

## EDUCATION

2019 Ph.D., Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA  
2016 M.S., Chemical Engineering Practice, Massachusetts Institute of Technology, Cambridge, MA  
2014 M.Phil., Chemistry, University of Cambridge, Cambridge, UK  
2013 B.S., Chemical Engineering, University of Pittsburgh, Pittsburgh, PA

## RESEARCH

2020- T32 Postdoctoral Fellow,  
Advisor: Jeffrey A. Hubbell, Pritzker School of Molecular Engineering, University of Chicago  
2015 - 2020 NSF Graduate Research Fellow; Graduate Research Assistant  
Advisor: Daniel G. Anderson, Department of Chemical Engineering, MIT  
2013 - 2014 Whitaker International Fellow  
Advisor: Tuomas P. J. Knowles, Department of Chemistry, University of Cambridge  
2011 - 2013 Undergraduate Research Assistant  
Advisor: Yadong Wang, Department of Bioengineering, University of Pittsburgh  
2012 Amgen Scholar  
Advisor: Suzie Pun, Department of Bioengineering, University of Washington

## TEACHING

2019 Teaching Development Fellow, Teaching + Learning Lab, MIT  
2019 Teaching Assistant, Careers and ChemE at MIT, MIT  
2018, 2019 Invited Guest Lecturer, Integrated Chemical Engineering Topics, MIT  
2017 - 2019 Workshop Developer and Facilitator, Communication Lab, MIT  
2018 Lecturer, Undergraduate Science Writing Workshop Series, Langer Lab, MIT  
2017 Invited Guest Lecturer, Polymer Science Laboratory, MIT  
2016 Teaching Assistant, Polymer Science Laboratory, MIT

## SERVICE

2019 - Manuscript Peer Review: *Advanced Drug Delivery Reviews* (1), *Trends in Biotechnology* (2), *ACS Central Science* (2), *ACS Omega* (2)  
2020 - Postdoc Representative, Immuno Delivery Focus Group, Controlled Release Society  
2020 - Annual Meeting Co-Chair, Women in Chemical Engineering, AIChE  
2020 - Member, Alumni Board, University of Pittsburgh Honors College  
2020, 2021 Co-Chair, Biomaterials for Drug Delivery, American Institute of Chemical Engineers  
2018 - 2019 Co-Founder and President, Graduate Women in Chemical Engineering, MIT  
2009 - 2013 Society of Women Engineers (SWE), University of Pittsburgh  
Offices held: President, Vice President, Service Chair, Social Chair

## SELECTED PUBLICATIONS

1. **Volpatti LR**, Burns DM, Basu A, Langer R, Anderson DG. Engineered insulin-polycation complexes for glucose-responsive delivery with high insulin loading. *J. Control. Release*. 2021, 338, 71-79.
2. **Volpatti LR**, Wallace RP, Cao S, Raczky MM, Wang R, et al. Polymersomes Decorated with the SARS-CoV-2 Spike Protein Receptor-Binding Domain Elicit Robust Humoral and Cellular Immunity. *ACS Cent. Sci*. 2021.
3. **Volpatti LR**, Facklam AL, Cortinas AB, Lu Y-C, Matranga MA, MacIsaac C. Hill M, Langer R, Anderson DG. Microgel encapsulated nanoparticles for glucose-responsive insulin delivery. *Biomaterials*. 2021, 267, 120458.
4. **Volpatti LR**, Rodby K, Singh GK, Kaushal B, Adams KM, Hammond PT, Rankin S. Promoting an Inclusive Lab Culture through Custom In-Person Trainings within an Engineering Department. *2020 ASEE Virtual Annual Conference Proceedings*, DOI: 10.18260/1-2--35102.
5. **Volpatti LR**, Matranga MA, Cortinas AB, Daniel KB, Langer R, Anderson DG. Glucose-Responsive Nanoparticles for Rapid and Extended Self-Regulated Insulin Delivery. *ACS Nano*. 2020, 14, 488-497.
6. **Volpatti LR**, Shimanovich U, Ruggeri FS, Bolisetty S, Müller T, Mason TO, Michaels TCT, Mezzenga R, Dietler G, Knowles TPJ. Micro- and nanoscale hierarchical structure of core-shell protein microgels. *J. Mater. Chem. B*. 2016, 4, 7989-7999.