

Severin T. Schneebeli, PhD

Purdue University
Industrial & Molecular Pharmaceutics and Chemistry
575 Stadium Mall Drive
West Lafayette, IN 47907
[Google Scholar](#) — H-index = 29; I10-index = 45

schneebeli@purdue.edu
Phone: (765) 494-5587
Fax: (765) 494-6545
<https://www.schneebelilab.org>

PROFESSIONAL EXPERIENCE

Purdue University, West Lafayette, IN (Sept 2022 – Present)

- Associate Professor, Departments of Industrial & Molecular Pharmaceutics and Chemistry
- Research Focus: Protein Biotechnology Enabled by Supramolecular Chemistry. The main goal is to advance the manufacturing and delivery (including oral delivery) of peptide and protein drugs with new high-throughput screening methods empowered by single-molecule sequencing techniques.
- Sequence-defined molecular cages in combination with single-molecule sequencing and molecular dynamics methods are used to probe and predict membrane permeation of peptide and protein drugs.

Stanford University, Palo Alto, CA (Summer 2022)

- Visiting Associate Professor, Soh Research Group, Department of Electrical Engineering
- Investigated biosensors that combine DNA-aptamer-based technology with precision molecular cages as affinity units.

The University of Vermont, Burlington, VT

- Adjunct Associate Professor of Chemistry (Sept 2022 – Present)
- Director, Materials Science Graduate Program (June 2021 – Aug 2022)
- Associate Professor (with Tenure), Chemistry, Materials Science, Cellular/Molecular Biology (Aug 2020 – Aug 2022)
- Assistant Professor, Department of Chemistry (July 2014 – Aug 2020)
- Advanced new biomimetic frameworks for selective recognition and catalysis.
- Invented (i) a [catalytic method to size-selectively functionalize polymers with a molecular tetrahedron](#), (ii) [chirality-assisted synthesis](#) for precise polymer molecular shape control/recognition, as well as (iii) the first [enantioselective electrophilic aromatic nitration](#) process with a chiral auxiliary, providing efficient access to the chiral building blocks for chirality-assisted synthesis.

EDUCATION

Northwestern University, Evanston, IL (Sept 2011 – June 2014)

- International Institute for Nanotechnology (IIN) Postdoctoral Fellow working on the synthesis and computer-aided design of functional hierarchical nanomaterials and nanomotors.
- Advisor: Professor Sir Fraser Stoddart

Columbia University, New York, NY (Aug 2006 – Aug 2011)

PhD in Chemistry with Distinction (Oct 2011) / MPhil (May 2010) / MA (Oct 2007)

- Guthikonda and Upjohn Predoctoral Fellow focused on interdisciplinary research of organic synthesis, theoretical and computational chemistry, and single molecule conductance.

- Joint Advisors: Professors Ronald Breslow and Richard A. Friesner
- Doctoral Thesis: “Computers for Chemistry and Chemistry for Computers: From Computational Prediction of Reaction Selectivities to Novel Molecular Wires for Electrical Devices”
- Cumulative GPA: 4.0/4.0

University of Zurich, Zurich, Switzerland (Aug 2003 – Aug 2006)

BA in Chemistry (Aug 2006)

- Cumulative GPA: 5.7/6.0
- Summer Research in Computational Chemistry with Professor Kim Baldrige

RESEARCH EXPERIENCE

Postdoctoral Research, Stoddart Laboratory, Northwestern University (Sept 2011 – June 2014)

- Assembled shape-persistent macrocycles into functional nanotubes for chemical sensing.
- Discovered two new families of macrocycles as building blocks for synthetic nanotubes (i) the asararenes, and (ii) homochiral molecular prisms with through-space electron sharing and anion-induced π - π stacking.
- Performed quantum mechanical (QM) calculations and molecular dynamics (MD) simulations to predict the operation mechanisms of molecular machines, including [molecular pumps](#).

Doctoral Research, Breslow and Friesner Laboratories, Columbia University (Sept 2006 – Aug 2011)

- Bridged computation and experiment for the design and synthesis of single-molecule electronic devices and the prediction of selectivities for organic and enzymatic reactions.
- Investigated the conductance of molecular wires at the single molecule level in order to build smaller and faster electronic devices, in collaboration with the Venkataraman research group.
- Key findings include (i) two novel methodologies for creating highly conductive electrical contacts between gold electrodes and carbon atoms of single molecules, (ii) the first single molecular, partially antiaromatic wire and (iii) charge transport mechanisms through molecular wires with parallel paths.
- Developed accurate structure-based computational methods to predict sites of P450-enzyme mediated drug metabolism and enantioselectivities of organocatalyzed reactions. Improved the accuracy of Density Functional Theory (DFT) for non-covalent bonding interactions with empirical corrections, which have been implemented in the commercial software package Jaguar from Schrödinger Inc.

SCIENTIFIC AWARDS / DISTINCTIONS

- | | |
|--|---------------|
| • Biography Selected for Inclusion in Who’s Who in America | 2023 |
| • NIH MIRA Award | 2022 |
| • <i>Chem</i> (IF = 23) Paper Entitled “Size-selective Catalytic Polymer Acylation with a Molecular Tetrahedron” Selected as One of Three Editor in Chiefs’ Favorite Papers of 2020. | 2021 |
| • Thieme Chemistry Journals Award | 2020 |
| • Nominated by the University of Vermont for an NSF Alan T. Waterman Award | 2019 |
| • Nominated Twice for a Kroepsch-Maurice Excellence in Teaching Award, the Top Teaching Award at the University of Vermont | 2018 and 2019 |
| • NSF CAREER Award | 2019 |

- Nominated Twice for an Outstanding Faculty Advisor of the Year Award 2017 and 2019
- U.S. Army Research Office Young Investigator Award 2018
- Invited to Submit a Full Proposal to the Beckman Young Investigators Program 2017
- Invited to Submit a Full Proposal to the Cottrell Scholars Program 2017
- International Institute for Nanotechnology (IIN) Postdoctoral Fellowship, Awarded for Demonstrated Innovation & Outstanding Achievement during the Doctoral Research 2011–2013
- ACS Postdoc to Faculty Workshop Travel Award, Indianapolis, IN 2013
- Selected Participant, NSF Future Faculty Workshop “Leaders of Tomorrow”, Atlanta, GA 2013
- DOE Travel Fellowship to attend the ISMSC-8 Conference in Arlington, VA 2013
- Hammett Award in Chemistry for Excellence in Studies and Research toward the PhD, Columbia University, awarded to the top Fifth-year Chemistry Graduate Student 2011
- Arun Guthikonda Memorial Fellowship in Chemistry, Columbia University, awarded to the top Fourth Year Chemistry Graduate Student 2010–2011
- Best Scientific Poster Award, Columbia University Nanoscale Science and Engineering Center Retreat, Short Hills, NJ 2009
- Upjohn Fellowship for Academic Excellence, Columbia University 2007–2008
- Appointed Young Researcher Participant, 18th Meeting of Nobel Prize Winners in Chemistry, Lindau, Germany 2006
- Scholarships from the Alfred Werner Legate at the University of Zurich, Switzerland, awarded for Academic Excellence 2005/2006
- Appointed Member of the Swiss National Team at the 34th International Chemistry Olympiad, Groningen, the Netherlands for High School Researchers 2002

MANUSCRIPTS UNDER REVIEW/UNDER REVISION

* = STS as Corresponding Author

1. D. R. McCarthy, K. Xu, H. Liang, M. Schenkelberg, **S. T. Schneebeli*** “Kinetically Controlled Synthesis of Rotaxane Geometric Isomers”. *Chem. Sci.*, **2024**, DOI: 10.1039/D3SC04412B. This paper provides key preliminary results for a new polymer sequencing method we are currently working on to advance the delivery/formulation of protein drugs.
2. J. B. Ferrell, J. M. Remington, C. van Oort, M. Sharafi, R. Aboushousha, Y. Janssen-Heininger, **S. T. Schneebeli**, M. J. Wargo, J. Li “A Generative Approach toward Precision Antimicrobial Peptide Design” *Under Revision*. Published in [bioRxiv](#).

PUBLICATIONS (INDEPENDENT CAREER)

* = STS as Corresponding Author

1. D. R. McCarthy, J. M. Remington, J. B. Ferrell, **S. T. Schneebeli**,* J. Li. “Nano-Bio Interactions between DNA Nanocages and Human Serum Albumin.” *J. Chem. Theory Comput.* **2023**, *19*, 7873–7881. **Supplemental Cover**. Key preliminary results related to benchmarking MD-based computational models for sequence-defined molecular cages interacting with proteins.
2. O. Vestrheim, M. E. Schenkelberg, Q. Dai, **S. T. Schneebeli*** “Efficient Multigram Procedure for the Synthesis of Large Hydrazone-Linked Molecular Cages”. *Org. Chem. Front.* **2023**, *10*, 3965–3974. DOI: 10.1039/D3QO00480E. **Front Cover**. Special Issue: Emerging Investigator Series. Proof of principle for synthetic access to stable molecular cages with cavities large enough to encapsulate peptide/protein analytes for single-molecule sequencing.

3. E. M. Corteselli, M. Sharafi, M. MacPherson, M. C. White, A. van der Vliet, V. Anathy, **S. T. Schneebeli**, J. Li, Y. Janssen-Heininger. “Structural and Functional Fine Mapping of Cysteines in Mammalian Glutaredoxin Reveal a Hierarchy of Susceptibility to Oxidative Inactivation” *Nat. Comm.* **2023**, *14*, 4550.
4. J. M. Remington, K. T. McKay, N. B. Beckage, J. B. Ferrell, **S. T. Schneebeli**, J. Li, “GPCRLigNet: Rapid screening for GPCR Active Ligands using Machine Learning”. *J. Comput. Aid. Mol. Design.* **2023**, *37*, 147–156.
5. K. E. Murphy, K. T. McKay, M. Schenkelberg, M. Sharafi, M. Ivancic, O. Vestrheim, J. Li, **S. T. Schneebeli**.* “Helical Molecular Springs with Varying Spring Constants”. *Angew. Chem. Int. Ed.* **2022**, *61*, 61, e202209772. **Back Cover**.
6. K. T. McKay, N. B. Hamilton, J. Remington, **S. T. Schneebeli**, J. Li. “Ensemble Docking to Target Chemically Relevant Receptor States: An Application to GPCR Drug Discovery”, *Front. Mol. Biosci.* **2022**, *9*, 879212.
7. J. M. Remington, J. B. Ferrell, **S. T. Schneebeli**, J. Li. “Concerted Rolling and Penetration of Peptides during Membrane Binding”, *J. Chem. Theory Comput.* **2022**, *18*, 3921–3929.
8. A. Ghalehbolabbehahani, O. Vestrheim, M. Skinner, J. Li, **S. T. Schneebeli**.* “NMR-based Quality Assessment of Vermont Grown Saffron (*Crocus Sativus* L.) — Optimal Drying Conditions and Mechanistic Implications” *ACS Food Sci Technol.* **2022**, *2*, 315–320. **Cover Art**.
9. N. Hamilton, J. M. Remington, **S. T. Schneebeli**, J. Li. “Outcome-Based Redesign of Physical Chemistry Laboratories During the COVID-19 Pandemic” *J. Chem. Ed.* **2022**, *99*, 639–645.
10. S. C. Rajappan, O. Vestrheim, M. Sharafi, J. Li, **S. T. Schneebeli**.* “Carbonyl-to-Alkyne Electron Donation Effects in up to 10-nm-Long, Unimolecular Oligo(*p*-phenylene ethynyls) (OPEs)” *Org. Materials* **2021**, *3*, 337–345. Special Issue, Emerging Stars in Organic Materials.
11. T. J. Jaynes, M. Sharafi, J. P. Campbell, J. Bocanegra, K. T. McKay, K. Little, R. O. Brown, D. L. Gray, T. J. Woods., J. Li, **S. T. Schneebeli**.* “Iterative Exponential Growth of Oxygen-linked Aromatic Polymers Driven by Nucleophilic Aromatic Substitution Reactions” *Front. Chem.* **2021**, *9*, 620017. Special Issue, Rising Stars 2020.
12. X. Zhao, J. M. Remington, **S. T. Schneebeli**, S. T. Arold, J. Li. “Molecular Basis of a Nucleoid-Structured Bacterial Protein Filament for Environment Sensing” *J. Phys. Chem. Lett.* **2021**, *12*, 7878–7884. **Supplemental Cover**.
13. J. Li, K. T. McKay, J. M. Remington, **S. T. Schneebeli**. “A Computational Study of Cooperative Binding to Multiple SARS-CoV-2 Proteins”. *Sci. Rep.* **2021**, *11*, 16307.
14. J. M. Remington, K. T. McKay, J. B. Ferrell, **S. T. Schneebeli**, J. Li. “Enhanced Sampling Protocol to Elucidate Fusion Peptide Opening of SARS-CoV-2 Spike Protein”. *Biophys. J.* **2021**, *120*, 2848–2858.
15. J. M. Remington, C. Liao, M. Sharafi, E. Ste.Marie, J. B. Ferrell, R. Hondal, M. J. Wargo, **S. T. Schneebeli**, J. Li. “Aggregation State of Synergistic Antimicrobial Peptides” *J. Phys. Chem. Lett.* **2020**, *11*, 9501–9506.
16. S. C. Rajappan, D. R. McCarthy, J. P. Campbell, J. B. Ferrell, M. Sharafi, O. Ambrozaite, J. Li, **S. T. Schneebeli**.* “Selective Monofunctionalization Enabled by Reaction History-Dependent Communication in Catalytic Rotaxanes” *Angew. Chem. Int. Ed.* **2020**, *59*, 16668–16674.
17. M. Sharafi, K. T. McKay, M. Ivancic, D. R. McCarthy, N. Dudkina, K. E. Murphy, S. C. Rajappan, J. P. Campbell, Y. Shen, A. R. Badireddy, J. Li, **S. T. Schneebeli**.* “Size-selective Catalytic Polymer Acylation with a Molecular Tetrahedron” *Chem (Cell Press)* **2020**, *6*, 1469–1494. Highlighted in [Science Daily](#) and >20 other News Channels.
18. M. Sharafi, J. P. Campbell, K. E. Murphy, R. O. Brown, **S. T. Schneebeli*** “Chiral Auxiliaries for Stereoselective Electrophilic Aromatic Substitutions” *Synlett* **2020**, DOI: 10.1055/s-0040-1707296.

19. J. M. Remington, J. B. Ferrell, M. Zorman, A. Petrucci, **S. T. Schneebeli**, J. Li. “Machine Learning in a Molecular Modeling Course for Chemistry, Biochemistry, and Biophysics Students” *The Biophysicist* **2020**, *1*, 1–11.
20. J. P. Campbell, S. C. Rajappan, T. J. Jaynes, M. Sharafi, Y.-T. Ma, J. Li, **S. T. Schneebeli**.* “Enantioselective Electrophilic Aromatic Nitration — A Chiral Auxiliary Approach” *Angew. Chem. Int. Ed.* **2019**, *58*, 1035–1040, **Inside Back Cover**.
21. X. Zhao, C. Liao, J. B. Ferrell, Y. Ma, **S. T. Schneebeli**, J. Li. “A Top-Down Multiscale Approach to Simulate Peptide Assembly” *J. Chem. Theory Comput.* **2019**, *15*, 1514–1522, **Front Cover**.
22. J. P. Campbell, M. Sharafi, K. E. Murphy, J. L. Bocanegra, **S. T. Schneebeli*** “Precise Molecular Shape Control of Linear and Branched Strips with Chirality-Assisted Synthesis” *Supramol. Chem.* **2019**, *31*, 565–574, Invited Special Issue, Emerging Supramolecular Chemists in North America.
23. C. Liao, M. Poujol de Molliens, **S. T. Schneebeli**, M. Brewer, G. Song, D. Chatenet, K. M. Braas, V. May, J. Li “Targeting the PAC1 Receptor for Neurological and Metabolic Disorders” *Curr. Top. Med. Chem.* **2019**, *19*, 1399–1417.
24. J. B. Ferrell, J. P. Campbell, D. R. McCarthy, K. T. McKay, M. Hensinger, R. Srinivasan, X. Zhao, A. Wurthmann, J. Li, **S. T. Schneebeli**.* “Chemical Exploration with Virtual Reality (CEVR) in Organic Teaching Laboratories” *J. Chem. Ed.* **2019**, *96*, 382–386. **Supplemental Cover**.
25. M. V. Sheridan, P. Gamm, **S. T. Schneebeli**, R. Breuer, M. Schmittel, W. E. Geiger. “The Effect of Large Electrolyte Anions on the Sequential Oxidations of Bis(fulvalene)diiron Attached to Glassy Carbon by an Ethynyl Linkage” *Langmuir* **2018**, *34*, 1327–1339.
26. M. Sharafi, J. P. Campbell, S. C. Rajappan, N. Dudkina, D. L. Gray, T. J. Woods, J. Li, **S. T. Schneebeli**.* “Crystal-Packing-Driven Enrichment of Atropoisomers” *Angew. Chem. Int. Ed.* **2017**, *56*, 7097–7081. Highlighted in [UVM CAS News](#).
27. K. E. Murphy, J. L. Bocanegra, X. Liu, H.-Y. K. Chau, P. C. Lee, J. Li, **S. T. Schneebeli**.* “Precise Through Space Control of an Abiotic Electrophilic Aromatic Substitution Reaction” *Nature Commun.* **2017**, *8*, 14840.
28. C. Liao, X. Zhao, J. Liu, **S. T. Schneebeli**, J. C. Shelley, J. Li. “Capturing the Multiscale Dynamics of Membrane Protein Complexes with All-Atom, Mixed-Resolution, and Coarse-Grained Models” *Phys. Chem. Chem. Phys.* **2017**, *19*, 9181–9188.
29. M. Sharafi, Z. J. Weinert, I. M. Cohen, C. Liao, M. Ivancic, J. Li, **S. T. Schneebeli**.* “Controlled Self-Assembly Inside C-Shaped Polyaromatic Strips” *Synlett* **2016**, *27*, 2145–2149. Invited Special Issue on the “Synthesis of Non-planar Polyaromatic Compounds”.
30. M. V. Sheridan, K. Lam, M. Sharafi, **S. T. Schneebeli**,* W. E. Geiger. “Anodic Methods for Covalent Attachment of Ethynylferrocenes to Electrode Surfaces: Comparison of Ethynyl Activation Processes” *Langmuir* **2016**, *32*, 1645–1657.
31. X. Liu, Z. J. Weinert, M. Sharafi, C. Liao, J. Li, **S. T. Schneebeli**.* “Regulating Molecular Recognition with C-Shaped Strips Attained by Chirality-Assisted Synthesis” *Angew. Chem. Int. Ed.* **2015**, *54*, 12772–12776. **VIP, Inside Cover**, Highlighted in [Angew. Chem. Int. Ed.](#), [Popular Mechanics](#), and [io9](#).
32. C. Liao, M. E. Selvan, J. Zhao, J. Slimovitch, **S. T. Schneebeli**, M. Shelley, J. Shelley, J. Li. “Melittin Aggregation in Aqueous Solutions: Insight from Molecular Dynamics Simulations” *J. Phys. Chem. B* **2015**, *119*, 10390–10398.
33. R. W. Miller, A. K. Duncan, **S. T. Schneebeli**, D. L. Gray, A. C. Whalley. “Synthesis and Structural Data of Tetrabenzo[8]circulene.” *Chem. Eur. J.* **2014**, *20*, 3705–3711.

PUBLICATIONS (PRE- AND POSTDOCTORAL)

34. E. J. Dale, D. P. Ferris, N. A. Vermeulen, J. J. Henkelis, I. Popovs, M. Juriček, J. C. Barnes, **S. T. Schneebeli**,* and J. F. Stoddart. “Cooperative Reactivity in an Extended-Viologen-Based Cyclophane.” *J. Am. Chem. Soc.* **2016**, *138*, 3667–3670.
35. Y. Wu, R. M. Young, M. Frasconi, **S. T. Schneebeli**, P. Spent, D. M. Gardner, K. E. Brown, F. Würthner, J. F. Stoddart, M. R. Wasielewski. “Ultrafast Photoinduced Symmetry-Breaking Charge Separation and Electron Sharing in Perylenediimide Molecular Triangles.” *J. Am. Chem. Soc.* **2015**, *137*, 13236–13239.
36. C. Cheng, P. R. McGonigal, **S. T. Schneebeli**, H. Li, N. A. Vermeulen, C. Ke, J. F. Stoddart. “An Artificial Molecular Pump.” *Nature Nanotech.* **2015**, *10*, 547–553.
37. P. R. McGonigal, H. Li, C. Cheng, **S. T. Schneebeli**, M. Frasconi, L. S. Witus, J. F. Stoddart. “Controlling Association Kinetics in the Formation of Donor-Acceptor Pseudorotaxanes.” *Tetrahedron Lett.* **2015**, *56*, 3591–3594.
38. Y. Wu, M. Frasconi, D. M. Gardner, P. A. McGonigal, **S. T. Schneebeli**, M. R. Wasielewski, J. F. Stoddart. “Electron Delocalization in a Rigid Cofacial Naphthalene-1,8:4,5-bis(dicarboximide) Dimer” *Angew. Chem. Int. Ed.* **2014**, *53*, 9476–9481.
39. N. L. Strutt, H. Zhang, **S. T. Schneebeli**, J. F. Stoddart. “Amino-functionalized Pillar[5]arene.” *Chem. Eur. J.* **2014**, *20*, 10996–11004.
40. Z. Liu, J. Lei, M. Frasconi, X. Li, D. Cao, Z. Zhu, **S. T. Schneebeli**, G. C. Schatz, J. F. Stoddart. “A Square-Planar Tetracoordinate Oxygen-Containing Ti_4O_{17} Cluster Stabilized by Two 1,1'-Ferrocenedicarboxylato Ligands” *Angew. Chem. Int. Ed.* **2014**, *53*, 9193–9197.
41. C. J. Bruns, M. Frasconi, J. Iehl, K. J. Hartlieb, **S. T. Schneebeli**, C. Cheng, S. I. Stupp, J. F. Stoddart. “Redox Switchable Daisy Chain Rotaxanes Driven by Radical–Radical Interactions.” *J. Am. Chem. Soc.* **2014**, *136*, 4714–4723.
42. A. J. Avestro, D. M. Gardner, N. A. Vermeulen, E. A. Wilson, **S. T. Schneebeli**, A. C. Whalley, M. E. Belowich, R. Carmieli, M. R. Wasielewski, J. F. Stoddart. “Gated Electron Sharing within Naphthalene Diimide-based Oligorotaxanes.” *Angew. Chem. Int. Ed.* **2014**, *53*, 4442–4449.
43. Z. Liu, G. Liu, Y. Wu, D. Cao, J. Sun, **S. T. Schneebeli**, M. S. Nassar, C. A. Mirkin, J. F. Stoddart. “Assembly of Supramolecular Nanotubes from Molecular Triangles and 1,2-Dihalohydrocarbons.” *J. Am. Chem. Soc.* **2014**, *136*, 16651–16660.
44. C. J. Bruns, J. Li, M. Frasconi, **S. T. Schneebeli**, J. Iehl, H.-P. J. de Rouville, S. I. Stupp, G. A. Voth, J. F. Stoddart. “An Electrochemically and Thermally Switchable Donor-Acceptor [c2]Daisy Chain Rotaxane.” *Angew. Chem. Int. Ed.* **2014**, *53*, 1953–1958.
45. N. L. Strutt, H. Zhang, **S. T. Schneebeli**, J. F. Stoddart. “Functionalizing Pillar[n]arenes.” *Acc. Chem. Res.* **2014**, *47*, 2631–2642.
46. K. J. Hartlieb, A. K. Blackburn, **S. T. Schneebeli**, R. S. Forgan, A. A. Sarjeant, C. L. Stern, D. Cao, J. F. Stoddart. “Topological Isomerism in a Chiral Handcuff Catenane.” *Chem. Sci.* **2014**, *5*, 90–100.
47. Z. Liu, **S. T. Schneebeli**, J. F. Stoddart.* “Second-Sphere Coordination Revisited.” *Chimia* **2014**, *68*, 315–320.
48. R. S. Forgan, A. K. Blackburn, M. M. Boyle, **S. T. Schneebeli**, J. F. Stoddart. “The Topological and Chemical Implications of Introducing Oriented Rings to [3]Catenanes.” *Supramol. Chem.* **2014**, *26*, 192–201, Invited Special Issue.

49. **S. T. Schneebeli**, M. Frascioni, Z. Liu, Y. Wu, D. M. Gardner, N. L. Strutt, C. Cheng, R. Carmieli, M. R. Wasielewski, J. F. Stoddart. “Electron Sharing and Anion- π Recognition in Molecular Triangular Prisms.” *Angew. Chem. Int. Ed.* **2013**, *52*, 13100–13104, **VIP, Back Cover**.
50. N. L. Strutt, **S. T. Schneebeli**, J. F. Stoddart. “Stereochemical Inversion in Difunctionalised Pillar[5]arenes.” *Supramol. Chem.* **2013**, *25*, 596–608, Invited Special Issue.
51. **S. T. Schneebeli**, C. Cheng, K. J. Hartlieb, N. L. Strutt, A. A. Sarjeant, C. L. Stern, J. F. Stoddart. “Asararenes – A Family of Large Aromatic Macrocycles.” *Chem. Eur. J.* **2013**, *19*, 3860–3868. **Front Cover, VIP, Highlight** in *Chem. Views* (Feb 2013) and *Angew. Chem. Int. Ed.* (Mar 2013).
52. H. Vazquez, R. Skouta, **S. T. Schneebeli**, M. Kamenetska, R. Breslow, L. Venkataraman, M. S. Hybertsen. “Probing the Conductance Superposition Law in Single-Molecule Circuits with Parallel Paths.” *Nature Nanotech.* **2012**, *7*, 663–667. See also the News & Views article in *Nature Nanotech.* (Oct 2012). **Highlight** in *Pro-Physik* and *Brookhaven National Laboratory News* (Sept 2012).
53. A. N. Basuray, H.-P. J. de Rouville, K. J. Hartlieb, T. Kikuchi, N. L. Strutt, C. J. Bruns, M. W. Ambrogio, A. J. Avestro, **S. T. Schneebeli**, A. C. Fahrenbach, J. F. Stoddart. “The Chameleonic Nature of Diazaperopyrenium Recognition Processes.” *Angew. Chem. Int. Ed.* **2012**, *51*, 11872–11877.
54. M. Tagliazucchi, V. A. Amin, **S. T. Schneebeli**, J. F. Stoddart, E. A. Weiss. “High-Contrast Photopatterning of Photoluminescence within Quantum Dot Films through Degradation of a Charge-Transfer Quencher.” *Adv. Mater.* **2012**, *24*, 3617–3621. **Front Cover**.
55. J. C. Heckel, A. L. Weisman, **S. T. Schneebeli**, M. L. Hall, L. J. Sherry, S. M. Stranahan, K. H. Dubai, R. A. Friesner, K. A. Willets. “Polarized Raman Spectroscopy of Oligothiophene Crystals To Determine Unit Cell Orientation.” *J. Phys. Chem. A* **2012**, *116*, 6804–6816.
56. W. Chen, J. Widawsky, H. Vazquez, **S. T. Schneebeli**, M. Hybertsen, R. Breslow, L. Venkataraman. “Highly Conducting π -Conjugated Molecular Junctions Covalently Bonded to Gold Electrodes.” *J. Am. Chem. Soc.* **2011**, *133*, 17160–17163. **Highlight** in *C&E News* (Oct 2011).
57. J. Li, **S. T. Schneebeli**, J. Bylund, R. Farid, R. A. Friesner. “IDSite: An Accurate Approach to Predict P450-Mediated Drug Metabolism.” *J. Chem. Theory Comput.* **2011**, *7*, 3829–3845.
58. Z. Cheng, R. Skouta, H. Vazquez, J. R. Widawsky, **S. T. Schneebeli**, W. Chen, M. S. Hybertsen, R. Breslow, L. Venkataraman. “*In situ* Formation of Highly Conducting Covalent Au–C Contacts for Single-Molecule Junctions.” *Nature Nanotech.* **2011**, *6*, 353–357. **Highlight** in *C&E News* (Oct 2011).
59. **S. T. Schneebeli**, A. D. Bochevarov, R. A. Friesner. “Parameterization of a B3LYP specific Correction for Dispersion Interactions on a Gigantic Dataset of CCSD(T) Quality Non-Covalent Interaction Energies.” *J. Chem. Theory Comput.* **2011**, *7*, 658–668.
60. R. Breslow, **S. T. Schneebeli**. “Structure-Property Relationships in Molecular Wires.” *Tetrahedron* **2011**, *67*, 10171–10178.
61. **S. T. Schneebeli**, M. Kamenetska, Z. Cheng, R. Skouta, R. A. Friesner, L. Venkataraman, R. Breslow. “Single-Molecule Conductance through Multiple π - π -Stacked Benzene Rings Determined with Direct Electrode-to-Benzene Ring Connections.” *J. Am. Chem. Soc.* **2011**, *133*, 2136–2139. **Front Cover, Highlight** in *Nature Materials* (Mar 2011).
62. **S. T. Schneebeli**, M. Kamenetska, F. W. Foss Jr., H. Vazquez, R. Skouta, M. Hybertsen, L. Venkataraman, R. Breslow. “The Electrical Properties of Biphenylenes.” *Org. Lett.* **2010**, *12*, 4114–4117.
63. **S. T. Schneebeli**, M. L. Hall, R. Breslow, R. A. Friesner. “Quantitative DFT Modeling of the Enantiomeric Excess for Dioxirane-Catalyzed Epoxidations.” *J. Am. Chem. Soc.* **2009**, *131*, 3965–3973.

BOOK CHAPTERS

1. **S. T. Schneebeli**, N. L. Strutt, C. Cheng, J. F. Stoddart. "Pillararene-related Macrocycles." In *Monographs in Supramolecular Chemistry*, Vol. 18 (Pillararenes), Royal Society of Chemistry, Cambridge, U.K., **2016**, 278–307.

PATENTS

1. **S. T. Schneebeli**, O. Vestrheim. "Efficient Procedure for the Synthesis of Hydrazone-linked Tetrahedral Nanocages." U.S. Provisional patent application filed on 7/15/2022. U.S. Patent application filed on 7/15/2023. U.S. Patent number 147405000161.
2. **S. T. Schneebeli**, J. Li, M. Sharafi. "Molecular Tetrahedron Nanocage, Its Preparation, and Uses Thereof." U.S. Provisional patent application filed on 6/2/2020. PCT application filed on 6/1/2021. U.S. Patent number 147405000142.
3. J. F. Stoddart, **S. T. Schneebeli**, M. Frasconi, Z. Liu. "Redox Active Triangular Organic Materials" U.S. Provisional patent application filed on 9/3/2014. U.S. Patent application filed on 9/3/2015. U.S. Patent number 20160130271.

INVITED SEMINARS / PRESENTATIONS

1. Formulation and Delivery Congress, San Diego, CA (October 2023). Symposium on Biologics and New Modalities Drug Formulation.
2. The 265th ACS National Meeting, Indianapolis, IN (March 2023), Symposium on Molecular Recognition and Self-Assembly
3. The 265th ACS National Meeting, Indianapolis, IN (March 2023), Symposium on New Concepts in Polymer Chemistry
4. University of Würzburg, Department of Chemistry, Würzburg, Germany (May 2022).
5. Hong Kong University of Science and Technology (Virtual Seminar), Advanced Materials Thrust, Hong Kong/Guangzhou, P. R. China (May 2022)
6. Purdue University, Departments of Chemistry as well as Industrial and Physical Pharmacy, West Lafayette, IN (April 2022).
7. Hunter College (CUNY, Virtual Seminar), New York, NY, Department of Chemistry (Feb 2022).
8. Soh Group Seminar Series (Virtual Seminar), School of Engineering, Stanford University, CA (December 2021).
9. University of California, Riverside, CA (October 2021).
10. Stoddart Group Seminar Series (Virtual Seminar), Department of Chemistry, Northwestern University, IL (April 2021).
11. "Saffron: From Start to Finish Planting to Selling" Workshop (Virtual Presentation), VT (March 2021).
12. Rowan University (Virtual Seminar), NJ (March 2021).
13. Penn State Erie (Virtual Seminar), PA (December 2020).
14. UVM Cancer Center (Virtual Seminar), University of Vermont, VT (April 2020).
15. SUNY Plattsburgh, Department of Chemistry, Plattsburgh, NY (March 2020).
16. Next Generation Smart Materials Conference, Savannah, GA (December 2019).
17. University of Rhode Island, Department of Chemistry, Kingston, RI (September 2019).

18. U.S. Army Research Office PI Meeting, Durham, NC (June 2019).
19. University of Würzburg, Nanoscience Institute Young Investigator Symposium, Würzburg, Germany (May 2019).
20. University of New Hampshire, Department of Chemistry, Durham, NH (April 2019).
21. Wesleyan University, Department of Chemistry, Middletown, CT (April 2019).
22. Dartmouth College, Department of Chemistry, Hanover, NH (April 2019).
23. University of Connecticut, Department of Chemistry, Storrs, CT (December 2018).
24. University of Zurich, Department of Chemistry, Zurich, Switzerland (December 2018).
25. University of Houston, Department of Chemistry, Houston, TX (November 2018).
26. Georgetown University, Department of Chemistry, Washington, DC (March 2018).
27. University of Maryland — College Park, Department of Chemistry and Biochemistry, College Park, MD (March 2018).
28. Worcester Polytechnic Institute, Department of Chemistry and Biochemistry, Worcester, MA (Feb 2018).
29. Sun Yat-Sen University, School of Chemistry, Guangzhou, P. R. China (Jan 2018).
30. The University of Vermont, Advanced Materials for Energy and Bioengineering Applications (AMEBA) Symposium, Burlington, VT (Dec 2017).
31. University of Heidelberg, Institute of Organic Chemistry, Heidelberg, Germany (Aug 2017).
32. University of Basel, Department of Chemistry, Basel, Switzerland (June 2017).
33. University of Fribourg, Department of Chemistry, Fribourg, Switzerland (June 2017).
34. Carnegie Mellon University, Department of Chemistry, Pittsburgh, PA (Feb 2017).
35. Saint Michael's College, Department of Chemistry, Colchester, VT (Feb 2017).
36. The University of Vermont, Advanced Next Generation Energy Leadership (ANGEL) Symposium, Burlington, VT (Oct 2016).
37. The 252nd ACS National Meeting, Philadelphia, PA (Aug 2016).
38. The 251st ACS National Meeting, San Diego, CA (March 2016).
39. The University of Vermont, Advanced Materials for Energy and Bioengineering Applications (AMEBA) Symposium, Burlington, VT (Dec 2015).
40. The 250th ACS National Meeting, Boston, MA (Aug 2015).
41. The University of Vermont, Department of Chemistry, Burlington, VT (March 2014, Special Seminar).
42. South University of Science and Technology of China, Department of Chemistry, Shenzhen, P. R. China (Feb 2014, Special Seminar).
43. Nanyang Technological University, School of Materials Science and Engineering, Singapore (Feb 2014, Special Seminar).
44. Institute of Science and Technology Austria, Klosterneuburg, Austria (Feb 2014, Special Seminar).
45. ETH Zurich, Department of Chemistry and Applied Biosciences, Zurich, Switzerland (Feb 2014, Special Seminar).
46. Cornell University, Department of Chemistry and Chemical Biology, Ithaca, NY (Jan 2014, Special Seminar).
47. University of British Columbia, Department of Chemistry, Vancouver, BC, Canada (Jan 2014, Special Seminar).

48. Princeton University, Department of Chemistry, Princeton, NJ (Jan 2014, Special Seminar).
49. The University of Chicago, Department of Chemistry, Chicago, IL (Jan 2014, Special Seminar).
50. Carnegie Mellon University, Department of Chemistry, Pittsburgh, PA (Dec 2013, Special Seminar).
51. Massachusetts Institute of Technology, Department of Chemistry, Cambridge, MA (Nov 2013, Special Seminar).
52. The 246th ACS National Meeting, Indianapolis, IN (Sept 2013). Functional Nanomaterials by Design.
53. Columbia University, Department of Chemistry, New York, NY (Jan 2013, Special Seminar).
54. University of Basel, Basel, Switzerland (Oct 2012, Host: E. Constable).
55. Università della Svizzera Italiana (USI), Lugano, Switzerland (Oct 2012, Host: M. Parrinello).
56. University of Zurich, Zurich, Switzerland (Oct 2012, Host: K. Baldrige).
57. Schrödinger, Inc., New York, NY (May 2011).
58. The 241st ACS National Meeting, Anaheim, CA (Mar 2011). Symposium: “Recent Progress in Catalytic and Biomimetic Chemistry”.
59. Chemical Synthesis Research Symposium, Columbia University, New York, NY (Jan 2011).
60. Columbia University Nanocenter Symposium, New York, NY (Oct 2010).
61. Columbia University Nanocenter Symposium, New York, NY (Dec 2009).

SELECTED POSTER PRESENTATIONS

1. Preclinical Form and Formulation for Drug Discovery Gordon Research Conference, Mount Snow, VT (June 2023). **Severin T. Schneebeli**, Mica E. Schenkelberg, Daijing Nie, Kyle T. Faivre, Jianing Li, Jacob Remington. “Precision Molecular Cages to Advance the Formulation and Delivery of Peptide Drugs.”
2. Artificial Molecular Switches and Motors Gordon Research Conference, Holderness, NH (June 2019). Sinu C. Rajappan, Dillon R. McCarthy, Beijun Cheng, Kyle T. McKay, Mona Sharafi, Joseph P. Campbell, **Severin T. Schneebeli**. “Biomimetic Synthesis of Precision Polymers with Artificial Molecular Machines.”
3. Self-Assembly and Supramolecular Chemistry Gordon Research Conference, Les Diablerets, Switzerland (May 2019). Sinu C. Rajappan, Dillon R. McCarthy, Beijun Cheng, Kyle T. McKay, Mona Sharafi, Joseph P. Campbell, **Severin T. Schneebeli**. “Biomimetic Synthesis of Precision Polymers.”
4. Self-Assembly and Supramolecular Chemistry Gordon Research Conference, Les Diablerets, Switzerland (May 2017). Kyle T. McKay, Mona Sharafi, Kyle E. Murphy, Dillon R. McCarthy, Joseph P. Campbell, **Severin T. Schneebeli**. “*En Route* to Shape-defined Precision Polymers.”
5. RSC Macrocyclic and Supramolecular Chemistry Meeting, Glasgow, UK (Dec 2013). **Severin T. Schneebeli**, Marco Frasconi, Zhichang Liu, Yilei Wu, Chuyang Cheng, Nathan L. Strutt, J. Fraser Stoddart. “Electron Sharing in Molecular Nanotubes.”
6. 8th International Symposium on Macrocyclic and Supramolecular Chemistry, Arlington, VA (July 2013). **Severin T. Schneebeli**, Marco Frasconi, Zhichang Liu, Yilei Wu, Chuyang Cheng, Nathan L. Strutt, J. Fraser Stoddart. “Macrocycles as Building Blocks for Functional Nanostructures.”

7. Physical Organic Chemistry Gordon Research Conference and Seminar, Holderness, NH (June 2013). **Severin T. Schneebeli**, Marco Frasconi, Zhichang Liu, Yilei Wu, Chuyang Cheng, Nathan L. Strutt, J. Fraser Stoddart. “Rigid Triangular Macrocycles with Delocalized Radical Anions.”
8. Self-Assembly and Supramolecular Chemistry Gordon Research Seminar and Conference, Les Diablerets, Switzerland (May 2013). **Severin T. Schneebeli**, Marco Frasconi, Zhichang Liu, Yilei Wu, Chuyang Cheng, Nathan L. Strutt, Karel J. Hartlieb, J. Fraser Stoddart. “Nanotubes and Wires from Rigid Macrocycles.”
9. Northwestern CCIS Symposium, Evanston, IL (May 2012). **Severin T. Schneebeli**, Chuyang Cheng, Nathan L. Strutt, Karel, J. Hartlieb, Julien Iehl, J. Fraser Stoddart. “Pillararenes and Asararenes: Novel Macrocycles for the 21st Century.”
10. Columbia Nanocenter Symposium, New York, NY (June 2011). **Severin T. Schneebeli**, Rachid Skouta, Maria Kamenetska, Latha Venkataraman, Ronald Breslow. “Progress towards Highly Conducting Molecular Nanowires.”
11. The 241st ACS National Meeting, Anaheim, CA (March 2011). **Severin T. Schneebeli**, Maria Kamenetska, Zhanling Cheng, Rachid Skouta, Latha Venkataraman, Ronald Breslow. “Molecular Electronics with Multiple π - π -Stacked Aromatic Layers and with Partially Antiaromatic Biphenylene Cores.”
12. ACS Younger Chemists Committee Research Symposium, New York, NY (March 2011). **Severin T. Schneebeli**, Maria Kamenetska, Zhanling Cheng, Rachid Skouta, Latha Venkataraman, Ronald Breslow. “Synthesis of Molecular Wires with Antiaromatic Character and Single-Molecule Conductance through Multiple Stacked π -Systems.”

LECTURE COURSES TAUGHT

- Pharmacy 82900: Dosage Forms II, Purdue University (Spring 2023, Co-Instructor)
- Chemistry 25600: Organic Chemistry II, Purdue University (Spring 2023)
- Chemistry 242: Advanced Organic Chemistry II, The University of Vermont (Spring 2018 and 19)
- Chemistry 141: Organic Chemistry I, The University of Vermont (Fall 2017, 18, 19, and 20)
- Chemistry 241: Advanced Organic Chemistry I, The University of Vermont (Fall 2014, 15, 16, and 21)
- Chemistry 251: Physical Organic Chemistry, The University of Vermont (Spring 2015 and 16)
- Chemistry 214: Polymer Chemistry, The University of Vermont (Spring 2017 and 20)

CURRENT EXTERNAL GRANT SUPPORT

- | | |
|---|-------------------------------------|
| • NOAA Grant (CIROH Research Project)
“Developing Low-cost Sensors to Determine Water Quality” | July 2023 – June 2025
Role: Co-I |
| • Eli Lilly & Company
“Genetic Medicine: Developing Predictive Models for Clinical Success” | July 2023 – Dec. 2023
Role: Co-I |
| • NIGMS ESI MIRA Award (1R35GM147579)
“Robust Sequence-defined Nanocages with Protein-mimetic Cavities” | July 2022 – June 2027
Role: PI |
| • NSF CAREER Award (CHE-1848444/2317652)
“CAREER: Ribosome-inspired Synthesis of Precision Polymers” | July 2019 – Dec. 2024
Role: PI |

COMPLETED EXTERNAL GRANT SUPPORT

- **NSF Planning Grant (2026431)** Sept 2020 – Aug 2022
“FW-HTF-RL: Testing a responsible innovation approach for integrating precision agriculture (PA) technologies with future farm workers and work”
Role: Key Personnel
PI: M. Gardezi
- **NSF IRES Grant (1827020)** Sept. 2018 – Aug. 2022
“IRES Track I: US-Japan Collaboration on Organic Electronics Research and Education”
Role: Co-PI
PI: M. White
- **ARO Young Investigator Award (71015-CH-YIP)** Feb 2018 – Aug. 2022
“An Exponential Amplification Strategy for Precision Polymeric Materials”
Role: PI
- **USDA NIFA SEED Grant (2018-07583)** May 2019 – May 2022
“Nanocages for Assessing Saffron Quality: Advanced Tools for an Emerging High-value Crop”
Role: PD
Co-PI: M. Skinner
- **NSF Grant (CHE-1609137)** July 2016 – June 2020
“Programmable Catalysts Designed to Replicate Flexible Polymers”
Role: PI

INTERNAL GRANT SUPPORT

- **UVM Pre-Spark Grant** July 2020 – June 2021
“An Accessible Nano-Sensing Platform to Enhance Vermont Quality Food Production and Distribution”
Role: PI
- **UVM FISAR Seed Grant** Jan 2016 – Feb 2018
“Triggered Release of Active Catalyst from Polymer Capsules”
Role: Co-PI
- **UVM REACH Seed Grant** May 2015 – Aug 2016
“Freeform Molecular Helices: Tiny Springs for Strong and Flexible Materials.”
Role: PI

PROFESSIONAL ACTIVITIES

Manuscript Reviewer

- Chem (Cell Press)
- Science Advances
- Nature Synthesis
- Nature Communications
- Journal of the American Chemical Society
- Angewandte Chemie International Edition
- Nano Letters
- ACS Catalysis
- Chemical Communications
- Macromolecules
- Organic Letters
- Journal of Organic Chemistry

- Organic Chemistry Frontiers
- Chemistry — A European Journal
- Supramolecular Chemistry
- Organic Materials
- RSC Advances
- Current Opinion in Structural Biology
- Particle & Particle Systems Characterization
- Physical Chemistry Chemical Physics
- Journal of Chemical Education
- Scientific Reports
- Chemical Physics
- ChemPhotoChem
- ACS Omega
- Chemistry Open
- Research on Chemical Intermediates
- Journal of Nanoelectronics and Optoelectronics

Grant Reviewer

- NIH Synthetic and Biological Chemistry A Study Section
- Repeat NSF Panel Member and Ad-hoc Reviewer
- Ad-hoc Reviewer for the U.S. Army Research Office
- Ad-hoc Reviewer for the Department of Energy
- Repeat Ad-hoc Reviewer for the American Chemical Society Petroleum Research Fund
- Ad-hoc Reviewer for the Branco-Weiss Foundation, ETH Zurich, Switzerland
- Ad-hoc Reviewer for the Foundation for Frontier Research in Chemistry, France

Textbook Reviewer

- Organic Chemistry Textbook Reviewer for Pearson Education, *Inc.*

Service at Purdue University

- Member, PharmD Admissions Committee, College of Pharmacy (Sept. 2022 – Present)
- Member, IPPH Faculty Search Committee: Assistant/Associate/Professor Pharmaceutical Biotechnology (Sept. 2022 – March 2023)
- Member, Jenkin-Knevel Research Awards Review Committee, College of Pharmacy (Fall 2022, Fall 2023)

Service at the University of Vermont

- Member, Graduate Standards Committee, Department of Chemistry (Aug 2014 – Aug 2017)
- Member, Safety Committee, Department of Chemistry (Aug 2014 – Aug 2017)
- Member, Academic Planning Committee, Department of Chemistry (Sept 2016 – Nov 2016)
- Member, Graduate Admissions Committee, Department of Chemistry (Jan 2017 – Aug 2017)
- Chair, Publicity Committee, Department of Chemistry (Sept 2017 – Aug 2019)
- Member, Undergraduate Affairs Committee, Department of Chemistry (Sept 2019 – Aug 2021)
- Member, Graduate Affairs Committee, Department of Chemistry (Sept 2017 – Present)
- Member, Instrumentation, Safety, & Space Committee, Department of Chemistry (Sept 2021 – Aug 2022)
- Elected Faculty Senator for the Department of Chemistry (Sept 2017 – Aug. 2022)

- Director, Materials Science Graduate Program (June 2021 – Aug. 2022)

Scientific Outreach

- Organizer & Presenter, Molecular Code: From DNA to Drug Delivery, Imagination Station, Lafayette, IN (December 2023)
- Organizer & Presenter, Polymers at the Beach, Imagination Station, Lafayette, IN (May 2023)
- Organizer & Presenter, Polymers at the Beach, Imagination Station, Lafayette, IN (Jan 2023)
- Presenter, From Precision Polymers to mRNA Vaccines, Essex High School, Essex, VT (May 2022)
- Organizer & Presenter, Chemistry Fun, ECHO Center, Burlington, VT (March 2022)
- Mentored Two Local High School Students in Computational Research (Oct. 2020 – April 2021)
- Organizer & Presenter, From Polymers to a Coronavirus, Essex High School, Essex, VT (Mar 2020)
- Organizer & Presenter, Chemistry Fun, ECHO Center, Burlington, VT (Aug 2019)
- Organizer & Presenter, Chemistry Fun, ECHO Center, Burlington, VT (April 2018)
- Organizer & Presenter, Chemistry Fun, ECHO Center, Burlington, VT (Oct 2016), Shown [on NBC5 Presented](#) the Group's Findings to the Brazilian Internet TV Channel Nano Alerta (Jan 2016)
- Mentored a Team of Local High School Students to Investigate Bioplastics (Nov 2015 – Mar 2016)
- Organizer & Presenter, ACS National Chemistry Week, ECHO Center, Burlington, VT (Oct 2015)
- Lecturer, French American Science Festival, Chicago, IL (Oct 2011 and Oct 2012)
- Peer Advisor, Columbia University International Office, New York, NY (Summer 2008)
- Lecturer, Columbia University Girls Science Day, New York, NY (Nov 2007)

Panelist

- Formulation and Delivery Congress, San Diego, CA (October 2023). Oral Delivery of Biologics.
- DEPSCoR DoD Day, Northeastern Regional Meeting, Kingston, RI (Sept. 2019)

Conference Leadership

- Co-organizer, Virtual Seminar Series on Multiscale Modeling for Biotherapeutics, sponsored by the Biomolecular Interaction Technologies Center (BITC) and Schrödinger, *Inc.* (Sept. 2020 – Feb. 2021)
- Session Chair, “Responsive Nanostructures & Nanocomposites” Symposium, 251st ACS National Meeting, San Diego, CA (March 2016)
- Discussion Leader, Physical Organic Chemistry Gordon Research Seminar, Holderness, NH. “Novel Functional Materials and Supramolecular Chemistry,” (June 2013)
- Discussion Leader, Self-Assembly and Supramolecular Chemistry Gordon Research Seminar, Les Diablerets, Switzerland. “Small Molecule & Macromolecular Self-Assembly,” (May 2013)

LANGUAGES

- German (native)
- English (fluent in reading, writing and speaking)
- French (fluent in reading, writing and speaking)
- Mandarin (basic speaking)
- Latin (reading)

PROFESSIONAL AFFILIATIONS

- Member, Purdue University Interdisciplinary Life Science Program (2022–Present)
- Member, American Association of Pharmaceutical Scientists (2022–Present)
- Member, Controlled Release Society (2022–Present)
- Adjunct Associate Professor, Department of Pathology, University of Vermont Larner College of Medicine (2022–Present)
- Appointed Member, University of Vermont Cancer Center (2019–Present)
- Appointed Member, Northern New England Clinical & Translational Res. Network (2019–Present)
- Appointed Member, Cellular and Molecular Biology Program, University of Vermont (2019–Present)
- Appointed Affiliate, Gund Institute for the Environment, University of Vermont (2019–Present)
- Member, American Chemical Society (2010–Present)
- Member, Chicago Council on Science and Technology (2011–2014)
- Member, New York Academy of Sciences (2006–2011)
- Appointed Member of the Swiss Study Foundation (2003–2011)

MENTORED STUDENTS AND POSTDOCTORAL FELLOWS

Postdoctoral Fellows

Dr. Xiaoxi Liu <i>Placement: Research Fellow at Harvard's Dana-Farber Cancer Institute, Boston, MA</i>	2014 – 2015
Dr. Sinu C. Rajappan <i>Placement: Postdoctoral Fellow at USM, Hattiesburg, MS</i>	2018 – 2020
Dr. Beijun Cheng <i>Placement: Assistant Professor at Qilu University of Technology, People's Republic of China</i>	2018 – 2020
Dr. Mona Sharafi <i>Placement: NIH T32 Postdoctoral Fellow at Harvard's Dana-Farber Cancer Institute, Boston, MA</i>	2019 – 2021
Dr. Kyle Colston	2023 – Present
Dr. Ke Xu	2023 – Present

Graduate Research Advisees

Dr. Joseph P. Campbell (Graduate Teaching Award Recipient) <i>Placement: Scientist at Integrity Industrial Ink Jet Integration, LLC, Lebanon, NH</i>	2014 – 2019 / PhD
Dr. Mona Sharafi (Graduate Research Award and Best Thesis of the Year Recipient) <i>Placement: NIH T32 Postdoctoral Fellow at Harvard's Dana-Farber Cancer Institute, Boston, MA</i>	2014 – 2019 / PhD
Dr. Kyle E. Murphy (Chemistry Graduate Teaching Award Recipient) <i>Placement: Research and Teaching Fellow, UNC Asheville, Asheville, NC</i>	2014 – 2019 / PhD
Dr. Jessica L. Bocanegra (President's Outstanding Teaching Award Recipient) <i>Placement: Lecturer, Emmanuel College, Boston, MA</i>	2015 – 2020 / PhD
Lizhen Chen <i>Placement: Researcher working on Belt & Road Projects, People's Republic of China</i>	2015 – 2016 / MS
Dr. Kyle T. McKay <i>Placement: Research Scientist at Johnson & Johnson, Inc., Philadelphia, PA</i>	2016 – 2021 / PhD
Dr. Dillon R. McCarthy <i>Placement: Postdoctoral Fellow at Johnson & Johnson, Inc., Philadelphia, PA</i>	2016 – 2022 / PhD

Regina Visconti (Rotation PhD Student, CMB Program)	Fall 2019
Olav Vestrheim (Chemistry PhD Student)	2019 – Present
Nicholas Hamilton	2019 – Present
Mica Schenkelberg (Chemistry PhD Student)	2021 – Present
Daijing Nie (IPPH PhD Student)	2022 – Present
Martha Scannell (Rotation PhD Student, CMB Program)	Spring 2022
Kyle Faivre (Chemistry PhD Student)	2022 – Present
Anthony Mena (Chemistry PhD Student)	2022 – Present
Qingshi Chen (PULSe Rotation Student)	Fall 2023

Post Baccalaureate Research Advisees

Shea Bellino	Spring & Summer 2019
<i>Placement: Medical Student, Robert Larner, M.D. College of Medicine, University of Vermont</i>	
Nils Balegamire (Research Technician)	2022 – 2023
Spencer B. Gregar-Skillman (PharmD Student Researcher)	2022 – Present
Long Vuving (PharmD Student Researcher)	2022 – Present

Undergraduate Research Advisees

Zackariah E. Weinert (UVM Mini-Grant Recipient)	2014 – 2016 / BS
<i>Placement: Chemist at Arkema Chemical Company, Exton, PA</i>	
Alexander Olson (UVM SURF Award Recipient)	2015 – 2017 / BS
<i>Placement: Research Technician at the Scripps Research Institute, La Jolla, CA</i>	
Ian M. Cohen	2015 – 2017 / BS
<i>Placement: QC Specialist at Haemtech Biopharma Services, Essex Junction, VT</i>	
Tyler J. Jaynes (Summer Research Fellowship Recipient)	2015 – 2018 / BS (Hons)
<i>Placement: Chemistry PhD Student at Northwestern University, Evanston, IL</i>	
Katharine Hoi-Yan Chau	2016 – 2019 / B.S.
<i>Placement: Lab Technician at the UVM Medical Center, Burlington, VT</i>	
Natavan Dudkina (Public Impact Award Recipient)	2017 – 2018 / BS (Hons)
<i>Placement: Chemistry PhD Student at Yale University, New Haven, CT</i>	
Reilly Osadchey Brown (SURF Award Recipient)	2018 – 2020 / BS (Hons)
<i>Placement: Chemistry PhD Student at Boston University, Boston, MA</i>	
Kassondra Little (Biochemistry Research Fellowship Recipient)	2018 – 2020 / BS (Hons)
<i>Placement: Medical Student, Robert Larner, M.D. College of Medicine, University of Vermont</i>	
Ona Ambrozaite (Woodworth and Thanassi Award Recipient)	2019 – 2020 / BS
<i>Placement: Chemistry PhD Student at Johns Hopkins University, Baltimore, MD</i>	
Richard Abbott (Chem Scholar and Chemistry Summer Research Fellowship Recipient)	2019 – 2022
Qingsheng Dai (Chemistry Summer Research Fellowship Recipient)	2020 – 2022
Mirabella Vulikh (UVM Summer Research Fellowship Award Recipient)	2021 – 2022

Nils Balemire (UVM Chemistry Summer Research Fellowship Recipient)	2021 – 2022
Huiming Liang (Visiting Summer Researcher from Middlebury College) <i>Placement: Chemistry PhD Student at MIT, Boston, MA</i>	Summer 2021
Patrick T. Van Gheem (Chemistry Undergraduate Researcher)	2022 – Present
Holly E. Bohlin (Chemistry Undergraduate Researcher)	2022 – Present
Daniel W. Zou (Chemistry Undergraduate Researcher)	2022 – Present
Beiyun Wang (BSPS Undergraduate Researcher)	2023 – Present
Mia C. May (Chemistry Undergraduate Researcher)	2023 – Present

High School Research Advisees

Finley Killeen (Science Fair Research Project on Bioplastics) <i>Placement: Undergraduate Student in Product Design, Drexel University, Philadelphia, PA</i>	2015 – 2016
Brandon Lee (Science Fair Research Project on Bioplastics) <i>Placement: Undergraduate Student in Electrical Engineering, University of Vermont, Burlington, VT</i>	2015 – 2016
Jason A. Hanna (Computational Research due to COVID-19 Restrictions)	Summer & Fall 2020
Mason Cutler (Computational Research due to COVID-19 Restrictions)	2020 – 2021