

Vincent N. Miao

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EDUCATION

HARVARD-MIT HEALTH SCIENCES & TECHNOLOGY PHD STUDENT

Sep 2018 - Present | Cambridge, MA | Medical Engineering & Medical Physics

DUKE UNIVERSITY BACHELOR OF SCIENCE IN ENGINEERING, SUMMA CUM LAUDE

Aug 2014 - May 2018 | Durham, NC | Biomedical Engineering w/ Departmental Distinction, Computer Science Minor

RESEARCH EXPERIENCE

SHALEK GROUP GRADUATE RESEARCH ASSISTANT

April 2019 - Present | Cambridge, MA | Massachusetts Institute of Technology, Ragon Institute, Broad Institute

- Applied single-cell genomic technologies to understanding immune landscapes in infectious disease.

CHILKOTI GROUP UNDERGRADUATE RESEARCH FELLOW

Jan 2016 - May 2018 | Durham, NC | Duke University

- Designed and characterized partially-ordered polymers (POPs) based on elastin-like polypeptides (ELPs) with multi-site unnatural amino acid incorporation for cell scaffold and drug delivery applications.
- Designed complex, self-assembling peptide microarchitectures including porous POP microparticles and POP-ELP coaggregate systems.

REIF GROUP UNDERGRADUATE RESEARCH ASSISTANT

May 2015 - Aug 2016 | Durham, NC | Duke University

- Analyzed efficiency of chained DNA hybridization reactions and corresponding kinetics data.
- Completed two summer REUs (2015, 2016).

AWARDS & HONORS

HELMHOLTZ RESEARCH AWARD DUKE UNIVERSITY, 2018

STUDENT MARSHAL DUKE UNIVERSITY, 2017

ANDY GROVE SCHOLARSHIP INTEL CORPORATION, 2017

TAU BETA PI DUKE UNIVERSITY, 2017

PRATT RESEARCH FELLOWSHIP DUKE UNIVERSITY, 2017

PUBLICATIONS

1. Roberts, S., **Miao, V.**, Costa, S., Simon, J., Chilkoti, A. Complex microparticle architectures from stimuli-responsive intrinsically disordered proteins. Submitted.
2. Roberts, S., Harmon, T., Schaal, J., **Miao, V.**, Li, K., Hunt, A., Wen, Y., Oas, T., Collier, J., Pappu, R., Chilkoti, A. (2018). Injectable tissue networks from recombinant polypeptides with tuneable order. *Nature Materials*, 17 (12).
3. Bui, H., **Miao, V.**, Garg, S., Mokhtar, R., Song, T., Reif, J. (2017). Design and analysis of localized DNA hybridization chain reactions. *small*, 13 (12).
4. Bui, H., Garg, S., **Miao, V.**, Song, T., Mokhtar, R., Reif, J. (2017). Design and analysis of linear cascade DNA hybridization chain reactions using DNA hairpins. *New Journal of Physics*, 19 (1).

PRESENTATIONS

1. **Miao, V.**, Roberts, S., Costa, S., Simon, J., Chilkoti, A. (2017). Photocrosslinkable, stimuli-responsive protein microparticles. Oral presentation at BMES 2017.