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 Salk Institute


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Research interests

My research passion lies in dissecting and addressing the molecular basis of human disease. To address these complex questions, I have developed a strong technical background in next-generation sequencing, CRISPR-based genome editing, data science, and machine learning. In my PhD, I have applied these skills to characterize LINE-1 retrotransposon activity in brain aging and disease.

Education

University of California, San Diego

La Jolla, California

PhD in Bioinformatics and Systems Biology

Expected December 2025

Thesis Committee:

- Fred H. Gage, PhD (Chair)
- Eran A. Mukamel, PhD (Co-Chair)
- Graham McVicker, PhD
- Melissa Gymrek, PhD
- Nicholas Schork, PhD

Trinity College

Hartford, Connecticut

BS in Molecular and Cellular Biology

May 2016

Honors and Awards

NSF Graduate Research Fellowship2022

National Science Foundation (NSF)

Spot Award2017

Broad Institute

Beta Beta Beta National Biology Honors Society2014

Trinity College

NESCAC Winter All-Academic Team2014

Trinity College

Research experience

PhD Student

2020 – Present

Gage Lab, Salk Institute for Biological Studies

La Jolla, California

Mukamel Lab, UC San Diego

La Jolla, California

Mentors: Fred H. Gage, Eran A. Mukamel

Research Associate

2016 – 2020

Regev Lab, Broad Institute

Cambridge, Massachusetts

Mentors: Aviv Regev, Benjamin Izar, Pratiksha Thakore, Yaara Oren

Curriculum Vitae, Michael Sellers Cuoco, 1

Undergraduate Researcher

2014 – 2016

Meyerson Lab, Dana-Farber Cancer Institute

Boston, Massachusetts

Mentors: Matthew Meyerson, Alison Taylor

Undergraduate Researcher

2013

Trinity College

Hartford, Connecticut

HHMI Science Education Alliance - SEA-PHAGES

Research: In Preparation

Cuoco, M. S., Wang, M., Gadde, R., Gallina, I., Jacomini, R. S., Weinberger, D. R., Erwin, J. A., Paquola, A. M., Mukamel, E. A., Gage, F. H., “Elevated LINE-1 retrotransposon activity in human hippocampus.” (2025).
Luciolla, R., **Cuoco, M. S.**, Gage, F. H., “RUNX1 and YY1 As Novel Drivers of Neuronal Identity Loss in Alzheimer’s Disease.” (2025).

Research: Submitted

Revanna, J. S., Wessendorf-Rodriguez, K., Sabedot, T., **Cuoco, M. S.**, Sarkar, S., Zhang, L., Prozapas, V. N., Wooldridge, R. S., Steiner, S., Katz, A., Pratt, J., Mertens, J., Melchior, J. T., Metallo, C., Jones, J. R., Gage, F. H., “Cholesterol ester accumulation in APOE4/4 microglia leads to lysosomal and mitochondrial dysfunction” (2025).

Research: Published

Subramanian, A., Vernon, K. A., Zhou, Y., Marshall, J. L., Alimova, M., Arevalo, C., Zhang, F., Slyper, M., Waldman, J., Montesinos, M. S., Dionne, D., Nguyen, L. T., **Cuoco, M. S.**, Dubinsky, D., Purnell, J., Keller, K., Sturner, S. H., Grinkevich, E., Ghoshal, A., Kotek, A., Trivioli, G., Richoz, N., Humphrey, M. B., Darby, I. G., Miller, S. J., Xu, Y., Weins, A., Chloe-Villani, A., Chang, S. L., Kretzler, M., Rosenblatt-Rosen, O., Shaw, J. L., Zimmerman, K. A., Clatworthy, M. R., Regev, A., Greka, A., “Protective role for kidney TREM2^{high} macrophages in obesity- and diabetes-induced kidney injury.” *Cell reports* 43 (6 May 23, 2024). DOI: 10.1016/j.celrep.2024.114253.
Toda, T., Bedrosian, T. A., Schafer, S. T., **Cuoco, M. S.**, Linker, S. B., Ghassemzadeh, S., Mitchell, L., Whiteley, J. T., Novaresi, N., McDonald, A. H., Gallina, I. S., Yoon, H., Hester, M. E., Pena, M., Lim, C., Suljic, E., Mansour, A. A., Boulard, M., Parylak, S. L., Gage, F. H., “Long interspersed nuclear elements safeguard neural progenitors from precocious differentiation.” *Cell reports* 43 (2 Feb. 13, 2024). DOI: 10.1016/j.celrep.2024.113774.
Boyle, E. A., Goldberg, G., Schmok, J. C., Burgado, J., Layng, F. I., Grunwald, H. A., Balotin, K. M., **Cuoco, M. S.**, Chang, K.-C., Ecklu-Mensah, G., Arakaki, A. K. S., Ahmed, N., Arceo, X. G., Jagannatha, P., Pekar, J., Iyer, M., Yeo, G. W., “Junior scientists spotlight social bonds in seminars for diversity, equity, and inclusion in STEM.” *PloS one* 18 (11 Nov. 2023). DOI: 10.1371/journal.pone.0293322.
Otto, J. E., Ursu, O., Wu, A. P., Winter, E. B., **Cuoco, M. S.**, Ma, S., Qian, K., Michel, B. C., Buenrostro, J. D., Berger, B., Regev, A., Kadoch, C., “Structural and functional properties of mSWI/SNF chromatin remodeling complexes revealed through single-cell perturbation screens.” *Molecular cell* 83 (8 Apr. 2023). DOI: 10.1016/j.molcel.2023.03.013.
Shih, J., Sarmashghi, S., Zhakula-Kostadinova, N., Zhang, S., Georgis, Y., Hoyt, S. H., **Cuoco, M. S.**, Gao, G. F., Spurr, L. F., Berger, A. C., Ha, G., Rendo, V., Shen, H., Meyerson, M., Cherniack, A. D., Taylor, A. M., Beroukhim, R., “Cancer aneuploidies are shaped primarily by effects on tumour fitness.” *Nature* 619 (7971 June 29, 2023). DOI: 10.1038/s41586-023-06266-3.
Eraslan, G., Drokhlyansky, E., Anand, S., Fiskin, E., Subramanian, A., Slyper, M., Wang, J., Wittenberghe, N. V., Rouhana, J. M., Waldman, J., Ashenberg, O., Lek, M., Dionne, D., Win, T. S., **Cuoco, M. S.**, Kuksenko, O., Tsankov, A. M.,

- Branton, P. A., Marshall, J. L., Greka, A., Getz, G., Segrè, A. V., Aguet, F., Rozenblatt-Rosen, O., Ardlie, K. G., Regev, A., “Single-nucleus cross-tissue molecular reference maps toward understanding disease gene function.” *Science* (New York, N.Y.) 376 (6594 May 14, 2022). DOI: 10.1126/science.abl4290.
- Hwang, W. L., Jagadeesh, K. A., Guo, J. A., Hoffman, H. I., Yadollahpour, P., Reeves, J. W., Mohan, R., Drokhlyansky, E., Wittenberghe, N. V., Ashenberg, O., Farhi, S. L., Schapiro, D., Divakar, P., Miller, E., Zollinger, D. R., Eng, G., Schenkel, J. M., Su, J., Shiau, C., Yu, P., Freed-Pastor, W. A., Abbondanza, D., Mehta, A., Gould, J., Lambden, C., Porter, C. B. M., Tsankov, A., Dionne, D., Waldman, J., **Cuoco, M. S.**, Nguyen, L., Delorey, T., Phillips, D., Barth, J. L., Kem, M., Rodrigues, C., Ciprani, D., Roldan, J., Zelga, P., Jorgji, V., Chen, J. H., Ely, Z., Zhao, D., Fuhrman, K., Fropf, R., Beechem, J. M., Loeffler, J. S., Ryan, D. P., Weekes, C. D., Ferrone, C. R., Qadan, M., Aryee, M. J., Jain, R. K., Neuberg, D. S., Wo, J. Y., Hong, T. S., Xavier, R., Aguirre, A. J., Rozenblatt-Rosen, O., Mino-Kenudson, M., Castillo, C. F.-D., Liss, A. S., Ting, D. T., Jacks, T., Regev, A., “Single-nucleus and spatial transcriptome profiling of pancreatic cancer identifies multicellular dynamics associated with neoadjuvant treatment.” *Nature genetics* 54 (8 July 29, 2022). DOI: 10.1038/s41588-022-01134-8.
- Li, J., Pinto-Duarte, A., Zander, M., **Cuoco, M. S.**, Lai, C.-Y., Osteen, J., Fang, L., Luo, C., Lucero, J. D., Gomez-Castanon, R., Nery, J. R., Silva-Garcia, I., Pang, Y., Sejnowski, T. J., Powell, S. B., Ecker, J. R., Mukamel, E. A., Behrens, M. M., “Dnmt3a knockout in excitatory neurons impairs postnatal synapse maturation and increases the repressive histone modification H3K27me3.” *eLife* 11 (May 24, 2022). DOI: 10.7554/eLife.66909.
- Bi, K., He, M. X., Bakouny, Z., Kanodia, A., Napolitano, S., Wu, J., Grimaldi, G., Braun, D. A., **Cuoco, M. S.**, Mayorga, A., DelloStritto, L., Bouchard, G., Steinharter, J., Tewari, A. K., Vokes, N. I., Shannon, E., Sun, M., Park, J., Chang, S. L., McGregor, B. A., Haq, R., Denize, T., Signoretti, S., Guerriero, J. L., Vigneau, S., Rozenblatt-Rosen, O., Rotem, A., Regev, A., Choueiri, T. K., Allen, E. M. V., “Tumor and immune reprogramming during immunotherapy in advanced renal cell carcinoma.” *Cancer cell* 39 (5 Mar. 13, 2021). DOI: 10.1016/j.ccell.2021.02.015.
- Frangieh, C. J., Melms, J. C., Thakore, P. I., Geiger-Schuller, K. R., Ho, P., Luoma, A. M., Cleary, B., Jerby-Arnon, L., Malu, S., **Cuoco, M. S.**, Zhao, M., Ager, C. R., Rogava, M., Hovey, L., Rotem, A., Bernatchez, C., Wucherpfennig, K. W., Johnson, B. E., Rozenblatt-Rosen, O., Schadendorf, D., Regev, A., Izar, B., “Multimodal pooled Perturb-CITE-seq screens in patient models define mechanisms of cancer immune evasion.” *Nature genetics* 53 (3 Mar. 2021). DOI: 10.1038/s41588-021-00779-1.
- He, M. X., **Cuoco, M. S.**, Crowdis, J., Bosma-Moody, A., Zhang, Z., Bi, K., Kanodia, A., Su, M.-J., Ku, S.-Y., Garcia, M. M., Sweet, A. R., Rodman, C., DelloStritto, L., Silver, R., Steinharter, J., Shah, P., Izar, B., Walk, N. C., Burke, K. P., Bakouny, Z., Tewari, A. K., Liu, D., Camp, S. Y., Vokes, N. I., Salari, K., Park, J., Vigneau, S., Fong, L., Russo, J. W., Yuan, X., Balk, S. P., Beltran, H., Rozenblatt-Rosen, O., Regev, A., Rotem, A., Taplin, M.-E., Allen, E. M. V., “Transcriptional mediators of treatment resistance in lethal prostate cancer.” *Nature medicine* 27 (3 Mar. 2021). DOI: 10.1038/s41591-021-01244-6.
- Jerby-Arnon, L., Neftel, C., Shore, M. E., Weisman, H. R., Mathewson, N. D., McBride, M. J., Haas, B., Izar, B., Volorio, A., Boulay, G., Cironi, L., Richman, A. R., Broyle, L. C., Gurski, J. M., Luo, C. C., Mylvaganam, R., Nguyen, L., Mei, S., Melms, J. C., Georgescu, C., Cohen, O., Buendia-Buendia, J. E., Segerstolpe, A., Sud, M., **Cuoco, M. S.**, Labes, D., Gritsch, S., Zollinger, D. R., Ortogero, N., Beechem, J. M., Nielsen, G. P., Chebib, I., Nguyen-Ngoc, T., Montemurro, M., Cote, G. M., Choy, E., Letovanec, I., Cherix, S., Wagle, N., Sorger, P. K., Haynes, A. B., Mullen, J. T., Stamenkovic, I., Rivera, M. N., Kadoch, C., Wucherpfennig, K. W., Rozenblatt-Rosen, O., Suvà, M. L., Riggi, N., Regev, A., “Opposing immune and genetic mechanisms shape oncogenic programs in synovial sarcoma.” *Nature medicine* 27 (2 Jan. 27, 2021). DOI: 10.1038/s41591-020-01212-6.
- Muus, C., Luecken, M. D., Eraslan, G., Sikkema, L., Waghay, A., Heimberg, G., Kobayashi, Y., Vaishnav, E. D., Subramanian, A., Smillie, C., Jagadeesh, K. A., Duong, E. T., Fiskin, E., Triglia, E. T., Ansari, M., Cai, P., Lin, B., Buchanan, J., Chen, S., Shu, J., Haber, A. L., Chung, H., Montoro, D. T., Adams, T., Aliee, H., Allon, S. J., Andrusivova, Z., Angelidis, I., Ashenberg, O., Bassler, K., Bécavin, C., Benhar, I., Bergenstråhle, J., Bergenstråhle, L., Bolt, L., Braun, E., Bui, L. T., Callori, S., Chaffin, M., Chichelnitskiy, E., Chiou, J., Conlon, T. M., **Cuoco, M. S.**, Cuomo, A. S. E., Deprez, M., Duclos, G., Fine, D., Fischer, D. S., Ghazanfar, S., Gillich, A., Giotti, B., Gould, J., Guo, M., Gutierrez, A. J., Habermann, A. C., Harvey, T., He, P., Hou, X., Hu, L., Hu, Y., Jaiswal, A., Ji, L., Jiang, P., Kapellos, T. S., Kuo, C. S., Larsson, L., Leney-Greene, M. A., Lim, K., Litviňuková, M., Ludwig, L. S., Lukassen, S., Luo, W., Maatz, H.,

- Madisson, E., Mamanova, L., Manakongtreecheep, K., Leroy, S., Mayr, C. H., Mbano, I. M., McAdams, A. M., Nabhan, A. N., Nyquist, S. K., Penland, L., Poirion, O. B., Poli, S., Qi, C., Queen, R., Reichart, D., Rosas, I., Schupp, J. C., Shea, C. V., Shi, X., Sinha, R., Sit, R. V., Slowikowski, K., Slyper, M., Smith, N. P., Sountoulidis, A., Strunz, M., Sullivan, T. B., Sun, D., Talavera-López, C., Tan, P., Tantivit, J., Travaglini, K. J., Tucker, N. R., Vernon, K. A., Wadsworth, M. H., Waldman, J., Wang, X., Xu, K., Yan, W., Zhao, W., Ziegler, C. G. K., “Single-cell meta-analysis of SARS-CoV-2 entry genes across tissues and demographics.” *Nature medicine* 27 (3 Mar. 2021). DOI: 10.1038/s41591-020-01227-z.
- Oren, Y., Tsabar, M., **Cuoco, M. S.**, Amir-Zilberstein, L., Cabanos, H. F., Hütter, J.-C., Hu, B., Thakore, P. I., Tabaka, M., Fulco, C. P., Colgan, W., Cuevas, B. M., Hurvitz, S. A., Slamon, D. J., Deik, A., Pierce, K. A., Clish, C., Hata, A. N., Zaganjor, E., Lahav, G., Politi, K., Brugge, J. S., Regev, A., “Cycling cancer persister cells arise from lineages with distinct programs.” *Nature* 596 (7873 Aug. 13, 2021). DOI: 10.1038/s41586-021-03796-6.
- Pelka, K., Hofree, M., Chen, J. H., Sarkizova, S., Pirl, J. D., Jorgji, V., Bejnood, A., Dionne, D., Ge, W. H., Xu, K. H., Chao, S. X., Zollinger, D. R., Lieb, D. J., Reeves, J. W., Fuhrman, C. A., Hoang, M. L., Delorey, T., Nguyen, L. T., Waldman, J., Klapholz, M., Wakiro, I., Cohen, O., Albers, J., Smillie, C. S., **Cuoco, M. S.**, Wu, J., Su, M.-J., Yeung, J., Vijaykumar, B., Magnuson, A. M., Asinovski, N., Moll, T., Goder-Reiser, M. N., Applebaum, A. S., Brais, L. K., DelloStritto, L. K., Denning, S. L., Phillips, S. T., Hill, E. K., Meehan, J. K., Frederick, D. T., Sharova, T., Kanodia, A., Todres, E. Z., Jané-Valbuena, J., Biton, M., Izar, B., Lambden, C. D., Clancy, T. E., Bleday, R., Melnitchouk, N., Irani, J., Kunitake, H., Berger, D. L., Srivastava, A., Hornick, J. L., Ogino, S., Rotem, A., Vigneau, S., Johnson, B. E., Corcoran, R. B., Sharpe, A. H., Kuchroo, V. K., Ng, K., Giannakis, M., Nieman, L. T., Boland, G. M., Aguirre, A. J., Anderson, A. C., Rozenblatt-Rosen, O., Regev, A., Hacohen, N., “Spatially organized multicellular immune hubs in human colorectal cancer.” *Cell* 184 (18 Aug. 28, 2021). DOI: 10.1016/j.cell.2021.08.003.
- Raundhal, M., Ghosh, S., Myers, S. A., **Cuoco, M. S.**, Singer, M., Carr, S. A., Waikar, S. S., Bonventre, J. V., Ritz, J., Stone, R. M., Steensma, D. P., Regev, A., Glimcher, L. H., “Blockade of IL-22 signaling reverses erythroid dysfunction in stress-induced anemias.” *Nature immunology* 22 (4 Mar. 24, 2021). DOI: 10.1038/s41590-021-00895-4.
- Schenkel, J. M., Herbst, R. H., Canner, D., Li, A., Hillman, M., Shanahan, S.-L., Gibbons, G., Smith, O. C., Kim, J. Y., Westcott, P., Hwang, W. L., Freed-Pastor, W. A., Eng, G., **Cuoco, M. S.**, Rogers, P., Park, J. K., Burger, M. L., Rozenblatt-Rosen, O., Cong, L., Pauken, K. E., Regev, A., Jacks, T., “Conventional type I dendritic cells maintain a reservoir of proliferative tumor-antigen specific TCF-1+ CD8+ T cells in tumor-draining lymph nodes.” *Immunity* 54 (10 Sept. 18, 2021). DOI: 10.1016/j.immuni.2021.08.026.
- Drokhlyansky, E., Smillie, C. S., Wittenberghe, N. V., Ericsson, M., Griffin, G. K., Eraslan, G., Dionne, D., **Cuoco, M. S.**, Goder-Reiser, M. N., Sharova, T., Kuksenko, O., Aguirre, A. J., Boland, G. M., Graham, D., Rozenblatt-Rosen, O., Xavier, R. J., Regev, A., “The Human and Mouse Enteric Nervous System at Single-Cell Resolution.” *Cell* 182 (6 Sept. 2020). DOI: 10.1016/j.cell.2020.08.003.
- Izar, B., Tirosh, I., Stover, E. H., Wakiro, I., **Cuoco, M. S.**, Alter, I., Rodman, C., Leeson, R., Su, M.-J., Shah, P., Iwanicki, M., Walker, S. R., Kanodia, A., Melms, J. C., Mei, S., Lin, J.-R., Porter, C. B. M., Slyper, M., Waldman, J., Jerby-Arnon, L., Ashenberg, O., Brinker, T. J., Mills, C., Rogava, M., Vigneau, S., Sorger, P. K., Garraway, L. A., Konstantinopoulos, P. A., Liu, J. F., Matulonis, U., Johnson, B. E., Rozenblatt-Rosen, O., Rotem, A., Regev, A., “A single-cell landscape of high-grade serous ovarian cancer.” *Nature medicine* 26 (8 June 24, 2020). DOI: 10.1038/s41591-020-0926-0.
- Kinker, G. S., Greenwald, A. C., Tal, R., Orlova, Z., **Cuoco, M. S.**, McFarland, J. M., Warren, A., Rodman, C., Roth, J. A., Bender, S. A., Kumar, B., Rocco, J. W., Fernandes, P. A. C. M., Mader, C. C., Keren-Shaul, H., Plotnikov, A., Barr, H., Tsherniak, A., Rozenblatt-Rosen, O., Krizhanovsky, V., Puram, S. V., Regev, A., Tirosh, I., “Pan-cancer single-cell RNA-seq identifies recurring programs of cellular heterogeneity.” *Nature genetics* 52 (11 Nov. 2020). DOI: 10.1038/s41588-020-00726-6.
- Mao, P., Cohen, O., Kowalski, K. J., Kusiel, J. G., Buendia-Buendia, J. E., **Cuoco, M. S.**, Exman, P., Wander, S. A., Waks, A. G., Nayar, U., Chung, J., Freeman, S., Rozenblatt-Rosen, O., Miller, V. A., Piccioni, F., Root, D. E., Regev, A., Winer, E. P., Lin, N. U., Wagle, N., “Acquired FGFR and FGF Alterations Confer Resistance to Estrogen Receptor (ER) Targeted Therapy in ER+ Metastatic Breast Cancer.” *Clinical cancer research* 26 (22 July 30, 2020). DOI: 10.1158/1078-0432.CCR-19-3958.
- Li, A., Herbst, R. H., Canner, D., Schenkel, J. M., Smith, O. C., Kim, J. Y., Hillman, M., Bhutkar, A., **Cuoco, M. S.**, Rappazzo, C. G., Rogers, P., Dang, C., Jerby-Arnon, L., Rozenblatt-Rosen, O., Cong, L., Birnbaum, M., Regev, A.,

- Jacks, T., “IL-33 Signaling Alters Regulatory T Cell Diversity in Support of Tumor Development.” *Cell reports* 29 (10 Dec. 2019). DOI: 10.1016/j.celrep.2019.10.120.
- Jerby-Arnon, L., Shah, P., **Cuoco, M. S.**, Rodman, C., Su, M.-J., Melms, J. C., Leeson, R., Kanodia, A., Mei, S., Lin, J.-R., Wang, S., Rabasha, B., Liu, D., Zhang, G., Margolais, C., Ashenberg, O., Ott, P. A., Buchbinder, E. I., Haq, R., Hodi, F. S., Boland, G. M., Sullivan, R. J., Frederick, D. T., Miao, B., Moll, T., Flaherty, K. T., Herlyn, M., Jenkins, R. W., Thummalapalli, R., Kowalczyk, M. S., Cañadas, I., Schilling, B., Cartwright, A. N. R., Luoma, A. M., Malu, S., Hwu, P., Bernatchez, C., Forget, M.-A., Barbie, D. A., Shalek, A. K., Tirosh, I., Sorger, P. K., Wucherpennig, K., Allen, E. M. V., Schadendorf, D., Johnson, B. E., Rotem, A., Rozenblatt-Rosen, O., Garraway, L. A., Yoon, C. H., Izar, B., Regev, A., “A Cancer Cell Program Promotes T Cell Exclusion and Resistance to Checkpoint Blockade.” *Cell* 175 (4 Nov. 2018). DOI: 10.1016/j.cell.2018.09.006.
- Nayar, U., Cohen, O., Kapstad, C., **Cuoco, M. S.**, Waks, A. G., Wander, S. A., Painter, C., Freeman, S., Persky, N. S., Marini, L., Helvie, K., Oliver, N., Rozenblatt-Rosen, O., Ma, C. X., Regev, A., Winer, E. P., Lin, N. U., Wagle, N., “Acquired HER2 mutations in ER+ metastatic breast cancer confer resistance to estrogen receptor-directed therapies.” *Nature genetics* 51 (2 Dec. 12, 2018). DOI: 10.1038/s41588-018-0287-5.
- Wallrapp, A., Riesenfeld, S. J., Burkett, P. R., Abdunour, R.-E. E., Nyman, J., Dionne, D., Hofree, M., **Cuoco, M. S.**, Rodman, C., Farouq, D., Haas, B. J., Tickle, T. L., Trombetta, J. J., Baral, P., Klose, C. S. N., Mahlaköiv, T., Artis, D., Rozenblatt-Rosen, O., Chiu, I. M., Levy, B. D., Kowalczyk, M. S., Regev, A., Kuchroo, V. K., “The neuropeptide NMU amplifies ILC2-driven allergic lung inflammation.” *Nature* 549 (7672 Sept. 14, 2017). DOI: 10.1038/nature24029.
- Pope, W. H., Bowman, C. A., Russell, D. A., Jacobs-Sera, D., Asai, D. J., Cresawn, S. G., Jacobs, W. R., Hendrix, R. W., Lawrence, J. G., Hatfull, G. F., “Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity.” *eLife* 4 (Apr. 29, 2015). DOI: 10.7554/eLife.06416. Listed as a contributor as part of the SEA-PHAGES consortium.

Research: Preprint

- Subramanian, A., Vernon, K., Slyper, M., Waldman, J., Luecken, M. D., Gosik, K., Dubinsky, D., **Cuoco, M. S.**, Keller, K., Purnell, J., Nguyen, L., Dionne, D., Rozenblatt-Rosen, O., Weins, A., Network, H. C. A. L. B., Regev, A., Greka, A., “RAAS blockade, kidney disease, and expression of ACE2, the entry receptor for SARS-CoV-2, in kidney epithelial and endothelial cells”. *BioRxiv* (2020). DOI: 10.1101/2020.06.23.167098.

Mentorship

Joelle Faybishenko <i>Gage Lab, Salk Institute for Biological Studies</i> Current: Masters Student, ETH Zurich	Fall 2022 – present La Jolla, California Zurich, Switzerland
Evan Lee <i>Biology Undergraduate and Master’s Mentorship</i>	Fall 2022 – present La Jolla, California
Rohini Gadde <i>Mukamel Lab, UC San Diego</i>	Fall 2021 – 2024 La Jolla, California
Anise Porter <i>Biology Undergraduate and Master’s Mentorship</i>	Fall 2020 – 2024 La Jolla, California
Jesslyn Goh <i>Regev Lab, Broad Institute</i>	Fall 2019 – 2020 Cambridge, Massachusetts

Teaching

Guest Lecturer Spring 2025
Department of Cognitive Science, UC San Diego La Jolla, California
COGS9: Classification in Genomics Data

Bootcamp instructor Fall 2021, Fall 2022
Bioinformatics and Systems Biology, UCSD La Jolla, California

Teaching assistant Spring 2015
Department of Biology, Trinity College Hartford, Connecticut
BIOL 224: Genetics

Tutor 2014 – 2016
Department of Biology, Trinity College Hartford, Connecticut
BIOL 182: Evolution of Life
BIOL 183: Cellular Basis of Life
BIOL 224: Genetics

Professional Development

Innovation and Commercialization Course Fall 2017 – Spring 2018
Harvard Biotech Club, Harvard Medical School Boston, Massachusetts

Biotechnology Incubator Program Fall 2018 – Spring 2020
Harvard Biotech Club, Harvard Medical School Boston, Massachusetts
Market assessment and lean startup (Raquia Therapeutics).

Service / Outreach

Committee Member 2021 – 2024
Advisory Committee on Diversity La Jolla, California
Salk Institute for Biological Studies

Director of Onboarding 2021 – 2024
Graduate Bioinformatics Council La Jolla, California
UCSD Bioinformatics and Systems Biology

Committee Member 2020 – 2024
Diversity Equity and Inclusion Committee La Jolla, California
UCSD Bioinformatics and Systems Biology

Seminar Organizer 2021
Diversity and Science Lecture Series La Jolla, California
UCSD

Symposium Organizer Fall 2021
Diversity and Science Lecture Series La Jolla, California
UCSD

Volunteer - High Tech High Mesa*SciChats@Salk Education Outreach**Salk Institute for Biological Studies*

Fall 2021

La Jolla, California

Volunteer - La Jolla High School*SciChats@Salk Education Outreach**Salk Institute for Biological Studies*

Fall 2021

La Jolla, California

Proficiencies / Skills**Programming**

Python, Bash, R

Data Types

Single-cell and bulk genomics (RNA-seq, ATAC-seq, whole-genome sequencing, targeted sequencing), Genotyping arrays (Illumina)

Other

Google Cloud Platform, Docker, Git, GitHub Actions, Scikit-learn, PyTorch, PyTorch Lightning, Seurat, Scanpy