

Marisol Cira

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EDUCATION

University of California, Los Angeles (UCLA)

Ph.D.	Civil Engineering <i>Advisor: Professor Jennifer Jay</i>	Expected 2023
M.S.	Civil Engineering <i>Advisor: Professor Jennifer Jay</i> <i>Thesis: "Antibiotic Resistance Gene Quantities in Commercially Available Garden Products"</i>	2019
B.S.	Civil Engineering	2018

HONORS AND AWARDS

Switzer Fellowship, Robert and Patricia Switzer Foundation	2022 – 2023
Summer Mentored Research Fellowship, UCLA	2021
Early-Career Fellowship, UCLA Center for Diverse Leadership in Science	2020 – 2022
Eugene V. Cota-Robles Fellowship, UCLA	2019 – 2023
Ford Predoctoral Fellowship, Ford Foundation	2019 – 2022
Competitive Edge Fellowship, UCLA	2019
Outstanding Master of Science Award, UCLA Civil and Environmental Engineering	2019
Graduate Opportunity Fellowship, UCLA	2018 – 2019
Edison International Scholarship, Great Minds in STEM	2018 – 2019
Achievement Award for Student Welfare, UCLA Samuelli	2018
Reineke Family Scholarship, UCLA Center for Excellence in Engineering and Diversity	2017 – 2018
MacDowell Fellowship, UCLA Undergraduate Research Fellowship Program	2016 – 2017
Xerox Scholarship, UCLA Center for Excellence in Engineering and Diversity	2014 – 2016

RESEARCH EXPERIENCE

NASA Jet Propulsion Laboratory (JPL) Visiting Student Researcher <i>Advisor: Dr. Christine Lee</i>	2020 – Present
UCLA Civil and Environmental Engineering Graduate Student Researcher <i>Advisor: Professor Jennifer Jay</i>	2018 – Present
UCLA Civil and Environmental Engineering Undergraduate Student Researcher <i>Advisor: Professor Jennifer Jay</i>	2014 – 2018
UCLA Civil and Environmental Engineering Undergraduate Student Researcher <i>Advisor: Professor Gaurav Sant</i>	2013

PEER-REVIEWED PUBLICATIONS

1. **Marisol Cira**, Anisha Bafna, Christine M. Lee, Yuwei Kong, Benjamin Holt, Luke Ginger, Kerry Cawse-Nicholson, Lucy Rieves, Jennifer A. Jay. "Turbidity and Fecal Indicator Bacteria in Recreational Marine Waters Increase Following the 2018 Woolsey Fire." *Scientific Reports*, vol. 12, no. 1, 2022, <https://doi.org/10.1038/s41598-022-05945-x>.
2. **Marisol Cira***, Cristina Echeverria-Palencia*, Ileana Callejas, Karina Jimenez, Rafael Herrera Jr, Wei-Cheng Hung, Nicolas Colima, Amanda Schmidt, Jennifer A. Jay. "Commercially Available Garden

Products as Important Sources of Antibiotic Resistance Genes—a Survey.” *Environmental Science and Pollution Research*, vol. 28, no. 32, 2021, pp. 43507–43514., <https://doi.org/10.1007/s11356-021-13333-7>.

3. Wei-Cheng Hung, **Marisol Hernandez-Cira**, Karina Jimenez, Imani Elston. “Preliminary Assessment of Lead Concentrations in Topsoil of 100 Parks in Los Angeles, California.” *Applied Geochemistry*, vol. 99, 2018, pp. 13–21., <https://doi.org/10.1016/j.apgeochem.2018.10.003>.
4. Cristina Echeverria-Palencia, Vanessa Thulsiraj, Nghi Tran, Cody Ericksen, Isabel Melendez, Michael Sanchez, Devin Walpert, Tony Yuan, Elizabeth Ficara, Niru Senthilkumar, Fangfang Sun, Renjie, Li, **Marisol Hernandez-Cira**, Demi Gamboa, Heather Haro, Suzanne Paulson, Yifang Zhu, Jennifer A. Jay. “Disparate Antibiotic Resistance Gene Quantities Revealed across 4 Major Cities in California: A Survey in Drinking Water, Air, and Soil at 24 Public Parks.” *ACS Omega*, vol. 2, no. 5, 2017, pp. 2255–2263., <https://doi.org/10.1021/acsomega.7b00118>.

* Contributed equally to this work

PRESENTATIONS

Conferences

1. **Marisol Cira***, Anisha Bafna, Christine M. Lee, Yuwei Kong, Benjamin Holt, Luke Ginger, Kerry Cawse-Nicholson, Lucy Rieves, and Jennifer A. Jay. “Turbidity and Fecal Indicator Bacteria in Recreational Marine Waters Increase Following the 2018 Woolsey Fire.” (oral) California State University, Northridge Environmental and Occupational Health Tech Symposium, 16 March 2022, Remote.
2. **Marisol Cira***, Anisha Bafna, Christine M. Lee, Yuwei Kong, Benjamin Holt, Luke Ginger, Kerry Cawse-Nicholson, Lucy Rieves, and Jennifer A. Jay. “Turbidity and Fecal Indicator Bacteria in Recreational Marine Waters Increase Following the 2018 Woolsey Fire.” (oral) Ocean Sciences Meeting, 27 February – 4 March 2022, Remote.
3. Victoria Whitener, **Marisol Cira***, Wei-Cheng Hung, Ileana Callejas, Max Menczer, Leopoldo Mendoza Espinoza, Jennifer A. Jay. “Reclaimed Water as a Source of Antibiotic Resistance in Agricultural Soil, Northern Mexico.” (poster) Ford Conference, 9 – 10 October 2020, Remote.
4. **Marisol Cira***, Ileana Callejas, Cristina Echeverria-Palencia, Jennifer A. Jay. “Antibiotic Resistance Gene Quantities in Commercially Available Garden Products.” (poster) Ford Conference, 3 – 5 October 2019, San Juan, PR.
5. **Marisol Cira***, Ileana Callejas, Cristina Echeverria-Palencia, Jennifer A. Jay. “Antibiotic Resistance Gene Quantities in Commercially Available Garden Products.” (poster) American Chemical Society National Meeting, 25 – 29 August 2019, San Diego, CA.

Other

1. **Marisol Cira***. “Tracking Wildfire Impacts on Coastal Ecosystems.” (oral) Coastal Quest, 11 January 2022, Remote.
2. **Marisol Cira***. “What impacts do wildfires have on water quality, and what are the solutions?” (oral) Heal the Bay, 23 August 2021, Remote.
3. **Marisol Cira*** and Anisha Bafna. “Effects of Wildfire on Coastal Water Quality.” (oral) NASA Jet Propulsion Laboratory, 12 August 2021, Remote.

* Presenter

PROFESSIONAL EXPERIENCE

LA Sanitation and Environment (LASAN)
Student Engineer

2017 – 2018

TEACHING EXPERIENCE

UCLA Civil and Environmental Engineering

2022

Teaching Assistant – CEE 154: Chemical Fate and Transport in Aquatic Environments

Level Playing Field Institute 2016
Engineering Teaching Assistant – Summer Math and Science Honors (SMASH) Academy

MENTORSHIP EXPERIENCE

Hispanas Organized for Political Equality (HOPE) 2022 – Present
Popup Coach

UCLA Civil and Environmental Engineering 2017 – Present
Undergraduate and Graduate Student Research Mentor

UCLA Samueli Summer Undergraduate Research Program 2021
Research Mentor

Graduate Student Mentorship Initiative (GSMI) Cientifico Latino 2020
STEM Mentor

LEADERSHIP EXPERIENCE

UCLA Center for Excellence in Engineering and Diversity (CEED)
Graduate Representative 2019 – Present

UCLA American Indian Science and Engineering Society (AISES)
Treasurer 2015 – 2016
Financial Representative 2014 – 2015
Family Head 2013 – 2014

UCLA American Society of Civil Engineer (ASCE)
Associated Schools of Construction (ASC) Design Build Estimator 2016 – 2017

COMMUNITY OUTREACH

Tutor, Math, Engineering, Science, Achievement (MESA) 2013 – Present

Competition Judge, MESA 2013 – Present

Competition Judge, SMASH 2013 – Present

Workshop Facilitator, UCLA Women in Science and Engineering (WISE) Day 2013 – Present

Workshop Facilitator, UCLA Youth Motivation Day (YMD) 2013 – Present

Workshop Facilitator, UCLA Engineers in Training (EIT) Day 2013 – Present

Panel Speaker, UCLA CEED 2013 – Present

Panel Speaker, HOPE Latina History Day 2019 – 2022

Workshop Facilitator, LadyLike Day 2021

Presenter, Antelope Valley College 2020

Blogger, Latinas in STEM 2019
2020