Bradley L. Nilsson

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Positions and Employment

2006–2013	Assistant Professor, Department of Chemistry, University of Rochester
2013–present	Associate Professor, Department of Chemistry, University of Rochester

Postdoctoral Research

2004–2006	Canadian Institutes of Health Research Postdoctoral Fellow University of California, Irvine; Department of Chemistry Advisor: Professor Larry E. Overman

Education

1998–2003	Ph.D. (Chemistry), University of Wisconsin–Madison, Department of Chemistry Advisor: Professor Ronald T. Raines
1996–1998	M.S. (Chemistry), Brigham Young University, Department of Chemistry and Biochemistry Advisor: Professor Matt A. Peterson
1992–1996	B.S. (Biochemistry), Brigham Young University, Department of Chemistry and Biochemistry Research Advisor: Professor Steven A. Fleming

Honors and Awards

2016	Goergen Award for Excellence in Undergraduate Teaching (University of Rochester)
2012–2017	NSF CAREER Award
2008–2011	DuPont Young Professor Award
2005 – 2006	Canadian Inst. Health Res., Inst. of Infection & Immunity Postdoctoral Fellow
2003	American Peptide Society Travel Grant recipient
2001 – 2002	Abbott Laboratories Fellowship in Synthetic Organic Chemistry (Wisconsin)
1997 – 1998	Charles E. and Margaret P. Maw Fellowship (Brigham Young University)
1996	Undergraduate Research Scholarship (Brigham Young University)
1995 – 1996	Outstanding Undergraduate Teaching Assistant (Brigham Young University)
1992 – 1996	Trustees Scholar (Brigham Young University)

Publication List (Peer-Reviewed Publications)

Undergraduate, Graduate, and Post-graduate Training

1. An efficient synthesis of [15N]-carbazole from [15N]-aniline. Matt A. Peterson, **Bradley L. Nilsson** *Synthetic Communications* **1999**, *29*, 3821–3827.

2. Amide-linked ribonucleoside dimers derived from 5'-amino-5'-deoxy- and 3'-(carboxymethyl)-3'-deoxynucleoside precursors. Matt A. Peterson, **Bradley L. Nilsson**, Sanchita Sarker, Bogdan Doboszewski, Weijian Jang, Morris J. Robins *Journal of Organic Chemistry* **1999**, *64*, 8183–8192. DOI: 10.1021/jo9908647.
3. Nucleic acid related compounds. 112. Synthesis of amide-linked [(3'-CH(2)CONH(5')] nucleoside analogs.Morris J. Robins, Bogdan Doboszewski, **Bradley L. Nilsson**, Matt A. Peterson *Nucleosides, Nucleotides & Nucleic Acids* **2000**, *19*, 69–86. DOI: 10.1080/15257770008032997.
4. 1H and 15N Dynamic nuclear polarization studies of carbazole. Jian Z. Hu, Mark S. Solum, **Brad L. Nilsson**, Matt A. Peterson, Ronald J. Pugmire, David M. Grant *Journal of Physical Chemistry A* **2000**, *104*, 4413–4420. DOI: 10.1021/jp9938011.
5. Staudinger ligation: A peptide from a thioester and azide. **Bradley L. Nilsson**, Laura L. Kiessling, Ronald T. Raines *Organic Letters* **2000**, *2*, 1939–1941. DOI: 10.1021/ol0060174.
6. High yielding Staudinger ligation of a phosphinothioester and azide to form a peptide.**Bradley L. Nilsson**, Laura L. Kiessling, Ronald T. Raines *Organic Letters* **2001**, *3*, 9–12. DOI: 10.1021/ol006739v.
7. Selenocysteine in native chemical ligation and expressed protein ligation. Robert J. Hondal, **Bradley L. Nilsson**, Ronald T. Raines *Journal of the American Chemical Society* **2001**, *123*, 5140–5141. DOI: 10.1021/ja005885t.
8. Synthesis of 2-silaoxane via 1,3-photocycloaddition. Suhail Bahu, Steven A. Fleming, **Brad Nilsson**, Tim Turner *Journal of Heterocyclic Chemistry* **2001**, *38*, 1341–1344.
9. Staudinger ligation of α-azido acids retains stereochemistry. Matthew B. Soellner, **Bradley L. Nilsson**, Ronald T. Raines *Journal of Organic Chemistry* **2002**, *67*, 4993–4996. DOI: 10.1021/jo025631l.
10. Protein prosthesis: A semisynthetic enzyme with a β-peptide reverse turn. Ulrich Arnold, Matthew P. Hinderaker, **Bradley L. Nilsson**, Bayard R. Huck, Samuel H. Gellman, Ronald T. Raines *Journal of the American Chemical Society* **2002**, *124*, 8522–8523. DOI: 10.1021/ja026114n.
11. Protein assembly by orthogonal chemical ligation methods. **Bradley L. Nilsson**, Robert J. Hondal, Matthew B. Soellner, Ronald T. Raines *Journal of the American Chemical Society* **2003**, *125*, 5268–5269. DOI: 10.1021/ja029752e.
12. Site-specific protein immobilization using the Staudinger ligation. Matthew B. Soellner, Kimberly A. Dickson, **Bradley L. Nilsson**, Ronald T. Raines. *Journal of the American Chemical Society* **2003**, *125*, 11790–11791. DOI: 10.1021/ja036712h.
13. Chemical synthesis of proteins. **Bradley L. Nilsson**, Matthew B. Soellner, Ronald T. Raines. *Annual Review of Biophysics and Biomolecular Structure* **2005**, *34*, 91–118.
14. Reaction mechanism and kinetics of the traceless Staudinger ligation. Matthew B. Soellner, **Bradley L. Nilsson**, Ronald T. Raines. *Journal of the American Chemical Society* **2006**, *128*, 8820–8828. DOI: 10.1021/ja060484k.
15. Synthesis and characterization of a novel class of reducing agents that are highly neuroprotective for retinal ganglion cells. Christopher R. Schlieve, Annie Tam, **Bradley L. Nilsson**, Christopher J. Lieven, Ronald T. Raines, Leonard A. Levin. *Experimental Eye Research*, **2006**, *83*, 1252 - 1259. DOI: 10.1016/j.exer.2006.07.002.
16. Concise synthesis of guanidine-containing heterocycles using the Biginelli reaction. **Bradley L. Nilsson**, Larry E. Overman. *Journal of Organic Chemistry*, **2006**, *71*, 7706-7714. DOI: 10.1021/jo061199m.
17. Enantioselective total syntheses of nankakurines A and B: Confirmation of structure and establishment of absolute configuration. **Bradley L. Nilsson**, Larry E. Overman, Javier Read de Alaniz, Jason M. Rohde. *Journal of the American Chemical Society*, **2008**, *130*, 11297–11299.
18. Total Synthesis of (+)-Nankakurines A and B and Synthesis of (±)-5-epi-Nankakurine A. Ryan A. Altman, **Bradley L. Nilsson**, Larry E. Overman, Javier Read de Alaniz, Jason M. Rohde,

and Veronique Taupin. *Journal of Organic Chemistry* **2010**, *75*, 7519–7534. DOI: 10.1021/jo101619d.

Independent Publications

19. The effect of increasing hydrophobicity on the self-assembly of amphipathic β-sheet peptides. Charles J. Bowerman, Derek M. Ryan, David A. Nissan, **Bradley L. Nilsson**, *Molecular BioSystems* **2009**, *5*, 1058–1069. DOI: 10.1039/b904439f.
20. Self-assembly and hydrogelation promoted by F_5-phenylalanine. Derek M. Ryan, Samuel B. Anderson, F. Timur Senguen, Randall E. Youngman, **Bradley L. Nilsson**. *Soft Matter* **2010**, *6*, 475–479. DOI: 10.1039/b916738b.
21. The Influence of Side-Chain Halogenation on the Self-Assembly and Hydrogelation of Fmoc-Phenylalanine Derivatives. Derek M. Ryan, Samuel B. Anderson, **Bradley L. Nilsson**. *Soft Matter* **2010**, *6*, 3220–3231. DOI: 10.1039/c0sm00018c.
22. A Reductive Trigger for Peptide Self-Assembly and Hydrogelation. Charles J. Bowerman, **Bradley L. Nilsson**. *Journal of the American Chemical Society* **2010**, *132*, 9526–9527. DOI: 10.1021/ja1025535, (COVER ARTICLE and featured as an Editor's Choice in *Science* **2010**, *328*, 669).
23. Amyloid Binding Small Molecules Efficiently Block SEVI and Semen Mediated Enhancement of HIV-1 Infection. Joanna S. Olsen, Caitlin Brown, Christina C. Capule, Mark Rubinshtein, Todd M. Doran, Rajesh K. Srivastava, Changyong Feng, **Bradley L. Nilsson**, Jerry Yang, Stephen Dewhurst. *Journal of Biological Chemistry* **2010**, *285*, 35488–35496. DOI: 10.1074/jbc.M110.163659.
24. Probing aromatic, hydrophobic, and steric effects on the self-assembly of an amyloid-β fragment peptide. F. Timur Senguen, Naomi R. Lee, Xianfeng Gu, Derek M. Ryan, Todd M. Doran, Elizabeth A. Anderson, **Bradley L. Nilsson**. *Molecular BioSystems*, **2011**, *7*, 486–496. DOI: 10.1039/C0MB00080A.
25. Clarifying the Influence of Core Amino Acid Hydrophobicity, Secondary Structure Propensity, and Molecular Volume on Amyloid-β 16–22 Self-Assembly. F. Timur Senguen, Todd M. Doran, Elizabeth A. Anderson, **Bradley L. Nilsson**. *Molecular BioSystems*, **2011**, *7*, 497–510. DOI: 10.1039/C0MB00210K.
26. Stabilizing Self-Assembled Fmoc-F_5-Phe Hydrogels by Co-Assembly with PEG-Functionalized Monomers. Derek M. Ryan, Todd M. Doran, **Bradley L. Nilsson**. *Chemical Communications* **2011**, *47*, 475–477. DOI: 10.1039/C0CC02217A.
27. Enhancement of HIV-1 Infectivity by Simple, Self-Assembling Modular Peptides. David Easterhoff, John T. M. DiMaio, Todd M. Doran, Stephen Dewhurst, **Bradley L. Nilsson**. *Biophysical Journal*, **2011**, *100*, 1325–1334. DOI: 10.1016/j.bpj.2011.01.037.
28. Effect of *C*-Terminal Modification on the Self-Assembly and Hydrogelation of Fluorinated Fmoc-Phe Derivatives. Derek M. Ryan, Todd M. Doran, Samuel B. Anderson, **Bradley L. Nilsson**. *Langmuir*, **2011**, *27*, 4029–4039. DOI: 10.1021/la1048375.
29. Tuning β-Sheet Peptide Self-Assembly and Hydrogelation Behavior by Modification of Sequence Hydrophobicity and Aromaticity. Charles J. Bowerman, Wathsala Liyanage, Alexander J. Federation, **Bradley L. Nilsson**. *Biomacromolecules* **2011**, *12*, 2735–2745. DOI: 10.1021/bm200510k.
30. Complementary π-π Interactions Induce Multi-Component Coassembly into Functional Fibrils. Derek M. Ryan, Todd M. Doran, **Bradley L. Nilsson**. *Langmuir* **2011**, *27*, 11145–11156. DOI: 10.1021/la202070d.
31. Self-Assembled Amino Acids and Dipeptides as Noncovalent Hydrogels for Tissue Engineering. Derek M. Ryan, **Bradley L. Nilsson**. *Polymer Chemistry* **2012**, *3*, 18–33. DOI:10.1039/C1PY00335F. (COVER ARTICLE).
32. Role of Amino Acid Hydrophobicity, Aromaticity and Molecular Volume on IAPP(20–29) Amyloid Self-Assembly. Todd M. Doran, Alissa J. Kamens, Nadia K. Byrnes, **Bradley L.**

Nilsson. *Proteins: Structure, Function, and Bioinformatics* **2012**, *80*, 1053–1065. DOI: 10.1002/prot.24007.

33. An Azobenzene Photoswitch Sheds Light on Turn Nucleation in Amyloid-β Self-Assembly. Todd M. Doran, Elizabeth A. Anderson, Sarah E. Latchney, Lisa A. Opanashuk, **Bradley L. Nilsson**. *ACS Chemical Neuroscience* **2012**, *3*, 211–220. DOI: 10.1021/cn2001188.
34. Turn Nucleation Perturbs Amyloid-β Self-Assembly and Cytotoxicity. Todd M. Doran, Elizabeth A. Anderson, Sarah E. Latchney, Lisa A. Opanashuk, **Bradley L. Nilsson**. *Journal of Molecular Biology* **2012**, *421*, 315–328. DOI: 10.1016/j.jmb.2012.01.055.
35. Seminal Plasma Accelerates Semen-derived Enhancer of Viral Infection (SEVI) Fibril Formation by the Prostatic Acid Phosphatase ($PAP_{248–286}$) Peptide. Joanna S. Olsen, John T. M. DiMaio, Todd M. Doran, Caitlin Brown, **Bradley L. Nilsson**, Stephen Dewhurst. *Journal of Biological Chemistry* **2012**, *287*, 11842–11849. DOI: 10.1074/jbc.M111.314336.
36. Self-Assembly of Amphipathic β-Sheet Peptides: Insights and Applications. Charles J. Bowerman, **Bradley L. Nilsson**. *Biopolymers (Peptide Science)* **2012**, *98*, 169–184. DOI: 10.1002/bip.22058. (COVER ARTICLE)
37. Coassembly of Enantiomeric Amphipathic Peptides into Amyloid-Inspired Rippled β-Sheet Fibrils. Ria J. Swanekamp, John T. M. DiMaio, Charles J. Bowerman, **Bradley L. Nilsson**. *Journal of the American Chemical Society* **2012**, *134*, 5556–5559. DOI: 10.1021/ja301642c. (Featured as a "Spotlights on Recent JACS Publications" article, *J. Am. Chem. Soc.* **2012**, *134*, 6057).
38. Sequence Length Determinants for Self-Assembly of Amphipathic β-Sheet Peptides. Naomi R. Lee, Charles J. Bowerman, **Bradley L. Nilsson**. *Biopolymers (Peptide Science)* **2013**, *100*, 738–750. DOI: 10.1002/bip.22248.
39. Fluorescence Detection of Cationic Amyloid Fibrils in Human Semen. David Easterhoff, John T. M. DiMaio, Wathsala Liyanage, Chi-Wen Lo, Woori Bae, Todd M. Doran, Alan Smrcka, **Bradley L. Nilsson**, Stephen Dewhurst. *Bioorganic and Medicinal Chemistry Letters* **2013**, *23*, 5199–5202. DOI: 10.1016/j.bmcl.2013.06.097.
40. Effects of Varied Sequence Pattern on the Self-Assembly of Amphipathic Peptides. Naomi R. Lee, Charles J. Bowerman, **Bradley L. Nilsson**. *Biomacromolecules* **2013**, *14*, 3267–3277. DOI: 10.1021/bm400876s.
41. Reversible Photocontrol of Self-Assembled Peptide Hydrogel Viscoelasticity. Todd M. Doran, Derek M. Ryan, **Bradley L. Nilsson**. *Polymer Chemistry* **2014**, *5*, 241–248. DOI: 10.1039/C3PY00903C.
42. Selective Suspension of Single-Walled Carbon Nanotubes using β-Sheet Polypeptides. Nicole M. B. Cogan, Charles J. Bowerman, Lisa J. Nogai, **Bradley L. Nilsson**, Todd D. Krauss. *Journal of Physical Chemistry C* **2014**, *118*, 5935–5944. DOI: 10.1021/jp410870y.
43. Proteolytic Stability of Amphipathic Peptide Hydrogels Composed of Self-Assembled Pleated β-Sheet or Coassembled Rippled β-Sheet Fibrils. Ria J. Swanekamp, Jade J. Welch, **Bradley L. Nilsson**. *Chemical Communications* **2014**, *50*, 10133–10136. DOI: 10.1039/C4CC04644G.
44. Multicomponent Dipeptide Hydrogels as Extracellular Matrix-Mimetic Scaffolds for Cell Culture Applications. Wathsala Liyanage, Kanika Vats, Annada Rajbhandary, Danielle S. W. Benoit, **Bradley L. Nilsson**. *Chemical Communications* **2015**, *51*, 11260–11263. DOI: 10.1039/C5CC03162A.
45. Spontaneous Transition of Self-Assembled Hydrogel Fibrils into Crystalline Microtubes Enables a Rational Strategy to Stabilize the Hydrogel State. Wathsala Liyanage, William W. Brennessel, **Bradley L. Nilsson**. *Langmuir* **2015**, *31*, 9933–9942. DOI: 10.1021/acs.langmuir.5b01953.
46. Mechanisms of Tau and Aβ-induced Excitotoxicity. Susanne P. Pallo, John DiMaio, Alexis Cook, **Bradley Nilsson**, Gail V. W. Johnson. *Brain Research* **2016**, *1634*, 119–131. DOI: 10.1016/j.brainres.2015.12.048.

47. Substituent Effects on the Self-Assembly/Coassembly and Hydrogelation of Phenylalanine Derivatives. Wathsala Liyanage, **Bradley L. Nilsson**. *Langmuir* **2016**, *32*, 787–799. DOI: 10.1021/acs.langmuir.5b03227.
48. Functional Delivery of siRNA by Disulfide-Constrained Cyclic Amphipathic Peptides. Jade J. Welch, Ria J. Swanekamp, Christiaan King, David A. Dean, **Bradley L. Nilsson**. *ACS Medicinal Chemistry Letters* **2016**, *7*, 584–589. DOI: 10.1021/acsmedchemlett.6b00031.
49. Amyloid-Inspired Optical Waveguides from Multicomponent Crystalline Microtubes. Wathsala Liyanage, Nicole M. B. Cogan, and **Bradley L. Nilsson**. *ChemNanoMat* **2016**, *2*, 800–804. DOI: 10.1002/cnma.201600123. (COVER ARTICLE)
50. Investigating the Effects of Peptoid Substitutions in Self-Assembly of Fmoc-Diphenylalanine Derivatives. Annada Rajbhandary and **Bradley L. Nilsson**. *Biopolymers (Peptide Science)* **2017**, *108*, e22994. DOI: 10.1002/bip.22994.
51. Self-Assembly, Hydrogelation, and Nanotube Formation by Cation-Modified Phenylalanine Derivatives. Annada Rajbhandary, Danielle M. Raymond, and **Bradley L. Nilsson**. *Langmuir* **2017**, *33*, 5803–5813. DOI: 10.1021/acs.langmuir.7b00686.
52. Display of Functional Proteins on Supramolecular Peptide Nanofibrils Using a Split-Protein Strategy. John T. M. DiMaio, Danielle M. Raymond, and **Bradley L. Nilsson**. *Organic & Biomolecular Chemistry* **2017**, *15*, 5279–5283. DOI: 10.1039/C7OB01057E.
53. Modulating Supramolecular Peptide Hydrogel Viscoelasticity Using Biomolecular Recognition. John T. M. DiMaio, Todd M. Doran, Derek M. Ryan, Danielle M. Raymond, and **Bradley L. Nilsson**. *Biomacromolecules* **2017**, *18*, 3591–3599. DOI: 10.1021/acs.biomac.7b00925.
54. Redox-Sensitive Reversible Self-Assembly of Amino Acid-Naphthalene Diimide Conjugates. Wathsala Liyanage, Paul W. Rubeo, and **Bradley L. Nilsson**. *Interface Focus* **2017**, *7*, 20160099. DOI: 10.1098/rsfs.2016.0099. (COVER ARTICLE)
55. Balancing Hydrophobicity and Sequence Pattern to Influence Self-Assembly of Amphipathic Peptides. Ria J. Betush, Jennifer Urban, and **Bradley L. Nilsson**. *Biopolymers (Peptide Science)* **2018**, *110*, e23099. DOI: 10.1002/bip.23099.
56. Comparison of the Self-Assembly Behavior of Fmoc-Phenylalanine and Corresponding Peptoid Derivatives. Annada Rajbhandary, William W. Brennessel, and **Bradley L. Nilsson**. *Crystal Growth & Design* **2018**, *18*, In press. DOI: 10.1021/acs.cgd.7b00709.

Other Publications Including Book Chapters and Proceedings

57. Protein assembly to mine the human genome. **Bradley L. Nilsson**, Matthew B. Soellner, Ronald T. Raines. **2003** In *Chemical Probes in Biology, NATO ASI Series* (M. P. Schneider, Ed.), pp. 359–369, Kluwer Academic Publishers, Dordrecht, The Netherlands.
58. Protein assembly using the Staudinger ligation. **Bradley L. Nilsson**, Matthew B. Soellner, Ronald T. Raines. **2003** In *Peptide Revolution: Genomics, Proteomics & Therapeutics Proceedings of the Eighteenth American Peptide Symposium* (Michael Chorev and Tomi K. Sawyer, Eds.), pp. 278–279, Kluwer Academic Publishers, Dordrecht, The Netherlands.
59. Aromatic versus hydrophobic contributions to amyloid peptide self-assembly. Charles J. Bowerman, Todd D. Doran, X. Gu, Derek M. Ryan, F. Timur Senguen, David A. Nissan, **Bradley L. Nilsson**. **2009** In *Peptides: Breaking Away. Proceedings of the 21st American Peptide Symposium* (Michael Lebl, Editor), pp. 197–198 American Peptide Society, Prompt Scientific Publishing, San Diego, CA.
60. Stimulus-responsive β-sheet peptide self-assembly. Charles J. Bowerman and **Bradley L. Nilsson**. **2011** In *Peptides: Building Bridges. Proceedings of the Twenty-Second American Peptide Symposium* (Michael Lebl, Editor), pp. 138–139, American Peptide Society, Prompt Scientific Publishing, San Diego, CA.
61. Design and application of bioactive materials derived from simple self-assembling peptides. **Bradley L. Nilsson**, Charles J. Bowerman, John T. M. DiMaio, and Todd M. Doran. **2011** In *Peptides: Building Bridges. Proceedings of the Twenty-Second American Peptide Symposium*

(Michael Lebl, Editor), pp. 176–177, American Peptide Society, Prompt Scientific Publishing, San Diego, CA.

62. Enhancement of HIV-1 infectivity by amyloid peptides. John T. M. DiMaio, David Easterhoff, Todd M. Doran, Stephen Dewhurst, and **Bradley L. Nilsson**. **2011** In *Peptides: Building Bridges. Proceedings of the Twenty-Second American Peptide Symposium* (Michael Lebl, Editor), pp. 364–365, American Peptide Society, Prompt Scientific Publishing, San Diego, CA.
63. Probing the effect of turn nucleation on amyloid self-assembly using β-turn peptidomimetics. Todd M. Doran and **Bradley L. Nilsson**. **2011** In *Peptides: Building Bridges. Proceedings of the Twenty-Second American Peptide Symposium* (Michael Lebl, Editor), pp. 366–367, American Peptide Society, Prompt Scientific Publishing, San Diego, CA.
64. Self-Assembled Peptide Materials for Prevention of HIV-1 Transmission. John T. M. DiMaio, David Easterhoff, Annah M. Moore, Stephen Dewhurst, and **Bradley L. Nilsson**. **2013** In *Peptides: Peptides Across the Pacific. Proceedings of the Twenty-Third American and Sixth International Peptide Symposium* (Michael Lebl, Editor), pp. 154–155, American Peptide Society, Prompt Scientific Publishing, San Diego, CA. http://dx.doi.org/10.17952/23APS.2013.
65. Amino Acid and Peptide-Derived Co-Assembled Hydrogels for Cell Culture Applications. Wathsala Liyanage and **Bradley L. Nilsson**. **2013** In *Peptides: Peptides Across the Pacific. Proceedings of the Twenty-Third American and the Sixth International Peptide Symposium* (Michael Lebl, Editor), pp. 158–159, American Peptide Society, Prompt Scientific Publishing, San Diego, CA. http://dx.doi.org/10.17952/23APS.2013.
66. Rippled β-Sheet Fibrils from Coassembled Enantiomeric Amphipathic Peptides as Potential Microbicide Biomaterials. **Bradley L. Nilsson**, Danielle M. Raymond, and Jade J. Welch. **2015** In *Peptides 2015. Proceedings of the Twenty-Fourth American Peptide Symposium* (Ved Srivastava, Andrei Yudin, and Michael Lebl, Editors), pp. 33–35, American Peptide Society, Prompt Scientific Publishing, San Diego, CA. (http://dx.doi.org/10.17952/24APS.2015.033)
67. Multicomponent Dipeptide Supramolecular Hydrogels as Fibronectin-Mimetic Materials. Wathsala Liyanage and **Bradley L. Nilsson**. **2015** In *Peptides 2015. Proceedings of the Twenty-Fourth American Peptide Symposium* (Ved Srivastava, Andrei Yudin, and Michael Lebl, Editors), pp. 134–136, American Peptide Society, Prompt Scientific Publishing, San Diego, CA. (http://dx.doi.org/10.17952/24APS.2015.134)
68. Investigating the Effects of Aromatic Amino Acids on Amphipathic Peptide Self-Assembly and Emergent Hydrogel Viscoelasticity. Annada Rajbhandary and **Bradley L. Nilsson**. **2015** In *Peptides 2015. Proceedings of the Twenty-Fourth American Peptide Symposium* (Ved Srivastava, Andrei Yudin, and Michael Lebl, Editors), pp. 228–231, American Peptide Society, Prompt Scientific Publishing, San Diego, CA. (http://dx.doi.org/10.17952/24APS.2015.228)
69. Annada Rajbhandary and **Bradley L. Nilsson**, Self-Assembling Hydrogels. In *Gels Handbook: Fundamentals, Properties, and Applications*; Demirci, U.; Khademhosseini, A., Editors; *Volume 1: Fundamentals of Hydrogels*, Wen, Q.; Dong, Y., Volume Editors; World Scientific Publishing: Singapore, 2016; pp. 219–250.

Patents (including provisional patents and applications)

1. Ligation methods and reagents to form an amide bond. Ronald T. Raines, Laura L. Kiessling, **Bradley L. Nilsson** (2001) Patent No. WO 2001087920.
2. Chemical synthesis of phosphinothiol reagents for peptide coupling. Ronald T. Raines, Laura L. Kiessling, **Bradley L. Nilsson**, Yi He, Matthew B. Soellner, Ronald J. Hinklin (2003) Patent No. WO 2003104243.
3. Reducing transmission of sexually transmitted infections. Stephen Dewhurst, David Easterhoff, **Bradley Nilsson**, John DiMaio, Alan Smrcka, Jerry Yang, Christine Capule (2013) Patent No. WO 2013/070910 A1, May 16, 2013.
4. Cationic fibrils as immunologic adjuvants. Stephen Dewhurst, **Bradley Nilsson**, Joanna Olsen, John Frelinger (2010) U.S. Patent Application 61/358,610, June 25, 2010.

5. Biodegradable Polymer/Transglutaminase 2 Inhibitor Complexes for the Treatment of Malignant Glioma. Gail V. W. Johnson, **Bradley Nilsson**, Soner Gundemir, Alina Monteagudo (2013) U.S. Provisional Patent Application 61/779,431, March 13, 2013.

Invited Lectures and Seminars (from 2006)

1. Rochester Institute of Technology, Department of Chemistry; Rochester, NY; October 18, 2006.
2. Clarkson University, Department of Chemistry; Potsdam, NY; November 16, 2006.
3. Alfred University, Department of Chemistry; Alfred, NY; October 25, 2007.
4. Vassar College, Chemistry Department, Poughkeepsie, NY. December 7, 2007.
5. Probing Peptide Self-Assembly Using Nonnatural Amino Acids. **Bradley L. Nilsson** (invited lecture), ACS Joint Rocky Mountain & Northwest Regional Meeting, June 17, 2008, Park City, UT.
6. Probing Peptide Self-Assembly Using Nonnatural Amino Acids. **Bradley L. Nilsson** (invited lecture), ACS Northeast Regional Meeting, June 30, 2008, Burlington, VT.
7. St. Lawrence University, Department of Chemistry, December 2, 2008, Potsdam, NY.
8. SUNY Potsdam, Department of Chemistry, December 2, 2008, Potsdam, NY.
9. SUNY Fredonia, Department of Chemistry, November 6, 2009, Fredonia, NY.
10. Properties of Peptides and Proteins. **Bradley L. Nilsson** (invited lecture), University of Rochester, Department of Chemical Engineering, Engineering of Soft Matter course (ChE 213/413), April 22, 2010, Rochester, NY.
11. University at Albany (State University of New York), Department of Chemistry, April 27, 2010, Albany, NY.
12. University of Vermont, Department of Chemistry, April 29, 2010, Burlington, VT.
13. Probing the Structure and Function of Semen Enhancer of HIV Infection. **Bradley L. Nilsson** (invited lecture), Creative and Novel Ideas in HIV Research Workshop (Preconference workshop at the AIDS 2010 Conference, July 16–23, 2010) July 16, 2010, Vienna, Austria.
14. Syracuse University, Department of Chemistry, September 28, 2010, Syracuse, NY.
15. University of Florida, Department of Chemistry, October 5, 2010, Gainesville, FL.
16. Florida State University, Department of Chemistry, October 7, 2010, Tallahassee, FL.
17. University at Buffalo, Department of Chemistry, October 19, 2010, Buffalo, NY.
18. DuPont, October 26, 2010, Wilmington, DE.
19. University of Delaware, Department of Chemistry and Biochemistry, October 27, 2010; Newark, DE.
20. Niagara University, Department of Chemistry and Biochemistry, November 2, 2010, NY.
21. Peptide Co-Assembly and Self-Sorting Behavior in Peptide Self-Assembly. **Bradley L. Nilsson** (invited lecture), 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem), December 18, 2010; Honolulu, HI.
22. University of Michigan, Department of Chemistry, January 20, 2011, Ann Arbor, MI.
23. Wayne State University, Department of Chemistry, January 21, 2011, Detroit, MI.
24. Indiana University, Department of Chemistry, January 28, 2011, Bloomington, IN.
25. University of Utah, Department of Chemistry, February 17, 2011, Salt Lake City, UT.
26. Brigham Young University, Department of Chemistry and Biochemistry, February 18, 2011, Provo, UT.
27. University of Toronto, Department of Chemistry, March 3, 2011, Toronto, ON, Canada.

28. University of Wisconsin, Department of Chemistry, March 8, 2011, Madison, WI.
29. Properties of Peptides and Proteins. **Bradley L. Nilsson** (invited lecture), University of Rochester, Department of Chemical Engineering, Engineering of Soft Matter course (ChE 213/413), March 22, 2011, Rochester, NY.
30. University of California, Santa Barbara, Department of Chemistry and Biochemistry, April 25, 2011, Santa Barbara, CA.
31. University of California, Los Angeles, Department of Chemistry and Biochemistry, April 26, 2011, Los Angeles, CA.
32. University of California, Irvine, Department of Chemistry, April 27, 2011, Irvine CA.
33. University of California, San Diego, Department of Chemistry and Biochemistry, April 29, 2011, San Diego, CA.
34. Design and Application of Bioactive Materials Derived from Simple Self-Assembling Peptides. **Bradley L. Nilsson** (invited lecture), 22nd American Peptide Symposium (June 25–30, San Diego, CA), June 26, 2011.
35. Probing the Structure and Function of Semen Enhancer of HIV Infection. **Bradley L. Nilsson** (invited lecture), Creative and Novel Ideas in HIV Research Workshop (Preconference workshop at the International AIDS Society 2011 Conference, July 16–20, 2011) July 16, 2011, Rome, Italy.
36. Tuning Peptide Self-Assembly for the Preparation of Bioactive Materials. **Bradley L. Nilsson** (invited lecture), 242nd American Chemical Society National Meeting and Exposition, Young Academic Investigators' Symposium (Division of Organic Chemistry), August 30, 2011, Denver, CO.
37. Boston College, Chemistry Department, September 27, 2011, Boston, MA.
38. Colorado State University, Department of Chemistry, October 10, 2011, Fort Collins, CO.
39. Georgia Institute of Technology, Department of Biomedical Engineering, October 25, 2011, Atlanta, GA. (Invited as part of the Wallace H. Coulter Department of Biomedical Engineering Young Innovators in Biomedical Engineering series of lectures).
40. Kenyon College, Department of Chemistry, March 20, 2012, Gambier, OH.
41. New York University, Department of Chemistry, April 3, 2012, New York City, NY.
42. University of Alberta, Department of Chemistry, April 30, 2012, Edmonton, AB, Canada.
43. Probing the Structure and Function of Semen Enhancer of HIV Infection. **Bradley L. Nilsson** (invited lecture), Creative and Novel Ideas in HIV Research Workshop (Preconference workshop at the AIDS 2012 Conference, July 20–28, 2012) July 20, 2012, Washington, D.C.
44. Understanding Turn Formation in Amyloid-β Self-Assembly. **Bradley L. Nilsson** (invited lecture), Northeast Regional Meeting of the American Chemical Society (NERM), October 1, 2012; Rochester, NY.
45. Rippled β-Sheet Fibrils from Coassembly of Enantiomeric Amphipathic Peptides. **Bradley L. Nilsson**, Ria J. Swanekamp, John T. M. DiMaio (invited lecture); The Sixth Peptide Engineering Meeting (PEM6), Emory University, October 2–5, 2012; Atlanta, GA.
46. University of Rochester, Department of Chemistry; October 24, 2012; Rochester, NY.
47. Hamilton College, Department of Chemistry; March 8, 2013; Clinton, NY.
48. SUNY Geneseo, Department of Chemistry; October 25, 2013; Geneseo, NY.
49. University of Rochester, Department of Biology; December 2, 2013; Rochester, NY.
50. University of Vermont, Department of Chemistry; March 27, 2014; Burlington, VT.
51. University of Rochester, Laboratory for Laser Energetics; September 5, 2014; Rochester, NY.
52. Rochester Institute of Technology, School of Chemistry and Materials Science; February 26, 2015; Rochester, NY.

53. Rippled β-Sheet Fibrils from Coassembly of Enantiomeric Amphipathic Peptides as Materials for Anti-HIV Microbicides. **Bradley L. Nilsson** (invited lecture), 24th American Peptide Symposium (June 20–25), Orlando, FL; June 24, 2015.
54. Chemical Biology of Capsaicin. **Bradley L. Nilsson** (invited guest lecture), University of Rochester, Department of Chemistry, Chemistry of Poisons course (CHE 275/475, Professor Alison Frontier, instructor), February 29, 2016; Rochester, NY.
55. New Jersey Institute of Technology, Physics Department; March 28, 2016; Newark, NJ.
56. University of Rochester, Department of Biochemistry & Biophysics Class of 2016 Diploma Ceremony Faculty Address; May 15, 2016; Rochester, NY.
57. Peptide Self-Assembly: Structure Enables Rational Design. The Royal Society Theo Murphy Meeting, "Self-assembled peptides: from nanostructure to bioactivity", October 24–24, 2016; Kavli Royal Society Centre, Chicheley Hall, Newport Pagnell, Buckinghamshire, MK16 9JJ.
58. Redox-Sensitive Cyclic Amphipathic Peptides as Delivery Agents for Therapeutic Oligonucleotides. 6th Indian Peptide Symposium, February 23–24, 2017; Homi Bhabha Centre for Science Education (HBCSE), Mankhurd, Mumbai, India.
59. Chemical Biology of Capsaicin. **Bradley L. Nilsson** (invited guest lecture), University of Rochester, Department of Chemistry, Chemistry of Poisons course (CHE 275/475, Professor Alison Frontier, instructor), March 6, 2017; Rochester, NY.
60. Middlebury College, Department of Chemistry and Biochemistry; March 10, 2017; Middlebury, VT.
61. State University of New York College of Environmental Science and Forestry, Department of Chemistry, March 24, 2017; Syracuse, NY.
62. CUNY, Advanced Science Research Center, September 18, 2017; New York City, NY.
63. The College at Brockport, State University of New York, Department of Chemistry and Biochemistry, October 19, 2017; Brockport, NY.

Other Presentations (from 2006)

1. Probing Peptide Self-Assembly Processes with Nonnatural Amino Acids **Bradley L. Nilsson**, Xianfeng Gu, David Nissan, Charles Bowerman (poster presention), Chemistry and Biology of Peptides Gordon Conference, February 17–22, 2008, Ventura, CA.
2. Aromatic Versus Hydrophobic Contributions to Amyloid Peptide Self-Assembly. Charles J. Bowerman, Todd D. Doran, X. Gu, Derek M. Ryan, F. Timur Senguen, David A. Nissan, **Bradley L. Nilsson** (poster presentation), 21st American Peptide Symposium, June 7–12, 2009, Bloomington, IN.
3. Aromatic Versus Hydrophobic Contributions to Amyloid Peptide Self-Assembly. Charles J. Bowerman, Todd D. Doran, X. Gu, Derek M. Ryan, F. Timur Senguen, David A. Nissan, **Bradley L. Nilsson** (poster presentation), Bioorganic Chemistry Gordon Conference, June 14–19, 2009, Andover, NH.
4. Functional Self-Assembly Promoted by F_5-Phenylalanine. Derek M. Ryan, F. Timur Senguen, **Bradley L. Nilsson** (poster presentation), Chemistry of Supramolecules and Assemblies Gordon Conference, June 28–July 3, 2009, Waterville, ME.
5. Aromatic Versus Hydrophobic Contributions to Amyloid Peptide Self-Assembly. **Bradley L. Nilsson** (talk), 238th ACS National Meeting, August 16–20, 2009, Washington, D.C.
6. Co-Assembly and Self-Sorting Behavior in Peptide Self-Assembly. **Bradley L. Nilsson** (poster talk), Chemistry and Biology of Peptides Gordon Conference, February 28–March 5, 2010, Ventura, CA.
7. Self-Assembly of Pleated β-Sheet Versus Rippled β-Sheet Fibrils. Ria J. Swanekamp, Charles J. Bowerman, John T. M. DiMaio, Jade J. Welch, **Bradley L. Nilsson** (poster presentation),

Chemistry and Biology of Peptides Gordon Conference, February 24–February 28, 2014, Ventura, CA.

External Research Support

Current and Completed Funding (from 2006, reverse chronological order)

1. *National Institutes of Health, National Heart, Lung, and Blood Institute (1R01 HL138538-01).* "Novel Peptide/siRNA Nanoparticles for Treatment of Acute Lung Injury." Role: PI (co-PIs: David Dean, University of Rochester Medical Center; Arshad Rahman, University of Rochester Medical Center); Total Award Amount: $2,209,735; Period of Support: 7/1/2017–6/30/2021.
2. *National Institutes of Health, National Institute of General Medical Sciences (1T32 GM118283-01).* "Training Grant in the Chemistry-Biology Interface." Role: co-PI (PI: Kara Bren, University of Rochester, Department of Chemistry; co-PI: Rudi Fasan, University of Rochester, Department of Chemistry); Total Award Amount: $932,230; Period of Support: 7/1/2017–6/30/2022.
3. *University of Rochester, HSCCI Internal RFA to Support Health Sciences Research Using High Performance Computational Resources*. "Computational Improvements to Super-Resolution Optical Imaging Using Quantum Dots." Role: Co-PI (PI: Todd Krauss, University of Rochester, Department of Chemistry); Total Award Amount: $52,485; Period of Support: 1/1/2017–12/31/2017.
4. *National Science Foundation (DMR-1148836)*. "CAREER: Amyloid-Inspired Self-Assembled Hydrogel Materials for Cell Culture Applications." Role: PI; Total Award Amount: $500,000; Period of Support: 5/1/2012–6/1/2017.
5. *University of Rochester School of Medicine and Dentistry Drug Development Delivery Pilot Award Program, Lead Finding Studies*. "Structure-Activity-Relationship Analysis of Novel Amyloid-Binding Molecules." Role: Co-PI (Co-PI: Stephen Dewhurst, University of Rochester Medical Center); Total Award Amount: $25,000; Period of Support: 05/01/2015–04/30/2016.
6. *University of Rochester School of Medicine and Dentistry Drug Development Delivery Pilot Award Program*. "Identification of Novel Amyloid-Binding Molecules." Role: Co-PI (Co-PI: Stephen Dewhurst, University of Rochester Medical Center); Total Award Amount: $8,000; Period of Support: 01/01/2013–03/31/2013.
7. *Provost's Multidisciplinary Award (University of Rochester)*. "HIV Anti-Infective Materials from Self-Assembled Peptides." Role: PI (Co-PI: Stephen Dewhurst, University of Rochester Medical Center); Total Award Amount: $60,000; Period of Support: 07/01/2012–06/30/2013.
8. *Creative and Novel Ideas in HIV Research (CNIHR, jointly funded by the NIH and the International AIDS Society)*. "Probing the Structure and Function of Semen Enhancer of HIV Infection." Role: PI; Total Award Amount: $461,439; Period of Support: 08/01/2010–07/31/2012.
9. *National Institutes of Health (R01 AI084111-02)*. "Transmission-blocking vaccine for HIV-1." Role: Consultant (PI: Stephen Dewhurst, University of Rochester Medical Center); Total Award Amount: $2,371,440; Award Amount to Nilsson: $331,148; Period of Support: 08/01/2009–12/31/2011.
10. *DuPont Young Professor Award (DuPont)*. "Development of Self-Assembled Peptide-Based Materials." Role: PI; Total Award Amount: $75,000; Period of Support: 09/01/08–08/31/11.
11. *American Chemical Society Petroleum Research Fund, Doctoral New Investigator Award*. "Asymmetric Decarboxylative Protonation of α-Aminomalonic Esters for the Synthesis of α–Amino Acids." Role: PI; Total Award Amount: $100,000; Period of Support: 02/01/2008–08/31/2011.
12. *Alzheimer's Association (New Investigator Research Grant: NIRG-08-90797)*. "Probing Amyloid-Beta Structure and Aggregation with Nonnatural Amino Acids." Role: PI; Total Award Amount: $100,000; Period of Support: 09/01/2008–08/31/2010.
13. *National Science Foundation (NSF-CRIF Program, CHE-0840410)*. "Acquisition of a matrix-assisted laser desorption/ionization time of flight (MALDI-TOF) mass spectrometer." Role: Co-PI (with Robert K. Boeckman); Total Award Amount: $279,643; Period of Support: 08/01/2009–12/31/2010.

Research Personnel Supervised

Graduate Students
Current Graduate Students: Danielle Raymond, Jennifer Urban, Jade Welch, Brittany Abraham, Elena Quigley

Former Graduate Students:
Dr. F. Timur Senguen (February 2011, Post-Graduate Position: postdoctoral fellow, Boston Biomedical Research Institute; Current Position: Chief Scientist at Reviewed.com, a division of USA Today)
Dr. Derek M. Ryan (August 2011, Post-Graduate Position: postdoctoral fellow, University of North Carolina, Sponsor: Professor Marcey Waters)
Dr. Charles Bowerman (October 2011, Post-Graduate Position: Postdoctoral Fellow, University of North Carolina, Sponsor: Professor Joseph DeSimone; Current Position: Research Scientist, University of North Carolina with Professor Joseph DeSimone)
Dr. Todd Doran (December 2011, Post-Graduate Position: Postdoctoral Fellow, Scripps Research Institute (Florida), Sponsor: Professor Thomas Kodadek)
Dr. Naomi Lee (December 2012, Post-Graduate Position: Postdoctoral Fellow, National Institutes of Health (Bethesda, MD), Sponsor: Dr. Steve Jacobson, PhD)
Dr. Ria Swanekamp (Betush) (August 2014, Post-Graduate Position: Adjunct Professor of Chemistry, Allegheny College, Meadville, PA; Current Position: Assistant Professor of Chemistry, Gannon University, Erie, PA)
Dr. Wathsala Liyanage (April 2015, Post-Graduate Position: Postdoctoral Fellow, Johns Hopkins University (Chemistry) with Professor John Tover)
Dr. John DiMaio (October 2015, Post-Graduate Position: Law School, University at Buffalo)
Dr. Annada Rajbhandary (August 2016)
Paul Rubeo (MS, December 2016)

Postdoctoral Fellows
Former Postdoctoral Fellows:
Xianfeng Gu (Current Position: Research Assistant Professor, School of Pharmacy, Fudan University, Shanghai, China)
Elizabeth Anderson (Current Position: postdoctoral fellow, University of Rochester Medical Center, Sponsor: Professor Benjamin Miller)

Undergraduate Research Students
Former Undergraduate Students: Kumiko Tanaka (2006–2007), David Nissan (2006–2008), Celine Leung (2007–2008), John Oakford (2007–2009), Doreen Jackson (REU, Norfolk State University, Summer 2007), Nicholas Sharac (REU, Bard College, Summer 2008), Nadia Byrnes (2008–2009), Alissa Kamens (2009–2010), Nathaniel Brown, Jr. (Summer 2010), Alexander Federation (2008–2011), Samuel Anderson (2009–2011), Emily Hart (2010–2012), Rebecca Levin (2011–2012), Marvin Michel (REU, Skidmore College, Summer 2013), Annah Moore (2011–2013), Kaitlyn Connelly (2012–2014), Genki Tamiya (M.S. student), (2012–2014), Melissa Cadena (REU, Texas A&M International University, Summer 2014), Gavin Piester (Fall 2014–Spring 2015), Ruijia Zhu (Fall 2013–2015), Benjamin Meath (Spring 2014–2015), Ana Cartaya (REU, Monroe Community College, Summer 2015), Sagar Patel (Summer 2014–2016), Adrian Rosenberg (Summer 2015–2016), Paige Palmieri (Summer 2015–2016), Kelsey Tuttle (Fall 2015–2016), Brittany Abraham (REU; State University of New York, Geneseo; Summer 2016), Youngseon Park (REU; Seoul National University, South Korea; Summer 2016), Chengyang Li (Spring 2016–Spring 2017), Preston Hollopeter (Fall 2016–Spring 2017), Hyerin Yoon (REU, University of Rochester, Summer 2017), Jasmine Gomez (REU; State University of New York, Oswego; Summer 2017)

Current Undergraduate Students: Janson Ho (Spring 2015–present), Matthew Watrous (Fall 2016–present), Chen Chen (Fall 2017–present)

Pre-collegiate Research Students
Xavier Weisenreder (summer 2011)

Educational Activities

List of Courses Taught:

1. CHM 437/440 Bioorganic Chemistry and Chemical Biology (Fall 2006, Fall 2007, Spring 2012, Spring 2014, Spring 2015, Spring 2016, Spring 2017)
2. CHM 172Q Quest Organic Chemistry (Spring 2008, Spring 2009, Spring 2010)
3. CHM 173Q Quest Organic Chemistry Laboratory (Fall 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012)
4. CHM 204 Organic Chemistry II (Spring 2013, Spring 2014, Spring 2015)
5. CHM 207 Organic Chemistry Laboratory (Fall 2015, Fall 2016, Fall 2017)

Synergistic Activities

1. Developed graduate lecture course Bioorganic Chemistry and Chemical Biology, University of Rochester (Fall 2006).
2. University of Rochester, Department of Chemistry Graduate Recruiting Committee (2006–2008).
3. University of Rochester, Department of Chemistry Undergraduate Studies Committee (2008–present).
4. University of Rochester, Department of Chemistry Colloquium/Distinguished Lecturers & Seminars Committee (Fall 2008–Fall 2011).
5. University of Rochester, Department of Chemistry Chair Selection Committee (Spring 2009).
6. Reviewer for *Journal of the American Chemical Society*, *Journal of Organic Chemistry*, *Organic Letters*, *Biopolymers: Peptide Science*, *Angewandte Chemie*, *Biomacromolecules*, *Biomaterials*, *ACS Chemical Biology*, *Bioorganic & Medicinal Chemistry*, *Molecular BioSystems*, *Organic & Biomolecular Chemistry*, *Inorganic Chemistry*, *Langmuir*, *Macromolecules*, *ACS Chemical Neuroscience*, *Chemical Communications*, *Nature Chemistry*, *Nature Communications*, *Journal of Physical Chemistry*, *Soft Matter*, *MedChemComm*, *ChemBioChem*, .
7. Reviewer for the U.S. Department of Energy (DOE), the Alzheimer's Association, the National Science and Engineering Research Council of Canada (NSERC), ACS Petroleum Research Fund, Israel Science Foundation (ISF), UK Medical Research Council (MRC), U.S. National Science Foundation (NSF).
8. University of Rochester, Department of Chemistry Biological Chemistry Cluster Chair Selection Committee (Fall 2009–Spring 2010).
9. University of Rochester, Department of Chemistry, Graduate Studies Committee (Fall 2010–Summer 2014).
10. Chair of Harrison Howe Award Committee (Rochester Section of the American Chemical Society, 2010–present).
11. Chair of Travel Awards Committee for the 22nd American Peptide Symposium (June 25–30, 2011; San Diego, CA).
12. Chair of Travel Awards Committee for the 23rd American Peptide Symposium (June 22–27, 2013; Hilton Waikoloa Village, Hawai'i).

13. Elected as member of the Nominating Committee of the American Peptide Society (term of service 2013–2015).
14. Boy Scouts of America Merit Badge Counselor – Chemistry (2013–present).
15. University of Rochester, Department of Chemistry, Chair of Graduate Studies Committee (July 2014–present).
16. Chair of Travel Awards Committee for the 24th American Peptide Symposium (June 20–25, 2015; Orlando, FL).
17. Natural Sciences Outstanding Dissertation Award Committee, University of Rochester (2015–2017).
18. University of Rochester, Department of Chemistry, Chair of Graduate Studies Committee (Fall 2014–present).
19. Chair of Travel Awards Committee for the 25th American Peptide Symposium (June 17–22, 2017; Whistler, British Columbia, Canada).
20. Treasurer, American Peptide Society (elected office with term of service from 2017–2021).

Collaborators (last 4 years)

Professor Lisa Opanashuk (University of Rochester Medical Center), Professor Todd Krauss (University of Rochester, Department of Chemistry), Professor Stephen Dewhurst (University of Rochester Medical Center), Professor David Dean (University of Rochester Medical Center), Professor Arshad Rahman (University of Rochester Medical Center), Dr. Randall Youngman (Corning, Inc.), Professor Jerry Yang (University of California, San Diego), Professor Gail Johnson (University of Rochester Medical Center), Dr. Takahiro Takano (University of Rochester Medical Center).