

Lorraine Francoise Leon

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RESEARCH INTERESTS

My research lies at the intersection of biomaterials and polymer science, where I use biomimetic approaches to create dynamic materials. I am focused on expanding the self-assembly toolbox to include multiple, synergistic molecular interactions using biomolecules, particularly peptides and peptide/polymer conjugates which can incorporate many distinct functionalities arising from individual amino acids. By leveraging multiple orthogonal molecular interactions, I aim to recreate the flexibility, adaptability, and multivalency found in natural biomaterials that lead to their dynamic nature. Currently I am using this approach to design materials for applications in: (1) Nanomedicine: designing targeted delivery vehicles for therapeutic nucleic acids and proteins based on polyelectrolyte complexation (2) Membraneless Organelles: investigating molecular interactions leading to the formation of intracellular liquid-liquid phase separations and their transition to pathological solid aggregates in diseases such as amyotrophic lateral sclerosis and frontotemporal dementia (3) Templating Inorganic Nanomaterials: using peptide based materials to direct the growth of interfacial hybrid thin films for use in electronics and photovoltaics, as well as 3D highly ordered nanoparticle assemblies.

ACADEMIC POSITIONS

Assistant Professor

January 2017 - Present

Materials Science & Engineering, University of Central Florida
NanoScience & Technology Center, Affiliate Member

Postdoctoral Researcher

November 2011 – December 2016

Institute for Molecular Engineering, University of Chicago & Argonne National Laboratory
Advisor: Matthew Tirrell

EDUCATION:

Ph.D., Chemical Engineering ***The Graduate Center of CUNY***

September 2011
New York, NY

Thesis Title: Interfacial Templating of Inorganic Nanostructures Using Rationally Designed Peptide Molecules

Thesis Advisor: Raymond Tu

B.S., Chemical Engineering ***University of Florida***

December 2004
Gainesville, FL

Cum Laude, GPA: 3.72/4.00
Minors in Mathematics and Chemistry

ACADEMIC AWARDS:

2021 – NSF CAREER Award

2019 – Journal of Materials Chemistry B, Emerging Investigator

2010 & 2007 – Doctoral Student Research Grant Award; Graduate Center at CUNY

2007 – Carl Storm Underrepresented Minority Fellowship Program; Gordon Research Conference

2005 – NSF- IGERT Soft Materials Fellowship

2005 – Chancellor's Fellowship (Graduate Teaching Fellowship); Graduate Center at CUNY

REFEREED PUBLICATIONS (*indicates authors contributed equally):

1. Z. Zhou, C-F. Yeh, M. Mellas, M-J. Oh, J. Zhu, J. Li, R-T. Huang, D. L. Harrison, T-P. Shentu, D. Wu, M. Lueckheide, L. Carver, E.J. Chung, **L. Leon**, K-C. Yang, M. V. Tirrell, Y. Fang. "Targeted Polyelectrolyte Complex Micelles Treat Vascular Complications In Vivo" Proceedings of the National Academy of Sciences 2021, 118, 50, e2114842118
2. S. Tabandeh, C.E. Lemus, **L. Leon**. "Deciphering the role of p-interactions in Polyelectrolyte Complexes Using Rationally Designed Peptides" Polymers 2021, 13, 13, 2074
3. S. Shah, **L. Leon**. "Structural Dynamics, Phase Behavior, and Applications of Polyelectrolyte Complex Micelles" Current Opinion in Colloid and Interface Science, 2021, 53, 101424
4. S. Shah, **L. Leon**. "Structural Transitions and Encapsulation Selectivity of Thermoresponsive Polyelectrolyte Complex Micelles" Journal of Materials Chemistry B, 2019, 7, 6438-6448
5. S. Tabandeh, **L. Leon**. "Engineering Peptide-Based Polyelectrolyte Complexes with Increased Hydrophobicity" Molecules 2019, 24, 5, 868
6. M. Lueckheide, J.R. Viereg, A.J. Bologna, **L. Leon**, M. Tirrell. "Structure-Property Relationships of Oligonucleotide Polyelectrolyte Complex Micelles" Nano Letters 2018, 18, 11, 7111-7117
7. J.R. Viereg, M. Lueckheide, A.B. Marciel, **L. Leon**, A.J. Bologna, J. Reyes Rivera, M. Tirrell, "Oligonucleotide-Peptide Complexes: Phase Control by Hybridization" Journal of the American Chemical Society 2018, 140, 5, 1632-1638
8. A.B. Marciel, E.J. Chung, B.K. Brettmann, **L. Leon**, "Bulk and Nanoscale Polypeptide Based Polyelectrolyte Complexes" Advances in Colloid and Interface Science 2017, 239, 187-198
9. N.M. Pacalin, **L. Leon**, M.V. Tirrell, "Directing the Phase Behavior of Polyelectrolyte Complexes using Chiral Patterned Peptides" European Physical Journal Special Topics 2016, 225, 1805-1815
10. D. Priftis, **L. Leon**, Z. Song, S.L. Perry, K.O. Margossian, A. Tropnikova, J.J. Cheng, M. Tirrell, "Self-Assembly of α -Helical Polypeptides Driven by Complex Coacervation" Angewandte Chemie 2015, 127, 11280-11284
11. S.L. Perry*, **L. Leon***, K. Hoffmann, M.J. Kade, D. Priftis, D. Wong, K. Black, C. Pierce, K. Margossian, J. Whitmer, J. Qin, J. de Pablo, M.V. Tirrell, "Chirality Selected Phase Transitions in Ionic Polypeptide Complexes" Nature Communications 2015, 6, 6052
12. K.Q. Hoffmann, S.L. Perry, **L. Leon**, D. Priftis, M.V. Tirrell, J. de Pablo, "A Molecular View of the Role of Chirality in Charge-driven Polypeptide Complexation" Soft Matter 2015, 11, 1525-1538
13. C-H Kuo*, **L. Leon***; E.J. Chung, T.J. Sontag, C.A. Reardon, G.S. Getz, M.V. Tirrell, Y. Fang, "Inhibition of Atherosclerosis-Promoting microRNAs via Targeted Polyelectrolyte Complex Micelles" Journal of Materials Chemistry B 2014, 2, 8142-8153
14. S.L. Perry, Y. Li, D. Priftis, **L. Leon**, M.V. Tirrell, "The Effect of Salt on the Complex Coacervation of Vinyl Polyelectrolytes " Polymers 2014, 6, 1756-1772
15. J. Qin, D. Priftis, R. Farina, S.L. Perry, **L. Leon**, J. Whitmer, K. Hoffmann, M.V. Tirrell, J. de Pablo "Interfacial Tension of Polyelectrolyte Complex Coacervate Phases" ACS Macro Letters 2014, 3, 565-568
16. D. Priftis, X. Xia, K. Margossian, S.L. Perry, **L. Leon**, J. Qin, J. de Pablo, M.V. Tirrell, "Ternary, Tunable Polyelectrolyte Complex Fluids Driven by Complex Coacervation" Macromolecules 2014, 47, 3076-3085
17. **L. Leon**, W. Su, H. Matsui, R.S. Tu, "Interfacial Templating of Inorganic Nanostructures Using a Growth Directing and Reducing Peptide" Soft Matter 2011, 7, 10285-10290
18. **L. Leon**, P. Logrippo, R.S. Tu, "Self-Assembly of Rationally Designed β -Sheets Under 2-D Confinement" Biophysical Journal 2010, 99, 2888-2896

BOOKS

E.J. Chung, L. Leon, and C. Rinaldi; Nanoparticles for Biomedical Applications: Fundamental Concepts, Biological Interactions, and Clinical Applications, 2020, Elsevier

NON-REFEREED PUBLICATIONS

1. K. Chumbimuni-Torres, A. Hashim, H.J. Huang, **L. Leon**, K. A. Lewis, M. Macy, T. Mayo, A. Reckdenwald, A. Vosoughi, L. Wang, L.J. Walters "Is Your Mentor Really a Mentor?", UCF Faculty Focus, 19, 1, 2020
2. S. Shah, A. Eyler, S. Tabandeh, **L. Leon**, "Electrostatically Driven Self-Assembled Nanoparticles and Coatings" Book Chapter: "Nanoparticles for Biomedical Applications" 2020, Elsevier
3. **L. Leon**, E.J Chung, C. Rinaldi, "A Brief History of Nanotechnology and Introduction to Nanoparticles for Biomedical Applications" Book Chapter: "Nanoparticles for Biomedical Applications" 2020, Elsevier
4. **L. Leon**, M.V. Tirrell, "Protein Analogous Micelles" Book Chapter: "Self-Assembly: From Surfactants to Nanoparticles" 2018, John Wiley and Sons.
5. **L.F. Leon Gibbons**, R.S. Tu, "Biom mineralization Using Self-Assembled Peptide Architectures" AICHE Annual Conference Proceedings 2007

TEACHING EXPERIENCE

Instructor, Materials Science & Engineering Spring 2017 -Current
University of Central Florida Orlando, FL

Courses:

- Polymer Science & Engineering (EMA 5060)
- Structures & Properties of Materials (EGN 3365)
- Engineering Polymeric Materials (EMA 3000)
- Transport Phenomena in Materials (EMA 4105)

Guest Lecturer: Emerging Materials (EMA 4506), February 2018, February 2019
Guest Lecturer: Topics in Biomedical Engineering (BME 6935), August 2017
Guest Lecturer: Honors Structure & Properties of Materials (EGN 3365H) February 2017

MENTORSHIP EXPERIENCE

PhD Advisor, Materials Science & Engineering January 2017- Present
University of Central Florida Orlando, FL

- Currently mentoring 2 PhD students: Sachit Shah, Sara Tabandeh

Undergraduate Research Advisor, Materials Science & Engineering January 2017- Present
University of Central Florida Orlando, FL

- Currently mentoring 3 undergraduate students: Cristina Lemus, Bryan Serrano, Khemisha Stoutt
- Past mentees: Sara Gussett, Matthew Saucedo, Andrea Garcia-D'Angeli, Ryann Valmonte, Ahmed Alli, John Steslicki, Brittany Zengotita, Andrea Molina Moreno, Mathias Rodriguez, Pablo Morales-Cruz

Research Mentor, Institute for Molecular Engineering June 2012 – December 2016
University of Chicago Chicago, IL

- Mentored 6 undergraduate students and 1 graduate student resulting in joint publications

Research Mentor, Dept. of Chemical Engineering August 2006 – August 2011
City College of New York New York, New York

- Mentored 4 undergraduate students resulting in joint publications

STUDENT HONORS

Sachit Shah- UCF Doctoral Research Support Award Fall 2019
Sara Tabandeh- Bionanotechnology Graduate Award Session at AICHE Conference November 2019
Sachit Shah-UCF Graduate Studies Dissertation Completion Fellowship Spring 2021

THESIS & DISSERTATION COMMITTEES

Isabel Arias, Master's Degree in Materials Science and Engineering	May 2018
Tyler Maxwell, PhD in Chemistry	July 2019
Kailei Xu, PhD in Materials Science & Engineering	November 2020
Craig Neal, PhD in Materials Science and Engineering	April 2021
Zi Wang, PhD in Materials Science & Engineering	August 2021

JOURNAL EDITORIAL BOARDS

Bioactive Materials (IF=8.724)	April 2019-Present
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GRANT REVIEW

National Science Foundation, Division of Engineering, Chemical, Bioengineering, Environmental and Transport Systems, Particulate and Multiphase Processes (PMP)	March 2021
National Science Foundation, Division of Materials Research, Biomaterials (BMAT)	January 2020
American Chemical Society, Petroleum Research Fund	April 2019, February 2020
NWO, Netherlands Organization for Scientific Research, Vidi Grant	December 2018
DFG, German Research Foundation, Materials Science and Engineering	September 2018
National Science Foundation, Division of Materials Research, Biomaterials (BMAT)	January 2018
University of Central Florida, Mayo-UCF Convergence Pilot Seed Funding Program	July 2017

JOURNAL PEER REVIEW

Science Advances, Soft Materials, Langmuir, Biomacromolecules, Progress in Materials Science, Trends in Biochemical Science, Colloids and Interfaces, ACS Applied Polymer Materials, Polymers, Journal of Visual Experiments, Scientific Reports, Colloid and Polymer Science, Cosmetics, Pharmaceutics, Nanomaterials

ABSTRACT REVIEW

Society for Biomaterials, American Institute for Chemical Engineers, American Chemical Society-Colloid and Surface Science Symposium

PROFESSIONAL SERVICE

Area Chair: Bionanotechnology American Institute of Chemical Engineers Annual Meeting	November 2021 Boston, MA
Session Chair: Bionanotechnology Area Plenary American Institute of Chemical Engineers Annual Meeting	November 2021 Boston, MA
Session Co-Chair: Bionanotechnology Graduate Student Award Session American Institute of Chemical Engineers Annual Meeting	November 2021 Boston, MA
Area Chair: Bionanotechnology American Institute of Chemical Engineers Annual Meeting	November 2020 Virtual
Session Chair: Bionanotechnology Area Plenary American Institute of Chemical Engineers Annual Meeting	November 2020 Virtual
Session Co-Chair: Bionanotechnology Graduate Student Award Session American Institute of Chemical Engineers Annual Meeting	November 2020 Virtual
Area Chair: Bionanotechnology American Institute of Chemical Engineers Annual Meeting	November 2019 Orlando, FL
Session Chair: Bionanotechnology Area Plenary	November 2019

American Institute of Chemical Engineers Annual Meeting	Orlando, FL
Session Co-Chair: Bionanotechnology Graduate Student Award Session	November 2019
American Institute of Chemical Engineers Annual Meeting	Orlando, FL
Organizer for Symposium on Polymers at Interfaces	October 2019
Southeast Regional Meeting of the American Chemical Society (SERMACS)	Savannah, GA
Co-Organizer for Symposium on Bio-inspired Materials	June 2019
American Chemical Society Colloid & Surface Science Symposium	Atlanta, GA
Area Co-Chair: Bionanotechnology	October 2018
American Institute of Chemical Engineers Annual Meeting	Pittsburg, PA
Session Chair: Bionanotechnology Graduate Student Award Session	October 2018
American Institute of Chemical Engineers Annual Meeting	Pittsburg, PA
Session Co-Chair: Biomaterials For Nucleic Acid Delivery	October 2018
American Institute of Chemical Engineers Annual Meeting	Pittsburg, PA
Session Co-Chair: Drug Delivery I – Biologics	October 2018
American Institute of Chemical Engineers Annual Meeting	Pittsburg, PA
Discussion Leader on Functional Nanoparticles	June 2018
Southeast Polymer Faculty Forum	Atlanta, GA
Session Co-Chair: Biomaterials Faculty Candidates	October 2017
American Institute of Chemical Engineers Annual Meeting	Minneapolis, MN
Co-Organizer for Symposium on Directed and Self-Assembly on the Molecular Scale	July 2017
American Chemical Society Colloid & Surface Science Symposium	New York, NY

DEPARTMENTAL SERVICE

MSE Advisory Committee Prosthetics Cluster Faculty Search	Spring 2017-Current
Undergraduate Program Development Committee	Fall 2017-Fall 2018
Graduate Recruiting Visit Committee	Fall 2017-Current
Graduate Admissions Committee	Fall 2018-Current
Undergraduate Curriculum Committee	Fall 2019-Current
Qualifying Exam Committee	Fall 2020-Current

UNIVERSITY SERVICE

University Travel Award Committee	Fall 2017-Spring 2020
Faculty Mentor, Alpha Sigma Kappa, Women in Technical Studies	Fall 2017-Current
Laser Safety Committee	Fall 2021-Current

OUTREACH ACTIVITIES:

ASM Mini-Materials Camp during Aero-Mat 2018	May 2018
- Created Demo on Biomaterials for Middle & High School Students	Orlando, FL
Westbrooke Elementary “Teach-In”	October 2017
- Taught 5 th Graders about Careers in STEM, specifically Research	Ocoee, FL
Society for Women Engineers- “Mystery Design”	October 2017
- Created a workshop on Biomaterials aimed at Middle School Girls	Orlando, FL
Science Careers in Search of Women (Event aimed at high school students)	April 2015
- Career Panelist, Poster Presenter, and Student Luncheon participant	Argonne National Lab
Science Careers in Search of Women (Event aimed at high school students)	April 2014

- Student Luncheon participant *Argonne National Lab*
- Expanding Your Horizons (Symposium teaching middle school girls) *March 2013 & March 2014*
- Workshop leader in biomedical engineering *Chicago, IL*
- Latin American Engineering Student 15th Annual Pre-College Engineering Day *March 2009*
- Gave lab tours for Society of Hispanic Professional Engineers *New York, NY*
- Arthur Schomburg PS 163 *March 2008*
- Visited the 5th Grade Class at to discuss Women in Science *New York, NY*

LEADERSHIP OPPORTUNITIES

- Principal Investigator on User Proposals *2012-2019*
- Wrote Successful Proposals for Beamtime at National Laboratories *Chicago, IL*
- Advanced Photon Source (Argonne), High Flux Isotope Reactor (Oak Ridge)
- Lab Setup and Design, Institute for Molecular Engineering, University of Chicago *2012*
- Layout Design, Equipment Purchasing and Installation, Organizational Layout *Chicago, IL*
- NSF IGERT Fellowship *2007–2010*
- Student Seminar Coordinator for both Columbia & CCNY Graduate Students *New York, NY*
- Organized National Student Seminar Speaking Series
- Lab Setup, City College of New York *2006*
- Equipment Purchasing and Installation, Organizational Layout *New York, NY*

PROFESSIONAL ACTIVIES AND MEMBERSHIPS

- 2014 – Present, Member, American Heart Association
- 2009 – Present, Member, New York Academy of Sciences
- 2008 – Present, Member, American Chemical Society
- 2008 – Present, Member, Materials Research Society
- 2007 – Present, Member, American Institute of Chemical Engineers
- 2003 – Present, Member, Tau Beta Pi, Engineering Honor Society

LANGUAGE AND COMPUTER SKILLS

Bilingual, Fluent in Spanish and English

Computer Applications: Image J, Igor, VMD, MatLab, Adobe Illustrator and Photoshop, Microsoft Word, Excel and PowerPoint

PROFESSIONAL DEVELOPMENT

- Minority Faculty Development Workshop *September 2019*
- Harvard University *Boston, MA*
- Minority Faculty Development Workshop *September 2018*
- University of Michigan *Ann Arbor, MI*
- Division of Materials Research Principal Investigator Workshop *June 2017*
- National Science Foundation *Arlington, VA*
- Small Angle Scattering Short Course “Beyond Rg”, Advanced Photon Source *October 2013*
- Argonne National Lab *Lemont, IL*
- Light Scattering University *May 2012*
- Wyatt Technology *Santa Barbara, CA*
- Scientific Career Management Course *August 2010*
- Graduate Center, City University of New York *New York, NY*

SELECTED PRESENTATIONS AND INVITED SEMINARS

1. July 2021-Presentation (invited), Systems Chemistry 2021, Virtual Conference, "Designing Synthetic Condensates using Peptide-Based Complex Coacervates"
2. February 2020- Presentation (invited), Gordon Research Conference on Chemistry and Biology of Peptides, Ventura, CA "Engineering Peptide Based Complex Coacervates for Therapeutic Delivery"
3. November 2019- Presentation (invited), IEEE-Nanomedicine, Gwangju, Korea "Engineering Thermoresponsive Polyelectrolyte Complex Micelles"
4. October 2019- Presentation (invited), Southeast Regional Meeting of the American Chemical Society, Savannah, GA "Structural Transitions and Encapsulation Selectivity of Thermoresponsive Polyelectrolyte Complex Micelles"
5. June 2019- Poster Presentation, Gordon Research Conference on Preclinical Form and Formulation for Drug Discovery, Waterville Valley, NH "Engineering Polyelectrolyte Complexes for Therapeutic Delivery"
6. April 2019- Seminar (invited), University of Rhode Island, Department of Chemical Engineering, Kingston, RI "Molecular Engineering of Charge-Based Assemblies"
7. April 2019- Presentation (invited), American Chemical Society Spring Meeting, Orlando, FL, "Electrostatically-Driven Bioinspired Materials"
8. December 2018- Presentation (invited), IEEE-International Conference on Nano/Molecular Medicine and Engineering, Honolulu, HI "Electrostatically Driven Peptide Based Materials in Nanomedicine"
9. October 2018- Presentation, American Institute of Chemical Engineers Annual Conference, Pittsburgh, PA "Characterization of Thermoresponsive Polyelectrolyte Complex Micelles"
10. October 2018 – Seminar (invited), University of Central Florida, NanoScience and Technology Center, Orlando, FL "Reengineering Cores and Coronas of Polyelectrolyte Complex Micelles"
11. May 2018- Presentation, Florida Annual Meeting and Exposition, Tampa, FL "Engineering Solid or Liquid Cores within Polyelectrolyte Complex Micelles"
12. March 2018- Seminar (invited), University of Central Florida, Biophysics Group, Orlando, FL "Phase Behavior of Bulk and Nanoscale Ionic Polypeptide Complexes"
13. February 2018- Seminar (invited), University of South Florida, Department of Chemical Engineering, Tampa, FL "Hydrogen Bonding Mediated Phase Behavior of Polyelectrolyte Complexes"
14. February 2018- Seminar (invited), University of Central Florida, Burnett School of Biomedical Sciences, Orlando, FL "Biomedical Applications of Peptide Based Polyelectrolyte Complexes"
15. November 2017- Presentation, Materials Research Society Fall Conference, Boston, MA "Phase Behavior of Polypeptide Based Polyelectrolyte Complex Micelles"

16. October 2017- Presentation, American Institute of Chemical Engineers Annual Conference, Minneapolis, MN "Solid and Liquid Core Polyelectrolyte Complex Micelles"
17. November 2016- Presentation, American Institute of Chemical Engineers Annual Conference, San Francisco, CA "Polypeptide/Nucleic Acid Complexes as Delivery Vehicles"
18. June 2016- Presentation, ACS Colloids and Surface Science Symposium, Boston, MA "Chirality Induced Tuning of Polypeptide Complexation"
19. February 2016- Seminar (invited), University of Virginia, Charlottesville, VA "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
20. February 2016- Seminar (invited), University of Massachusetts at Amherst, Amherst, MA "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
21. February 2016- Seminar (invited), University of Colorado at Boulder, Boulder, CO "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
22. February 2016- Seminar (invited), New Jersey Institute of Technology, Newark, NJ "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
23. January 2016- Seminar (invited), Columbia University, New York, NY "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
24. January 2016- Seminar (invited), University of Central Florida, Orlando, FL "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
25. December 2015- Seminar (invited), University of Florida, Gainesville, FL "Phase Behavior and Nanomedicine Applications of Biopolyelectrolyte Complexes"
26. November 2015- Presentation, American Institute of Chemical Engineers Annual Conference, Salt Lake City, UT "Tunable Biopolyelectrolyte Complexes as Modular Delivery Vehicles"
27. August 2015- Presentation, American Chemical Society Fall Meeting, Boston, MA "Directing the Phase Behavior of Biopolyelectrolyte Complexes"
28. July 2015- Poster Presentation, Gordon Research Conference on Biomaterials and Tissue Engineering, Girona, Spain. "Biomedical Applications of Nanoscale Polyelectrolyte Complexes"
29. May 2015- Poster Presentation, Macromolecular Assemblies at the Crossroads of Cell Stress and Function, Jerusalem, Israel. "Chirality-Selected Phase Behavior in Ionic Polypeptide Complexes"
30. March 2015 – Presentation, American Chemical Society Spring Meeting, Denver, CO. "Therapeutic Nucleic Acid Complex Micelles"
31. November 2014 – Presentation, American Institute of Chemical Engineers Annual Conference, Atlanta, GA "Engineering Modular Delivery Vehicles Using Biomimetic Polyelectrolytes"
32. August 2014 – Presentation, American Chemical Society National Meeting, San Francisco, CA "Chirality-selected phase transitions in ionic polypeptide complexes"

33. June 2014 – Presentation, ACS Colloids and Surface Science Symposium, Philadelphia, PA, “Modular Polyelectrolyte Based Assemblies as Delivery Vehicles”
34. November 2013 – Presentation, American Institute of Chemical Engineers Annual Conference, San Francisco, CA, “Polyelectrolyte Complex Micelles as Vehicles for miRNA delivery”
35. May 2013 – Poster Presentation, Gordon Research Conference on Self-Assembly & Supramolecular Chemistry, Les Diablerets, Switzerland, “Chirality Effects on Polyelectrolyte Complex Micelles”
36. October 2011 – Presentation, American Institute of Chemical Engineers Annual Conference, Minneapolis, MN, “Interfacial Templating of Metallic Nanostructures Using a Rationally Designed Peptide”
37. November 2010 – Presentation, Surfactants in Solution, Melbourne, Australia, “Binary Patterned Peptides as Two Dimensional Templates”
38. November 2010 – Presentation, American Institute of Chemical Engineers Annual Conference, Salt Lake City, UT, “Peptide Directed Assembly of Hybrid Nanoscale Objects”
39. October 2010 – Presentation, PREM Recruitment Weekend, New York, NY, “Templating Inorganic Material Using Self-Assembled Peptides”
40. May 2010 – Presentation, Protein Design Mega Meeting, New York, NY, “Peptide Directed Assembly of Hybrid Nanoscale Objects”
41. April 2010 – Poster Presentation, 10th Southern School on Computational Chemistry and Material Science, Jackson MS, “Interfacial Peptide Assemblies for Use in Nanocrystal Synthesis”
42. November 2009 – Presentation, American Institute of Chemical Engineers Annual Conference, Nashville, TN, “Interfacial Peptide Assemblies for Use in Nanocrystal Synthesis”
43. June 2009 – Presentation, ACS Colloids and Surface Science Symposium, New York, NY, “Thermodynamic Analysis of Rationally Designed Peptides at the Air-Water Interface”
44. December 2008 – Presentation (invited), Material Science Institute at the University of Oregon Retreat, Newport, OR, “Interfacial Peptide Assemblies for use in Biomineralization”
45. December 2008 – Presentation, Materials Research Society Fall Meeting, Boston, MA, “Dynamics of Peptide Self-Assembly at Interfaces”
46. November 2008 – Presentation, American Institute of Chemical Engineers Annual Conference, Philadelphia, PA, “Self Assembly of Beta Sheet Forming Peptides at the Air-Water Interface”
47. June 2008 – Poster Presentation, ACS Colloids and Surface Science Symposium, Raleigh, NC, “Interfacial Assembly of Beta Sheet Forming Peptides”
48. March 2008 – Presentation, Protein Design Mega Meeting, Brooklyn, NY, “Interfacial Assembly of Beta Sheet Forming Peptides”
49. November 2007 – Presentation, American Institute of Chemical Engineers Annual Conference, Salt Lake City, UT “Biomineralization Using Self Assembled Peptide Architectures”

50. August 2007 – Poster Presentation, Gordon Research Conference- Chemistry of Supramolecules, Il Cioccio, Italy, “Biomineralization Using Self Assembled Peptide Architectures”