THE UNIVERSITY OF TEXAS AT AUSTIN Cockrell School of Engineering

Revised: January 2025

FULL NAME: Jeanne Casstevens Stachowiak TITLE: Professor

DEPARTMENT: Chemical Engineering and Biomedical Engineering (50/50 Joint Appointment)

EDUCATION:

University of Texas at Austin Mechanical Engineering BSME Spring 2002
University of California, Berkeley Mechanical Engineering MS Spring 2004
University of California, Berkeley Mechanical Engineering Ph.D. Spring 2008

Masters Advisor: Arun Majumdar Doctoral Advisor: Prof. Daniel Fletcher

Doctoral Dissertation Title: "High Reynolds Number Microfluidic Systems for Drug Delivery"

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

University of Texas at Austin
University of Texas at Austin
University of Texas at Austin
Associate Professor
University of Texas at Austin
Associate Professor
Assistant Professor
Spring 2012-Fall 2018

OTHER PROFESSIONAL EXPERIENCE:

Sandia National Laboratories Senior Member of Technical Staff Aug. 2008-Jan. 2012
Sandia National Laboratories Member of Technical Staff July 2004 – Sept. 2005

HONORS AND AWARDS:

- 2014 National Science Foundation CAREER Award, Division of Materials Research
- 2016 "New and Notable" Lecturer at the Annual Meeting of the Biophysical Society
- 2017 Selected for the "Future of Biochemistry" special issue of the journal, *Biochemistry*, a publication of the American Chemical Society edited by Prof. Alana Shepartz, published January 2018.
- 2017 Young Innovator of the Biomedical Engineering Society, awarded at the Annual Meeting of the Biomedical Engineering Society (BMES) in October, 2017.
- 2017 Annual "Student Selected Speaker" of the *Structural and Quantitative Biology Seminar Series at the* University of California, Berkeley
- 2018-present Banks McLaurin Fellow in Engineering, Cockrell School of Engineering, University of Texas at Austin.
- 2019 Keynote Speaker at the inaugural conference honoring National Science Foundation CAREER awardees, NSF BIO division.
- 2020-2022 Elected to the UT Austin Faculty Council.
- 2021-2026 National Institutes of Health NIGMS MIRA Established Investigator Award
- 2021-2022 Awarded a Fellowship by the William H. Tonn Professorial Assistance Fund, in recognition of outstanding contributions to the University (UT Austin Provost's office)
- 2022 Elected a Fellow of the American Institute for Medical and Biological Engineering (AIMBE)

- 2023 Michael and Kate Bárány Award of the Biophysical Society, which recognizes one outstanding researcher each year at the Associate Professor level
- 2025 Program Officer for the Hypothesis Fund

Honors and Awards Prior to Joining UT Austin

 2002 Bachelor's of Science in Mechanical Engineering with highest honors, The University of Texas at Austin, TX

Revised: January 2025

- 2002 National Defense Science and Engineering Graduate Fellowship Program Awardee
- 2002 ARCS Foundation Graduate Research Fellow
- 2002 National Science Foundation Graduate Research Fellow
- 2005 Sandia National Laboratories, Team Excellence Recognition Award
- 2005 Sandia National Laboratories, Award for Individual Employee Excellence
- 2008 Soroptimist Founder Region Dissertation Fellowship Award
- 2011 Cornell University Distinguished Honor for Faculty Mentoring of Co-op Students

MEMBERSHIPS IN PROFESSIONAL AND HONORARY SOCIETIES:

- Biophysical Society, 2010-Present
- Biomedical Engineering Society, 2011-Present
- Society for Biomaterials, 2015-Present
- Americal Society for Cell Biology, 2012-Present
- American Chemical Society, 2010-Present
- American Physical Society, 2014-Present
- Tau Beta Pi, 2002-Present

UNIVERSITY COMMITTEE ASSIGNMENTS:

Departmental Committee Service

- Member, Graduate Student Recruiting Committee, 2012-2013, 2021-2022
- Co-Chair, Graduate Student Recruiting Committee, 2014-2015
- Chair, Graduate Student Recriting Committee, 2015-2021
- Faculty Recruiting Committee, 2012-2014, 2017-2018, 2018-2019, 2021-2022
- Undergraduate Laboratory Curriculum Committee, 2013-2014
- UT BME Grant Review Committee for Texas 4000 Foundation Seed Grants, 2013-2014
- Chair of the BME Staff Excellence Committee, 2014
- T32 NIH Training Grant Executive Committee, 2016-present

Cockrell School of Engineering Service

- New faculty orientation panel member, 2013, 2014
- CSE Accreditation and Assessment Committee, 2014-2016

- Faculty careers panel for graduate students, 2016
- Inaugural member of College of Engineering Diversity, Equity, and Inclusion Committee, 2019-2020

- Member, College of Engineering Awards Committee, 2020-2024
- Chair, College of Engineering Awards Committee, 2024-2025
- Member, Promotion and Tenure Committee, 2025-2027

University Service

- NSF CAREER Panel Member for the Office of the Vice President of Research, 2016
- George H. Mitchell Award Selection Committee, 2016, 2017, 2019, 2020
- UT Austin Faculty Council Member, 2020-2022
- Member of the Faculty Advisory Committee on the University Budget, 2020-2022

PROFESSIONAL SOCIETY/GOVERNMENT SERVICE AND TECHNICAL COMMITTEES:

- Chair, Biophysical Society Subgroup, Intrinsically Disordered Proteins, 2022-2023
- Member, Biophysical Society Early Careers Committee, 2021-2024
- Member, American Society for Cell Biology Annual Meeting Organizing Committee, 2021-2023
- Associate Editor, Science Advances, 2022-present
- Editorial Board Member, Biophysical Journal, 2022-present
- National Science Foundation Grant Review Panelist for Division of Molecular and Cellular Biosciences, 2015, 2021, 2022
- National Institutes of Health Grant Review Panelist for Member Conflicts in the Biological Chemistry and Macromolecular Biophysics, 2016
- National Science Foundation Mail-in Grant Reviewer for Division of Molecular and Cellular Biosciences, 2016
- National Science Foundation Grant Review Panelist for Division of Molecular and Cellular Bioscience, 2017
- National Institutes of Health Grant Review Service for Study Section: Biochemistry and Biophysics of Membranes (BBM), 2017
- National Institutes of Health Grant Review Service for Study Section: Gene and Drug Delivery (GDD), 2019
- National Institutes of Health Grant Review Service for Study Section: Membrane Biology and Protein Processing (MBPP), 2019, 2020
- National Institutes of Health Grant Review Service for Study Section: NIGMS MIRA Special Emphasis Panel, 2020, 2021
- Standing Member of the National Institutes of Health MRAE Review Group, 2023-2027
- Editor, iScience (Cell Press, Elsevier), Special Issue on Cell-like Systems, 2022
- <u>Journal Peer Review (alphabetical)</u>: ACS Applied Materials and Interfaces, BBA Biomembranes, Biophysical Journal, eLife, IEEE Transactions of Biomedical Engineering, iScience, Journal of the American Chemical Society, Journal of the Federation of American Societies for Experimental Biology (FASEB), Lab on a Chip, Langmuir, Materials Chemistry B, Materials Science and Engineering C, Nature, Nature Cell Biology, Nature Communications, Physical Review Letters, PLOS One, Royal

Society of Chemistry Advances, Science Advances, Soft Matter

PUBLICATIONS:

A. Refereed Journal Papers

Currently under review/revision

 H. Liu, G. Ashby, F. Yuan, S. Sarkar, C. C. Hayden, J. M. Huibregtse, J. C. Stachowiak, "Polylubiquitylated transmembrane proteins outcompete other cargo for limited space inside clathrincoated vesicles," *Accepted in Cell Reports, In Press.*

Revised: January 2025

- 2. B. T. Malady, A. Papaginannoula, A. Kamatar, S. Sarkar, G. T. Lebrun, L. Wang, C. C. Hayden, E. M. Lafer, D. J. Own, S. Milles, J. C. Stachowiak, "Of condensates and coats-reciprocal regulations of clathrin assembly and the growth of protein networks," *Nature Communications, Accepted, In Press.*
- 3. C. Walker, D. Mansour, U. Effiong, D. Jordan, L. Wang, E. M. Lafer, J. Alvarado, B. Belardi, P. Rangamani, J. C. Stachowiak, "A balance between nucleating and elongating actin filaments controls deformation of protein condensates," *Under revision in Science Advances*.
- 4. A. Z. Shiorwala, A. J. Lin, I. Ramirez-Velez, S. Yang, S. Chowdhury, J. C. Stachowiak, B. Belardi, "Light-controlled synthetic communication networks via paired connexon nanopores," *Under Revision in Nature Communications.*
- 5. D. Mansour, D. Jordan, C. Walker, A. Chandrasekaran, C. T. Lee, K. Graham, J. C. Stachowiak, P. Rangamani, "Mechanochemical feedback between confinement and actin crosslinking drives the shape dynamics of liquid-like droplets," *Under Revision in Nature Communications*.
- 6. V. D. Bejar-Padilla, M. Li, J. C. Stachowiak, J. B. Wallingfor, "Stressed actin binding by the Prickle2 LIM domains and its regulation in the full-length protein," *Under revision in MBOC*.

Published

- 7. A. C. M. DeGroot, D. J. Busch, C. C. Hayden, S. Mihelic, M. Behar, J. C. Stachowiak, "Entropic Control of Receptor Recycling Using Engineered Ligands," *Biophysical Journal*, vol. 114, p. 1377-1388, 01/2018.
- W. T. Snead, J. C. Stachowiak, "Structure versus Stochasticity The role of Molecular Crowding and Intrinsic Disorder in Membrane Fission," *Journal of Molecular Biology*, vol. 430, p. 2293-2308, 04/2018.
- 9. P. Bassereau, R. Jin, R. Baumgart, M. Deserno, R. Dimova, V. A. Frolov, P. V. Bashkirov, H. Grubmuller, R. Jahn, H. J. Risselada, L. Johannes, M. M. Kozlov, R. Lipowsky, T. J. Pucadyil, W.F. Zeno, J. C. Stachowiak, D. Stamou, A. Breuer, L. Lauritsen, C. Simon, C. Sykes, G. A. Voth, T.R. Weikl, "The 2018 Biomembrane Curvature and Remodeling Roadmap," Journal of Physics D: Applied Physics, vol. 51, 07/2018.
- 10. W. T. Snead, J. C. Stachowiak, "A tethered vesicle assay of membrane fission," *Methods in Enzymology*, vol. 611, p. 559-582, 08/2018.
- 11. H. Alimohamadi, R. Vasan, J. E. Hassinger, J. C. Stachowiak, P. Rangamani, "The role of traction in membrane curvature generation," *Molecular Biology of the Cell*, 29, p. 2024-2035, 08/2018.
- 12. W. F. Zeno, U. Baul, W. T. Snead, G. Kago, A. C. M. DeGroot, L. Wang, E. M. Lafer, D. Thirumalai, J. C. Stachowiak, "Synergy between intrinsically disordered domains and structured proteins amplifies membrane curvature sensing," *Nature Communications*, 9, 4152, 08/2018.
- 13. W. T. Snead, W. F. Zeno, G. Kago, R. W. Perkins, J. B. Richter, C. Zhao, E. M. Lafer, J. C. Stachowiak, "BAR scaffolds drive membrane fission by crowding disordered domains," *Journal of Cell Biology*, 218, 664-682, 02/2019.

14. W. F. Zeno, A. Thatte, L. Wang, W. T. Snead, E. M. Lafer, J. C. Stachowiak, "Molecular mechanisms of membrane curvature sensing by a disordered protein," *Journal of the American Chemical Society*, 141, 10361-10371, 07/2019.

- 15. C. Zhao, A. C. M. DeGroot, C. C. Hayden, J. R. Houser, H. A. Ali, M. F. LaMonica, J. C. Stachowiak, "Receptor heterodimerization modulates endocytosis through collaborative and competitive mechanisms," *Biophysical Journal*,117, 646-658, 08/2019.
- 16. A. C. M. DeGroot, C. Zhao, M. F. LaMonica, C. C. Hayden, J. C. Stachowiak, "Molecular thermodynamics of receptor competition for endocytic uptake," *Soft Matter*, 15, 7448-7461. 09/2019.
- 17. A. N. Trementozzi, Z. I Imam, M. Mendicino, C. C. Hayden, J. C. Stachowiak, "Liposome-mediated chemotherapeutic delivery is synergistically enhanced by ternary lipid compositions and cationic lipids," *Langmuir*, 35, 12532-12542, 09/2019.
- 18. W. F. Zeno, W. T. Snead, A. S. Thatte, J. C. Stachowiak, "Structured and intrinsically disordered domains within Amphiphysin1 work together to sense and drive membrane curvature," Soft Matter, 15, 8716-8717, 11/2019.
- 19. W. F. Zeno, K. Y. Day, V. D. Gordon, J. C. Stachowiak, "Principles and Applications of Biological Membrane Organization," *Annual Review of Biophysics*, 49, 19-39, 01/2020.
- 20. K. J. Day, J. C. Stachowiak "Biophysical forces in membrane bending and traffic," Current Opinion in Cell Biology, 65, 72-77, 01/2020.
- 21. A. N. Trementozzi, A. Hufnagel, H. Xu, M. S. Hanafy, F. Rosero Castro, H. D. C. Smyth, Z. Cui, J.C. Stachowiak, "Gap junction liposomes for efficient delivery of chemotherapeutics to solid tumors," ACS Biomaterials Science and Engineering, 6, 4851-4857, 08/2020.
- 22. *J. R. Houser*, C. C. Hayden, D. Thirumalai, J. C. Stachowiak, "A Forster resonance energy transfer-based sensor of steric pressure on membrane surfaces," *Journal of the American Chemical Society*, 142, 20796-20805, 11/2020.
- 23. W.F. Zeno, J.B. Hochfelder, A.S. Thatte, L. Wang, A.K. Gadok, C.C. Hayden, E.M. Lafer, J.C
- M. S. Hanafy, S. Hufnagel, A. N. Trementozzi, W. Sakran, J. C. Stachowiak, J. J. Koleng, Z. Cui, "PD-1 siRNA-encapsulated solid lipid nanoparticles downregulate PD-1 expression by macrophages and inhibit tumor growth," AAPS PharmSciTech, 22, 1-8, 02/2021.
- 25. F. Yuan, H. Alimohamadi, B. Bakka, A.N. Trementozzi, N.L. Fawzi, P. Rangamani, J.C. Stachowiak, "Membrane bending by protein phase separation," PNAS, 118 (1), 03/2021.
- K.J. Day, G.K. Kago, L. Wang, J.B. Richter, C.C. Hayden, E.M. Lafer, J.C. Stachowiak, "Liquid-like protein interactions catalyze assembly of endocytic vesicles," *Nature Cell Biology*, 23, 366-376, 04/2021.
- 27. A.C.M. DeGroot, S. Gollapudi, C. Zhao, M. F. LaMonica, J. C. Stachowiak, "Weakly internalized receptors use coated vesicle heterogeneity to evade competition during endocytosis," *Biochemistry*. 60, 2195, 06/2021.
- V. Le, L. Mei, P. L. Voyvodic, C. Zhao, D. J. Busch, J. Stachowiak, A. B. Baker, "Molecular tension in syndecan-1 is regulated by extracellular mechanical cues and fluidic shear stress," *Biomaterials*, 275, 120497, 06/2021.
- 29. Y. Fu, W. F. Zeno, J. C. Stachowiak, M. E. Johnson, "A continuum membrane model predicts curvature sensing by helix insertion," *Soft Matter*, 17, 10649, 11/2021.
- 30. A. N. Trementozzi, C. Zhao, H. Smyth, Z. Cui, J. C. Stachowiak, "Gap junction-mediated delivery of polymeric macromolecules", ACS Biomaterials Science and Engineering, 8, 1566-1572, 02/2022.
- 31. J. C. Stachowiak, "Clathrin bender or bystander?", Journal of Cell Biology, 221,7, 06/2022.
- 32. W. F. Zeno, F. Yuan, K. D. Graham, J. C. Stachowiak, "Disordered protein networks as mechanistic drivers of membrane remodeling and endocytosis," Structure and Intrinsic Disorder in

- Enzymology, 11/2022.
- 33. J. R. Houser, H. W. Cho, C. C. Hayden, *N. X. Yang*, L. Wang, E. M. Lafer, D. Thirumalai, J. C. Stachowiak, "Molecular mechanisms of steric pressure generation and membrane remodeling by intrinsically disordered proteins," *Biophysical Journal*, 121, 3320-3333, 10/2022.

- 34. J. C. Stachowiak, T. Kirchhausen, "The beauty of simplicity in membrane biology," *Nature Cell Biology*, Invited Perspective, *Nature Cell Biology*, 08/2022.
- 35. , A. J. Lin, J. C. Stachowiak, B. Belardi, "Light-activated assembly of connexon nanopores in synthetic cells," *Journal of the American Chemical Society*, 145, 3561-3568, 01/2023.
- S. Boeynaems, S. Chong, J. Gsponer, L. Holt, D. Milovanovic, D. M. Mitrea, O. Mueller-Cajar, B. Pertz, J. F. Reilly, C. D. Reinkemeier, B. R. Sabari, S. Sanulli, J. Shorter, E. Sontag, L. Strader, J.C. Stachowiak, S. C. Weber, M. White, H. Zhang, M. Zweckstetter, S. Elbaum-Garfinkle, R. Kriwacki, "Phase separation in biology and disease; current perspectives and open questions," *Journal of Molecular Biology*, 435, 167971, 2023. doi: 10.1016/j.jmb.2023.167971.
- 37. K. D. Graham, A. Chandrasekaran, L. Wang, *A. Ladak*, E. M. Lafer, P. Rangamani, J. C. Stachowiak, "Liquid-like assembly of VASP drives actin polymerization and bundling," *Nature Physics*, 19, 574-578, 01/2023.
- 38. S. Gollapudi, S. Jamal, A. Kamatar, F. Yuan, L. Wang, E. M. Lafer, B. Belardi, J. C. Stachowiak, "Steric pressure between glycosylated transmembrane proteins inhibits internalization by endocytosis," *PNAS*, 120, e2215815120, *03/2023*.
- 39. D. Maltseva, S. Chatterjee, C. Yu, M. Brzezinski, Y. Nagata, G. Gonella, A. C. Murthy, J. C. Stachowiak, N. L. Fawzi, S. Parkeh, M. Bonn, "Fibril formation and ordering of disordered FUS LC driven by hydrophobic interactions," *Nature Chemistry*, 15, 1146-1154, 05/2023.
- 40. F. Yuan, J. Houser, A. Sangani, L. Wang, E. M. Lafer, P. Rangamani, J. C. Stachowiak, "The ins and outs of membrane bending by intrinsically disordered proteins," 9, 27, *Science Advances*, 07/2023.
- 41. Y. Lee, S. Park, F. Yuan, C. C. Hayden, L. Wang, E. M. Lafer S. Q. Choi, J. C. Stachowiak, "Transmembrane coupling of liquid-like protein condensates," *Nature Communications*, 14, 12/2023.
- 42. F. Wilfling, M. Kaksonen, J. C. Stachowiak, "Protein condensates as flexible platforms for membrane traffic," *Current Opinion in Cell Biology*, 85, 12/2023.
- 43. G. Ashby, K. E. Keng, C. C. Hayden, S. Gollapudi, J. R. Houser, S. Jamal, J. C. Stachowiak, "Selective endocytic uptake of targeted liposomes occurs within a narrow range of liposome diameters," *ACS Applied Materials and Interfaces*, 15, 10/2023.
- 44. M. S. hanafy, M. A. Sandoval, H. M. Dao, R. O. Williams III, J. C. Stachowiak, Z. Cui, "Functional dry poswers of connexin-containing extracellular vesicles," *International Journal of Pharmaceutics*, 663, 9/2024.
- 45. F. Yuan, S. Gollapudi, K. J. Day, G. Ashby, A. Sangani, B. T. Malady, L. Wang, E. M. Lafer, J. M. Huibregtse, J. C. Stachowiak, "Ubiquitin-driven protein condensation stabilizes clathrin-mediated endocytosis," *PNAS Nexus*, 3, 9/2024.
- 46. J. Clarke, L. Melcher, A. D. Crowell, F. Cavanna, J. R. Houser, K. Graham, A. M. Green, J. C. Stachowiak, T. M. Truskett, D. J. Millioron, A. M. Rosales, M. Das, J. Alvarado, "Morphological control of bundled actin networks subject to fixed-mass depletion," *The Journal of Chemical Physics*, 161, 8/2024.
- 47. A. Kamatar, J. Bravo, F. Yuan, L. Wang, E. M. Lafer, D. W. Taylor, J. C. Stachowiak, S. H. Parekh, "Lipid-droplets as substates for protein phase separation," *Biophysical Journal*, 123, 6/2024.
- 48. A. Chandrasekaran, K. Graham, J. C. Stachowiak, P. Rangamani, "Kinetic trapping organizes actin filaments within liquid-like protein droplets," *Nature Communications*, 15, 4/2024.

49. K. Graham, A. Chandrasekaran, L. Wang, N. Yang, E. M. Lafer, P. Rangamani, J. C. Stachowiak, "Liquid-like condensates mediate competition between actin branching and bundling," *PNAS*, 121. 01/2024.

Revised: January 2025

- 50. G. Ashby, K. E. Keng, C. C. Hayden, J. C. Stachowiak, "A live-cell imaging-based assay for tracking particle uptake by calthrin-mediated endocytosis," *Methods in Enzymology*, 2/2024.
- 51. C. Walker, A. Chandrasekaran, D. Mansour, K. Graham, A. Torres, L. Want, E. M. Lafer, P. Rangamani, J. C. Stachowiak, "Liquid-like condensates that bind actin drive filament polymerization and bundling," *Developmental Cell*, 06/25.
- 52. K. Xiao, S. Park, J. C. Stachowiak, P. Rangamani, "Biophysical modeling of membrane curvature generation and curvature sensing by the glycocalyx," *PNAS*, 122 (8), 2/25.
- 53. M. L. Mugnai, D. Chakraborty, H. T. Nguyen, F. Maksudov, A. Kumar, W. Zeno, J. C. Stachowiak, J. E. Straub, D. Thirumalai, "Sizes, conformational fluctuations, and SAXS profiles of intrinsically disordered proteins," *Protein Science*, 34, 34, 04/2025.
- 54. Y. Lee, F. Yuan, J. L. Cabriales, J. C. Stachowiak, "Transmembrane coupling drives the growth of liquid-like protein condensates," *Biophysical Journal*, 07/2025.
- 55. S. Sarkar, H. Liu, F. Yuan, B. T. Malady, L. Wang, J. Perez, E. M. Lafer, J. Huibregtse, J. C. Stachowiak, "Epsin1 enforces a condensation-dependent checkpoint for ubiquitylated cargo during clathrin-mediated endocytosis, *Nature Communications*, 16(1), 08/2025.
- 56. Y. Yang, S. Norouzi, A. Nisar, J. Houser, S. Kumar, M. Hedayati, H. S. Varol, P. Delgado, N. Calhoun, L. Gutzwiller, J. C. Stachowiak, M. K. Rausch, S. H. Parekh, "Fatty acid albumin conjugates mechanically weaken and disrupt degradation of fibrin networks," *Acta Biomaterialia*, 8/2025.
- 57. K. Zinga, Y. Lee, S. Pathak, N. Patel, J. C. Stachowiak, P. Ren, "Simulations reveal a balance between protein-protein and protein-lipid interactions during condensation on membrane surfaces," *Chemical Science*, 08/2005.

Published in previous rank at UT Austin

- 58. J. C. Stachowiak, E. M. Schmid, C. J. Ryan, H. S. Ann, D. Y. Sasaki, M. B. Sherman, P. L. Geissler, **D. A. Fletcher**, C. C. Hayden, "Membrane bending by protein-protein crowding," *Nature Cell Biology*, vol. 9, p. 944-949, 09/2012.
- 59. C. S. Scheve, P. Gonzales, N. Momin, J. C. Stachowiak, "Protein-protein crowding resists membrane phase separation," *Journal of the American Chemical Society*, vol. 135, p. 1185-1188, 01/2013.
- 60. D. Y. Sasaki, N. Zawada, S. F. Gilmore, P. Narasimmaraj, M. A. Sanchez, J. C. Stachowiak, C. C. Hayden, H. L. Wang, A. N. Parikh, A. P. Schreve, "Lipid Membrane Domains for the Selective Adsorption and Surface Patterning of Conjugated Polyelectrolytes,", *Langmuir*, vol. 29, p. 5214-5221, 04/2013.
- 61. J. C. Stachowiak, F. Brodsky, E. Miller "A Cost-Benefit Analysis of the Physical Mechanisms of Membrane Curvature", *Nature Cell Biology*, vol. 15, p. 1019-1027, 09/2013.
- 62. C. W. Coyne, K. Patel, J. Heureaux, J. C. Stachowiak, D. A. Fletcher, A. P. Liu, "Lipid Bilayer Vesicle Generation Using Microfluidic Jetting" *Journal of Visualized Experiments*, DOI: 10.3791/51510, p. e51510-e51510, 2014.
- 63. *N. Momin*, S. Lee, *A. K. Gadok, D. J. Busch*, G. D. Bachand, C. C. Hayden, J. C. Stachowiak, D. Y. Sasaki "Designing Lipids for Selective Partitioning Into Liquid Ordered Membrane Domains", *Soft Matter, vol.* 11, p. 3241-3250, 03/2015.
- 64. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, J. C. Stachowiak, "Crowding Among Intrinsically Disordered Proteins Modulates the Curvature and Content of

Clathrin-Coated Vesicles", Nature Communications, vol. 6, doi:10.1038/ncomms8875, 07/2015.

Revised: January 2025

- 65. *J. R. Houser, D. J. Busch*, D. R. Bell, B. Li, P. Ren, J. C. Stachowiak, "The Impact of Physiological Crowding on the Diffusivity of Membrane Bound Proteins", *Soft Matter*, vol. 12, p. 2127-2134, 01/2016.
- 66. Z. I. Imam, L. E. Kenyon, A. Carrillo, I. Espinoza, F. Nagib, J. C. Stachowiak, "Steric Pressure Among Membrane-bound Polymers Opposes Lipid Phase Separation", *Langmuir*, vol. 32, p. 3774-3784, 04/2016.
- 67. *C. Zhao, D. J. Busch, C. P. Vershel,* J. C. Stachowiak, "Multi-functional Transmembrane Protein Ligands for Cell-Specific Targeting of Plasma Membrane-derived Vesicles", *Small*, vol. 12, p. 3837-3848, 07/2016
- 68. S. S. Bordovsky, C. S. Wong, G. D. Bachand, J. C. Stachowiak, D. Y. Sasaki, "Engineering Lipid Structure for Recognition of the Liquid Ordered Membrane Phase", *Langmuir*, vol. 32, p. 12527-12533, 10/2016.
- 69. A. K. Gadok, D. J. Busch, S. Ferrati, B. Li, H. D. C. Smyth, J. C. Stachowiak, "Connectosomes for Direct Molecular Delivery to the Cellular Cytoplasm", *Journal of the American Chemical Society*, vol. 128, p 12833-12840, 09/2016.
- 70. M. Chabanon, J. C. Stachowiak, P. Rangamani, "Systems biology of cellular membranes: a convergence with biophysics" *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, DOI: 10.1002/wsbm.1386, 04/2017.
- 71. W. T. Snead, C. C. Hayden, A. K. Gadok, P. Rangamani, C. Zhao, E. M. Lafer, J. C. Stachowiak, "Membrane Fission by Protein Crowding", PNAS, vol. 114, p E3258-E3267, 03/2017.
- 72. Z. I. Imam, L. E. Kenyon, G. Ashby, F. Nagib, M. Mendicino, C. Zhao, A, K. Gadok, J. C. Stachowiak, "Phase Separating Liposomes Enhance the Efficiency of Macromolecular Delivery to the Cellular Cytoplasm," *The Journal of Cellular and Molecular Bioengineering*, 2017 BMES Young Innovator Award Special Issue, vol. 10, p. 387-403, 05/2017.
- 73. S. Ferrati, A. K. Gadok, L. A. Heersema, A. D. Brunaugh, C. Zhao, H. D. C. Smyth*, J. C. Stachowiak, "Connexin Membrane Materials as Potent Inhibitors of Breast Cancer Cell Migration," The Journal of the Royal Society Interface, vol. 14, 08/2017.
- 74. A. K. Gadok, C. Zhao, A. I. Meriwether, S. Feratti, J. Zoldan, H. D. C. Smyth, J. C. Stachowiak, "Display of Single-Domain Antibodies on the Surfaces of Connectosomes Enables Gap Junction Mediated Drug Delivery to Specific Cell Populations," *Biochemistry*, vol. 57, p. 81-90, 08/2017.

Published prior to joining UT Austin

- 75. M. Yue, J. C. Stachowiak, **A. Majumdar**, "A 2-D microcantilever array for multiplexed biomolecular analysis," *Mechanics and Chemistry of Biosystems*, vol. 1, p. 211-220, 09/2004.
- 76. J. C. Stachowiak, M. Yue, K. Castelino, A. Chakraborty, **A. Majumdar**, "Chemomechanics of Surface Stresses Induced by DNA Hybridization," *Langmuir*, vol. 22, p. 263-268, 01/2006.
- 77. J. C. Stachowiak, et al., "Autonomous Microfluidic Sample Preparation System for Protein Profile-Based Detection of Aerosolized Bacterial Cells and Spores," *Analytical Chemistry*, vo. 79, p. 5763-5770, 08/2007.
- 78. J. C. Stachowiak, M. G. von Muhlen, T. H. Li, L. Jalilian, S. H. Parekh, **D. A. Fletcher**, "Piezoelectric Control of Needle-Free Transdermal Drug Delivery," *Journal of Controlled Release*, vol. 124, p. 88-97, 12/2007.
- 79. M. Yue, J. C. Stachowiak, H. Lin, R. Datar, R. Cote, **A. Majumdar**, "Label-free Protein Recognition 2D Array Using Nanomechanical Sensors," *Nano Letters, vol.* 8, p. 520-524, 02/2008.

80. J. C. Stachowiak, D. L. Richmond, T. H. Li, A. P. Liu, S. H. Parekh, **D. A. Fletcher**, "Unilamellar Vesicle Formation and Encapsulation by Microfluidic Jetting," *Proceedings of the National Academy of Sciences of the United States of America, vol.* 105, p. 4697-4702, 03/2008.

Revised: January 2025

- 81. J. C. Stachowiak, T. H. Li, A. A. Arora, S. Mitragotri, **D. A. Fletcher**, "Dynamic control of needle-free jet injection," *Journal of Controlled Release, vol.* 135, p. 104-112, 04/2009.
- 82. J. C. Stachowiak, D. L. Richmond, T. H. Li, F. Brochard-Wyart, **D. A. Fletcher**, "Inkjet Formation of Unilamellar Lipid Vesicles for Cell-like Encapsulation," *Lab on a Chip*, vol. 9, p. 2003-2009, 06/2009.
- 83. T. H. Li, J. C. Stachowiak, **D. A. Fletcher**, "Mixing Solutions in Inkjet Formed Vesicles," *Methods in Enzymology*, vol. 465, p. 75-94, 12/2009.
- 84. J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Steric confinement of proteins on lipid membranes can drive curvature and tubulation," *Proceedings of the National Academy of Sciences of the United States of America*, vol. 107, p. 7781-7786, 04/2010.
- 85. J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Targeting proteins to liquid ordered domains in lipid membranes," *Langmuir*, vol. 27, p. 1457-1462, 12/2010.
- D. L. Richmond, E. M. Schmid, S. Martens, J. C. Stachowiak, N. Liska, D. A. Fletcher, "Forming giant vesicles with controlled membrane composition, asymmetry, and contents," *Proceedings of* the National Academy of Sciences of the United States of America, vol. 108, p. 9431-9436, 06/2011.
- 87. F. J. Zendejas, R. J. Meagher, J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Orienting lipid domains in giant vesicles using an electric field," *Chemical Communications*, vol. 47, p. 7320-7322, 04/2011.

REFEREED CONFERENCE PROCEEDINGS AT UT AUSTIN:

- 1. C. S. Scheve, J. C. Stachowiak, "Steric pressure between proteins opposes membrane phase separation," Annual meeting of the Biophysical Society, Philadelphia, PA, February **2013**.
- 2. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, J. C. Stachowiak, "Molecular crowding by intrinsically disordered proteins drives membrane bending," *Gordon Research Conference on Lysosomes and Endocytosis*, Andover, NH, June **2014**.
- 3. W. T. Snead, N. Momin, V. Bora, J. C. Stachowiak, "Helix insertion drives membrane bending by enabling protein crowding," Annual Meeting of the Biomedical Engineering Society, San Antonio, TX, October 2014.
- 4. *K. Gadok, J. C. Stachowiak*, "Gap junction liposomes for direct therapeutic delivery to the cellular cytoplasm," *Annual Meeting of the Biomedical Engineering Society*, San Antonio, TX, October **2014**.
- 5. W. T. Snead, N. Momin, V. Bora, J. C. Stachowiak, "Helix insertion drives membrane bending by enabling protein crowding," Annual Meeting of the Biophysical Society, Baltimore, MD, February 2015.
- 6. *K. Gadok, J. C. Stachowiak*, "Gap junction liposomes for direct therapeutic delivery to the cellular cytoplasm," *Annual Meeting of the Society for Biomaterials*, Charlotte, NC, April **2015**.
- 7. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, J. C. Stachowiak "Intrinsically disordered proteins drive membrane curvature and modulate the cargo content of coated vesicles," *Annual Meeting of the American Society of Cell Biology*, San Diego, CA, December **2015**.
- 8. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, <u>J. C. Stachowiak</u>, "Intrinsically disordered proteins drive membrane curvature," *Annual Meeting of the Biophysical Society*, Los Angeles, CA, February **2016**.
- 9. *C. Zhao, D. J. Busch C. P. Vershel, <u>J. C. Stachowiak</u>, "Plasma membrane-derived vesicles with engineered transmembrane protein ligands a new system for cellular targeting," <i>Annual Meeting*

- of the American Chemical Society, San Diego, CA, March 2016.
- 10. K. Gadok, J. C. Stachowiak, "Connectosomes for direct intracellular drug delivery," Annual Meeting of the American Chemical Society, San Diego, CA, March 2016.

- 11. W. T. Snead, C. C. Hayden, A. K. Gadok, P. Rangamani, J. C. Stachowiak, "Membrane fission by protein crowding," *Annual Meeting of American Society for Cell Biology*, San Francisco, CA, December **2016**.
- 12. W. T. Snead, C. C. Hayden, A. K. Gadok, P. Rangamani, J. C. Stachowiak, "Membrane fission by protein crowding," *Annual Meeting of the Biophysical Society*, New Orleans, LA, February **2017**.
- 13. Z. I. Imam, L. E. Kenyon, G. Ashby, F. Nagib, M. Mendicino, J. C. Stachowiak, "Lipid Phase Separation Enhances Fusion," *Annual Meeting of the American Chemical Society*, San Francisco, CA, April **2017**.
- 14. *Trementozzi, A. DeGroot, C. Zhao, J. C. Stachowiak*, "Controlling receptor recycling using engineered ligands," *Annual Meeting of the American Chemical Society*, New Orleans, LA, March **2018**.
- 15. *Z. Imam, M. Mendicino, J. C. Stachowiak*, "Membrane phase separation enhances liposomal delivery of chemotherapeutics," *Annual Meeting of the American Chemical Society*, New Orleans, LA, March **2018**.
- 16. J. Hung, B. Dear, W. Zeno, C. Karouta, M. Nieto, L. Wilks, A. Sharma, J. C. Stachowiak, K. Johnston, "Understanding co-solute effects on viscosity and protein interactions in highly concentrated monoclonal antibodies through protein structure and dynamics," Annual Meeting of the American Chemical Society, New Orleans, LA, March 2018.
- 17. DeGroot, D. J. Busch, C. C. Hayden, S. A. Mihelic, A. T. Alpar, M. Behar, J. C. Stachowiak, "Biophysical control of receptor recycling using engineered ligands," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February **2018**.
- 18. G. Kago, K. J. Day, W. T. Snead, W. F. Zeno, J. B. Richter, L. Wang, C. C. Hayden, J. C. Stachowiak, "Protein networks as synergistic initiators of clathrin mediated endocytosis," *Annual Meeting of the American Society for Cell Biology*, San Diego, CA, December **2018**.
- 19. Alimohamadi, R. Vasan, J. E. Hassinger,, J. C. Stachowiak, P. Rangamani, "The role of traction in membrane curvature generation," *Annual Meeting of the American Society for Cell Biology*, San Diego, CA, December **2018**.
- 20. *Trementozzi, Z. Imam, M. Mendicino, J. C. Stachowiak*, "Phase-separated liposomes for enhanced chemotherapeutic delivery," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 21. Zhao, A. DeGroot, H. Ali, M. LaMonica, C. C. Hayden, J. C. Stachowiak, "Receptor heterodimerization modulates endocytic uptake through both collaborative and competitive mechanisms," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 22. DeGroot, C. Zhao, C. C. Hayden, S. Mihelic, L. LaMonica, J. C. Stachowiak, "Molecular thermodynamics of receptor competition for uptake by endocytosis," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 23. Zhao A. Meriwether, H. Ali, M. Wu,, J. C. Stachowiak, "Direct cytosolic delivery of macromolecules via connectosomes," Annual Meeting of the American Chemical Society, Orlando, FL, March 2019.
- 24. W. F. Zeno, U. Baul, W. T. Snead, A. DeGroot, L. Wang, E. M. Lafer, D. Thirumalai,, J. C. Stachowiak, "Intrinsically disordered proteins sense membrane curvature," Annual Meeting of the Biophysical Society, Baltimore, MD, March 2019.
- DeGroot, S. Gollapudi, C. Zhao, C. C. Hayden, J. C. Stachowiak, "Receptors utilize coated vesicle heterogeneity to evade competition during endocytosis" Annual Meeting of the American Chemical Society, virtual, March, 2020.

26. W. F. Zeno, W. T. Snead, L. Wang, A. S. Thatte, J. B. Hochfelder, E. M. Lafer, J. C. Stachowiak, "The role of disordered proteins in membrane curvature sensing during endocytosis" *Annual Meeting of the American Chemical Society*, virtual, March, **2020**.

Revised: January 2025

- 27. K. D. Graham, W. T. Snead, L. Wang, E. M. Lafer J. C. Stachowiak, "Assembly of I-BAR containing protein IRSp53 enhances membrane bending," *Annual Meeting of the Biophysical Society*, San Diego, CA, February, **2020**
- 28. G. Ashby. C. C. Hayden, J. C. Stachowiak, "Tracking dynamic interaction between therapeutic vesicles and endocytic structures" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 29. S. Gollapudi, C. C. Hayden, J. C. Stachowiak, "Impact of glycosylation on uptake of receptors by endocytosis" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 30. F. Yuan, J. R. Houser, A. Sangani, L. Wng, E. M. Lafer, J. C. Stachowiak, "A balance of attractive and repulsive forces controls the direction of membrane bending by intrinsically disordered proteins," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 31. Y. Fu, W. F. Zeno, J. C. Stachowiak, M. Johnson, "Predicting membrane curvature sensing and remodeling by protein domains and assemblies using continuum models," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 32. K. Graham, A. Ladak, L. Wang, A. Chandrasekaran, P. Rangamani, E. M. Lafer, J. C. Stachowiak, "Polymerization of actin inside liquid-like protein droplets drives spontaneous actin bundling" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 33. S. Gollapudi, S. Jamal, J. C. Stachowiak, "Impact of glycosylation on uptake of receptors by endocytosis," *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.
- 34. *J. Houser, C. C. Hayden, H. W. Cho, D. Thirumalai, J. C. Stachowiak*, "Intrinsically disordered proteins generate steric pressure through polymer-like crowding" *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.
- 35. F. Yuan, J. Houser, A. Sangani, L. Wang, E. M. Lafer, J. C. Stachowiak, "Balance of attractive and repulsive forces controls the direction of membrane bending by intrinsically disordered proteins," *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.

ORAL PRESENTATIONS:

Oral Presentations since joining UT Austin

- 1. J. C. Stachowiak, "Biomechanics of membrane bending," Southwestern Biomedical Engineering Conference, Houston, TX, May **2012**.
- 2. C. S. Scheve, J. C. Stachowiak, "Steric pressure between proteins opposes membrane phase separation," Annual meeting of the Biophysical Society, Philadelphia, PA, February **2013**.
- 3. *J. C. Stachowiak, Invited Departmental Seminar*, **University of Texas at Austin**, Department of Physics, Center for Nonlinear Dynamics, Seminar Series, Spring **2012**.
- 4. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Texas Health Sciences Center**, San Antonio, Department of Biochemistry, Seminar Series, Spring **2012**.
- 5. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Texas at Austin**, Institute for Cellular and Molecular Biology, Seminar Series, Fall **2012**.
- 6. *J. C. Stachowiak, Invited Seminar,* **University of Texas at Austin**, Center for Systems and Synthetic Biology, Seminar Series, Fall **2013**.
- 7. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, J. C. Stachowiak, "Molecular crowding by intrinsically disordered proteins drives membrane bending," *Gordon Research Conference on Lysosomes and Endocytosis*, Andover, NH, June **2014**.

8. J. C. Stachowiak, "Membrane bending by protein-protein crowding," Annual Meeting of the American Physical Society, Denver, CO, March **2014**.

- 9. *J. C. Stachowiak, Invited Departmental Seminar*, **University of Southern Illinois**, Departments of Chemistry and Biochemistry, Seminar Series, Spring **2014**.
- 10. J. C. Stachowiak, Invited Departmental Seminar, **Duke University**, Departments of Cell Biology and Molecular, Genetics and Microbiology, Seminar Series, Spring **2014**.
- 11. *J. C. Stachowiak*, "Lipid rafts and membrane proteins collaborate to organize and shape biological membranes" *Annual Meeting of the Biophysical Society of Japan*, Sapporo, Japan, September **2014**.
- 12. W. T. Snead, N. Momin, V. Bora, J. C. Stachowiak, "Helix insertion drives membrane bending by enabling protein crowding," *Annual Meeting of the Biomedical Engineering Society*, San Antonio, TX, October **2014**.
- 13. A. K. Gadok, J. C. Stachowiak, "Gap junction liposomes for direct therapeutic delivery to the cellular cytoplasm," *Annual Meeting of the Biomedical Engineering Society*, San Antonio, TX, October **2014**.
- 14. W. T. Snead, N. Momin, V. Bora, J. C. Stachowiak, "Helix insertion drives membrane bending by enabling protein crowding," Annual Meeting of the Biophysical Society, Baltimore, MD, February 2015.
- 15. *J. C. Stachowiak*, "Protein crowding modulates the shape and content of curved membranes and coated vesicles," *Annual Meeting of the Biophysical Society*, Baltimore, MD, February **2015**.
- 16. A. K. Gadok, J. C. Stachowiak, "Gap junction liposomes for direct therapeutic delivery to the cellular cytoplasm," Annual Meeting of the Society for Biomaterials, Charlotte, NC, April **2015**.
- 17. J. C. Stachowiak, Invited Departmental Seminar, University of Washington, Department of Chemistry, Seminar Series, Spring 2015.
- 18. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, J. C. Stachowiak "Intrinsically disordered proteins drive membrane curvature and modulate the cargo content of coated vesicles," *Annual Meeting of the American Society of Cell Biology*, San Diego, CA, December **2015**.
- 19. J. C. Stachowiak, "Role of Molecular Crowding in Organizing Cellular Membranes," American Chemical Society Pacifichem Meeting, Honoloulu, HI, December 2015.
- 20. D. J. Busch, J. R. Houser, C. C. Hayden, M. B. Sherman, E. M. Lafer, <u>J. C. Stachowiak</u>, "Intrinsically disordered proteins drive membrane curvature," *Annual Meeting of the Biophysical Society*, Los Angeles, CA, February **2016**.
- 21. C. Zhao, D. J. Busch C. P. Vershel, <u>J. C. Stachowiak</u>, "Plasma membrane-derived vesicles with engineered transmembrane protein ligands a new system for cellular targeting," *Annual Meeting of the American Chemical Society*, San Diego, CA, March **2016**.
- 22. A. K. Gadok, J. C. Stachowiak, "Connectosomes for direct intracellular drug delivery," Annual Meeting of the American Chemical Society, San Diego, CA, March 2016.
- 23. *J. C. Stachowiak, Invited Departmental Seminar,* **University of California, San Diego**, Department of Mechanical Engineering, Seminar Series, Spring **2016**.
- 24. *J. C. Stachowiak*, "Intrinsically Disordered Proteins as Physical Drivers of Membrane Traffic," *American Chemical Society National Meeting*, Philadelphia, PA, August **2016**.
- 25. J. C. Stachowiak, "Stochastic Mechanisms in Membrane Traffic," Gordon Research Conference on Active, Adaptive, and Responsive Biointerfaces, Les Diableretes, Switzerland, June **2016**.
- 26. J. C. Stachowiak, Invited Seminar, Max Planck Institute of Biophysics, Frankfurt Germany, August 2016.
- 27. J. C. Stachowiak, Invited Departmental Seminar, University of Michigan, Department of

- Biophysics, October 7, 2016.
- 28. J. C. Stachowiak, Invited Departmental Seminar, University of Washington in St. Louis, Department of Bioengineering, October 13, 2016.

- 29. *J. C. Stachowiak*, *Invited Departmental Seminar*, **University of Maryland**, Department of Bioengineering, December 5, **2016**.
- 30. W. T. Snead, C. C. Hayden, A. K. Gadok, P. Rangamani, J. C. Stachowiak, "Membrane fission by protein crowding," *Annual Meeting of American Society for Cell Biology*, San Francisco, CA, December **2016**.
- 31. W. T. Snead, C. C. Hayden, A. K. Gadok, P. Rangamani, J. C. Stachowiak, "Membrane fission by protein crowding," *Annual Meeting of the Biophysical Society*, New Orleans, LA, February **2017**.
- 32. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Texas Health Sciences Center**, San Antonio, Department of Biochemistry, Seminar Series, Spring **2017**.
- 33. J. C. Stachowiak, "Stochastic Molecular Mechanisms in Membrane Traffic," *American Chemical Society National Meeting*, San Francisco, CA, April **2017**.
- 34. Z. I. Imam, L. E. Kenyon, G. Ashby, F. Nagib, M. Mendicino, J. C. Stachowiak, "Lipid Phase Separation Enhances Fusion," *Annual Meeting of the American Chemical Society*, San Francisco, CA, April **2017**.
- 35. J. C. Stachowiak, Invited Seminar, Steenbock Symposium on Protein in the Secretory Pathway, University of Wisconsin, Madison, June **2017**.
- 36. J. C. Stachowiak, Invited Seminar, Telluride Workshop on Intrinsically Disordered Proteins, July **2017**.
- 37. J. C. Stachowiak, Invited Departmental Seminar, Lehigh University, Department of Chemistry, Seminar Series, Fall 2017.
- 38. *J. C. Stachowiak, Invited Departmental Seminar,* **Johns Hopkins University**, Department of Biophysics, Seminar Series, Fall **2017**.
- 39. J. C. Stachowiak, Annual Student Selected Speaker in the Structural and Quantitative Biology Seminar Series, University of California, Berkeley, Fall 2017.
- 40. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Texas Health Science Center at Houston**, Department of Physiology, Seminar Series, Spring **2018**.
- 41. J. C. Stachowiak, Invited Speaker, Symposium on Membrane Curvature, Annual Meeting of the Biophysical Society, San Francisco, CA, February **2018**.
- 42. A. Trementozzi, A. DeGroot, C. Zhao, J. C. Stachowiak, "Controlling receptor recycling using engineered ligands," Annual Meeting of the American Chemical Society, New Orleans, LA, March 2018.
- 43. Z. Imam, M. Mendicino, J. C. Stachowiak, "Membrane phase separation enhances liposomal delivery of chemotherapeutics," Annual Meeting of the American Chemical Society, New Orleans, LA, March 2018.
- 44. J. Hung, B. Dear, W. Zeno, C. Karouta, M. Nieto, L. Wilks, A. Sharma, J. C. Stachowiak, K. Johnston, "Understanding co-solute effects on viscosity and protein interactions in highly concentrated monoclonal antibodies through protein structure and dynamics," *Annual Meeting of the American Chemical Society*, New Orleans, LA, March **2018**.
- 45. A. DeGroot, D. J. Busch, C. C. Hayden, S. A. Mihelic, A. T. Alpar, M. Behar, J. C. Stachowiak, "Biophysical control of receptor recycling using engineered ligands," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February **2018**.
- 46. C. Zhao, A. DeGroot, J. C. Stachowiak, "Low affinity receptors can enter endocytic pits by binding to high affinity receptors," Annual Meeting of the Biophysical Society, San Francisco, CA, February

2018.

47. G. Kago, J. Houser, W. T. Snead, C. C. Hayden, E. M. Lafer, J. C. Stachowiak, "Eps15 forms membrane bound networks that promote localized assembly of the clathrin coat," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February **2018**.

- 48. J. C. Stachowiak, Invited Speaker, Gordon Research Conference on "Lysosomes and Endocytosis", Proctor Academy, Andover, NH, June **2018**.
- 49. J. C. Stachowiak, Invited Speaker, Gordon Research Conference on "Intrinsically Disordered Proteins", Les Diableretes, Switzerland, July **2018**.
- 50. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Pennsylvania**, Department of Chemistry, Seminar Series, Fall **2018**.
- 51. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Wisconsin, Madison**, Department of Chemistry, Physical Chemistry Seminar Series, Fall **2018**.
- 52. J. C. Stachowiak, Invited Departmental Seminar, University of Washington, Department of Biochemistry, Seminar Series, Fall 2018.
- 53. G. Kago, K. J. Day, W. T. Snead, W. F. Zeno, J. B. Richter, L. Wang, C. C. Hayden, J. C. Stachowiak, "Protein networks as synergistic initiators of clathrin mediated endocytosis," *Annual Meeting of the American Society for Cell Biology*, San Diego, CA, December **2018**.
- 54. A. Alimohamadi, R. Vasan, J. E. Hassinger,, J. C. Stachowiak, P. Rangamani, "The role of traction in membrane curvature generation," *Annual Meeting of the American Society for Cell Biology*, San Diego, CA, December **2018**.
- 55. J. C. Stachowiak, Invited Departmental Seminar, Weill Cornell Medical School, Seminar Series, Fall 2018.
- 56. J. C. Stachowiak, Invited Speaker, American Society for Cell Biology Annual Meeting, Special Interest Subgroup meeting on "Bottom-Up Cell Biology", San Diego, CA, December, **2018**.
- 57. J. C. Stachowiak, Invited Departmental Seminar, National Institutes of Health Intramural Program, Department of Biophysics, Seminar Series, Spring 2019.
- 58. *J. C. Stachowiak, Invited Departmental Seminar,* **UT Southwestern Medical Center**, Department of Biophysics, Seminar Series, Spring **2019**.
- 59. A. Trementozzi, Z. Imam, M. Mendicino, J. C. Stachowiak, "Phase-separated liposomes for enhanced chemotherapeutic delivery," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 60. C. Zhao, A. DeGroot, H. Ali, M. LaMonica, C. C. Hayden, J. C. Stachowiak, "Receptor heterodimerization modulates endocytic uptake through both collaborative and competitive mechanisms," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 61. A. DeGroot, C. Zhao, C. C. Hayden, S. Mihelic, L. LaMonica, J. C. Stachowiak, "Molecular thermodynamics of receptor competition for uptake by endocytosis," *Annual Meeting of the American Chemical Society*, Orlando, FL, March **2019**.
- 62. C. Zhao A. Meriwether, H. Ali, M. Wu,, J. C. Stachowiak, "Direct cytosolic delivery of macromolecules via connectosomes," Annual Meeting of the American Chemical Society, Orlando, FL, March 2019.
- 63. W. F. Zeno, U. Baul, W. T. Snead, A. DeGroot, L. Wang, E. M. Lafer, D. Thirumalai,, J. C. Stachowiak, "Intrinsically disordered proteins sense membrane curvature," *Annual Meeting of the Biophysical Society*, Baltimore, MD, March **2019**.
- 64. J. C. Stachowiak, Invited Speaker, Biophysical Society Meeting on "Quantitative aspects of membrane fusion and fission", Padova, Italy, May **2019**.
- 65. J. C. Stachowiak, Invited Plenary Speaker, University of Utah "What's the big idea?" symposium,

- Salt Lake City, Utah, May 2019.
- 66. J. C. Stachowiak, Invited Departmental Seminar, Wayne State University Medical School, Center for Molecular Medicine and Genetics, Seminar Series, Summer **2019**.

- 67. J. C. Stachowiak, Invited Speaker, Protein Society Annual Meeting, Seattle, WA, July 2019.
- 68. J. C. Stachowiak, Invited Speaker, European Molecular Biology Organization (EMBO) Meeting on "The physics and chemistry of endocytosis on multiple scales", Ischia Island, Italy, September **2019**.
- 69. J. C. Stachowiak, Invited Departmental Seminar, Case Western Reserve University Medical School, Department of Biochemistry, Seminar Series, Fall 2019.
- 70. J. C. Stachowiak, Keynote Speaker, National Science Foundation Conference for CAREER Awardees, BIO/MCB Program, October 2019.
- 71. J. C. Stachowiak, Invited Speaker, Max Planck Society, "Membrane Days", Berlin, Germany, December **2019**.
- 72. J. C. Stachowiak, Invited Departmental Seminar, University of Chicago, Department of Biophysics, Seminar Series, Spring **2020**.
- 73. A. DeGroot, S. Gollapudi, C. Zhao, C. C. Hayden, J. C. Stachowiak, "Receptors utilize coated vesicle heterogeneity to evade competition during endocytosis" *Annual Meeting of the American Chemical Society*, virtual, March, **2020**.
- 74. W. F. Zeno, W. T. Snead, L. Wang, A. S. Thatte, J. B. Hochfelder, E. M. Lafer, J. C. Stachowiak, "The role of disordered proteins in membrane curvature sensing during endocytosis" *Annual Meeting of the American Chemical Society*, virtual, March, **2020**.
- 75. K. D. Graham, W. T. Snead, L. Wang, E. M. Lafer J. C. Stachowiak, "Assembly of I-BAR containing protein IRSp53 enhances membrane bending," *Annual Meeting of the Biophysical Society*, San Diego, CA, February, **2020**.
- 76. J. C. Stachowiak, Invited Departmental Seminar, University of Washington in St. Louis, Medical School, Department of Neuroscience, Seminar Series, Fall **2020** (virtual).
- 77. J. C. Stachowiak, Invited Departmental Seminar, University of Toronto, Department of Chemistry, Seminar Series, Fall **2020 (virtual)**.
- 78. J. C. Stachowiak, Invited Departmental Seminar, Dartmouth University, Department of Molecular and Cell Biology, Seminar Series, Spring **2021** (virtual).
- 79. J. C. Stachowiak, Invited Talk, German Biophysical Society, Spring 2021 (virtual).
- 80. J. C. Stachowiak, Invited Keynote Speaker, "100 Years of Biophysics" Symposium, Max Planck Institute for Biophysics, Frankfurt, Spring **2021 (virtual)**.
- 81. J. C. Stachowiak, Invited Departmental Seminar, University of Texas, College of Pharmacy Seminar Series, Spring **2021** (*virtual*).
- 82. J. C. Stachowiak, Invited Departmental Seminar, University of Texas, Molecular Biosciences Seminar Series, Spring **2021** (virtual).
- 83. J. C. Stachowiak, Invited Departmental Seminar, Wurzburg University (Germany), Spring **2021** (virtual).
- 84. J. C. Stachowiak, Invited Talk, FASEB Protein Aggregates Meeting, Summer 2021 (virtual).
- 85. J. C. Stachowiak, Invited Departmental Seminar, Princeton University Biophysics, Fall 2021.
- 86. J. C. Stachowiak, Invited Speaker, French Biophysical Society Annual Meeting, online, October **2021 (virtual).**
- 87. J. C. Stachowiak, Invited Speaker, International Union of Pure and Applied Biophysics, Annual

- Congress, Foz do Iguacu, Brazil, October 2021 (virtual).
- 88. J. C. Stachowiak, Invited Speaker, American Society for Cell Biology (ASCB/EMBO), Annual Meeting, December 2021 (virtual).

- 89. J. C. Stachowiak, Invited Departmental Seminar, University of Virginia, Biochemistry, Fall **2021** (virtual).
- 90. J. C. Stachowiak, Invited Departmental Seminar, Vanderbilt University, Cell Biology and Biophysics, Spring **2022 (virtual).**
- 91. J. C. Stachowiak, Invited Departmental Seminar, University of Pittsburgh, Cell Biology, Spring **2022** (virtual).
- 92. J. C. Stachowiak, International Keynote Speaker, Lorne Conference on Protein Structure and Function, Sydney, Australia, February **2022** (*virtual*).
- 93. J. C. Stachowiak, Invited Colloquium Speaker, Institute of Science and Technology, Vienna, Austria, Spring **2022** (*virtual*).
- 94. *G. Ashby. C. C. Hayden, J. C. Stachowiak*, "Tracking dynamic interaction between therapeutic vesicles and endocytic structures" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 95. S. Gollapudi, C. C. Hayden, J. C. Stachowiak, "Impact of glycosylation on uptake of receptors by endocytosis" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 96. F. Yuan, J. R. Houser, A. Sangani, L. Wng, E. M. Lafer, J. C. Stachowiak, "A balance of attractive and repulsive forces controls the direction of membrane bending by intrinsically disordered proteins," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 97. Y. Fu, W. F. Zeno, J. C. Stachowiak, M. Johnson, "Predicting membrane curvature sensing and remodeling by protein domains and assemblies using continuum models," *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 98. K. Graham, A. Ladak, L. Wang, A. Chandrasekaran, P. Rangamani, E. M. Lafer, J. C. Stachowiak, "Polymerization of actin inside liquid-like protein droplets drives spontaneous actin bundling" *Annual Meeting of the Biophysical Society*, San Francisco, CA, February, **2022**.
- 99. S. Gollapudi, S. Jamal, J. C. Stachowiak, "Impact of glycosylation on uptake of receptors by endocytosis," *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.
- 100. *J. Houser, C. C. Hayden, H. W. Cho, D. Thirumalai, J. C. Stachowiak*, "Intrinsically disordered proteins generate steric pressure through polymer-like crowding" *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.
- 101. F. Yuan, J. Houser, A. Sangani, L. Wang, E. M. Lafer, J. C. Stachowiak, "Balance of attractive and repulsive forces controls the direction of membrane bending by intrinsically disordered proteins," *Annual Meeting of the American Chemical Society*, virtual, March, **2022**.
- 102. J. C. Stachowiak, Invited Speaker, Gordon Conference on Bioinspired Materials, Switzerland, Summer 2022.
- 103. J. C. Stachowiak, Invited Speaker, Cell Le Vie Conference, Paris, France, Fall, 2022.
- 104. J. C. Stachowiak, Invited Departmental Seminar, University of Pennsylviania, Chemical Engineering, Fall **2022**.
- 105. J. C. Stachowiak, Invited Speaker, EMBO meeting on endocytosis, Venice, Italy, Summer 2023.
- 106. J. C. Stachowiak, Invited Speaker, Gordon Conference on Molecular Membrane Biology, New Hampshire, Summer **2023**.
- 107. J. C. Stachowiak, Invited Speaker, SFB Membranes and Modules 2023, Berlin, Germany, Spring 2023.J. C. Stachowiak, Invited Departmental Seminar, University of California, Berkeley,

Bioengineering, Spring 2023.

108. J. C. Stachowiak, Invited Speaker, Gordon Conference on Molecular Membrane Biology, New Hampshire, Summer **2023**.

Revised: January 2025

- 109. J. C. Stachowiak, Invited Speaker, EMBO meeting on endocytosis, Venice, Italy, Fall 2023.
- 110. J. C. Stachowiak, Invited Departmental Seminar, Penn State University, Chemistry, Spring 2024.
- 111. J. C. Stachowiak, Invited Departmental Seminar, Vanderbilt University, Biochemistry, Spring 2024.
- 112. J. C. Stachowiak, Invited Departmental Seminar, Rice University, Bio Engineering, Fall 2023.
- 113. J. C. Stachowiak, Invited Departmental Seminar, UNC Chapel Hill, Biophysics, Fall 2024.
- 114. J. C. Stachowiak, Invited Departmental Seminar, Yale University, Cell Biology, Spring 2024.
- 115. J. C. Stachowiak, Invited Speaker, Gordon Conference on Endocytosis, New Hampshire, Summer **2024**.
- 116. J. C. Stachowiak, Invited Speaker, Gordon Conference on Protein Processing, New Hampshire, Summer **2024**.
- 117. J. C. Stachowiak, Invited Speaker, Gordon Conference on Intrinsically Disordered Proteins, Switzerland, Summer **2024**.

Oral Presentations prior to joining UT Austin

- 1. *M. Yue, J. C. Stachowiak, A. Chakraborty, A. Majumdar*, "Nanomechanical sensor array for detection of biomolecular bindings," *ASME Integrated Nanosystems Conference*, Pasadena, CA, September, **2004**.
- 2. *J.C. Stachowiak, E.E. Fischer, P. Caton*, et. al., "Automated sample preparation system for rapid biological threat detection," *ASME Annual Meeting*, Orlando, FL, November, **2005**. (Talk)
- 3. J. C. Stachowiak, J. Rasooly, D. A. Fletcher, "Design of a piezoelectric microjet for needleless drug delivery," ASME Summer Bioengineering Conference, Amelia Island, FL, June **2006**. (Talk)
- 4. *J. C. Stachowiak, Invited Seminar Series,* University of California, Berkeley Sensor and Actuator Center, Seminar Series, Spring, **2006**.
- 5. *J. C. Stachowiak, Research Seminar,* University of California, San Francisco, NIH Nano Medicine Center Symposium, PI: Wendell Lim, Fall, **2007**.
- 6. J. C. Stachowiak, Research Seminar, SRI International, Menlo Park, CA, Spring, 2008.
- 7. J. C. Stachowiak, Research Seminar, Palo Alto Research Center, Palo Alto, CA, Spring, 2008.
- 8. *J. C. Stachowiak, Invited Research Seminar,* Stanford University, Professor Nicholas Melosh's and Steven Boxer's Laboratories, Spring, **2008**.
- 9. *J. C. Stachowiak*, Sandia National Laboratories Bioscience External Advisory Panel Symposium, Fall, **2009**.
- 10. *J. C. Stachowiak*, Research Presentation for Albert Romig, Chief Operations Officer, Sandia National Laboratories, Fall, **2010**.
- 11. *J. C. Stachowiak*, Research Presentation for Dr. Eric Moore, Division Chief, Basic and Supporting Science Division, DTRA, **2010**
- 12. D. L. Richmond, E. M. Schmid, S. Martens, J. C. Stachowiak, N. Liska, D. A. Fletcher, "Engineering vesicle membranes for cellular reconstitutions," *Biophysical Society Annual Meeting*, San Francisco, CA, February **2010**.
- 13. J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Steric confinement of proteins in lipid domains can

drive membrane curvature and tubulation," *Biophysical Society Annual Meeting*, San Francisco, CA, February **2010**.

- 14. D. Y. Sasaki, H. Liu, A. Carroll-Portillo, G. D. Bachand, C. C. Hayden, J. C. Stachowiak, "Formation of lipid nanotubular networks via surface affinity and pulling of giant vesicles with gliding microtubules," *American Chemical Society National Meeting*, San Francisco, CA, March **2010**.
- 15. J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Formation of lipid membrane domains and tubules using reversible metal and protein affinity," *American Chemical Society National Meeting*, San Francisco, CA, March **2010**.
- 16. J. C. Stachowiak, C. C. Hayden, D. Y. Sasaki, "Recognition-driven actuation of lipid domains, nanotubules, and self-assembled networks," *Materials Research Society National Meeting*, April **2010**.
- 17. D. Y. Sasaki, H. Liu, A. Carroll-Portillo, G. D. Bachand, C. C. Hayden, J. C. Stachowiak, "Inverted microtubule-kinesin activity in the formation of lipid nanotubular structures," *American Chemical Society Pacifichem Meeting*, Honoloulu, HI, December **2010**.
- 18. C. C. Hayden, J. C. Stachowiak, J. S. Hwang, E. A. Abate, M. S. Kent; D. Y. Sasaki, "Directed formation of lipid micro-domains functioning as high affinity His-tagged protein binding sites," *American Chemical Society Pacifichem Meeting*, Honolulu, HI, December **2010**.
- 19. J. Stachowiak, E. M. Schmid, M. B. Sherman, D. A. Fletcher, C. C. Hayden, D. Y. Sasaki, "Confinement of protein binding to lipid domains as a tool for directed assembly of 3-D architectures," *American Chemical Society Pacifichem Meeting*, Honolulu, HI, December **2010**.
- 20. J. C. Stachowiak, "Bio-based Future" workshop at UC Berkeley Synthetic Biology Institute, Spring **2011**.
- 21. F. J. Zendejas, R. Meagher, J. C. Stachowiak, C. C. Hayden, J. Wang, D. Y. Sasaki, "Orientation of lipid domains in giant vesicles by electric field," American Chemical Society National Meeting, Anaheim, CA, March 2011.
- 22. E. M. Schmid, D. L. Richmond, J. C. Stachowiak, D. A. Fletcher, "Bending membranes with proteins: Lessons from cellular reconstitution," American Chemical Society National Meeting, Anaheim, CA, March 2011.
- 23. J. C. Stachowiak, C. C. Hayden, M. A. A. Sanchez, J. Wang, D. Y. Sasaki, "Selective protein affinity and structure transformation of domains in lipid membranes," *American Chemical Society National Meeting*, Anaheim, CA, March 2011.
- J. C. Stachowiak, E. M. Schmid, C. J. Ryan, H. S. Ann, D. Y. Sasaki, P. L. Geissler, D. A. Fletcher, C. C. Hayden, "Epsin1 bends membranes by molecular crowding," Gordon Research Conference on Molecular Membrane Biology, Andover, NH, July 2011. (Talk)
- 25. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Texas at Austin**, Department of Biomedical Engineering, Seminar Series, Spring **2011**.
- 26. *J. C. Stachowiak, Invited Departmental Seminar,* **University of California, Berkeley**, Department of Bioengineering, Seminar Series, Fall **2011**.
- 27. *J. C. Stachowiak, Invited Departmental Seminar,* **University of Pennsylvania**, Department of Bioengineering, Seminar Series, Spring **2011**.
- 28. J. C. Stachowiak, Invited Departmental Seminar, Lawrence Berkeley National Laboratory, Physical Biosciences Division, Spring 2011.
- 29. *J. C. Stachowiak, Invited Departmental Seminar,* **Georgia Institute of Technology**, Department of Mechanical Engineering, Seminar Series, Spring **2011**.
- 30. J. C. Stachowiak, Invited Departmental Seminar, Boston University, Department of Bioengineering, Seminar Series, Spring 2011.
- 31. J. C. Stachowiak, Invited Departmental Seminar, University of Illinois Urbana-Champaign,

Department of Mechanical Engineering, Seminar Series, Spring 2011.

32. *J. C. Stachowiak, Invited Departmental Seminar,* **Tufts University**, Department of Chemical and Biological Engineering, Seminar Series, Spring **2011**.

Revised: January 2025

- 33. J. C. Stachowiak, Invited Departmental Seminar, University of Maryland, Departments of Bioengineering and Chemical Engineering, Seminar Series, Spring 2011.
- 34. *J. C. Stachowiak, Invited Departmental Seminar,* **Institute for Bioscience and Biotechnology** at the University of Maryland, Seminar Series, Spring **2011**.

PATENT APPLICATIONS:

- <u>J. C. Stachowiak</u>, D. A. Fletcher, T. H. Li, S. Parekh, A. P. Liu, D. L. Richmond, E. Schmid, "Forming an Artificial Cell with Controlled Membrane Composition, Asymmetry, and Contents," US Provisional Patent Pending, Application Number 20130028963. (*based on work prior to UT Austin*)
- <u>J. C. Stachowiak,</u> H. D. C. Smyth, A. K. Gadok, S. Ferrati, C. Zhao, "Vesicles for Delivery of Functional Transmembrane Proteins," U.S. Provisional Patent Application No. 62/245,665 (based on work done at UT Austin)

PH.D. SUPERVISIONS COMPLETED:

Gadok, Avinash	Overcoming the plasma membrane barrier to improve the efficiency of therapeutic delivery to the cellular cytoplasm	5/2017	Biomedical Engineering	UT Austin	Boston Consulting Group
Snead, Wilton	Elucidating the physical mechanisms of membrane fission	8/2018	Biomedical Engineering	UT Austin	Postdoctoral researcher, UNC Chapel Hill
Imam, Zachary	Phase-separated liposomes for efficient macromolecular delivery	08/2018	Biomedical Engineering	UT Ausitn	Research Engineer, Nanotein
Zhao, Chi	Designing chimeric transmembrane proteins to improve therapeutic delivery and to understand receptor trafficking	08/2019	Biomedical Engineering	UT Ausitn	Research Engineer, 10X Genomics
DeGroot, Andre	Biochemical and biophysical mechanisms in selecting receptors for uptake by endocytosis	05/2020	Biomedical Engineering	UT Austin	Research Engineer, Sana Biotechnology
Trementozzi, Andrea	Engineering liposomal particles for direct, intracellular delivery of therapeutic molecules	08/2021	Biomedical Engineering	UT Austin	Research Engineer, Via Therapeutics
Houser, Justin	A forster resonance energy transfer-based sensor of steric pressure on membrane surfaces	06/2022	Biomedical Engineering	UT Austin	Research Engineer, Acuity Spatial Genomics
Yuan, Feng	Intrinsically Disordered Proteins as Mechanistic Drivers of Membrane Remodeling and Endocytosis	02/2024	Biomedical Engineering	UT Austin	Postdoctoral Researcher, UC Berkeley

Graham, Kristin	Biophysical and biochemical properties of liquid-like condensates determine actin network organization	11/2023	Molecular Biosciences	UT Austin	Postdoctoral Researcher, Genentch
Gollapudi, Sadhana	Characterizing biochemical and biophysical mechanisms that impact uptake of membrane proteins by clathrin-mediated endocytosis	09/2023	Biomedical Engineering	UT Austin	Research Engineer, Alcon
Ashby, Grant	Physical properties of model drug carriers dictate their internalization efficiency via clathrin-mediated endocytosis	05/2024	Biomedical Engineering	UT Austin	Research Engineer, Canon Nanotechnologi es

M.S. SUPERVISIONS COMPLETED:

Scheve, Christine	Coursework based	05/2013	Biomedical Engineering	UT Austin	VP of business development, Oriel Stat A Matrix
Gadok, Avinash	Coursework based	05/2014	Biomedical Engineering	UT Austin	Continued for doctorate
Snead, Wilton	Coursework based	05/2015	Biomedical Engineering	UT Austin	Continued for doctorate
Imam, Zachary	Coursework based	05/2016	Biomedical Engineering	UT Austin	Continued for doctorate

PH.D. IN PROGRESS:

Caleb Walker (BME, started 2020)

Brandon Malady (BME, Started 2021)

Advika Kamatar (BME, Co-advised with Sapun Parekh, started 2021)

Ketsia Zinga (BME, Co-advised with Pengyu Ren, started 2021)

Vidal Bejar-Padilla (ILS, Co-advised with John Wallingford, started 2021)

Domonique Jordan (BME, started 2023)

Sujeong Park (ILS, started 2023)

Irene Sarro (CHE, started 2024)

POSTDOCTORAL RESEARCHERS:

Busch, David (September 2012-September 2016) – Currently a Team Leader at Merck Inc.

Ferrati, Silvia (May 2014-February 2018), co-supervised with Dr. Hugh Smyth - Currently Associate Director of Translational Medicine, Aeglea BioTherapuetics

Zeno, Wade (August 2016-August 2020), NIH F32 fellow –Currently a Tenure Track Assistant Professor at the University of Southern California, Department of Chemical Engineering.

Day, Kasey (January 2018-January 2022), NIH F32 fellow – Decided during the pandemic to time off to raise young children

Ghosh, Sumanta (September 2019-August 2020) – Currently a postdoc at MD Anderson

Gil, Dan (April 2021-December 2021) - Currently working in Austin area biotechnology industry

Revised: January 2025

Chatterjee, Sayantan (November 2021-present)

Lee, Yohan (April 2022-present)

Sarkar, Susovan (November 2022-present)

Liu, Haoyang (August 2023-present)

Sharma, Rahul (April 2024-present)

SENIOR RESEARCH FELLOWS:

Dr. Carl Hayden (March 2015-present)

Liping Wang (January 2021-present, supported by subcontract to UTHSC-San Antonio)

RESEARCH TECHNICIANS:

Prasad Milner (May 2018-July 2019) – now a graduate student at Georgia Tech.

UNDERGRADUATE STUDENT RESEARCHERS:

*indicates author of peer-reviewed publication

- 1. Gavin LeBrun, Biomedical Engineering (Summer 2023-present), continuing undergraduate
- 2. Andrea Torres, Biomedical Engineering (Summer 2022-2024)
- 3. Kayla Keng, Biomedical Engineering (Summer 2022-present), continuing undergraduate
- 4. Ridda Siddiqi, Physics (Summer 2022-present), continuing undergraduate
- 5. Andrea Torres, Biomedical Engineering (Summer 2022-present), continuing undergraduate
- 6. Sabah Jamal, Biomedical Engineering (Summer 2021-present), continuing undergraduate
- 7. Arjun Sangani, Biomedical Engineering (Summer 2021-present), continuing undergraduate
- 8. *Aly Ladak, Biomedical Engineering (Summer 2021-present), continuing undergraduate
- 9. *Noel Yang, Biomedical Engineering (Fall 2019-Present), continuing undergraduate
- 10. Gabriel Ortiz, NSF REU Summer Student (Summer 2021)
- 11. **Beverly Red**, Biomedical Engineering (Summer 2019 Spring 2020)
- 12. *Ajay Thatte, Biomedical Engineering (Summer 2018-Spring 2021), now a graduate student at UPenn, NSF GRFP
- 13. *Jacob Hochfelder, Biomedical Engineering (Summer 2019-Spring 2021), now a graduate student at MIT
- 14. Sybrina Kerr, NSF REU Summer Student (Summer 2019)
- 15. Kolby Killion, Biomedical Engineering (Summer 2018-Summer 2019), continuing undergraduate
- 16. Daria Bentley, NSF REU Summer Student (Summer 2017), now attending graduate school
- 17. *Minhao (Mike) Wu, Biomedical Engineering (Summer 2017-May 2019), now working in the biotech industry

18. *Meghan LaMonica, Biomedical Engineering (Spring 2017-Present), now a grad student with UT Austin BME. Yankeelov Lab

- 19. *Morgan Mendecino, Biomedical Engineering (Fall 2016-Summer 2018) now at UT Law student
- 20. *Ryan Perkins, Biomedical Engineering (Summer 2016-May 2018)
- 21. *Amanda Merriwether, Biomedical Engineering (Spring 2016-Summer 2018) now a UC Berkeley grad student, NSF Fellow
- 22. Natalie Miroballi, Biomedical Engineering (Fall 2015-Summer 2017)
- 23. *Hisham Ali, Biomedical Engineering (Summer 2015-May 2019) now in medical school at UT San Antonio
- 24. *Aaron Alpar, Biomedical Engineering (Summer 2015-Summer 2018) now a graduate student at U Chicago
- 25. *Laura Kenyon, Biomedical Engineering (Spring 2015-May 2018) now in medical school at UT Southwestern
- 26. Belle Parizot, Biomedical Engineering (Fall 2015-Summer 2016)
- 27. *Fatema Nagib, Biomedical Engineering (Summer 2015-Summer 2016)
- 28. *Grant Ashby, NSF REU Summer Student (Summer 2016) now a graduate student at UT Austin
- 29. *Stefan Bordovsky, Biomedical Engineering (Spring 2015-Spring 2016)
- 30. Sydney Wendt, Biomedical Engineering (Summer 2016-Fall 2016)
- 31. *Brian Li, Biomedical Engineering (Spring 2014-Summer 2016) now a graduate student at UC Berkeley
- 32. *Connor Vershel, Biomedical Engineering (Summer 2014-Spring 2016) now a medical student at UT Houston
- 33. **Tu Cao**, Biomedical Engineering (Summer 2015)
- 34. Sean Thomas, NSF REU Summer Student (Summer 2015)
- 35. Michael Bonahoom, Biomedical Engineering (Summer 2015)
- 36. Varun Bora, Biomedical Engineering (Fall 2013-Spring 2015)
- 37. **Katherine Ha**, Biomedical Engineering (Spring 2014-Spring 2015) Currently working at Smith and Nephew
- 38. *Noor Momin, Biomedical Engineering (Summer 2012-Present) Currently a postdoc at Harvard, accepted position to start as a tenure-track Assistant Professor in the Department of Bioengineering at the University of Pennsylvania.
- 39. Mansi Raythatha, Biomedical Engineering (Fall 2013-Spring 2014) Currently working for Merck Inc.
- 40. **Saad Jafri**, Biomedical Engineering (Summer 2013-Spring 2014) Currently a medical student at UNT Health Science Center
- 41. **Isac Lee**, Biomedical Engineering (Spring 2013-Spring 2014) Currently a graduate student at Johns Hopkins
- 42. *Justin Houser, Biomedical Engineering (Summer 2012-Summer 2014) Currently a research assistant at Harvard Medical School
- 43. **David Aguilar**, Biochemistry (Fall 2012)
- 44. **Jerin Jose**, Biomedical Engineering (Spring 2012-Summer 2013) Currently a Medical Student at UT Southwestern Medical Center
- 45. Jacob Sacks, Biomedical Engineering (Fall 2012-Spring 2013) Currently a graduate student at the

University of Pennsylvania

46. **Ansel George**, Biomedical Engineering (Spring 2012-Spring 2013) – Currently a research assistant at Weill Cornell Medical College

Revised: January 2025

47. *Paul Gonzales, Biomedical Engineering (Spring 2012-Spring 2013) – Currently working as a nurse practitioner

Student and Trainee Awards

- Brandon Malady, NIH/NIGMS <u>Administrative Supplement</u> to support training of students from underrepresented backgrounds, 2024-2026
- Ketsia Zinga, NSF Graduate Fellowship 2023-2026
- Advika Kamatar, NSF Graduate Fellowship 2023-2026
- Vidal Bejar-Padilla, NSF Graduate Fellowship 2023-2026
- Feng Yuan, UT Graduate School Continuing Student Fellowship, 2022-2023
- Ketsia Zinga, NIH/NIGMS, <u>Administrative Supplement</u> to support training of students from underrepresented backgrounds, 2022-2024
- Kasey Day, NIH/NIGMS NRSA <u>F32 Postdoctoral Fellowship Award</u>, 2019-2022
- Wade Zeno, NIH/NIGMS NRSA <u>F32 Postdoctoral Fellowship Award</u>, 2018-2020
- Grace Kago, NSF Graduate Research Fellowship Award, 2017-2020
- Wilton Snead, NIH/NIGMS NRSA F31 Graduate Research Fellowship Award, 2016-2018
- Andrea Trementozzi, UT Graduate School Continuing Student Fellowship, 2020-2021
- Andrea Trementozzi, American Chemical Society Outstanding Oral Presentation Award, Spring 2021 Annual Meeting
- Chi Zhao, UT Graduate School Continuing Student Fellowship, 2017-2018
- Chi Zhao, American Chemical Society Outstanding Oral Presentation Award, Spring 2019 Annual Meeting
- Andre DeGroot, American Chemical Society Outstanding Oral Presentation Award, Spring 2019 Annual Meeting
- Zachary Imam, American Chemical Society Outstanding Oral Presentation Award, Spring 2018 Annual Meeting
- Ajay Thatte, <u>NSF Graduate Research Fellowship Award</u>, 2021-2024 (plans to attend U Penn)
- Amanda Merriwether, NSF Graduate Research Fellowship Award, 2018-2021 (now at UC Berkeley)
- Wade Zeno, Travel Award to attend the 2017 Gordon Research Conference on Molecular Membrane Biology
- Wade Zeno, Travel Award to attend the 2017 meeting of the Biophysical Society
- Chi Zhao, Travel Award to attend the 2017 meeting of the Biophysical Society
- Wilton Snead, Travel Award to attend the 2016 meeting of the American Society for Cell Biology
- Amanda Meriwether, Undergraduate Research Fellowship, UT Austin Fall 2016
- Wade Zeno, NIH/NIGMS, <u>Administrative Supplement</u> to support training of students from underrepresented backgrounds, 2016-2018

Avinash Gadok, Travel Award from the American Chemical Society to attend the 2016 Spring Meeting

Revised: January 2025

- Wilton Snead, Honorable Mention in the National Science Foundation Graduate Research Fellowship Program Competition, 2015
- Andre DeGroot, University of Texas at Austin Graduate School Fellowship, 2015-2016
- Wilton Snead, Travel Award from the Biophysical Society to attend the 2016 National Meeting
- Zachary Imam, Travel Award from the Biophysical Society to attend the 2016 National Meeting
- Avinash Gadok, Travel Award to attend the NSF Summer School on Biocomplexity in Antalya, Turkey
- Brian Li, Undergraduate Research Fellowship, The University of Texas at Austin, 2015
- David Busch, Travel Award from Gordon Research Conferences to attend the conference on Lysosomes and Endocytosis, Andover, NH, 2014
- Avinash Gadok, Honorable Mention in the National Science Foundation Graduate Research Fellowship Program Competition, 2014
- Ryan Woodall, National Institutes of Health T32 Graduate Training Fellowship, 2014-2015
- Zachary Imam, University of Texas at Austin Graduate School Fellowship, 2014-2015
- Noor Momin, First Place in the Cockrell School Undergraduate Research Poster Competition, 2013
- Christine Scheve, Travel Award to attend the National Meeting of the Biophysical Soceity, Philadelphia, PA, 2013
- Justin Houser, Undergraduate Research Fellowship, the University of Texas at Austin, 2013
- Isac Lee, Undergraduate Research Fellowship, the University of Texas at Austin, 2013
- Avinash Gadok, National Institutes of Health T32 Graduate Training Fellowship, 2012-2013
- Wilton Snead, University of Texas at Austin Graduate School Fellowship, 2013-2014
- Justin Houser, Travel Award to attend the National Meeting of the American Society for Cell Biology, San Francisco, CA, 2012
- Jerin Jose, Undergraduate Research Fellowship, the University of Texas at Austin, 2012

VITA:

Prof. Jeanne Stachowiak completed her undergraduate education in Mechanical Engineering at the University of Texas at Austin in 2002. She completed her doctoral work in Mechanical Engineering at the University of California, Berkeley in 2008, under the supervision of Arun Majumdar and Daniel Fletcher. She served as a Senior Member of the Technical Staff at Sandia National Laboratories from 2008 to 2011, where her independent research program explored basic biophysical questions and practical applications of lipid membrane materials and systems. She has served as a faculty member at the University of Texas at Austin since January 2012, in the Departments of Biomedical Engineering and Chemical Engineering. She was promoted to Associate Professor in 2018 and Full Professor in 2023. Through quantitative molecular-scale measurements and the design of biomimetic materials, her research program aims to elucidate the physical basis of cellular membrane organization and to design biologically-inspired materials and systems for biomedical applications. In 2022 she was elected a Fellow of the American Institute of Medical and Biological Engineers. She currently serves on the Editorial Board of the Biophysical Journal and Science Advances.