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EDUCATION

2003 PhD, Chemistry Dartmouth College, Hanover, NH
1998 B.S., Chemistry, Polymer Science concentration Peking University, Beijing, P.R. China

EMPLOYMENT HISTORY

William W. Tison Distinguished Professor 2023- present
Department of Chemistry, Louisiana State University, Baton Rouge, LA
Professor 2018- 2022
Department of Chemistry, Louisiana State University, Baton Rouge, LA
Associate Professor 2013- 2018
Department of Chemistry, Louisiana State University, Baton Rouge, LA
Assistant Professor 2007- 2013
Department of Chemistry, Louisiana State University, Baton Rouge, LA
Research Assistant Professor, Department of Chemistry and Biochemistry 2005-2007
New Mexico State University, Las Cruces, NM
Postdoctoral Associate, Department of Chemistry 2003-2005
University of Minnesota, Minneapolis, MN

PROFESSIONAL RECOGNITION

HONORS AND AWARDS

2019 Editorial advisory board member for *Biomacromolecules*
2016 LSU Mid-Career Scholar Rainmaker Award
2013 Phi Kappa Phi Non-Tenured Faculty Award
2012 LSU College of Basic Sciences Faculty Research Award
2012 Travel Grant for Emerging Faculty (co-sponsored by the Louisiana Board of Regents and National Science Foundation)
2010 National Science Foundation CAREER Award
2009 Ralph E. Powe Junior Faculty Enhancement Award
2008 Grant Recipient for LSU Council on Research Summer Stipend

PROFESSIONAL AFFILIATIONS

2000 – Present Member of the American Chemical Society (ACS)
2007– Present Member, Iota Sigma Pi Chlorine Chapter, National Honor Society for Women in Chemistry
2008– Present Member of Chinese-American Chemistry & Chemical Biology Professor Association (CAPA)
2010– Present Board member of Applied Polymer Technology Extension Consortium (APTEC)

EDITORIAL COMMITTEES

2015– 2020 Editorial board member for *Scientific Reports*

PEER-REVIEWED BOOK CHAPTERS (from independent research at LSU as PI)Research ID: C-3629-2012; ORCID: [0000-0003-0779-6438](https://orcid.org/0000-0003-0779-6438)

1. Siefker, D.; Zhang, D.* Ring-Opening Polymerization of *N*-Carboxyanhydrides using Organic Initiators or Catalysts. *Organic Catalysis for Polymerization*. Ed. Andrew Dove, Haritz Sardon and Stefan Naumann **2019**, Chapter 9, 367-405. -Invited contribution.
2. Chan, B. A.; Xuan, S.; Li, A.; Simpson, J. M.; Zhang, D.* Polypeptoid Polymers: Synthesis, Characterization and Properties. *Synthesis and Characterization of Biorelated Polymers for Biomedical Applications*. Ed. Carmen Scholz. **2017**, Chapter 4, 77-122. -Invited contribution.
3. Guo, L.; Zhang, D.* Synthesis and Characterization of Helix-Coil Block Copoly(α -peptoid)s. *ACS Symposium Series on Non-conventional Functional Block Copolymers*. **2011**, Ch. 6, 71-79. -Invited contribution.

PEER-REVIEWED JOURNAL PUBLICATIONS (from independent research at LSU as PI)

1. Jiang, N.*; Yu, T.; Zhang, M.; Barrett, B. N.; Sun, H.; Wang, J.; Luo, Y.; Sternhagen, G. L.; Xuan, S.; Yuan, G.; Kelley, E.; Qian, S.; Bonnesen, P.; Hong, K.; Li, D.; Zhang, D.* Effect of Micellar Morphology on the Temperature-Induced Structural Evolution of ABC Polypeptoid Triblock Terpolymers into Two-Compartment Hydrogel Network. *Macromolecules* **2024**, *57*, 6449-6464.
2. An, Y.*; Gao, T.; Wang, T.; Zhang, D.; Bharti, B.; Effects of Charge Asymmetry on the Liquid-Liquid Phase Separation of Polyampholytes and their Condensate Properties. *Soft Matter* **2024**, *20*, 6150.
3. Zhang, M.; Liu, Y.; Zuo X.; Qian, S.; Pingali, S. V.; Gillilan, R. E.; Huang, Q.; Zhang, D.* pH-Dependent Solution Micellar Structure of Amphoteric Polypeptoid Block Copolymers with Positionally Controlled Ionizable Sites. *Biomacromolecules* **2023**, *24*, 3700-3715.
4. Barrett, B. N.; Tung, C.-H.; Huang, G. -R.; Hossain, I.; Do, C. -W.; John, V. T.; Chen, W. -R.*; Zhang, D.* Modulating Water Distribution and the Intra-micellar Assembly of Sequence-Defined Ionic Peptoid Block Copolymers by Ionic Monomer Position. *Macromolecules* **2023**, *56*, 5306-5313.
5. Huberty, W.*; Cueto, R. Zhang, D. Russo, P. S. Solution Characterization of PEG-L, a Water-Soluble, Non-Ionic, Helical Polypeptide. *Macromolecules* **2023**, *56*, 3517-3526.
6. Yu, T.; Zhang, M.; Omarova, M.; Hossain, I.; Chen, J.; Darvish, O; John, V. T.*; Zhang, D.* Uncovering the Optimal Molecular Characteristics of Hydrophobe-Containing Polypeptoids to Induce Liposome or Cell Membrane Fragmentation. *Biomacromolecules* **2023**, *24*, 1511-1521.
7. Al Harraq, A.; Brahana, P.; Arcemont, O.; Zhang, D.; Valsaraj, K.; Bharti, B.* Effects of Weathering on Microplastic Dispersibility and Pollutant Uptake Capacity. *ACS Environ. Au* **2022**, *2*, 549-555.
8. Wang, Q.; Kang, L.; Xu, X.; Zhang, M.; Chao, A.; Chen, J.; Han, Z.; Yu, H.; Li, R.; Zhao, Y.; Zhang, D.*; Jiang, N.* Multiscale Crystalline Structure of Confined Polypeptoid Films: The Effect of Alkyl Side Chain Branching. *ACS Macro Lett.* **2022**, *11*, 1060-1066.
9. Tsai, E. H.; Gallage, H. K.; Tong, X.; Du, P.; Novak, B. R.; David, R.; Rick, S. W.; Zhang, D.; Kumar, R.* Unraveling the Role of Charge Patterning in the Micellar Structure of Sequence-Defined Amphiphilic Peptoid Oligomers by Molecular Dynamics Simulations. *Macromolecules* **2022**, *55*, 5197-5212.
10. Siefker, D.; Chan, B. A.; Nho, J. -W.; Zhang, M.; Zhang, D.* 1,1,3,3-Tetramethylguanidine-Mediated Zwitterionic Ring-Opening Polymerization of Sarcosine-Derived *N*-Thiocarboxyanhydride (NTA) towards Well-defined Polysarcosine. *Macromolecules* **2022**, *55*, 2509-2516.

11. Jiang, N.;* Zhang, D.* Solution Self-Assembly of Coil-Crystalline Diblock Copolypeptoids Bearing Alkyl Side Chains. *Polymers* **2021**, *13*, 3131.
12. Kang, L.; Chao, A.; Zhang, M.; Yu, T.; Wang, J.; Yu, H.; Jiang, N.;* Zhang, D.* Modulating the Molecular Geometry and Solution Self-Assembly of Amphiphilic Polypeptoid Block Copolymers by Side Chain Branching Pattern. *J. Am. Chem. Soc.* **2021**, *143*, 5890-5902.
13. Barrett, B. N.; Sternhagen, G. L.; Zhang, D.* Controlled Ring-Opening Polymerization of *N*-(3-*tert*-Butoxy-3-oxopropyl) Glycine Derived *N*-Carboxyanhydrides towards Well-defined Peptoid-based Polyacids. *Polym. Chem.* **2021**, *12*, 1540-1548.
14. Omarova, M.; Zhang, Y.; Mkam Tsengam, I. K.; He, J.; Yu, T.; Zhang, D.*; John, V.* Hydrophobe Containing Polypeptoids Complex with Lipids and Induce Fusogenesis of Lipid Vesicles. *J. Phys. Chem. B* **2021**, *125*, 3145-3152.
15. Jiang, N.;* Chen, J.; Yu, T.; Chao, A.; Kang, L.; Wu, Y.; Niu, K.; Li, R.; Fukuto, M; Zhang, D.* Cyclic Topology Enhancing Structural Ordering and Stability of Comb-shaped Polypeptoid Thin Films against Melt-Induced Dewetting. *Macromolecules* **2020**, *53*, 7601-7612.
16. Panchal, A.; Rahman, N.; Konnova, S.; Fakhrullin, R.; Zhang, D.; Blake, D.; John, V.; Ivanov, E.; Lvov, Y.* Clay Nanotube Liquid Marbles Enhanced with Inner Biofilm Formation for the Encapsulation and Storage of Bacteria at Room Temperature. *ACS Appl. Nano Mater.* **2020**, *3*, 1263-1271.
17. Farinmade, A.; Ojo, O. F.; Trout, J.; He, J.; John, V.*; Blake, D. A.; Lvov, Y. M.; Zhang, D.; Nguyen, D.; Bose, A. Targeted and Stimulus-Responsive Delivery of Surfactant to the Oil–Water Interface for Applications in Oil Spill Remediation. *ACS Appl. Mater. Interfaces* **2020**, *12*, 1840-1849.
18. Jiang, N.*; Yu, T.; Darvish, O. A.; Qian, S.; Mkam-Tsengam, I. K.; John, V.; Zhang, D.* Crystallization-Driven Self-Assembly of Coil-Comb Shaped Polypeptoid Block Copolymers: Solution Morphology and Self-Assembly Pathways. *Macromolecules* **2019**, *52*, 8867-8877. -Featured on [*ORNL website*](#)
19. Lu, L.; Lahasky, S.H.; McCandless, G.; Zhang, D.*; Garno, J. C.* Thermoresponsive Behavior of Polypeptoid Nanostructures Investigated with Heated Atomic Force Microscopy: Implications towards the Development of Smart Coatings for Surface-Based Sensors. *ACS Appl. Nano Mater.* **2019**, *12*, 7617-7625.
20. Zhang, Y.; Heidari, Z.; Su, Y.; Yu, T.; Xuan, S.; Omarova, M.; Aydin, Y.; Dash, S.; Zhang, D.*; John, V.* Amphiphilic Polypeptoids Rupture Vesicle Bilayers to Form Peptoid-Lipid Fragments Effective in Enhancing Hydrophobic Drug Delivery. *Langmuir* **2019**, *35*, 15335-15343.
21. Yu, T.; Swientoniewski, L.; Omarova, M.; Li, M.-C.; Negulescu, I.; Jiang, N.; Darvish, O. A.; Panchal, A.; Blake, D.; Wu, Q.; Lvov, Y.; John, V.; Zhang, D.* Investigation of Amphiphilic Polypeptoid-Functionalized Halloysite Nanotubes as Emulsion Stabilizers for Oil Spill Remediation. *ACS Appl. Mater. Interfaces* **2019**, *11*, 27944-27953.
22. Ojo, O.; Farinmade, A.; Trout, J.; Omarova, M.; He, J.; John, V.*; Blake, D.; Lvov, Y.; Zhang, D.; Nguyen, D.; Bose, A. Stoppers and Skins on Clay Nanotubes help Stabilize Oil-in-Water Emulsions and Modulate the Release of Encapsulated Surfactants. *ACS Appl. Nano Mater.* **2019**, *2*, 3490-3500.
23. Chao, A.; Zhang, D.* Investigation of Secondary Amine-Derived Aminal Bond Exchange toward the Development of Covalent Adaptable Networks. *Macromolecules* **2019**, *52*, 495-503.
24. Siefker, D.; Williams, A. Z.; Stanley, G. G.; Zhang, D.* Organic Acid Promoted Controlled Ring-Opening Polymerization of α -Amino Acid-Derived *N*-thiocarboxyanhydrides (NTAs) towards Well-defined Polypeptides. *ACS Macro Lett.* **2018**, *7*, 1272-1277.

25. Omarova, M.; Swientoniewski, L.; Mkam-Tsengam, I. K.; Panchal, A.; Yu, T.; Blake, D.; Lvov, Y.; Zhang, D.; John, V.* Engineered clays as sustainable oil dispersants in the presence of model hydrocarbon degrading bacteria: the role of bacterial sequestration and biofilm formation. *ACS Sustain. Chem. Eng.* **2018**, *6*, 14143-14153.
26. Sternhagen, G. L.; Gupta, S.; Zhang, Y.; John, V.*; Schneider, G. J.*; Zhang, D.* Solution Self-Assemblies of Sequence-Defined Ionic Peptoid Block Copolymer. *J. Am. Chem. Soc.* **2018**, *140*, 4100-4109. - Featured on [DOE website](#), [newswise.com](#), and [nanowerk.com](#)
27. Chan, B. A.; Xuan, S.; Li, A.; Simpson, J. M.; Sternhagen, G. L.; Yu, T.; Darvish, O. A.; Jiang, N. Zhang, D.* Polypeptoid Polymers: Synthesis, Characterization and Properties. *Biopolymers* **2018**, *109*, e23070. -Invited review.
28. Panchal, A.; Swientoniewski, L. T.; Omarova, M.; Yu, T.; Zhang, D.; Blake, D. A.; Lvov, Y. M.*; John, V.* Bacterial Proliferation on Clay Nanotube Pickering Emulsions for Oil Spill Bioremediation. *Colloids Surf B Biointerfaces* **2018**, *164*, 27-33.
29. Cao, J.; Siefker, D.; Chan, B. A.; Yu, T.; Lu, L.; Saputra, M.; Fronczek, F.; Xie, W. and Zhang, D.* Interfacial Ring-Opening Polymerization of Amino-Acid-Derived *N*-Thiocarboxyanhydrides towards Well-defined Polypeptides. *ACS Macro Lett.* **2017**, *6*, 836-840.
30. Zhu, L.; Simpson, J. M.; Xu, X.; He, H. Zhang, D.*; Yin, L.* Cationic Polypeptoids with Optimized Molecular Characteristics towards Efficient Non-Viral Gene Delivery. *ACS Appl. Mater. Interfaces* **2017**, *9*, 23476-23486.
31. Du, P.; Li, A.; Li, X.; Zhang, Y.; Do, C.; He, L.; Rick, S.; John, V. J.; Kumar, R.* and Zhang, D.* Aggregation of Cyclic Polypeptoids bearing Zwitterionic End-groups with Attractive Dipole-Dipole and Solvophobic Interactions: A Study by Small-Angle Neutron Scattering and Molecular Dynamics Simulation. *Phys. Chem. Chem. Phys.* **2017**, *19*, 14388-14400.
32. Ma, J.; Xuan, S.; Guerin, A.; Zhang, D. and Kuroda, D. G.* Unusual Molecular Mechanism behind the Thermal Response of Polypeptoids in Aqueous Solution. *Phys. Chem. Chem. Phys.* **2017**, *19*, 10878-10888.
33. Zhang, Y.; Xuan, S.; Owoseni, O.; Omarova, M.; Li, X.; Saito, M.; He, J.; McPherson, G.; Raghavan, S.; Zhang, D. *; John, V.* Amphiphilic Polypeptoids Serve as the Connective Glue to Transform Liposomes into Multilamellar Structures with Closely Spaced Bilayers. *Langmuir* **2017**, *33*, 2780-2789.
34. Xuan, S.; Gupta, S.; Li, X.; Bleuel, M.; Schneider, G. J.* and Zhang, D.* Synthesis and Characterization of Well-defined PEGylated Polypeptoids as Protein-resistant Polymers. *Biomacromolecules* **2017**, *18*, 951-964.
35. Arai, K.; Sagawa, N.; Shikata, T.*; Sternhagen, G. L.; Li, X.; Guo, L.; Do, C.; Zhang, D. Pronounced Dielectric and Hydration/Dehydration Behaviors of Monopolar Poly(*N*-alkyl glycine)s in Aqueous Solution. *J. Phys. Chem. B.* **2016**, *120*, 9978-9986.
36. Chao, A.; Negulescu, I. Zhang, D.* Dynamic Covalent Polymer Networks based on Degenerative Imine Bond Exchange: Tuning the Malleability and Self-Healing Properties by Solvent. *Macromolecules* **2016**, *49*, 6277-6284.
37. Chan, B. A.; Xuan, S.; Horton, M.; Zhang, D.* 1,1,3,3-Tetramethylguanidine-Promoted Ring-Opening Polymerization of *N*-Butyl *N*-carboxyanhydride using Alcohol Initiators. *Macromolecules* **2016**, *49*, 2002-2012.
38. Li, A.; Zhang, D.* Synthesis and Characterization of Cleavable Core-Crosslinked Micelles based on Amphiphilic Block Copolypeptoids as Smart Drug Carriers. *Biomacromolecules* **2016**, *17*, 852-861.

39. Li, A.; Lu, L.; Li, X.; He, L.; Do, C.; Garno, J. C.; Zhang, D.* Amidine-Mediated Zwitterionic Ring-Opening Polymerization of *N*-alkyl *N*-carboxyanhydrides: Mechanism, Kinetics and Architecture Elucidation. *Macromolecules* **2016**, *49*, 1163-1171.
40. Xuan, S.; Lee, C. -H.; Chen, C.; Doyle, A. B.; Zhang, Y.; Li, G.; John, V. T.; Hayes, D.; Zhang, D.* Thermoreversible and Injectable ABC Polypeptoid Hydrogels: Controlling the Hydrogel Properties through Molecular Design. *Chem. Mater.* **2016**, *28*, 727-737.
41. Lu, L.; Lahasky, S. H.; Zhang, D.; Garno, J. C.* Directed Growth of Polymer Nanorods using Surface-Initiated Ring-Opening Polymerization of *N*-Allyl *N*-Carboxyanhydride. *ACS Appl. Mater. Interfaces* **2016**, *8*, 4014-4022.
42. Lu, L.; Xu, S.; Zhang, D.; Garno, J. C. * Sample Stage Designed for Force Modulation Microscopy Using a Tip-mounted AFM Scanner. *Analyst* **2016**, *141*, 1753-1760.
43. Huberty, W.; Tong, X.; Balamurugan, S.; Deville, K.; Russo, P. S. ;* Zhang, D. "Colorful Polyelectrolytes: an Atom Transfer Radical Polymerization Route to Fluorescent Polystyrene Sulfonate." *J. Fluoresc.* **2016**, *26*, 609-615.
44. Cao, J.; Hu, P.; Lu, L.; Chan, B. A.; Luo, B.-H.; Zhang, D.* Non-Ionic Water-Soluble "Clickable" α -Helical Polypeptides: Synthesis, Characterization and Side Chain Modification. *Polym. Chem.* **2015**, *6*, 1226 - 1229.
45. Saner, C. K.; Lu, L.; Zhang, D.; Garno, J. C.* Chemical Approaches for Nanoscale Patterning based on Particle Lithography with Proteins and Organic Thin Films. *Nanotechnol. Rev.* **2015**, *4*, 129-143.
46. Reyes, F. T.; Guo, L.; Hedgepeth, J. W.; Zhang, D.; Kelland, M. A.* The First Investigation of Kinetic Hydrate Inhibitor Performance of Poly(*N*-alkyl glycine)s. *Energy & Fuels*, **2014**, *28*, 6889-6896.
47. Tang, H.*; Ling, Y.; Deng, Y.; Zhang, D.* Synthesis and Solid-State Self-Assembly of Poly(ethylene glycol)-*b*-poly(γ -benzyl-L-glutamate)s and Single-Walled Carbon Nanotubes. *J. Polym. Sci. A Polym. Chem.* **2014**, *52*, 1905-1915. - Cover feature
48. Lahasky, S. H.; Lu, L.; Huberty, W. A.; Cao, J.; Guo, L.; Garno, J. C.; Zhang, D.* Synthesis and Characterization of Thermo-responsive Polypeptoid Bottlebrushes. *Polym. Chem.* **2014**, *5*, 1418-1426.
49. Lee, C. -H.; Li, A.; Ghale, K.; Zhang, D.* Crystallization and Melting Behaviors of Cyclic and Linear Polypeptoids with Alkyl Side Chains. *Macromolecules* **2013**, *46*, 8213-8223.
50. Tang, H.*; Zhang, D.* Solid State Self-Assembly of Single-Walled Carbon Nanotubes and Poly(γ -benzyl-L-glutamate)s with Different Conformations. *J. Polym. Sci. A Polym. Chem.* **2013**, *51*, 4489-4497. - Cover feature
51. Lee, C. -H.; Lu, L.; Chen, J.; Garno, J. C.; Zhang, D.* Crystallization-Driven Thermo-Reversible Gelation of Coil-Crystalline Cyclic and Linear Diblock Copolypeptoids. *ACS Macro Lett.* **2013**, *2*, 436-440.
52. Zhang, D.*; Lahasky, S. H.; Guo, L.; Lee, C.-U.; Lavan, M. Polypeptoid Materials: Current Status and Future Perspectives. *Macromolecules* **2012**, *45*, 5833-6298. -Invited Perspective article, cover feature.
53. Guo, L.; Lahasky, S. H.; Ghale, K.; Zhang, D.* *N*-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of *N*-substituted *N*-carboxyanhydrides towards Poly(α -peptoid)s: Kinetic, Mechanism and Architectural Control. *J. Am. Chem. Soc.* **2012**, *134*, 9163-9171.
54. Lahasky, S. H.; Hu, X.; Zhang, D.* Thermo-Responsive Poly(α -peptoid)s: Tuning the Cloud Point Temperatures by Composition and Architecture. *ACS Macro Lett.* **2012**, *1*, 580-584.

55. Lee, C.-U.; Smart, T. P.; Guo, L.; Epps, T. H., III; Zhang, D.* Synthesis and Characterization of Amphiphilic Cyclic Diblock Copolypeptoids from *N*-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of *N*-Substituted *N*-Carboxyanhydride. *Macromolecules* **2011**, *44*, 9574-9585.
56. Lahasky, S. H.; Serem, W. K.; Guo, L.; Garno, J. C.; Zhang, D.* Synthesis and Characterization of Cyclic Brush-Like Polymers by *N*-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of *N*-Propargyl *N*-Carboxyanhydride and the Grafting-to Approach. *Macromolecules* **2011**, *44*, 9063-9074. -Featured in SYNFACTS.
57. Tang, H.; Lee, C.-U.; Zhang, D.* Thermoreversible Gelation of Helical Polypeptide/Single-Walled Carbon Nanotubes and their Solid-State Structures. *J. Polym. Sci. A Polym. Chem.* **2011**, *49*, 3228-3238.
58. Li, X.; Guo, L.; Casiano-Maldonado, M.; Zhang, D.; Westdemiotis, C.* Top-Down Multi-Dimensional Mass Spectrometry Methods for Synthetic Polymer Analysis. *Macromolecules* **2011**, *44*, 4555-4564. -Invited Perspective article, cover feature.
59. Tang, H.; Li, Y.; Lahasky, S. H.; Sheiko, S. S.; Zhang, D.* Core-Shell Molecular Bottlebrushes with Helical Polypeptide Backbone: Synthesis, Characterization and Solution Conformations. *Macromolecules* **2011**, *44*, 1491-1499.
60. Tang, H.; Zhang, D.* Multi-Functionalization of Helical Block Copoly(α -peptide)s with Orthogonal Chemistry. *Polym. Chem.* **2011**, *2*, 1542-1551. -Invited contribution for a special issue on polymer-bioconjugate. *Top 10 most accessed article in March 2011. Hot article featured in Polymer Chemistry blog.*
61. Guo, L.; Li, J.; Brown, Z.; Ghale, K.; Zhang, D.* Synthesis and Characterization of Cyclic and Linear Helical Poly(α -peptoid)s by *N*-Heterocyclic Carbene-Mediated Ring-Opening Polymerization of *N*-Substituted *N*-Carboxylanhydrides. *Pept. Sci.* **2011**, *96*, 596-603. -Invited contribution for a special issue on peptoids.
62. Tang, H.; Zhang, D.* General Route towards Side Chain-Functionalized α -Helical Polypeptides. *Biomacromolecules* **2010**, *11*, 1585-1592.
63. Tang, H.; Zhang, D.* Poly(α -benzyl-L-glutamate)-Functionalized Single-Walled Carbon Nanotubes. Synthesis, Characterization and Materials Properties. *J. Polym. Sci. A Polym. Chem.* **2010**, *48*, 2340-2350.
64. Guo, L.; Zhang, D.* Cyclic Poly(α -peptoid)s and Their Block Copolymers from *N*-Heterocyclic Carbene-Mediated Ring-Opening Polymerization of *N*-Substituted *N*-Carboxylanhydrides. *J. Am. Chem. Soc.* **2009**, *131*, 18072-18074.

PEER-REVIEWED JOURNAL PUBLICATIONS (from research before LSU appointment)

1. Talla, J. A.*; Zhang, D.; Curran, S.A. Electrical transport measurements of highly conductive nitrogen-doped multiwalled carbon nanotubes/poly(bisphenol A carbonate) composites. *J. Mater. Res.* **2011**, *26*, 2854-2859.
2. Liao, K.-S.; Talla, J.; Yambem, S.; Birx, D.; Chen, G.; Coldren, F.; Carroll, D.; Ci, L.; Ajayan, P.; Zhang, D.; Curran, S.* Formation of Highly Conductive Composite Coatings and their Applications to Broadband Antennas and Mechanical Transducers. *J. Mater. Res.* **2010**, *25*, 1741-1747.
3. Talla, J.*; Zhang, D.; Kandadai, M.; Avadhanula, A.; Curran, S. A Resonance Raman Study of Carboxyl Induced Defects in Single-Walled Carbon Nanotubes. *Physica B* **2010**, *405*, 4570-4573.
4. Talla, J.; Sampath, D.; Zhang, D.; Birx, D.; Carroll, D.; Curran, S. A.* Electrical Transport Measurements of Highly Conductive Carbon Nanotube / Poly(bisphenol A carbonate) Composite. *J. Appl. Phys.* **2009**, *105*, 073711.

5. Baesman, S. M.; Bullen, T. D.; Dewald, J.; Zhang, D.; Curran, S.; Islam, F. S.; Beveridge, T. J.; Oremland, R. S.* Formation of Tellurium Nanocrystals with Anaerobic Growth of Bacteria that use Te-Oxyanions as Respiratory Electron Acceptors. *Appl. Envir. Microbiol.* **2007**, *73*, 2135-2143.
6. Cech, J.; Kalbac, M.; Curran, S. A.; Zhang, D.; Dettlaff-Weglikowska, U.; Dunsch, L.; Yang, S.; Roth, S.* HRTEM and EELS Investigation of Functionalized Carbon Nanotubes. *Physica E: Low-Dimensional Systems & Nanostructures (Amsterdam, Neth.)* **2007**, *37*, 109-114.
7. Cech, J.; Curran, S. A.; Zhang, D.; Dewald, J. L.; Avadhanula, A.; Kandadai, M.; Roth, S.* Functionalization of Multi-Walled Carbon Nanotubes. Direct Proof of Sidewall Thiolation. *Phys. Status Solidi B: Basic Solid State Phys.* **2006**, *243*, 3221-3225.
8. Bourgeois, C. J.; Garratt, S. A.; Hughes, R. P.*; Larichev, R. B.; Smith, J. M.; Ward, A. J.; Willemsen, S.; Zhang, D.; DiPasquale, A. G.; Zakharov, L. N.; Rheingold, A. L. Synthesis and Structural Characterization of Perfluoroalkyl(fluoro)iridium(III) and Perfluoroalkyl(methyl)iridium(III) Compounds. *Organometallics* **2006**, *25*, 3474-3480.
9. Zhang, D.; Kandadai, M.; Cech, J.; Curran, S. A.; Roth, S.* Poly(L-Lactide) (PLLA) / Multi-Walled Carbon Nanotube (MWCNT) Composite: Characterization and Biocompatibility Evaluation. *J. Phys. Chem. B* **2006**, *110*, 12910-12915.
10. Curran, S. A.*; Zhang, D.; Wondmagegen, W. T.; Ellis, A. V.; Cech, J.; Roth, S.; Carroll, D. L. Dynamic Electrical Properties of Polymer-Carbon Nanotube Composites: Enhancement through Covalent Bonding. *J. Mater. Res.* **2006**, *21*, 1071-1077.
11. Curran, S. A.*; Cech, J.; Zhang, D.; Dewald, J. L.; Avadhanula, A.; Kandadai, M.; Roth, S. Thiolation of Carbon Nanotubes and Sidewall Functionalization. *J. Mater. Res.* **2006**, *21*, 1012-1018.
12. Curran, S. A.*; Zhang, D.; Dundigal, S.; Blau, W. Doping Properties of Polydithienylmethine: a Study on the Correlation between Polymer Chain Length, Spectroscopy and Transport. *J. Phys. Chem. B* **2006**, *110*, 3924-3929.
13. Curran, S. A.*; Zhang, D.; Wondmagegen, W. T.; Blau, W. Spectroscopic Studies of CSA-Doped Poly[C-hydroxyl-(4-N-dimethylamino)phenyl]dithienylmethine and Doping Effects on Ionic Conductivity. *Synth. Met.* **2006**, *156*, 482-487. (cover feature)
14. Garratt, S. A., Hughes, R. P.*; Kovacik, I., Ward, A. J., Willemsen, S., Zhang, D. Carbon-Fluorine Bond Activation Coupled with Carbon-Hydrogen Bond Formation to Iridium: Kinetics, Mechanism, and Diastereoselectivity. *J. Am Chem. Soc.* **2005**, *127*, 15585-15594.
15. Curran, S. A.*; Talla, J. A.; Zhang, D.; Carroll, D. L. Defect Induced Vibrational Response of MWCNT Using Resonance Raman Spectroscopy. *J. Mater. Res.* **2005**, *20*, 3368-3373.
16. Zhang, D.; Hillmyer, M. A.*; Tolman, W. B.* Catalytic Polymerization of a Cyclic Ester Derived from a "Cool" Natural Precursor. *Biomacromolecules* **2005**, *6*, 2091-2095.
17. Zhang, D.; Hillmyer, M. A.*; Tolman, W. B.* A New Synthetic Route to Poly[3-hydroxypropionic acid] (P[3-HP]): Ring-Opening Polymerization of 3-HP Macrocyclic Esters. *Macromolecules* **2004**, *37*, 8198-8200.
18. Zhang, D.; Xu, J.; Alcazar-Roman, L.; Greenman, L.; Cramer, C. J.; Hillmyer, M. A.*; Tolman, W. B.* Isotactic Polymers with Alternating Lactic Acid and Oxetane Subunits from the Endoentropic Polymerization of a 14-Membered Ring. *Macromolecules* **2004**, *37*, 5274-5281.
19. Hughes, R. P.*; Zhang, D.; Ward, A. J.; Zakharov, L. N.; Rheingold, A. L. Conformational Analysis and Assignments of Relative Stereocenter Configurations in Fluoroalkyl-Iridium Complexes Using $^{19}\text{F}\{^1\text{H}\}$ HOESY Experiments. Comparison with Solid-State X-ray Structural Results. *J. Am. Chem. Soc.* **2004**, *126*, 6169-6178.

20. Hughes, R. P.*; Zhang, D.; Zakharov, L. N.; Rheingold, A. L. Selective Protonation at a CF Bond in the Presence of an Iridium-Methyl Bond Gives Diastereoselective Carbon-Fluorine Bond Activation and Carbon-Carbon Bond Formation. A New Way to Carbon Stereocenters Bearing Fluorine Atoms. *Organometallics* **2002**, *21*, 4902-4904.
21. Hughes, R. P.*; Willemsen, S.; Williamson, A.; Zhang, D. Carbon-Fluorine Bond Hydrogenolysis in Perfluoroethyl-Iridium Complexes to Give HFC-134a Involves Heterolytic Activation of H₂. *Organometallics* **2002**, *21*, 3085-3087.
22. Hughes, R. P.*; Lindner, D.C.; Smith, J.M.; Zhang, D.; Incarvito, C.; Lam, K.-C.; Liable-Sands, L.M.; Sommer, R.; Rheingold, A.L. Water, water, everywhere. Synthesis and Structures of Perfluoroalkyl Rhodium and Iridium (III) Compounds Containing Water Ligands. *J. Chem. Soc., Dalton Trans.* **2001**, *15*, 2270-2278.
23. Hughes, R. P.*; Kovacic, I.; Lindner, D.C.; Smith, J.M.; Willemsen, S.; Zhang, D.; Guzei, I.A.; Rheingold, A.L. Unusual Reactivity of 'Proton Sponge' as a Hydride Donor to Transition Metals: Synthesis and Structural Characterization of Fluoroalkyl(hydrido) Complexes of Iridium(III) and Rhodium(III). *Organometallics* **2001**, *20*, 3190-3197.
24. Cao, W.*; Meng, Z.; Tao, Y.; Zhang, D.; Yang, B. Interaction of Sodium Dodecyl Sulfate with Polyelectrolyte Complexes Derived from Diazo Resin and Sulfonate-containing Polymers. *J. Polym. Sci., Part A: Polym. Chem.* **1999**, *37*, 2601-2606.

NON-PEER-REVIEWED PUBLICATIONS

CONFERENCE PROCEEDINGS (from independent research at LSU as PI)

(* denotes corresponding author; postdoctoral associates supervised by Zhang in blue; graduate students supervised by Zhang in red; undergraduate students in pink)

1. Zhang, D.* Synthesis and Properties of Polypeptoid Materials. *Polym. Prepr.* **2012**, *53*, 334.
2. Lahasky, S. H.; Zhang, D.* A Comparative Study of Cyclic and Linear Polypeptoids' Thermo-responsive Property. *Polym. Prepr.* **2012**, *53*, 3-4.
3. Guo, L.; Zhang, D.* Kinetic Study of *N*-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of *N*-Substituted *N*-Carboxyanhydride. *Polym. Prepr.* **2012**, *53*, 339-340.
4. Guo, L.; Lahasky, S. H.; Lee, C.-U.; Zhang, D.* Cyclic diblock copoly(α -peptoid)s: synthesis, characterization and materials development. *Polym. Prepr.* **2010**, *51*, 359-360.
5. Guo, L.; Zhang, D.* Living polymerization towards cyclic polypeptoids. *Polym. Prepr.* **2010**, *51*, 512-513.
6. Lahasky, S. H.; Guo, L.; Tang, H.; Zhang, D.* Macrocyclic polymer with "clickable" side-chains: synthesis, characterization and their potential utility towards Janus rings. *Polym. Prepr.* **2010**, *51*, 620-621.
7. Tang, H.; Zhang, D.* Synthesis and characterization of poly(α -benzyl-L-glutamate) functionalized single-walled carbon nanotubes. *Polym. Prepr.* **2010**, *51*, 571-572.

CONFERENCE PROCEEDINGS (from research before LSU appointment)

1. Kandadai, M. A.; Zhang, D.; Dewald, J.; Avadhanula, A.; Curran, S. A.* Tethering Carbon Nanotubes. AIP Conference Proceedings **2005**, 786 (Electronic Properties of Novel Nanostructures), 220-223.

2. Avadhanula, A.; Wondmagegen, W.; Kandadai, M.; Zhang, D.; Curran, S. A.* New Polymer Nanotube Design from Graft Polymerization. *AIP Conference Proceedings* **2005**, 786 (Electronic Properties of Novel Nanostructures), 224-227.

PATENT DISCLOSURES (from independent research at LSU as PI)

1. Omarova, M., John, V., Zhang, D. "Methods for Making Multilamellar Vesicles" *US-2022-0257791 A1*
2. Zhang, D., John, V., Xuan, S., Zhang, Y. "Hydrophobically Modified Polypeptoids and Uses Thereof" *WO-2017-209805 A1* and *US-2021-11,123,433 B2*
3. Zhang, D., Cao, J.; Chan, B. A.; Siefker, D. "Methods of Making Polypeptides" *US-2019-10,519,278*
4. Zhang, D., Lahasky, S. H.; Darvish, O.; Sternhagen, G. "Polypeptoid Bottlebrush Copolymer Solutions as Thermal History Sensors." Internal Tracking # LSU-2016-054
5. Zhang, D.; Guo, L.; Lahasky, S. H.; Lee, C.-H. "Synthesis of Cyclic and Linear Polypeptoids." Internal Tracking # 1305-Zhang

PATENTS (from research before LSU appointment)

6. Zhang, D.; Hillmyer, M. A.; Tolman, W. B. "Polymer Synthesis from Macrocycles." *US-2007-0083019-A1*.

INVITED PRESENTATIONS (from independent research at LSU as PI)

1. A Journey into the World of Peptoid Polymers: Synthesis, Self-Assembly and Materials Properties. Department of Chemistry and Biochemistry, Nicholl State University, Thibodaux, LA (10/2024).
2. Investigating Chain Collapse and Compaction in Polypeptoid Copolymers: Implications for the FoldCat Hypothesis. *Biophysical Origin of Life from the Peptide/RNA Perspective Workshop*, Stony Brook, NY (10/2024).
3. Directing Aqueous Peptoid Micellar Assembly by Charge Patterns. *12th Peptoid Summit*, Berkeley, CA (08/2024).
4. Covalent Adaptable Networks Comprised of Dynamic Carbon-Nitrogen Bonds. Adaptive Materials from Dynamic Polymer Networks and Composites Symposium. *American Chemical Society National Meeting*, New Orleans, LA (03/2024).
5. Solution and Interfacial Assembly of Comb-Shaped Polypeptoid Block or Random Copolymers. Polymers That Are Non-Linear Symposium. *American Chemical Society National Meeting*, New Orleans, LA (03/2024).
6. Customizing Ionic Sequence-Defined Peptoid Micelles by Charge Patterns. Advances in Polymer Materials for Biotechnology symposium. *American Chemical Society National Meeting*, New Orleans, LA (03/2024).
7. Understanding the Roles of Charge Patterns in Aqueous Peptoid Polymer Assemblies. 9th International Conference on Bio-inspiration and Biobased Approach (N.I.C.E Conference), Nice, France (12/2023).
8. Using the Charge Patterning to Modulate the Solution Self-assembly and Structure of Sequence-Defined Peptoid Polymers. Biorelated Polymers in honor of Dr. Ray Ottenbrite. *American Chemical Society National Meeting*, San Francisco, CA (08/2023).

9. Understanding the Role of Charge Pattern in Solution Assemblies of Amphiphilic Peptoid Block Copolymers with Controlled Ionization Site. 1st International Symposium of Precision Polymer Chemistry for Functional Materials (11/2022). – *virtual meeting* – *Keynote Speaker*
10. Polypeptoid Polymers: Synthesis, Characterization and Materials Properties. *14th International Symposium on Ionic Polymerization (IP'22)*, Ghent, Belgium (09/2022). – *Keynote Speaker*
11. Understanding and Controlling the Solution Aggregation of Polypeptoid Block Copolymers. *2022 American Conference of Neutron Scattering*, Boulder, CO (06/2022).
12. Understanding the Roles of Charge Patterning on the Solution Structure of Sequence-defined Amphiphilic Peptoid Oligomers. Oak Ridge National Laboratory Neutron Advisory Board Meeting (09/2021). – *virtual meeting*
13. A Journey into the World of Peptoid Polymers: Synthesis, Self-Assembly and Materials Properties. Department of Chemistry and Biochemistry, Northern Illinois University, DeKalb, Illinois (04/2021). – *virtual seminar*
14. Solution Self-Assembly of Polypeptoid Block Copolymers into 1D, 2D and 3D Nanostructures. *Online Peptoid Symposia 2020/21* (12/2020). – *virtual symposium*
15. A Journey into the World of Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry and Physics, Prairie View A&M University, Prairie View, Texas (11/2020). – *virtual seminar*
16. Synthesis and Solution Self-Assembly of Sequence-Defined Ionic Peptoid Block Copolymers. *The 16th Pacific Polymer Conference*, Singapore (12/2019).
17. Fundamental Studies and Biomaterials Application of Peptoid Polymers. Polymeric Materials for Next Generation Sensing, Diagnostics and Therapy Symposium, *The 71st Southeastern Regional Meeting of the American Chemical Society*, Savannah, GA (10/2019). – *Plenary Speaker*
18. Sequence-Defined Biomimetic Polymers with Programmable Secondary Interactions and Conformation. *Intrinsically Disordered Protein Regions in the Context of Polymer Physics Workshop*, Oak Ridge National Laboratory, Oak Ridge, TN (09/2019).
19. Investigating the Role of Sequence-Defined Charges on the Solution Self-Assemblies of Discrete Amphiphilic Peptoid Oligomers. 2019 Biomacromolecules/Macromolecules Young Investigator Award Symposium. *American Chemical Society 258th National Meeting*, San Diego, CA (08/2019).
20. Enhanced Thermal Stability of Cyclic Polypeptoid Thin Films: The Role of Interfacially Adsorbed Chains. Unique and Complex Polymer Architectures Symposium. *American Chemical Society 258th National Meeting*, San Diego, CA (08/2019).
21. Moisture-Tolerant and Operationally Simple Synthesis of Polypeptides by Ring-Opening Polymerization of α -Amino Acid Derived *N*-Thiocarboxyanhydrides. Design, Synthesis and Engineering of Polypeptides for Biological and Biomedical Applications Symposium. *American Chemical Society 258th National Meeting*, San Diego, CA (08/2019).
22. Investigating the Effect of Sequence-Encoded Charges on the Solution Self-Assembly of Ionic Peptoid Diblock Oligomers, *GPC 2019: The Polymer and Biomacromolecular Applications and Characterization Conference*, New Orleans, LA (07/2019)
23. Investigating the Effect of Charge-Charge Interaction on the Solution Self-assembly of Sequence-defined Ionic Peptoid Block Copolymers. *2019 Neutron Scattering Users Meeting at Oak Ridge National Laboratory*, Oak Ridge, TN (06/2019).
24. A Journey into the World of Peptidomimetic Polymers: Synthesis, Characterization and Materials Applications. *Utrecht University*, Utrecht, Netherlands (05/2019).

25. Investigating the Effect of Charge-Charge Interaction on the Solution Self-assembly of Sequence-defined Ionic Peptoid Block Copolymers. Poly(2-oxazoline)s and Polypeptoids Symposium. *American Chemical Society 257th National Meeting*, Orlando, FL (03/2019).
26. A Journey into the World of Peptoid Polymers: Synthesis, Characterization and Materials Applications. Institutes for Complex Molecular Systems (ICMS), *Eindhoven University of Technology*, Eindhoven, Netherlands (02/2019).
27. Peptoid Polymers: Synthesis, Properties and Biotechnological Applications. Workshop Arcane: International Workshop on Bio-driven Chemistry, University of Grenoble-Alps, Grenoble, France (07/2018).
28. A Journey into the World of Peptidomimetic Polymers: Twists, Turns and Discovery. Department of Chemistry, *Mississippi State University* (03/2018).
29. Peptidomimetic Polymers: New Chemistry and Functional Materials. Department of Chemistry, Florida State University, Tallahassee, FL (11/2017)
30. Investigating the Dynamic Imine and Aminal Bond Exchange towards Covalent Adaptable Networks. Dynamic Bonding in Polymers Symposium. *American Chemical Society 254th National Meeting*, Washington DC (8/2017)
31. Peptidomimetic Polymers: Development of New Chemistry and Functional Materials. Synthesis, Self-assembly, and Applications of Peptides and Polypeptides Symposium. *American Chemical Society 254th National Meeting*, Washington DC (8/2017).
32. Efficient Synthesis of Linear and Cyclic Polypeptoids by Controlled Ring-Opening Polymerization Methods. *10th Peptoid Summit*, Molecular Foundry, Berkeley, CA (8/2017).
33. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. Chem-Connect Colloquium, Lamar University, Beaumont, TX (04/2017)
34. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. Department of Chemistry and Biochemistry, *The University of Mississippi* (03/2017).
35. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. Department of Chemistry, *Southern Methodist University* (11/2016).
36. Polypeptoid Polymers: Development of New Chemistry and Functional Materials. Functional Polymers: From Synthesis to Applications Symposium. *72nd Southwest Regional Meeting of the American Chemical Society*, Galveston, TX (11/2016).
37. Polypeptoid Polymers: Development of New Chemistry and Functional Materials. Poly(2-oxazoline)s and Related Polypeptoids Symposium. *American Chemical Society 252th National Meeting*, Philadelphia, PA (8/2016).
38. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. College of Chemistry and Chemical Engineering, *Lanzhou University*, P.R. China (06/2016).
39. Polypeptoid Polymers: Recent Discoveries in the Development of Functional Peptidomimetic Polymers. Synthetic Biopolymer Symposium. *Pacificchem International Chemical Congress*, Honolulu, HI (12/2015).
40. Cyclic Polypeptoids: Recent Discoveries in the Synthesis, Characterization and Solution Self-Assembly. Cyclic and Topological Polymer Symposium. *Pacificchem International Chemical Congress*, Honolulu, HI (12/2015).
41. Poly(α -amino acid)-Derived Biopolymers: Synthesis, Characterization and Properties. Environment: Sustainable Systems and Renewable Resources Symposium. *Pacific Polymer Conference 14*, Kauai, HI (12/2015).

42. Polypeptoid Polymers: Synthesis, Characterization and Properties. Polymer Synthetic Chemistry Symposium. *Pacific Polymer Conference 14*, Kauai, HI (12/2015).
43. Design, Synthesis and Characterization of Peptidomimetic Polymers towards Biomedical Applications. ORNL *CNMS User Meeting*, Oak Ridge, TN (9/2015).
44. Synthesis and Characterization of Polypeptoid Thermogels towards Tissue Engineering Applications. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2015). - *Discussion Leader*
45. Functional Polymeric Gels: Fundamentals and Opportunities for Applications. Future and Current Use of Neutron Spin-Echo Spectroscopy in Condensed Matter Research Workshop, Oak Ridge National Laboratory, Oak Ridge, TN (5/2015)
46. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. Department of Chemistry, *University of New Orleans* (03/2015).
47. A Journey into the World of Peptidomimetic Polymers: Twist and Turns and Discovery. Department of Chemistry, *University of Southern Mississippi* (03/2015).
48. Design, Synthesis and Thermo-reversible Gelation of Crystalline Polypeptoid Block Copolymers. Functional Polymers: Synthesis, Characterization, and Applications Symposium, *70th Southwest Regional Meeting of the American Chemical Society*, Dallas, TX (11/2014).
49. Polypeptoids: Synthesis, Characterization and Materials Properties. The 2nd International Symposium on Polymer Ecomaterials, Kunming, PR China (8/2014)
50. Synthesis and Characterization of Thermo-reversible Polypeptoid Gels. Poly(2-oxazoline)s and Polypeptoids Symposium. *American Chemical Society 248th National Meeting*, San Francisco, CA (8/2014).
51. Polypeptoid Materials: Synthesis, Characterization and Self-Assembly, College of Chemistry, Chemical Engineering and Materials Science, *SooChow University*, Suzhou, PR China (6/2014).
52. High Molecular Weight Peptoid Polymers: Synthesis, Characterization and Materials Properties. Peptide and Peptidomimetic Probes Symposium. *97th Canadian Chemistry Conference*, Vancouver, Canada (6/2014).
53. Peptidomimetic Polymers: Design, Synthesis and Characterization. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2013).
54. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry, *Mississippi State University* (4/2013).
55. Synthesis and Solution Properties of Thermo-responsive Polypeptoids. ACS PMSE Division and the Chinese Chemical Sciences Polymer Division (CCS PD) Joint Symposium, Hattiesburg, MS (4/2013).
56. Synthesis and Solution Properties of Cyclic and Linear Thermo-responsive Polypeptoids. Cyclic and Multicyclic Polymers Symposium. *American Chemical Society 245th National Meeting*, New Orleans, LA (4/2013).
57. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry, *Clemson University* (2/2013).
58. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry *University of South Carolina* (1/2013).
59. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry, *Texas A&M University* (9/2012).

60. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry, *University of Houston* (9/2012).
61. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. ORNL *Joint CNMS and SHaRE User Meeting*, Oak Ridge, TN (9/2012).
62. Polypeptoids: Design, Synthesis and Solution Properties. *8th Peptoid Summit*, Molecular Foundry, Berkeley, CA (8/2012).
63. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. *French-American Workshop*, MINATEC, Grenoble, France (6/2012).
64. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Contemporary Organic Materials Symposium. *Mid-Atlantic Regional Meeting of the American Chemical Society*, Baltimore, MD (6/2012).
65. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. School of Polymers and High Performance Materials, *University of Southern Mississippi* (4/2012)
66. Glycosylated Polypeptides and Polypeptoids: Synthesis and Solution Properties. Glycopeptide Polymers Symposium. *American Chemical Society 243rd National Meeting*, San Diego, CA (3/2012).
67. Synthesis and Properties of Polypeptoid Materials. Poly(2-oxazoline)s and Related Pseudo-Polypeptide Structures Symposium. *American Chemical Society 243rd National Meeting*, San Diego, CA (3/2012).
68. Polypeptoids: Synthesis, Characterization and Materials Properties. Department of Chemistry, *University of Cincinnati* (2/2012).
69. Polypeptoids: Synthesis, Characterization and Materials Properties. Department of Chemistry and Biochemistry, *University of Notre Dame* (2/2012).
70. Polypeptoids: Synthesis, Characterization and Materials Properties. Department of Chemistry, *Indiana University at Bloomington* (2/2012).
71. Polypeptoids: Synthesis, Characterization and Materials Properties. Department of Chemistry, *University of Alberta* (1/2012).
72. Polypeptoids: Synthesis, Characterization and Materials Properties. Department of Polymer Science, *University of Akron* (12/2011).
73. Polypeptoids: Synthesis, Characterization and Materials Properties. Chemistry Department, *University of Florida* (12/2011).
74. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Materials Science and Engineering, *Drexel University* (11/2011).
75. Polypeptoid-based Materials: Synthesis, Structures and Functions. Supramolecular and Dynamic-Covalent Materials Symposium, *67th Southwest Regional Meeting of the American Chemical Society*, Austin, TX (11/2011).
76. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry, *University of North Carolina at Chapel Hill* (9/2011).
77. Peptidomimetic Polymers: Materials Design and Catalysis Development. Department of Chemistry and Polymer Sciences, *Stellenbosch University*, South Africa (8/2011).
78. Zwitterionic Polymerizations towards Cyclic Poly(α -peptoids) and their Block Copolymers. *International Symposium on Ionic Polymerization*, *Rising Star* special session, IP'11, Akron, OH (7/2011).

79. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry, IPRIME Seminar Series, *University of Minnesota* (4/2011).
80. Peptidomimetic Polymers: Polypeptide, Polypeptoid and Beyond. Department of Chemistry and Biochemistry, *University of Delaware* (2/2011).
81. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry, *Washington & Jefferson College*, Washington, PA (2/2011).
82. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Institute of Chemistry, *Chinese Academy of Science*, Beijing, PR China (1/2011).
83. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Polymer Science and Engineering, *Peking University*, Beijing, PR China (1/2011).
84. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry, *Tsinghua University*, Beijing, PR China (1/2011).
85. Peptidomimetic Polymers: Synthesis, Characterization and Materials Properties. Department of Chemistry, *Beijing Normal University*, Beijing, PR China (12/2010).
86. Zwitterionic Polymerizations towards Poly(α -peptoid)s with Diverse Structures. Studies of Diverse Polymer Architecture: Dendrimers, Cyclic Polymers and Other Complex Macromolecular Structures Symposium, *Joint 66th Southwest Regional Meeting, 62nd Southeast Regional Meeting of the American Chemical Society*, New Orleans, LA (12/2010).
87. Polymerization Catalysis towards Cyclic Poly(α -peptoid)s. New Catalysis for Polymer Synthesis Symposium. *American Chemical Society 240th National Meeting*, Boston, MA (8/2010).
88. Organocatalysis towards Cyclic poly(α -peptoid)s. *7th Peptoid Summit*, Molecular Foundry, Berkeley, CA (8/2010).
89. Cyclic Polypeptoids: Synthesis, Characterization and their Materials Properties. Department of Mechanical Engineering, *Louisiana State University*, Baton Rouge, LA (4/2010).
90. Catalytic Routes towards Cyclic Poly(α -peptoid)s and their Block Copolymers. Department of Chemistry & Physics, *Southeastern Louisiana University*, Hammond, LA (9/2009).
91. Catalytic Routes towards Well-defined Poly(α -peptoid)s. *American Southwest Catalysis Conference*, Houston, TX (4/2009).
92. Biorenewable Polyesters: Synthesis, Characterization and Materials Properties. Department of Chemistry, *Western Kentucky University*, Bowling Green, KY (2/2008).

CONTRIBUTED PRESENTATIONS (from independent research at LSU as PI)

1. Synthesis and Solution Self-Assembly of Polypeptoid Block Copolymers into 1D, 2D and 3D Nanostructures. The Beauty of Polymers with Increasingly Complex Architectures Symposium, *ACS Southwest Regional Meeting*, Baton Rouge, Louisiana (11/2022)
2. Understanding the Roles of *N*-substituents in the Solution Aggregation of Polypeptoid Block Copolymers. Bioinspired Synthetic Polymers-Synthesis, Self-assembly and Application Symposium. *The International Chemical Congress of Pacific Basin Societies*, Honolulu, HI (12/2021). – virtual meeting
3. Polypeptoid Thermal Gels: Synthesis, Structure and Architecture Effect. Gels and Other Soft Amorphous Solids Symposium. *American Chemical Society 254th National Meeting*, Washington DC (8/2017).
4. Air-friendly Synthesis of Peptidomimetic Polymers and Solution Self-Assembly of Sequence-Defined Polypeptoid Amphiphiles. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2017).

5. Functional Polypeptoids: Synthesis, Characterization and Solution Properties. Functional Materials Based on Complex Macromolecular Architectures Symposium, *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA (11/2012).
6. Synthesis and Characterization of Sidechain Functionalized Helical Polypeptides by Ring-Opening Polymerization and Click Chemistry. Advances in Polymer Chemistry Symposium, *68th Southwest Regional Meeting of the American Chemical Society*, Baton Rouge, LA (11/2012).
7. Synthesis of Peptidomimetic Polymers: Polypeptoid, Polypeptide and Beyond. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2011).
8. Synthesis and Morphology of Cyclic Poly(α -peptoid)s and Block Copolymers. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2010).
9. Cyclic Block Copolypeptoids: Synthesis, Characterization and Materials Development. *American Chemical Society 239th National Meeting*, San Francisco, CA (3/2010).
10. Catalytic Routes towards Cyclic Poly(α -peptoid)s and their Block Copolymers. *ORNL Joint CNMS and SHaRE User Meeting*, Oak Ridge, TN (9/2009).
11. PBLG-Functionalized Carbon Nanotubes (CNTs). Synthesis, Characterization and Materials Properties. *ORNL Joint CNMS and SHaRE User Meeting*, Oak Ridge, TN (9/2009).
12. Cyclic Poly(α -peptoid)s and their Block Copolymers I. Synthesis and Characterization. *Gordon Research Conference*, Mount Holyoke College, South Hadley, MA (6/2009).

CURRENT GROUP

Graduate Students:

| | |
|---|-------------------------|
| Erin Tsai, B.S. Trinity University | (Fall 2019 – Present) |
| Anuja Thapa, B.S. McNeese State University | (Fall 2020 – Present) |
| Samuel Owoso, B.Tech. Federal University of Technology | (Spring 2021 – Present) |
| Lutfun Hilary, M.S. University of Dhaka | (Fall 2023 – Present) |
| Suliyat Olayiwola, B.Tech. Ladoke Akintola University of Technology | (Fall 2023 – Present) |
| Zahra Hassani, M. S. Isfahan University of Technology | (Spring 2024 – Present) |

Undergraduate Students:

Katelyn Hall (Fall 2023 – Present)
Deztiny Clemons (Summer 2023 – Present)
Ayesha Weerakoon (Spring 2023 – Present)
Gavin Porche (Spring 2023 – Present)
Jenny Mai (Fall 2024– Present)

Former Postdoctoral Associates:

Dr. Naisheng Jiang, Ph.D. Stony Brook University (Summer 2017 – Spring 2019): Professor at the University of Science and Technology Beijing
Dr. Haoyu Tang, Ph.D. Peking University (Fall 2008 – Fall 2010): Professor at the Soochow University
Dr. Li Guo, Ph.D. Chinese Academy of Science (Summer 2008 – Fall 2013): Professor at the JiangSu University.
Dr. Xin Li (deceased), Ph.D. Rensselaer Polytechnic Institute (Spring 2015 – Spring 2016): Staff scientist at the New York State Department of Health

Former Ph.D. Graduate Students:

Meng Zhang, (Fall 2018 – Fall 2023): Postdoctoral associate at the Lawrence Berkeley National Laboratory.

Ph.D. Dissertation: Investigation of Solution Micellar Structure of Ionic Polypeptoid Block Copolymers with Controlled Ionic Sites.

Bailee Barrett (Fall 2018 – Fall 2023): Faculty member at Milwaukee School of Engineering (MOSE).

Ph.D. Dissertation: Sequence-Defined Ionic Peptoid Polymers: Synthesis, Characterization, and the Role of Charge Patterning.

David Siefker (Fall 2016 – Fall 2021): Postdoctoral associate at the Sorbonne University.

Ph.D. Dissertation: Moisture-Tolerant and Operational Simple Synthesis of Synthetic Polypeptides and Polypeptoids by Ring-Opening Polymerization of *N*-Thiocarboxyanhydrides.

Tianyi Yu (Fall 2015 – Fall 2020): Research Chemist at PPG.

Ph.D. Dissertation: Synthesis and Investigation of Amphiphilic Polypeptoids for Environmental and Biological Applications.

Garrett Sternhagen (Fall 2013 – Fall 2019): Patent Engineer at Osha Bergman Watanabe & Burton LLP (OBWB).

Ph.D. Dissertation: Sequence-Defined Ionic Peptoid Block Copolymers: Synthesis and Solution Self-Assembly.

Albert Chao (Fall 2012 – Spring 2018): Senior Scientist at Oriental Yuhong North America LLC

Ph.D. Dissertation: Synthesis and Characterization of Covalent Adaptable Networks Comprised of Dynamic Imine and Amino Covalent Bonds.

Jessica Simpson (Fall 2012 – Spring 2018): Acquisition Program Manager, AFLCMC/EBA, United State Air Force

Ph.D. Dissertation: Synthesis, Characterization, and Assessment of Cationic Polypeptoids towards Gene Delivery and Development of Air Stable *N*-Substituted *N*-thiocarboxyanhydrides.

Jinbao Cao (Fall 2011 – summer 2016): Research scientist at Arkema

Ph.D. Dissertation: Synthesis of Functional Polypeptides and Development of New Synthetic Strategies towards Polypeptides.

Ang Li (Fall 2011 – summer 2016): Research scientist at Firmenich

Ph.D. Dissertation: Synthesis and Characterization of Cyclic Polypeptoids by Organo-Mediated Controlled Zwitterionic Ring-Opening Polymerization and Development of Redox-Responsive Polypeptoid Micelles as Drug Delivery Carriers

Sunting Xuan (Spring 2012 – summer 2016, co-advised with Prof. Graca Vicente): Professor at the Soochow University

Ph.D. Dissertation: Design, Synthesis and Biological Applications of Polypeptoids and Boron Dipyrromethenes.

Brandon Chan (Fall 2010 – Summer 2016): Attorney at Duane Morris LLP.

Ph.D. Dissertation: Peptidomimetic Polymers: Advances in Monomer Design and Polymerization Methods.

Lu Lu (Fall 2010 – Summer 2015, co-advised with Prof. Jayne Garno): Scientific consultant/grant writing specialist at Eva Garland Consulting.

Ph.D. Dissertation: Scanning Probe Investigations of Nanopatterned and Thermo-responsive Polypeptoids and the Invention of a New Sample Stage for Force Modulation Microscopy

Wayne Huberty (Fall 2009 – Fall 2014, co-advised with Prof. Paul Russo): Director of Research, Advanced Composite Institute, Mississippi State University.

Ph.D. Dissertation: Characterization of a water soluble, non-ionic, helical poly(α -amino acid).

Samuel Lahasky (Fall 2008 – Spring 2013): CTO at SciGenesis LLC.

Ph.D. Dissertation: Advancing the Field of Polypeptoids through the Synthesis of Novel Architectures and Thermoresponsive Polymers.

Chang-Uk Lee (Fall 2008 – Spring 2013): Assistant Scientist in the Department of Chemistry at University of Wisconsin-Madison

Ph.D. Dissertation: Cyclic Block Copolypeptoids: Synthesis, Self-Assembly and Macroscopic Properties.

Former M.Sc. Graduate Students:

Md. Asmat Ullah, (Fall 2018 – Fall 2021) Graduate Program in the Mechanical Engineering Department at Louisiana State university.

(M.S. Thesis: Crystallization-Driven Self-Assembly of Coil-Comb Shaped Polypeptoid Block Copolymers: Controlling the Growth of One-Dimensional Nanostructures)

Zhaoyuan Liu (Fall 2008 – Summer 2016) Master of Divinity Program at Trinity Evangelical Divinity School

(M.S. Thesis: Synthetic Approach towards P3EHT-b-PSS Conjugated and Ionic Block Copolymer)

Former LSU Undergraduates:

Kevin Willis (Fall 2008- Spring 2009), Vickie Immethun (Spring 2008- Summer 2008), Samantha Baker (Summer 2008), Cy Gaudet (Summer 2008), Joel Guy (Summer 2008), Michael McCracken (Summer 2008), Rufaat Mando (Summer 2008), Garrett Dupre (Fall 2009 – Summer 2010), Jazmin Carter (Fall 2010 – Spring 2011), Chidinma Obuekwe (Fall 2012 – Spring 2013), Monika Lavan (Spring 2010 – Fall 2012), Kushal Ghale (Summer 2010 – Fall 2012), Johnathon Angers (Summer 2013 – Spring 2014), John Hedgepeth (Fall 2012 – Spring 2013), Matthew Horton (Fall 2011 – Spring 2015), Ashunti Chase (Fall 2015 – Spring 2016), Brian Forjet (Fall 2016 – Spring 2017), Joseph Mai (Fall 2018), Blake Bramley (Fall 2017 – Fall 2018), Macie Serio (Fall 2017 – Spring 2019), Ajah Williams (Fall 2017 – Summer 2019), Omead Darvish (Fall 2016 – Summer 2019), Caitlin Dieu (Fall 2020 – Spring 2021), Trina Dang (Fall 2021 – Spring 2022), Jenny Nguyen (Fall 2021 – Summer 2022), Madelyn Hopkins (Spring 2020 – Summer 2022), Khang Pham (Fall 2021 – Fall 2022), Avery Williams (Fall 2022), Raleigh Martin (Spring 2023), Andrea Matute (Spring 2023 – Fall 2023).

Former Visiting Students:

Undergraduate students: Hank Dang (Summer 2008, NCSU), Khanh Luong (Summer 2008, UL Lafayette), Anthony Brooks (Summer 2009, Tulane), Zachary Brown (Summer 2010, Washington & Jefferson College), Yohann Hernandez (Summer 2011, Université Joseph Fourier, Grenoble, France), Roger Dias (Summer 2017, USM), Allison Roberts (Summer 2017, USM), Brian Karl (Summer 2019, UWSP), Veronica Closser (Summer 2021, Nicholls State), Shauna Kearney (Summer 2022, UMBC), Regina Raemsch (Summer 2023, UIUC).

Graduate students: Adrienne Rosales (11/2010, UC Berkeley)

Former High School Students:

Ju-Woo Nho (Summer 2019 – Fall 2020)

Ikechi Akujobi (Fall 2010 – Spring 2011)

COURSE TAUGHT

| Year | Semester | Course (credit hours) | Enrollment |
|-------------|-----------------|--|-------------------|
| 2007 | Fall | CHEM 2261 Organic Chemistry I (3) | 140 |
| 2008 | Spring | CHEM 2261 Organic Chemistry I (3) | 64 |
| 2008 | Fall | CHEM 4010 Macromolecular Systems I (4) | 12 |
| 2009 | Spring | CHEM 2261 Organic Chemistry I (3) | 166 |
| 2009 | Fall | CHEM 4010 Macromolecular Systems I (4) | 10 |
| 2010 | Spring | CHEM 2261 Organic Chemistry I (3) | 242 |
| 2010 | Fall | CHEM 4010 Macromolecular Systems I (4) | 14 |
| 2010 | Fall | CHEM 7901 Speaking of Macromolecules (1) | 16 |
| 2011 | Fall | CHEM 4010 Macromolecular Systems I (4) | 23 |
| 2012 | Spring | CHEM 2261 Organic Chemistry I (3) | 190 |
| 2012 | Fall | CHEM 2261 Organic Chemistry I (3) | 167 |
| 2013 | Spring | CHEM 7780 Functional Polymers (2) | 5 |
| 2013 | Fall | CHEM 4010 Macromolecular Systems I (3) | 13 |
| 2014 | Fall | CHEM 4010 Macromolecular Systems I (3) | 11 |
| 2015 | Fall | CHEM 7780 Functional Polymers (2) | 9 |
| 2016 | Fall | CHEM 7010 Macromolecular System III (3) | 6 |
| 2017 | Fall | CHEM 7780 Functional Polymers (3) | 7 |
| 2018 | Spring | CHEM 2261 Organic Chemistry I (3) | 116 |
| 2018 | Fall | CHEM 4010 Macromolecular Systems I (3) | 21 |
| 2019 | Fall | CHEM 7780 Functional Polymers (3) | 12 |
| 2020 | Spring | CHEM 2261 Organic Chemistry I (3) | 142 |
| 2021 | Spring | CHEM 7010 Macromolecular System III (3) | 12 |
| 2022 | Spring | CHEM 2261 Organic Chemistry I (3) | 231 |
| 2022 | Spring | CHEM 7901 Speaking of Macromolecules (1) | 19 |
| 2022 | Fall | CHEM 7780 Functional Polymers (3) | 7 |
| 2023 | Spring | CHEM 2261 Organic Chemistry I (3) | 263 |
| 2023 | Fall | CHEM 4010 Macromolecular Systems I (3) | 17 |
| 2024 | Spring | CHEM 2261 Organic Chemistry I (3) | 197 |
| 2024 | Fall | CHEM 7780 Functional Polymers (3) | 6 |