Michael J. Lippincott
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Education

- **PhD Computational Cell Biology** — Aug. 2022 - May. 2027
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **BS Biochemistry and Data Science** — Aug. 2017 - May. 2021
  Maryville University of Saint Louis — *Saint Louis, MO*

Research Experience

- **PhD Research - Computational Cell Biology** — Oct 2022 - Present
  Advisor: Gregory P. Way, PhD, University of Colorado — *Aurora, CO*
- **Research Assistant - Genomics** — 2021 - 2022
  Advisor: Shawn Ahmed, University of North Carolina at Chapel Hill — *Chapel Hill, NC*
- **Research Assistant - Genome editing** — 2020 – 2021
  Centro de Technologia Canavieria — *Saint Louis, MO*
- **Research Assistant - Quantitative spectroscopy** — 2019 – 2020
  Advisor: Thomas Spudich, PhD, Maryville University of Saint Louis — *Saint Louis, MO*
- **Research Assistant - Cell Biology** — 2018 – 2021
  Advisor: Stacy L. Donovan, PhD, Maryville University of Saint Louis — *Saint Louis, MO*
- **Research Intern - Biochemistry** — 2018 – 2019
  Elemental Enzymes — *Saint Louis, MO*

Scientific Appointments

- **Wellbeing and engagement committee, Department of Biomedical Informatics** — 2024 – Present
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **PhD student** — Aug. 2022 - Present
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **Journal Club Committee, Cell Biology, Stem Cells, and Development** — 2023 – 2025
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **Volunteer** — 2023 – Present
  Clear Directions Mentoring — *Aurora, CO*
- **Cell Biology Graduate Teaching Assistant** — 2023 – Present
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **Research Assistant** — May. 2021 - May. 2022
  University of North Carolina at Chapel Hill — *Chapel Hill, NC*
- **Teaching Aid – Chemistry/Cell Biology** — 2019 – 2021
  Maryville University of Saint Louis — *Saint Louis, MO*
- **Lab technician training manager** — 2019 – 2021
  Maryville University of Saint Louis — *Saint Louis, MO*
- **Biology and Maths Tutor** — 2017 – 2019
  Maryville University of Saint Louis — *Saint Louis, MO*

Presentations and Invited Lectures

- **Invited speaker** — Jan. 28, 2026
  Michael Johnson Seminar Series, Maryville University — *Saint Louis, MO*
- **Oral presentation** — Dec. 4, 2025
  Neurofibramatosis Young Investigator's Forum — *Baltimore, MD*
- **Oral presentation** — Oct. 27, 2025
  Society of Biomolecular Imaging and Informatics — *Boston, MA*
- **Oral presentation** — Oct. 24, 2025
  Cell Biology, Stem Cells, and Development Retreat — *Estes Park, CO*
- **Poster presentation** — Feb. 10, 2025
  Systems applications for cancer biology — *Aurora, CO*
- **Oral presentation** — Dec. 3, 2024
  American Society for Cell Biology Cell Bio conference — *San Diego, CA*
- **Poster presentation** — Oct. 18, 2024
  Cell Biology, Stem Cells, and Development Retreat — *Breckinridge, CO*
- **Poster presentation** — Aug. 27, 2024
  Center for Health Artificial Intelligence Retreat — *Denver, CO*
- **Oral presentation** — Jul. 18, 2024
  Computational Systems for Integrative Genomics — *New York, NY*
- **Poster presentation** — Dec. 3, 2023
  American Society for Cell Biology Cell Bio conference — *Boston, MA*
- **Oral presentation** — Aug. 19, 2023
  Center for Health Artificial Intelligence Retreat — *Aurora, CO*
- **Poster presentation** — Oct. 13, 2023
  Cell Biology, Stem Cells, and Development Retreat — *Breckinridge, CO*

Honors and Awards

- **Neurofibromatosis Young Investigator's Forum Travel Award** — 2025
  Neurofibromatosis Young Investigator's Forum — *Baltimore, MD*
- **Best Oral Presentation** — 2021
  Maryville University Research Conference — *Saint Louis, MO*
- **Excellence in Biological & Physical Sciences** — 2021
  Maryville University — *Saint Louis, MO*
- **Best Poster Award** — 2019
  Maryville University Research Conference — *Saint Louis, MO*
- **Outstanding Junior Chemistry Student** — 2019
  American Chemical Society — *Saint Louis, MO*

Teaching and Mentoring

- **Mentor - High School Student** — Jan 2025 - Present
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **Guest Lecturer - CPBS 7601 Reproducible Computational methods course** — Oct. 17, 2025
  University of Colorado Anschutz Medical Campus — *Aurora, CO*
- **Guest Lecturer - Leveraging AI in Cell Biology** — Apr. 10, 2025
  Maryville University of Saint Louis — *Saint Louis, MO*
- **Guest Lecturer - CPBS 7601 Reproducible Computational methods course** — Nov. 15, 2024
  University of Colorado Anschutz Medical Campus — *Aurora, CO*

Journal Reviewer

- **Ad hoc Reviewer - Review Commons** 2025 - Present
- **Ad hoc Reviewer - Cell** 2024 - Present
- **Ad hoc Reviewer - Molecular Biology of the Cell** 2024 - Present
- **Ad hoc Reviewer - BiorXiv** 2023 - Present

Programming Skills

- **Languages**: Python, R, SQL, Bash, Nextflow
- **Technologies**: HPC Orchestration (SLURM), Nextflow, Cloud (AWS, GCP), terraform, Docker, Git
- **Frameworks**: Pytorch, Scikit-learn, Pandas, NumPy, SciPy, Optuna, Seaborn
- **Visualization**: Matplotlib, Seaborn, ggoplot2, Plotly, dash
- **Image software**: CellProfiler, napari, Fiji/ImageJ
- **Skills**: Machine Learning, Deep Learning, Statistical Analysis, Data Visualization, Data Wrangling, Data Mining, database Management

Publications

Google Scholar page (with citation metrics):
https://scholar.google.com/citations?user=mTdpDrwAAAAJ&hl=en

7 **Michael J. Lippincott**, Jenna Tomkinson, Ibrahim Bilem, Mahomi Suzuki, Akiko Nakde, Toshiaki Endou, Simon Mathien, Felix Lavoie-Perusse, Carla Basualto-Alarcón, Gregory P Way. (2025) High-content live-cell time-lapse imaging predicts cells about to die via apoptosis. In Review at Cell Systems Methods. bioRxiv: https://doi.org/10.1101/2025.10.23.684203

6 Dave Bunten, Jenna Tomkinson, Erik Serrano, **Michael J. Lippincott**, Kenneth I. Brewer, Vince Rubinetti, Faisal Alquaddoomi, Gregory P. Way (2025) Scalable data harmonization for single-cell image-based profiling with CytoTable. In Review at Patterns. bioRxiv: https://doi.org/10.1101/2025.06.19.660613

5 Erik Serrano, John Peters, Jesko Wagner, Rebecca E. Graham, Zhenghao Chen, Brian Feng, Gisele Miranda, Alexandr A. Kalinin, Loan Vulliard, Jenna Tomkinson, Cameron Mattson, **Michael J. Lippincott**, Ziqi Kang, Divya Sitani, Dave Bunten, Srijit Seal, Neil O. Carragher, Anne E. Carpenter, Shantanu Singh, Paula A. Marin Zapata, Juan C. Caicedo, Gregory P. Way. (2025) Progress and new challenges in image-based profiling. arXiv: https://doi.org/10.48550/arXiv.2508.05800

4 Abigail Mumme-Monheit, Grace E. Gustafson, Colette A. Hopkins, Raisa Bailon-Zambrano, Juliana Sucharov, **Michael J. Lippincott**, Gregory P. Way, Kathryn L. Colborn James T. Nichols. (2025) A quadratic paradigm describes the relationship between phenotype severity and variation. Nature Communications: https://doi.org/10.1038/s41467-025-63316-2

3 **Michael J. Lippincott**, Jenna Tomkinson, Dave Bunten, Milad Mohammadi, Johanna Kastl, Johannes Knop, Ralf Schwandner, Jiamin Huang, Grant Ongo, Nathaniel Robichaud, Milad Dagher, Masafumi Tsuboi, Carla Basualto-Alarcón, Gregory P. Way. (2025) A morphology and secretome map of pyroptosis. MBoC: https://doi.org/10.1091/mbc.E25-03-0119

2 Srivastava H, **Michael J. Lippincott**, Currie J, Canfield R, Lam MPY, Lau E. (2022). Protein prediction models support widespread post-transcriptional regulation of protein abundance by interacting partners. PLOS Computational Biology: https://doi.org/10.1371/journal.pcbi.1010702

1 Lister-Shimauchi EH, McCarthy B, **Michael J. Lippincott**, Ahmed S. (2022) Genetic and Epigenetic Inheritance at Telomeres. Epigenomes: https://doi.org/10.3390/epigenomes6010009