

Samuel J Allon
PhD Candidate, MIT Chemistry

Curriculum Vitae
1/2/22

EDUCATION

University of Pennsylvania, Philadelphia, PA
MS Chemistry, 2016

Thesis: “CELF2 mRNA as a model system for complex 3’ UTR processing”
Advisor: Prof Kristen W Lynch (Biochemistry & Molecular Biophysics)

University of Pennsylvania, Philadelphia, PA
BA Biochemistry, 2016

RESEARCH EXPERIENCE

Undergraduate Researcher

Prof Kristen W Lynch

Department of Biochemistry & Molecular Biophysics, Perelman School of Medicine
2013-2016: Mechanisms of alternative mRNA splicing and polyadenylation

Summer Intern

Prof Paul M Lieberman

Wistar Institute

2011, 2012: Role of the CTCF binding site in the Epstein-Barr Virus genome

TEACHING AND OUTREACH

Undergraduate Courses

Teaching Assistant, Laboratory Biochemistry, MIT 2017

Teaching Assistant, Laboratory Chemistry, MIT 2016

Middle and High School Courses

How the Immune System Works, MIT ESP, HSSP Summer 2020

How to Solve Climate Change, MIT ESP, HSSP Summer 2019

How the Immune System Works, MIT ESP, Cascade Fall 2018

Introduction to Network Theory, MIT ESP, HSSP Summer 2018

How the Immune System Works, MIT ESP, HSSP Spring 2018

How the Immune System Works, MIT ESP, Cascade Fall 2017

How the Immune System Works, MIT ESP, HSSP Summer 2017

Other

Executive Board, MIT BoSTEM Scholars Academy, 2018-2021

UCSC Genome Browser YouTube tutorials, >100,000 total views

AWARDS AND HONORS

2021 Regeneron Prize for Creative Innovation, Finalist

2020 Surdna Junior Faculty Research Fund Award, on behalf of Shalek lab

2016 National Science Foundation Graduate Research Fellowship

2016 Helix Prize, Penn Biochemistry

- 2015 Roy and Diana Vagelos Challenge Award, Penn Biochemistry
- 2015 Undergraduate Travel Award, Society for Molecular Biology & Evolution
- 2013 UROP International Scholarship, RWTH Aachen, Germany
- 2011 High Honors, US National Chemistry Olympiad

PEER REVIEWED PUBLICATIONS

1. Jacobsen JT, Hu W, Castro TBR, Solem S, Galante A, Lin Z, **Allon SJ**, Mesin L, Bilate AM, Schiepers A, Shalek AK, Rudensky AY, Victora GD (2021) Expression of Foxp3 by T follicular helper cells in end-stage germinal centers *Science*
2. Dwyer DF, Ordovas-Montanes J, **Allon SJ**, Buchheit KM, Vukovic M, Derakhshan T, Feng C, Lai J, Hughes TK, Nyquist SK, Giannetti MP, Berger B, Bhattacharyya, Roditi RE, Katz HR, Nawijn MC, Berg M, van den Berge M, Laidlaw TM, Shalek AK, Barrett NA, Boyce JA (2021) Human airway mast cells proliferate and acquire distinct inflammation-driven phenotypes during type 2 inflammation *Science Immunology*
3. Pae J, Ersching J, Castro TBR, Schips M, Mesin L, **Allon SJ**, Ordovas-Montanes J, Mlynarczyk C, Melnick A, Efeyan A, Shalek AK, Meyer-Hermann M, Victora GD (2020) Cyclin D3 drives inertial cell cycling in dark zone germinal center B cells *Journal of Experimental Medicine*
4. Ziegler CGK*, **Allon SJ***, Nyquist SK*, Mbanjo IM*, Miao VN, Tzouanas CN, Cao Y, Yousif AS, Bals J, Hauser BM, Feldman J, Muus C, Wadsworth II MH, Kazer SW, Hughes TK, Doran B, Gatter GJ, Vukovic M, Taliaferro F, Mead BE, Guo Z, Wang JP, Gras D, Plaisant M, Ansari M, Angelidis I, Adler H, Sucre JMS, Taylor CJ, Lin B, Waghray A, Mitsialis V, Dwyer DF, Buchheit KM, Boyce JA, Barrett NA, Laidlaw TM, Carroll SL, Colonna L, Tkachev V, Peterson CW, Yu A, Zheng HB, Gideon HP, Winchell CG, Lin PL, Bingle CD, Snapper SB, Kropski JA, Theis FJ, Schiller HB, Zaragosi L-E, Barbry P, Leslie A, Kiem H-P, Flynn JL, Fortune SM, Berger B, Finberg RW, Kean LS, Garber M, Schmidt AG, Lingwood D, Shalek AK#, Ordovas-Montanes J#, HCA Lung Biological Network (2020) SARS-CoV-2 receptor ACE2 is an interferon-stimulated gene in human airway epithelial cells and is detected in specific cell subsets across tissues *Cell*
5. Tsankov AM, Wadsworth II MH, Akopian V, Charlton J, **Allon SJ**, Arczewska A, Mead BE, Drake RS, Smith ZD, Mikkelsen TS, Shalek AK, Meissner A (2019) Loss of DNA methyltransferase activity in primed human ES cells triggers increased cell-cell variability and transcriptional repression *Development* 146(19)
6. Mallory MJ*, **Allon SJ***, Qiu J, Gazzara MR, Tapescu I, Martinez NM, Fu XD, Lynch KW (2015) Induced transcription and stability of CELF2 mRNA drives widespread alternative splicing during T-cell signaling *PNAS* 122(17):E2139-48
7. Cole BS, Tapescu I, **Allon SJ**, Mallory MJ, Qiu J, Lake RJ, Fan HY, Fu XD, Lynch KW (2015) Global analysis of physical and functional RNA targets of hnRNP L reveals distinct sequence and epigenetic features of repressed and enhanced exons *RNA*