2011; Dallas, TX)
- Manuscript Reviews: *ACS Macro Letters*; *Biopolymers – Peptide Science*; *Chemical Communications*; *Chemistry – A European Journal*; *European Journal of Medicinal Chemistry*; *European Polymer Journal*; *Journal of Fluorine Chemistry*; *Journal of Polymer Science, Part A: Polymer Chemistry*; *Journal of Structural Biology*; *Macromolecular Chemistry & Physics*; *Macromolecular Rapid Communications*; *Macromolecules*; *Molecules*; *Nature Chemistry*; *Organic Letters*; *Proceedings of the National Academy of Sciences of the United States of America*; *Soft Matter*
- Grant Proposal Reviews: Canada Foundation for Innovation

OTHER RESEARCH EXPERIENCE

Undergraduate Research with Prof. John D. Protasiewicz, Case Western Reserve University (5/1999 – 8/2000): *Synthesis of Sterically Encumbered Ligands to Stabilize Low-Valent Phosphorous*

Undergraduate Research with Prof. Virgil Percec, Case Western Reserve University (5/1998 – 4/1999): *Reactivity Ratios for Monomer Pairs in Living Radical Polymerizations*

Undergraduate Research with Prof. Steven D. Hudson, Case Western Reserve University (1/1997 – 5/1998): *Mechanical Testing of Polyolefin-Clay Nanocomposites*

Affiliations

American Chemical Society (2000 – Present)

American Peptide Society (2009 – Present)