MICAH OLIVAS

+1 (559) 589-4619 • micaholivas@mail.fresnostate.edu • 5241 N. Maple Ave, Fresno, CA 93740
www.linkedin.com/in/micaholivas

EDUCATION

California State University, Fresno, CA — Expected May 2020
B.S. in Biochemistry (Honors); Minor in Physical Sciences — GPA: 3.92/4.0
Honors Thesis: PM2.5-induced oxidative stress in the alveolar macrophage

Oxford University, Oxford, England — Sept 2019 - Dec 2019
Tutorials in Stem Cell Biology and Quantum Chemistry. — Expected First-class

RESEARCH EXPERIENCE

Amgen Scholar | Advisor: Michael Bassik, PhD — Jan – Aug 2019
Stanford University, Department of Genetics
CRISPR/Cas9 screening in spheroid culture of KRAS-mutant lung adenocarcinoma
– Characterized the dependency of insulin-like growth factor 1 receptor (IGF1R) on carboxypeptidase-d, a novel toxic hit in screen of KRAS-mutant tumor spheroids

Undergraduate Research Fellow | Advisor: James Alvarez, PhD — May – July 2018
Duke University, Department of Pharmacology and Cancer Biology
Engineering Inducible CRISPR/Cas9 screening systems for dormant breast cancer
– Optimizing ERT2-Cas9 fusion (KI Liu et al.) function in human dormant mammary adenocarcinoma

Undergraduate Honors Researcher | Advisor: Laurent Dejean, PhD — Aug 2016 – Present
California State University, Fresno, Department of Chemistry
Particulate matter-induced reactive oxygen species production in alveolar macrophages
– Developed high-throughput fluorometric pipeline to categorize particulate matter-mediated ROS production by subcellular location

PEER-REVIEWED ARTICLES

1. Olivas, M., Flores, D., Raval, K., Kaur, M., Castillo, J., Waterston, A., Hasson, A., & Dejean, L. *PM2.5 mediated oxidative stress dynamics in the alveolar macrophage.* (In preparation, target submission date: February 2020).
2. Han, K., Pierce, S., Li, A., Spees, K., Anderson, G.R., Seoane, J.A., Wainberg, M., Kostyrko, K., Kelly, M.R., Yousefi, M., Simpkins, S.W., Yao, D., Lee, K., Kuo, C.J., Shokat, K.M., Jackson, P.K., Sweet-Cordero, A., Kundaje, A., Gentles, A.J., Curtis, C., Winslow, M.M., Lo, Y., Dubreuil, M., Olivas, M., Kamber, R., Bassik, M.C. *Genome-wide CRISPR screens in lung cancer spheroids identify 3D growth specific cancer vulnerabilities.* (In press, Nature).
3. Waterston, A., Castillo, J., Olivas, M., Hasson, A., & Dejean, L. *PM2.5 Exposure and ROS Production in NR8383 Rat Alveolar Macrophages.* Biophysical Journal 114, 334a (2018). DOI: https://doi.org/10.1016/j.bpj.2017.11.1872

POSTER PRESENTATIONS

Han K, Olivas M, Anderson G, and Bassik MC. Genome-wide CRISPR screens in 3D tumor spheroids reveal IGF1R processing dependencies in lung adenocarcinoma. Genome Engineering: Frontiers in CRISPR/Cas – Cold Spring Harbor Laboratories conference. Cold Spring Harbor, NY, October, 2019

Olivas M, Han K, Anderson G, and Bassik MC. Genome-wide CRISPR screens in 3D tumor spheroids reveal IGF1R processing dependencies in lung adenocarcinoma. 26th annual Stanford Summer Research Program/AMGEN Symposium. Stanford, CA, August, 2019

Olivas M, Fox D, and Alvarez J. Development of an inducible Cas9 for temporally controlled gene editing in mammary adenocarcinoma. American Society for Pharmacology and Experimental Therapeutics (ASPET) meeting. Orlando, FL, April, 2019

Olivas M, Flores D, Waterston A, Dejean L, and Hasson A. Chemical and signaling bases of PM-mediated ROS production in alveolar macrophages. American Society for Cell Biology (ASCB) meeting. San Diego, CA, Dec., 2018

Olivas M, Fox D, and Alvarez J. Development of an inducible Cas9 for temporally controlled gene editing. Selected for symposium review. 6th annual BioCoRE symposium. Durham, NC, July, 2018

SELECTED HONORS AND AWARDS

Marshall Scholarship Finalist, Marshall Aid Commemoration Commission 2019
The Marshall Scholarship provides a living stipend and full tuition scholarship for graduate study in the United Kingdom. 100 finalists were selected from university-endorsed applicant pool of 1200 in 2019.

Barry M. Goldwater Scholarship, Goldwater Foundation 2019
The Goldwater Scholarship recognizes undergraduate research in the natural and physical sciences at U.S. universities. 500 scholars were selected from an applicant pool of 5000 in 2019.

Best Poster Presentation, Stanford Summer Research Program Symposium 2019
Award recognizing the highest-scoring poster presentation at the 26th annual Amgen/Stanford Summer Research Program symposium.

AMGEN Scholarship, Stanford University 2019
Full financial support for independent research in the Department of Genetics at Stanford University.

Departmental Honors, CSU Fresno Department of Chemistry 2018
Academic and research support awarded annually to 6 rising juniors at California State University, Fresno.

Undergraduate Research Fellow (SURF), American Society for Pharmacology and Experimental Therapeutics (ASPET) 2018
Full funding for independent research in the Pharmacology and Cancer Biology Department at Duke University.

Outstanding Poster Presentation, American Chemical Society 2018
Annual award recognizing an exemplary research presentation at the Central California Research Symposium.

Smittcamp Family Honors College Scholarship, CSU Fresno 2016
Awarded annually to 50 (<5% acceptance rate) students from across the U.S., providing undergraduate tuition and honors status at CSU Fresno.

PROFESSIONAL SOCIETY MEMBERSHIP

Honors Society of Sigma Xi	2019
Honors Society of Phi Kappa Phi	2017 - 2019
American Society for Pharmacology and Experimental Therapeutics	2018 - 2019
American Society for Cell Biology	2017 - 2019
American Society for Biochemistry and Molecular Biology	2017 - 2019
Biophysical Society	2016 - 2019

PROFESSIONAL SERVICE

California Air Resources Board

Community Steering Committee Member (Volunteer 10 hr/wk), November 2018 - Present

- Organized and implemented Assembly Bill 617 in South Fresno, providing protections for residents of critical non-attainment areas throughout the region
- Reported directly to the California Air Resources Board (CARB) during regular meetings at the California Environmental Protection Agency (CalEPA) building in Sacramento

Camp Kesem at Fresno State

Public Relations Coordinator (Volunteer 20 hr/wk), August 2017 - Present

- Coordinated weekly communication and a summer camp for more than 80 local children whose parents or guardians have been affected by cancer

FLOCC Comedy Improv Troupe at Fresno State

Performing Member (Volunteer 15 hr/wk), August 2017 - Present

- One of 10-15 members on A* performance team
- Raised nearly $7,000 for local charities during monthly shows in and around Fresno, CA

REFERENCES

Dr. Michael Bassik
Assistant Professor of Genetics
Stanford University
Stanford, CA 94305
(415) 378-7931
bassik@stanford.edu

Dr. Laurent Dejean
Assistant Professor of Biochemistry
California State University, Fresno
Fresno, CA 93740
(559) 278-2008
ldejean@csufresno.edu

Dr. James Alvarez
Professor of Pharmacology and Cancer Biology
Duke University
Durham, NC 27710
(919) 681-5479
james.alvarez@duke.edu