

Andrew Leduc  
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## RESEARCH

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- Single Cell Proteomics Research, Slavov Lab, Northeastern University** **2019- Current**
- Developed a nanoliter scale sample preparation method that and data quality for thousands of single cell samples
  - Improved mass spectrometry data acquisition methods allowing for higher increase proteome coverage and throughput for low input samples
  - Novel data analysis of protein covariation across single cells related to cell cycle and drug resistance
- Chemical Engineering Research Internship, Lehigh University** **Jun 2016 – Aug 2016**
- Lead a team of three students studying the properties of hydrogels for their use in oil recovery and medicine delivery
  - Analysis of extracellular matrix properties under Dr. Kelly Schultz in the field of microrheology

## EDUCATION

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- Northeastern University - Graduate School, Doctorate degree in Bioengineering**  
**Boston, MA** **2019 - Current**
- Slavov Lab single cell proteomics research
  - Teacher assistant for undergraduate linear algebra course
- 2014 - 2018**
- Lehigh University - B.S. Chemical Engineering**  
**Bethlehem, PA**
- *Graduated with Honors*

## Publication

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- Wehrman, M.\* D., Leduc, A.\* , Callahan, H. E., Mazzeo, M. S., Schumm, M. and Schultz, K. M. (2018), *Rheological properties and structure of step- and chain-growth gels concentrated above the overlap concentration*. *AIChE J.*, 64: 3168-3176. doi:10.1002/aic.16062
- Leduc, Andrew, et al. "Exploring functional protein covariation across single cells using nPOP." *Genome Biology* (2022): 1-13.
- Petelski, Aleksandra A., Leduc, Andrew, et al. "Multiplexed single-cell proteomics using SCoPE2." *Nature protocols* 16.12 (2021): 5398-5425.
- Derks, J., Leduc, A., Wallmann, G., Huffman, R. G., Willetts, M., Khan, S., ... & Slavov, N. (2022). *Increasing the throughput of sensitive proteomics by plexDIA*. *Nature Biotechnology*, 1-10.
- Huffman, R. G., Leduc, A., Wichmann, C., di Gioia, M., Borriello, F., Specht, H., ... & Slavov, N. (2022). *Prioritized single-cell proteomics reveals molecular and functional polarization across primary macrophages*. *Nature Methods* (in press).

- *Gatto, L., Aebersold, R., Cox, J., Demichev, V., Derks, J., Leduc, A., Emmott, E., ... & Slavov, N. (2022). Initial recommendations for performing, benchmarking, and reporting single-cell proteomics experiments. Nature Methods (in press)*

## WORK

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### Zenith Technologies (Automation Engineer)

2018-2019

- Design of distributed control systems and onsite support of automation systems at Biogen's Research Triangle Park facility

## SKILLS

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Data analysis in: R, Python, Matlab, and Julia

Liquid Chromatography/Mass spectrometry, flow cytometry, linear algebra, statistics