

Moshe C. Silverstein

Curriculum Vitae

Silver Spring, MD, 20902

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Education

2019 - Present **PhD, Applied Mathematics**, *New Jersey Institute of Techonogy*, Newark, NJ.

2014 – 2016 **MA, Physics**, *Hunter College, CUNY*, New York, NY.

2009 – 2013 **BS Physics**, *Brooklyn College, CUNY*, Brooklyn, NY.

Research Experience

2016– 2018 **Bioinformatician**, *Ma'ayan Lab – Ichan School of Medicine, Mount Sinai*, New York, NY.

- Bioinformatics

- Data Analysis/Big Data

- Machine Learning

- Web Development

2013– 2014 **Research Assistant**, *Boutis Lab – Brooklyn College, CUNY*, Brooklyn, NY.

- Nuclear Magnetic Resonance (NMR)

- Protein Structural Analysis

Teaching Experience

2021 – 2022 **AP Physics Teacher**, *Bruriah High School*, Elizabeth, NJ.

2018 – 2019 **Mathematics Teacher**, *Bruriah High School*, Elizabeth, NJ.

2016 – 2017 **Adjunct Lecturer for the Department of Mathematics**, *Touro College*, Brooklyn, NY.

2015 – 2016 **Adjunct Instructor for the Department of Physics**, *Hunter College, CUNY*, New York, NY.

2009 – 2015 **Mathematics Teacher**, *United Lubavitch Yeshiva*, Brooklyn, NY.

Fellowships & Awards

2022 **Travel Award** SIAM Conference on the Life Sciences

2012 **The Ida and Philip Klein Scholarship in Physics** – For outstanding achievement in undergraduate studies in the field of physics.

Computer skills

Programming Languages Python, Julia, MatLab, Mathematica, C++

Web Technologies HTML, CSS, Javascript

Publications

- 2019 Zichen Wang, Edward He, Kevin Sani, Kathleen M Jagodnik, Moshe C Silverstein, and Avi Ma'ayan. Drug gene budger (dgb): an application for ranking drugs to modulate a specific gene based on transcriptomic signatures. *Bioinformatics*, volume 35, pages 1247–1248. Oxford University Press, 2019.
- 2019 Daniel JB Clarke, Lily Wang, Alex Jones, Megan L Wojciechowicz, Denis Torre, Kathleen M Jagodnik, Sherry L Jenkins, Peter McQuilton, Zachary Flamholz, Moshe C Silverstein, et al. Fairshake: toolkit to evaluate the fairness of research digital resources. *Cell systems*, volume 9, pages 417–421. Elsevier, 2019.
- 2018 Alexander Lachmann, Denis Torre, Alexandra B Keenan, Kathleen M Jagodnik, Hoyjin J Lee, Lily Wang, Moshe C Silverstein, and Avi Ma'ayan. Massive mining of publicly available rna-seq data from human and mouse. *Nature communications*, volume 9, pages 1–10. Nature Publishing Group, 2018.
- 2018 Alexandra B Keenan, Sherry L Jenkins, Kathleen M Jagodnik, Simon Koplev, Edward He, Denis Torre, Zichen Wang, Anders B Dohlman, Moshe C Silverstein, Alexander Lachmann, et al. The library of integrated network-based cellular signatures nih program: system-level cataloging of human cells response to perturbations. *Cell systems*, volume 6, pages 13–24. Elsevier, 2018.
- 2018 Daniel J B Clarke, Maxim V Kuleshov, Brian M Schilder, Denis Torre, Mary E Duffy, Alexandra B Keenan, Alexander Lachmann, Axel S Feldmann, Gregory W Gundersen, Moshe C Silverstein, et al. expression2kinases (x2k) web: linking expression signatures to upstream cell signaling networks. *Nucleic acids research*, volume 46, pages W171–W179. Oxford University Press, 2018.
- 2017 Tetsuo Asakura, Kotaro Isobe, Shunsuke Kametani, Obehi T Ukpebor, Moshe C Silverstein, and Gregory S Boutis. Characterization of water in hydrated bombyx mori silk fibroin fiber and films by 2h nmr relaxation and 13c solid state nmr. *Acta biomaterialia*, volume 50, pages 322–333. Elsevier, 2017.
- 2016 Kubra Bilici, Steven W Morgan, Moshe C Silverstein, Yunjie Wang, Hyung Jin Sun, Yanhang Zhang, and Gregory S Boutis. Mechanical, structural, and dynamical modifications of cholesterol exposed porcine aortic elastin. *Biophysical chemistry*, volume 218, pages 47–57. Elsevier, 2016.
- 2015 Moshe C Silverstein, Kübra Bilici, Steven W Morgan, Yunjie Wang, Yanhang Zhang, and Gregory S Boutis. 13c, 2h nmr studies of structural and dynamical modifications of glucose-exposed porcine aortic elastin. *Biophysical journal*, volume 108, pages 1758–1772. Elsevier, 2015.
- 2014 Keith T Downing, Mubashir Billah, Eva Raparia, Anup Shah, Moshe C Silverstein, Amanda Ahmad, and Gregory S Boutis. The role of mode of delivery on elastic fiber architecture and vaginal vault elasticity: a rodent model study. *Journal of the mechanical behavior of biomedical materials*, volume 29, pages 190–198. Elsevier, 2014.