Kathryn E. Yost

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EDUCATION AND TRAINING

2016-	**Stanford University (Current)** **Doctor of Philosophy**, Cancer Biology Research Advisor: Howard Y. Chang Thesis Committee: Paul A. Khavari, Christina Curtis, William J. Greenleaf
2014-2016	**National Cancer Institute** Postbaccalaureate Cancer Research Training Award (CRTA) Fellow Research Advisor: Paul S. Meltzer
2010-2014	**Washington and Lee University** **Bachelor of Science**, *summa cum laude*, Honors in Biochemistry Biochemistry, Mathematics Minor GPA: 3.98/4.00 Research Advisor: Frederick J. LaRiviere

INDEPENDENT FUNDING

2020-2025	NCI F99/K00 Predoctoral to Postdoctoral Transition Award
2016-2021	National Science Foundation Graduate Research Fellowship
2016-2021	Stanford Graduate Fellowship, Smith Fellowship
2018-2020	Stanford ChEM-H Seed Grant. Collaborators: Karlsson, K., Smith, A., Balsubramani, A.

HONORS AND AWARDS

2019	Stanford Cancer Biology Retreat Best Talk Award
2017	Stanford Cancer Biology Retreat Best Poster Award
2015	NCI/CCR Genetics Branch Annual Retreat Second Best Platform Presentation
2014	NIH Cancer Research Training Award (CRTA)
2014	Pi Mu Epsilon, National Mathematics Honor Society
2014	Beta Beta Beta, National Biological Honor Society
2014	Honors in Biochemistry, Washington and Lee University
2014	James Lewis Howe Award for Achievement in Chemistry, Washington and Lee University Department of Chemistry and Biochemistry
2013	Barry M. Goldwater Scholarship
2013	Phi Beta Kappa, National Academic Honor Society
2013	Omicron Delta Kappa, National Leadership Honor Society
2013	Dana's Angels Research Trust Award, University of Texas Southwestern Medical Center
2012	James Keith Shillington Scholarship for Achievement in Organic Chemistry, Washington and Lee University Department of Chemistry and Biochemistry
2011	Howard Hughes Medical Institute Research Fellowship, Washington and Lee University
2011	Freshman Chemistry Achievement Award, Washington and Lee University Department of Chemistry and Biochemistry
2011	Phi Eta Sigma, National First Year Academic Honor Society
2010	Johnson Scholarship, Full Academic Scholarship, Washington and Lee University

PUBLICATIONS

1. Parker KR[*], Migliorini D[*,†], Perkey E, **Yost KE**, Bhaduri A, Bagga P, Haris M, Wilson NE, Liu F, Gabunia K, Scholler J, Montine T, Bhoj VG, Reddy R, Mohan S, Maillard I, Kriegstein AR, June CH, Chang HY, Posey AD[**], Satpathy AT[**,†]. Single-Cell Analyses Identify Brain Mural Cells Expressing CD19 as Potential Off-Tumor Targets for CAR-T Immunotherapies. ***Cell*** (2020).

2. Goldman JD, Wang K, Roltgen K, Nielson SCA, Roach JC, Naccache SN, Yang F, Wirz OF, **Yost KE**, Lee J, Chun K, Wrin T, Petropoulos CJ, Lee I, Fallen S, Manner PM, Wallick JA, Algren HA, Murray KM, Su Y, Hadlock J, Jeharajah J, Berrington WR, Pappas GP, Nyatsatsang ST, Greninger AL, Satpathy AT, Pauk JS, Boyd SD, Heath JR. Reinfection with SARS-CoV-2 and Failure of Humoral Immunity: a case report. ***medRxiv*** (2020). Manuscript submitted for publication.

3. Nielsen SCA[*], Yan F[*], Jackson KJL[*], Hoh RA[*], Röltgen K, Jean GH, Stevens BA, Lee J, Rustaji A, Rogers AJ, Powell AE, Hunter M, Najeeb J, Otrelo-Cardoso AR, **Yost KE**, Daniel B, Nadeau KC, Chang HY, Satpathy AT, Jardetzky TS, Kim PS, Wang TT, Pinsky BA, Blish CA[†], Boyd SD[†]. Human B Cell Clonal Expansion and Convergent Antibody Responses to SARS-CoV-2. ***Cell Host Microbe*** (2020).

4. Kraft K[*], **Yost KE**[*], Murphy S[**], Magg A[**], Long Y, Corces MR, Granja JM, Mundlos S, Cech TR, Boettiger A, Chang HY. Polycomb-mediated Genome Architecture Enables Long-range Spreading of H3K27 methylation. ***bioRxiv*** (2020). Manuscript submitted for publication.

5. Vardhana SA, Hwee M, Berisa M, Wells DK, **Yost KE**, King B, Smith M, Herrera PS, Chang HY, Satpathy AT, van den Brink M, Cross JR & Thompson CB. Impaired mitochondrial oxidative phosphorylation limits the self-renewal of T-cells exposed to persistent antigen. ***Nature Immunology*** 21, 1022–1033 (2020).

6. Raju S[*], Xia Y[*], Daniel B, **Yost KE**, Bradshaw E, Tonc E, Verbaro DJ, Satpathy AT & Egawa T. Latent Plasticity of Effector-like Exhausted CD8 T cells contributes to memory responses. ***bioRxiv*** (2020). Manuscript submitted for publication.

7. **Yost KE**, Chang HY & Satpathy AT. Tracking the immune response with single-cell genomics. ***Vaccine*** 38, 4487–4490 (2020).

8. Carter AC[*], Xu J[*], Nakamoto MY[**], Wei Y[**], Shi Q, Broughton JP, Ransom RC, Salhotra A, Nagaraja SD, Li R, Dou DR, **Yost KE**, Cho SW, Mistry A, Longaker MT, Batey RT, Wuttke DS & Chang HY. Spen links RNA-mediated endogenous retrovirus silencing and X chromosome inactivation. ***eLife*** 9, (2020).

9. **Yost KE**[*], Satpathy AT[*†], Wells DK, Qi Y, Wang C, Kageyama R, McNamara KL, Granja JM, Sarin KY, Brown RA, Gupta RK, Curtis C, Bucktrout SL, Davis MM, Chang ALS[†] & Chang HY[†]. Clonal replacement of tumor-specific T cells following PD-1 blockade. ***Nature Medicine*** 25, 1251–1259 (2019).

10. Satpathy AT[*], Granja JM[*], **Yost KE**, Qi Y, Meschi F, McDermott GP, Olsen BN, Mumbach MR, Pierce SE, Corces MR, Shah P, Bell JC, Jhutty D, Nemec CM, Wang J, Wang L, Yin Y, Giresi PG, Chang ALS, Zheng GXY[†], Greenleaf WJ[†] & Chang HY[†]. Massively parallel single-cell chromatin landscapes of human immune cell development and intratumoral T cell exhaustion. ***Nature Biotechnology*** 37, 925-936 (2019).

11. **Yost KE**[*], Clatterbuck Soper SF[*], Walker RL, Pineda MA, Zhu YJ, Ester CD, Showman S, Roschke AV, Waterfall JJ[†] & Meltzer PS[†]. Rapid and reversible suppression of ALT by DAXX in osteosarcoma cells. ***Scientific Reports*** 9, 4544 (2019).

12. Chang ALS, Tran DC, Cannon JGD, Li S, Jeng M, Patel R, Van der Bokke L, Pague A, Brotherton R, Rieger KE, Satpathy A, **Yost KE**, Reddy S, Sarin K & Colevas AD. Pembrolizumab for advanced basal cell carcinoma: an investigator-initiated, proof-of-concept study. ***Journal of the American Academy of Dermatology*** 80, 564-566 (2019).

13. Cho SW[*], Xu J[*], Sun R, Mumbach MR, Carter AC, Chen YG, **Yost KE**, Kim J, He J, Nevins SA, Chin S, Caldas C, Liu SJ, Horlbeck MA, Lim DA, Weissman JS, Curtis C & Chang HY. Promoter of lncRNA Gene PVT1 Is a Tumor-Suppressor DNA Boundary Element. ***Cell*** 173, 1398-1412 (2018).

14. **Yost KE**, Carter AC, Xu J, Litzenburger U & Chang HY. ATAC Primer Tool for targeted analysis of accessible chromatin. ***Nature Methods*** 15, 304–305 (2018).

[*, **] Indicates authors with equal contribution
[†] Indicates multiple corresponding authors

SELECTED PRESENTATIONS AND POSTERS

Oct 2019	Western Association of Core Directors' 9th Annual Meeting. Santa Cruz, CA *Profiling cancer immunotherapy response with single cell genomics* Invited oral presentation
Sep 2019	Stanford Cancer Biology Annual Retreat. San Jose, CA *Clonal replacement of tumor-specific T cells following PD-1 blockade* Oral presentation, selected for award
May 2019	Stanford Cancer Biology Seminar Series. Stanford, CA *Clonal replacement of tumor-specific T cells following PD-1 blockade* Oral presentation
May 2019	Stanford Epithelial Biology Seminar Series. Stanford, CA *Clonal replacement of tumor-specific T cells following PD-1 blockade* Oral presentation
Sep 2017	Stanford Cancer Biology Annual Retreat. San Jose, CA *Targeted and Allele-Specific Quantification of Chromatin Accessibility by ATAC-qPCR* Poster, selected for award
Apr 2016	American Association for Cancer Research Annual Meeting. New Orleans, LA *Reintroduction of DAXX suppresses alternative lengthening of telomeres in osteosarcoma* Poster
Apr 2014	Washington and Lee University, Lexington, VA *Microarray analysis of nonfunctional ribosomal RNA decay in Saccharomyces cerevisiae* Honors Thesis Oral Presentation
Apr 2013	American Chemical Society National Meeting. New Orleans, LA *Microarray analysis of nonfunctional ribosomal RNA decay in Saccharomyces cerevisiae* Poster

TEACHING EXPERIENCE

2019,2020	Cancer Biology Program NSF Mentorship Program Director, Stanford University
2019-2020	Research mentor to three graduate rotation students: King L. Hung, Edel M. McCrea & Connor V. Duffy. Chang Lab, Stanford University
2019-2020	Research mentor to post-baccalaureate life science research professional: Shreya Sirivolu. Satpathy Lab, Stanford University
2018	Teaching Assistant for CBIO242: Cellular and Clinical Aspects of Cancer, Stanford University
2011-2019	Private Tutor, High School Science and Math
2011-2014	Peer Tutor, General Chemistry, Washington and Lee University
2012-2013	Math Center Tutor, Washington and Lee University