ANDREA A. JOSEPH

Syracuse University | Bowne Hall 318C, Syracuse, NY 13210 Phone: (802) 777-9313 | Email: ajosep29@syr.edu

I. ACADEMIC APPOINTMENTS

Syracuse University, Syracuse, NY Assistant Professor, Department of Biomedical and Chemical Engineering January 2, 2025—present

II. EDUCATION

Icahn School of Medicine at Mount Sinai, New York City, NY Postdoctoral Researcher, Department of Obstetrics, Gynecology, and Reproductive Sciences March 27, 2023—August 2, 2024

University of Pennsylvania, Philadelphia, PA Postdoctoral Researcher, Center for Research on Reproduction & Women's Health June 21, 2021—March 31, 2023

University of Washington, Seattle, WA

Ph.D. Chemical Engineering, awarded June 12, 2021

Thesis title: Biodegradable polymeric nanoparticles for the treatment of neonatal brain injury

Johns Hopkins University, Baltimore, MD

B.S. Chemical and Biomolecular Engineering, awarded May 18, 2016

III. HONORS and AWARDS

III. HUNUKS	and AWARDS
2024	Top Poster Award, Controlled Release Society Annual Meeting
2024	Outstanding Service to the Postdoctoral Community, Penn Postdoctoral Association
2023	Controlled Release Society Top Ignite Presentation, CRS Harnessing Innovation in Drug
	Delivery for Women's Health Symposium
2023	Women in Chemical Engineering Travel Award, American Institute of Chemical
	Engineers
2023	Office of Postdoctoral Affairs Travel Award, Icahn School of Medicine at Mount Sinai
2023	Robin Chemers Neustein Postdoctoral Fellowship, Icahn School of Medicine at Mount
	Sinai
2023	President's Plenary Award, Society for Reproductive Investigation
2022	Travel Award, Biomedical Postdoctoral Programs at the University of Pennsylvania
2022	Kumar Memorial Lecture Award, Biomedical Postdoctoral Council at the University of
	Pennsylvania
2021	Outstanding Women in Innovation Award, Society of Women Engineers at University of
	Washington
2020	Faculty Lecture Award, University of Washington Chemical Engineering
2020	High Impact Publication Award, University of Washington Chemical Engineering
2020	Krieger-Brockett Travel Award, University of Washington Chemical Engineering
2020	AIChE Biomaterials Graduate Student Award Session (Finalist)
2020	Collegiate Rapid Fire Competition, 2 nd place, Society of Women Engineers
2020	Schmidt Science Fellowship Nominee, University of Washington
2020	Husky 100 Awardee, University of Washington
2019	Graduate School Conference Travel Award, University of Washington
2019	NIH Training Course in Neurotherapeutics Discovery and Development Attendee
2018-2021	NIH F31 Fellow (8 th percentile)
2018	Travel Grant, UW Graduate & Professional Student Senate
2017	National Science Foundation Graduate Research Fellowship Honorable Mention
2016	Runstad Family Endowed Fellowship Recipient

- 2016 Centennial Conference Champions, Johns Hopkins University Varsity Tennis
- 2013-2016 Engineering Dean's List, Johns Hopkins University
- 2013-2016 Thomas J. Watson Memorial Scholarship

IV. PUBLICATIONS (*Co-first; Corresponding)

- 1. <u>L. Anton</u>*, A. G. Cristancho*, B. Ferguson, **A. Joseph**, S. Shin, J. Ravel, M. A. Elovitz. Vaginal microbes alter epithelial transcriptomic and epigenomic modifications providing insight into the molecular mechanisms for susceptibility to adverse reproductive outcomes, *Nature Communications* (submitted, 2024)
- 2. <u>A. Joseph</u>, L. Anton, Y. Guan, B. Ferguson, I. Mirro, N. Meng, M. France, J. Ravel, and M. Elovitz. Extracellular vesicles from vaginal *Gardnerella vaginalis* and *Mobiluncus mulieris* contain distinct proteomic cargo and induce inflammatory pathways, *npj Biofilms & Microbiomes* (2023)
- 3. <u>A. Joseph</u>, E. Lewis, B. Ferguson, Y. Guan, L. Anton, and M. Elovitz. Intrauterine colonization with *Gardnerella vaginalis* and *Mobiluncus mulieris* induces maternal inflammation but not preterm birth in a mouse model, *American Journal of Reproductive Immunology*. (2023)
- 4. <u>A. Joseph</u> and E. Nance. Nanotherapeutics and the Brain, *Annual Review of Chemical and Biomolecular Engineering*. (2022)
- 5. **A. Joseph**, G. Simo, T. Gao, N. Alhindi, N. Xu, D. Graham, L. Gamble, <u>E. Nance</u>. Surfactants influence polymer nanoparticle fate in the brain, *Biomaterials*. (2021)
- 6. **A. Joseph**, C. Nyambura, D. Bondurant, K. Corry, D. Beebout, T. Wood, J. Pfaendtner, <u>E. Nance</u>. Formulation and efficacy of catalase-loaded nanoparticles for the treatment of neonatal hypoxic-ischemic encephalopathy, *Pharmaceutics*. (2021)
- 7. H. Helmbrecht, **A. Joseph**, M. McKenna, M. Zhang, <u>E. Nance</u>. Governing Transport Principles for Nanotherapeutic Application in the Brain, *Current Opinions in Chemical Engineering*. (2020)
- 8. **A. Joseph***, R. Liao*, M. Zhang, H. Helmbrecht, M. McKenna, J. Filteau, <u>E. Nance</u>. Nanoparticle-microglial interaction in the ischemic brain is modulated by injury duration and treatment, *Bioengineering & Translational Medicine*. (2020)
- 9. V. Yellepeddi, A. Joseph, E. Nance. Pharmacokinetics of Nanotechnology-Based Formulations in Pediatric Populations, *Advanced Drug Delivery Reviews*. (2019)
- 10. **A. Joseph**, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, <u>E. Nance</u>. Curcumin-loaded polymeric nanoparticles for neuroprotection in neonatal rats with hypoxic ischemic encephalopathy, *Nano Research*. (2018)
- 11. J. Smith*, K. G. Sprenger*, R. Liao, A. Joseph, E. Nance, <u>J. Pfaendtner</u>, Determining Dominant Driving Forces Affecting Controlled Protein Release from Polymeric Nanoparticles, *Biointerphases*. (2017)
- 12. G. Duncan, J. Jung, **A. Joseph**, A. Thaxton, N. West, M. Boyle, <u>J. Hanes</u>, <u>J. S. Suk</u>, Microstructural alterations of Sputum in Cystic Fibrosis Lung Disease, *JCI Insight*. (2016)

Report of Invention/ Provisional Patent

1. E. Nance, **A. Joseph**, C. Nyambura, J. Pfaendtner, T. Wood. Formulation and efficacy of enzymeloaded polymeric nanoparticles. Provisional Patent Application 63/221,827, filed 7/14/2021

V. PRESENTATIONS (*Presenting author)

Oral presentations

- 1. **A. Joseph***, O. Swain, Y. Hasegawa, M. A. Elovitz. Extracellular vesicles mediate cervicovaginal bacteria-host communication. *Controlled Release Society Annual Meeting*. Bologna, Italy. (July 11, 2024)
- 2. Y. Hasegawa*, A. Joseph, J. Robinson, C. Agashe, K. O'Neill, M. A Elovitz. Extracellular Vesicles from Cervicovaginal Microbes Induced Immune Responses in Endometrial Cells. *Society for Reproductive Investigation Annual Meeting*. Vancouver, Canada. (March 16, 2024)

- 3. **A. Joseph***, E. Nance, M. Elovitz. Biocompatible nanoparticles to probe and treat adverse pregnancy outcomes. *American Institute of Chemical Engineers Annual Meeting*. Orlando, FL. (November 7, 2023)
- 4. **A. Joseph***, L. Anton, B. Ferguson, Y. Guan, M. Elovitz. Host-microbe interactions and implications for women's health. *Controlled Release Society: Harnessing Innovation in Drug Delivery for Women's Health*. Virtual. (October 26, 2023; invited talk, presentation award)
- 5. **A. Joseph***, L. Anton, B. Ferguson, Y. Guan, M. Elovitz. Vaginal Microbe-Derived Extracellular Vesicles Uptake into Cervicovaginal Epithelial Cells and Deliver Bacterial Cargo. *Society for Reproductive Investigation Annual Meeting*. Brisbane, Australia. (March 23, 2023; invited plenary)
- 6. **A. Joseph***, L. Anton, B. Ferguson, Y. Guan, M. Elovitz. Bacterial extracellular vesicles mediate host-microbe communication in the cervicovaginal space. *Vincent Center for Reproductive Biology Seminar Series*. Boston, MA; virtual. (November 1, 2022; invited talk)
- 7. **A. Joseph***, L. Anton, B. Ferguson, M. Elovitz. Extracellular vesicles from *Gardnerella vaginalis* and *Mobiluncus mulieris* induce host immune responses from the cervicovaginal epithelium. *Controlled Release Society Annual Meeting*. Montreal, Canada. (July 13, 2022)
- 8. **A. Joseph***, M. Elovitz. *In vivo* investigation of the vaginal microbiome and spontaneous preterm birth. *Center for Research on Reproductive and Women's Health seminar series*. Philadelphia, PA. (May 4, 2022)
- 9. **A. Joseph***, M. Elovitz. Kumar Memorial Lecture Award: Uterine colonization with pathogenic vaginal microbes is insufficient to cause preterm birth. *Biomedical Postdoctoral Council Symposium*. Philadelphia, PA. (April 1, 2022; award talk)
- 10. **A. Joseph***, L. Anton, B. Ferguson, M. Elovitz. Extracellular vesicles from *Gardnerella vaginalis* and *Mobiluncus mulieris* induce host immune responses from the cervicovaginal epithelium. *Society for Reproductive Investigation Annual Meeting*. Denver, CO. (March 17, 2022)
- 11. **A. Joseph***, G. Bondurant, A. Rios, D. Beebout, E. Nance. Catalase-loaded polymeric nanoparticles for neuroprotection after hypoxic-ischemic injury. *Controlled Release Society Annual Meeting*. Montreal, Canada; Virtual. (July 25, 2021)
- 12. **A. Joseph***, E. Nance. Faculty Lecture Award: Engineering nanotherapeutics for neonatal brain injury. *UW Chemical Engineering Departmental Seminar*. Seattle, WA. (November 23, 2020)
- 13. **A. Joseph***, G. Simo, T. Gao, N. Alhindi, E. Nance. Graduate Student Award Session: Surfactant effects on nanotherapeutic fate within the brain. *AIChE Annual Meeting*. San Francisco, CA; Virtual. (November 17, 2020)
- 14. J. Filteau*, R. Liao, **A. Joseph**, E. Nance. Organotypic brain slices as a platform for measuring response to biological stimuli. *AIChE Annual Meeting*. San Francisco, CA; Virtual. (November 16, 2020)
- 15. E. Nance*, **A. Joseph**, R. Liao, K. Hildahl. Engineering nanomedicine to overcome biological barriers for improved treatment of pediatric brain diseases. *AIChE Annual Meeting*. San Francisco, CA; Virtual. (November 16, 2020) *Invited Plenary
- 16. **A. Joseph***, E. Nance. Collegiate Awards Session: Can nanoparticles treat brain disease? *Society of Women Engineers Annual Meeting*. New Orleans, LA; Virtual. (November 6, 2020)
- 17. E. Nance*, M. McKenna, C. Curtis, R. Liao, **A. Joseph**. Nanotechnology-based probes of structure-function in living tissue. *Clemson University Department of Chemical Engineering seminar series*. Clemson, SC; Virtual. (Sept 11, 2020)
- 18. A. Rios*, **A. Joseph**, E. Nance. Nanoparticle Delivery of Protein Therapeutics to Treat Neuronal Death in Hypoxic Ischemic Encephalopathy. *UW Undergraduate Research Symposium*. Seattle, WA; Virtual. (August 19, 2020)
- 19. **A. Joseph***, E. Nance. Can nanoparticles treat brain disease? *Town Hall Science Speaker Series*. Seattle, WA; Virtual. (June 15, 2020)
- 20. E. Nance*, M. McKenna, C. Curtis, R. Liao, **A. Joseph**. Nanotechnology-based probes of structure-function in living tissue. *Johns Hopkins University School of Pharmacy Seminar Series*. Baltimore, MD. (January 8, 2020)

- 21. **A. Joseph***, G. Simo, T. Gao, E. Nance. Effect of surfactant size and structure on biodegradable nanoparticle interaction with the brain microenvironment. *Society for Biomaterials UW Chapter Biomaterials Day*. Seattle, WA. (December 10, 2019)
- 22. E. Nance*, M. McKenna, C. Curtis, R. Liao, A. Joseph. Nanotechnology-based probes of structure-function in living tissue. *AIChE Annual Meeting*. Orlando, FL. (November 12, 2019) *Invited Plenary
- 23. **A. Joseph***, E. Nance. Nanoparticle design for drug delivery to the neonatal brain. *Graduate Student Symposium*. Seattle, WA. (September 19, 2019)
- 24. R. Liao, A. Joseph, T. Wood, S. Juul, E. Nance*. Nanotherapeutic modulation of inflammation and oxidative stress in neonatal brain injury. *Distinguished Lecture Series in Cardiovascular Medicine*. Seattle, WA. (January 21, 2019)
- 25. **A. Joseph**, R. Liao, K. Corry, T. Wood, S. Juul, P. Parikh, E. Nance*. Nanotherapeutics for neuroprotection in the developing brain. *AIChE Annual Meeting*. Pittsburgh, PA. (October 29, 2018)
- 26. M. McKenna, C. Curtis, **A. Joseph**, R. Liao, E. Nance*. Nanotherapeutics for neuroprotection in the injured brain. *University of Colorado Department of Chemical and Biological Engineering*. Boulder, CO. (October 11, 2018)
- 27. **A. Joseph**, R. Liao, E. Nance*. Nanotherapeutics for neuroprotection in the injured perinatal brain. *Houston Methodist Department of Nanomedicine Seminar Series*. Houston, TX. (July 27, 2018)
- 28. **A. Joseph**, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, E. Nance*. Curcumin-loaded polymeric nanoparticles for the treatment of neonatal hypoxic-ischemic encephalopathy. *Pediatric Academic Societies Annual Meeting*. Toronto, Canada. (May 6, 2018)
- 29. C. Curtis, M. McKenna, A. Joseph, R. Liao, E. Nance*. Nano-based probes of the diseased brain: directing therapeutic intervention. *BioNanoMed Annual Meeting*. Graz, Austria. (April 26, 2018)
- 30. **A. Joseph***, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, E. Nance. Curcumin-loaded brain penetrating nanoparticles for the treatment of neonatal brain injury. *UW Biomaterials Seminar Series*. Seattle, WA. (March 8, 2018)
- 31. M. Mallya*, **A. Joseph**, E. Nance. The Evaluation of Various Surfactants on PLGA and PLGA-PEG Nanoparticles. *STEMM Prep Symposium*. Seattle, WA. (August 11, 2017)

Poster presentations

- 32. **A. Joseph***, O. Swain, Y. Hasegawa, M. A. Elovitz. Extracellular vesicles mediate cervicovaginal bacteria-host communication. *Controlled Release Society Annual Meeting*. Bologna, Italy. (July 11, 2024)
- 33. **A. Joseph***, J. Robinson, Y. Hasegawa, C. Agashe, B. Ferguson, A. Campbell, M. A. Elovitz. Non-Lactobacillus-Dominated Communities are Associated with an Increase in Muc5 Production in Pregnant Individuals. Society for Reproductive Investigation Annual Meeting. Vancouver, Canada. (March 16th, 2024)
- 34. L. Anton, B. Ferguson, **A. Joseph***, M. A. Elovitz. Vaginal microbes leverage distinct molecular mechanisms to drive specific immune responses in epithelial and immune cells. *Society for Reproductive Investigation Annual Meeting*. Brisbane, Australia. (March 24th, 2023)
- 35. **A. Joseph***, L. Anton, Y. Guan, B. Ferguson, M. A. Elovitz. Extracellular vesicles from vaginal microbes induce immune responses from multiple host cell types. *Society for Reproductive Investigation Annual Meeting*. Brisbane, Australia. (March 23rd, 2023)
- 36. **A. Joseph***, L. Anton, C. Nyambura, E. Nance, M. A. Elovitz. Biocompatible nanoparticles to understand and improve perinatal outcomes. *Gordon Research Symposium and Conference on Drug Carriers in Medicine & Biology*. Dover, VT. (August 1st, 2022)
- 37. **A. Joseph***, E. Lewis, B. Ferguson, L. Anton, M. A. Elovitz. Uterine colonization with *Gardnerella vaginalis* or *Mobiluncus mulieris* is insufficient to cause preterm birth. *American Society for Reproductive Immunology Annual Meeting*. Nashville, TN. (May 23th, 2022)
- 38. **A. Joseph***, E. Lewis, B. Ferguson, K. Gerson, L. Anton, M. A. Elovitz. Uterine colonization with *Gardnerella vaginalis* is insufficient to cause preterm birth. *Society of Reproductive Investigation Annual Meeting*. Denver, CO. (March 19th, 2022)

- 39. **A. Joseph***, G. Bondurant, A. Rios, D. Beebout, E. Nance. Catalase-loaded polymeric nanoparticles for neuroprotection after hypoxic-ischemic injury. *12th Hershey Conference on Developmental Brain Injury*. Virtual. (June 3rd, 2021)
- 40. **A. Joseph***, R. Liao, M. Zhang, H. Helmbrecht, M. McKenna, J. Filteau, E. Nance. Injury severity impacts nanoparticle delivery to microglia in the injured brain. *Conte Symposium on Neuro-Immune Interactions*. Virtual. (March 24th, 2021)
- 41. **A. Joseph***, R. Liao, M. Zhang, H. Helmbrecht, M. McKenna, J. Filteau, E. Nance. Injury severity impacts nanoparticle delivery to microglia in the injured brain. *Controlled Release Society Annual Meeting*. Virtual presentation (originally Las Vegas, NV). (June 29th-July 2nd, 2020)
- 42. **A. Joseph***, R. Liao, C. Nyambura, K. Hildahl, E. Nance. Nanotechnology for therapeutic applications in the developing brain. *Chemical Engineering Research Showcase*. Seattle, WA. (February 27-28th, 2020)
- 43. G. Simo*, **A. Joseph**, T. Gao, E. Nance. Evaluation of Surfactant Effects on Nanoparticle Toxicity in the Brain Microenvironment. *NCSU Future Leaders in Chemical Engineering Symposium*. Raleigh, NC. (October 27-28th, 2019)
- 44. **A. Joseph***, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, E. Nance. Curcumin-loaded polymeric nanoparticles for neuroprotection in neonatal rats with hypoxic ischemic encephalopathy. *Biomedical Engineering Society Annual Meeting*. Philadelphia, PA. (October 16-19th, 2019)
- 45. G. Simo*, **A. Joseph**, T. Gao, E. Nance. Evaluation of Surfactant Effects on Nanoparticle Toxicity in the Brain Microenvironment. *NSF REU in Data-enabled Science and Engineering Symposium*. Seattle, WA. (August 21st, 2019)
- 46. **A. Joseph***, G. Simo, T. Gao, E. Nance. Surfactant choice in nanoparticle formulation drives nanoparticle behavior and fate in the brain. *Controlled Release Society*. Valencia, Spain. (July 21-24th, 2019)
- 47. **A. Joseph***, R. Liao, M. Zhang, C. Nyambura, J. Filteau, E. Nance. Nanotherapeutics for developmental brain injury. *Chemical Engineering Research Showcase*. Seattle, WA. (March 1st, 2019)
- 48. **A. Joseph***, R. Liao, E. Rhodes, H. Pontes, J. Pon, E. Nance. Surfactant effects on biodegradable nanoparticle behavior in the brain. *Nano Drug Delivery Symposium*. Portland, OR. (September 21-23rd, 2018)
- 49. **A. Joseph***, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, E. Nance. Curcumin-loaded polymeric nanoparticles for neuroprotection in neonatal rats with hypoxic ischemic encephalopathy. New York City, NY. *Controlled Release Society*. (July 22-24th, 2018)
- 50. **A. Joseph**, T. Wood, C. Chen, K. Corry, J. Snyder, S. Juul, P. Parikh, E. Nance*. Curcumin-loaded brain-penetrating nanoparticles for neuroprotection in neonatal HIE. Asilomar, CA. *11th Hershey Conference on Developmental Brain Injury*. (June 5-8th, 2018)
- 51. C. Curtis*, **A. Joseph**, R. Liao, M. McKenna, M. Zhang, E. Nance. Nanotechnology and imaging-based platforms for the evaluation and treatment of neurological disease. Seattle, WA. *Chemical Engineering Research Showcase*. (March 2nd, 2018)

Teaching lectures and workshops

- 52. **A. Joseph***, J. Antony*, M. Cunningham*, H. Okahana*. National Postdoctoral Association Race & Ethnicity Equity Summit: What Comes Before. Virtual. (November 17, 2022)
- 53. **A. Joseph***, M. Elovitz. The vaginal microbiome: optimizing for reproductive health across the lifespan. *The Better Health Club seminar*. Virtual. (December 6, 2021)
- 54. **A. Joseph***, D. Peer*, L. Mendes*, N. Lamson*. Back to Normal vs New Normal: Round Table Panel. *Controlled Release Society Annual Meeting*. Montreal, Canada; virtual. (July 15, 2021)
- 55. **A. Joseph***, C. McNicholas*, J. O'Connor*, A. Duvall*, Y. Venkataraman*. Communication with Science-Averse Audiences. *Science Talk '21*. Seattle, WA. (March 24, 2021)
- 56. **A. Joseph*.** Nanomedicine uses in neurodegeneration. *UW Chemical Engineering 434/534: Physiological processes in engineering nanomedicine*. Seattle, WA. (March 10, 2021)

- 57. **A. Joseph***, C. McNicholas*, J. O'Connor*, M. Garrett*. How to Talk Science and Discuss Controversial Topics. *UW Engage*. Seattle, WA. (March 2, 2021)
- 58. **A. Joseph*.** Statistics in Biological Research. *UW Chemical Engineering 436: Chemical Engineering Laboratory I.* Seattle, WA. (November 10, 2020)
- 59. **A. Joseph*.** Essential Communication Skills for Scientists. *Controlled Release Society Annual Meeting*. Valencia, Spain. (June 14, 2020)

Podcasts and news articles

- 60. UAW members aren't all assembling cars. More and more are unionized grad students. Published: October 19, 2023. https://www.npr.org/2023/10/19/1206209107/united-auto-workers-union-uaw-membership-grad-students-big-3-strike
- 61. Postdocs need more support from administrators at Columbia and Mount Sinai. Published: September 28, 2023. https://thechiefleader.com/stories/postdocs-need-more-support-from-administrators-at-columbia-and-mount-sinai,51188
- 62. Stand Up with the UAW: Big 3 Strike and New York Postdocs. Published: September 20, 2023. https://revolutionsperminute.simplecast.com/episodes/stand-up-with-the-uaw-big-3-strike-and-new-york-postdocs
- 63. "Academia is in crisis, and it's time for a change": Interview with a Mount Sinai Hospital Postdoc. Published: September 7, 2023. https://www.leftvoice.org/academia-is-in-crisis-and-its-time-for-a-change-interview-with-a-mount-sinai-hospital-postdoc/
- 64. Postdoc survey confirms widespread dissatisfaction among US researchers. Published: February 2, 2023. https://www.nature.com/articles/d41586-023-00332-6

VI. TEACHING EXPERIENCE

2025	Syracuse University, Biomedical and Chemical Engineering, <i>Instructor for CEN 474</i>
	(Process Design)
2021-2024	Polygence, PhD research mentor
2017-2021	Associates in Tutoring & Academic Consultation, Advanced math & science tutor
Summer 2019	University of Washington, Project Leader for Math Academy
Fall 2019	University of Washington, Chemical Engineering, Teaching Assistant for Mass Transfer
	and Separations
Summer 2018	University of Washington, Project Leader for Math Academy
Fall 2015	Johns Hopkins University, Chemical and Biomolecular Engineering, Teaching Assistant
	for Introduction to Process Analysis
2015-16	Johns Hopkins University, Introductory Chemistry, Peer-Led Team Learning Leader

VI. MENTORSHIP and OUTREACH

Undergraduate	e Students
2021-2023	Isabella Mirro, BA in Bioengineering
2021-2022	Nova Meng, Bioengineering Bachelor's student
2020-2021	Denise Beebout, BS in Chemical Engineering
	NSF REU, Fall 2020
2020-2021	Ana Rios, BS in Bioengineering
	UW STAR Program, Summer 2020
2019-2021	Norah Alhindi, BS in Molecular and Cellular Biology
	KAUST Scholar
2019-2020	Tora Gao, BS in Chemical Engineering
	Current position: PhD student at UCLA Chemical and Biomolecular Engineering
2018-2020	Georges Simo, BS in Chemical Engineering and Biochemistry
	Mary Gates Research Scholarship, Class of 1954 Scholarship, 2020 Husky 100
	Recipient, Spence Scholarship

2018 2017-2020 2017-2018	Current position: MD student at UCLA Hugo Pontes, BS in Chemical Engineering CoMotion Fellowship, WRF Fellowship (2019, 2020), Honors Thesis candidate, 2020 Husky 100 Recipient Jessica Pon, BS in Chemical Engineering Emily Rhodes, BS in Chemical Engineering 2018 Center for Sensorimotor Neural Engineering Scholarship Current position: PhD student at University of Colorado Boulder, Chemical and Biological Engineering
2017-2018 2017-2018 2017-2018 2017-2018	Andrew Kirk, BS in Chemical Engineering Catherine Panlillio, BS in Chemical Engineering Sanchit Gad, BS in Chemical Engineering Alex Choe, BS in Chemical Engineering
High School S	tudents
2020	Maria Sati, Bellevue WA
2018	Sanjana Janakiraman, Bellevue WA
2017	Meghan Mallya, Austin TX, STEMMPREP
Outreach	
2020	Introduce a Girl to Renewable Energy, ACES booth lead
2019	Science demonstration at Horizon Elementary School, Mukilteo School District
2019	Engineering Discovery Days, Nance Lab booth lead
2018	Women in Science and Engineering Conference (UW), Volunteer
2018	Engineering Discovery Days, Nance Lab booth lead
2017	Engineering Discovery Days, Nance Lab booth lead
2017	Introduce a Girl to Nano, Nance Lab booth lead
VII. EXTRAC	CURRICULAR ACTIVITIES
2023-present	Member, In Training Member Committee, Society for Reproductive Investigation
2023-present	Member, in training Member Communice, Society for Reproductive investigation
2023-present	(International)
2022-present	
•	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International)
2022-present 2021-present 2021-present	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International)
2022-present 2021-present 2021-present 2022-2024	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National)
2022-present 2021-present 2021-present	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International)
2022-present 2021-present 2021-present 2022-2024 2021-2023	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International)
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2020-2021	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2020-2021 2019-2021	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2019-2021 2019	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2020-2021 2020-2021 2020-2021 2019-2021 2019 2018	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Fundraising and event chair, Association of Chemical Engineering Graduate Students, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2019-2021 2019	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Fundraising and event chair, Association of Chemical Engineering Graduate Students, Seattle WA Sponsorship Chair, Young Scientists Committee, Controlled Release Society
2022-present 2021-present 2021-present 2022-2024 2021-2023 2020-2021 2020-2021 2020-2021 2019-2021 2019 2018 2018-2020	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Fundraising and event chair, Association of Chemical Engineering Graduate Students, Seattle WA Sponsorship Chair, Young Scientists Committee, Controlled Release Society (International)
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2019-2021 2019 2018 2018-2020 2017-2018	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Fundraising and event chair, Association of Chemical Engineering Graduate Students, Seattle WA Sponsorship Chair, Young Scientists Committee, Controlled Release Society (International) Vice President, Women in Chemical Engineering, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2020-2021 2020-2021 2020-2021 2019-2021 2019 2018 2018-2020 2017-2018 2016-2017	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Sponsorship Chair, Young Scientists Committee, Controlled Release Society (International) Vice President, Women in Chemical Engineering, Seattle WA Social Director, Women in Chemical Engineering, Seattle WA
2022-present 2021-present 2021-present 2022-2024 2021-2023 2021-2023 2020-2021 2020-2021 2019-2021 2019 2018 2018-2020 2017-2018	(International) Editorial board member, Drug Delivery and Translational Research (International) Regular contributor, Newsletter team, Controlled Release Society (International) Secretary, Women in Science, Controlled Release Society (International) Chair, Postdoc Council, National Postdoctoral Association (National) Communication chair, Nervous System Delivery Focus Group, Controlled Release Society (International) Advocacy chair, Biomedical Postdoctoral Council, Philadelphia PA Director of GradSWE, Society of Women Engineers at UW, Seattle WA Treasurer, Young Scientists Committee, Controlled Release Society (International) Board member, Engage Science Communication, Seattle WA Graduate Student Liaison, Faculty Council on Women in Academia, Seattle WA President, Association of Chemical Engineering Graduate Students, Seattle WA Fundraising and event chair, Association of Chemical Engineering Graduate Students, Seattle WA Sponsorship Chair, Young Scientists Committee, Controlled Release Society (International) Vice President, Women in Chemical Engineering, Seattle WA

2013-2015 Vice President, Club Tennis, Baltimore MD

VIII. MEMBERSHIPS

American Institute of Chemical Engineers Controlled Release Society Society of Women Engineers Society for Reproductive Investigation American Society of Reproductive Immunology