

El'gin Avila, MPH, CPH

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Education

The University of Minnesota – School of Public Health

PhD, Environmental Health Sciences – Industrial Hygiene

2019-2023

Minneapolis, MN

The George Washington University – Milken Institute School of Public Health

MPH, Environmental Health Sciences & Policy

2017

Washington D.C.

Eastern Michigan University

BS, Psychology; Minor: Biology

Pre-Med with Biochemistry, Chemistry, and Biology coursework

2015

Ypsilanti, MI

Research Experience

University of Minnesota

NIOSH Research Fellow

2019-Present

Project I: CARS-TC Freight Rail Exposure Investigation – Identify and measure particulate matter exposures for communities living next to freight rail lines in the Twin Cities area using a real-time low-cost sensor and a DustTrak 8533 per the request of a local non-profit. Conduct data analysis and deliver a report-back for initial measurements including a comparison to area-exposures. Assist with the validation process of a low-cost sensor.

Project II: Gig Economy – The evolving workforce – Identify potential partners for conducting an investigation into an underserved population engaging in precarious work. Develop and design questionnaire and interview questions for focus groups and individual interviews.

University of Arizona

Research Fellow: International Airport Area Superfund Site

2017–2019

Project I: Tucson International Airport Area Site –Engaged and collaborated with community groups to apply for a grant to conduct a small study on risk perception of water contamination in a Superfund site. Developed a literature review of governmental and non-governmental documents related to historical contamination at the Tucson International Airport Area site.

Project II: Promotora Grant – Established community partnerships with local NGO's and conducted field sampling of volatile organic compounds (VOCs) to identify sources and concentrations of exposures in auto repair shops and beauty salons. Conducted surveys, constructed report-back materials, and evaluated community report-back materials and methodology.

Project III: Lindane & Chronic Kidney Disease (CKD) – Developed SOPs for water sampling and food collection to analyze samples for potential contaminants. This project focused on chronic kidney disease and the relationship between water pollution from sources such as pesticides and other contaminants in a rural village in Nigeria.

Project IV: Technical Assistance for Pima County Schools – Collaborated with Pima County Health Department to design and improve health and wellness programs technical assistance resources through evaluation, planning, and implementation.

Mount Sinai School of Medicine/Trinity College Dublin

Research Fellow (PI: Dr. Laure Maignol)

2017

New York City, NY/Dublin, Ireland

Conducted a literature review on cells exposed to hyperbaric oxygen and the relationship between these cells and their sensitivity to radiation treatment. Additionally conducted several validation procedures to confirm quality assurance.

Trained in cell culturing, microscopy, gram staining, and western blotting.

George Washington University 2016- 2017
Research Assistant (PI: Dr. Amanda Northcross)
Developed a Shiny-app using R-programming to illustrate air quality data in an easy-to-read format for a marginalized community in Leandrino, Brazil. This program has the capacity to aid community members advocacy projects including the eventual shut-down and relocation of the main sources of pollution in the surrounding areas, and the implementation of pollution control mechanisms to reduce inadvertent and negligent emissions to the environment.

Eastern Michigan University - Neuroscience: Taste Perception 2015
Research Assistant (PI: Dr. Joseph Breza):
Trained on scanning electron microscopy functioning and theory to measure changes to murine tongue cells post-exposure to different chemicals.

Eastern Michigan University- Childhood Obesity Risk Factors 2014-2015
Research Assistant (PI: Dr. Heather Janisse):
Conducted at-home visits with a PhD student to conduct surveys and record how families define physical activity and nutrition for families engaged in the Head Start program. This project focused on Childhood obesity risk factors in relation to health behaviors, the community's-built environment (e.g. access to healthy food options, safe & walkable neighborhoods, play structures) and physical activity among communities.

Certifications

HAZWOPER 40-Hour Certification 2018

Certified in Public Health (CPH) 2019

Honors/Awards

American Public Health Association (APHA OHS) James P Keogh Memorial Scholar 2019

American Public Health Association (APHA) Speak for Health Scholar 2019

American Public Health Association (APHA) Student Assembly Scholar 2018

Hispanic Scholarship Fund (HSF) Scholar 2018

Tenth International Conference on Climate Change: Impacts and Responses Emerging Scholar: 2018

14th International Conference on Environmental, Cultural, Economic & Social Sustainability: The Cairns Institute 2018

Fellowships

Arizona Area Health Education Centers Scholar (AzAHEC) 2018

A colloquium of Arizona State University, Northern Arizona University, and University of Arizona Health Sciences (UAHS) programs which focuses on addressing interests of underserved and/or rural communities in Arizona and it's neighbors (e.g. Mexico) through partnerships and programs within these communities. Conducted a windshield survey

National Institute of Health (NIH)Initiatives to Maximize Student Development (IMSD) Scholar 2017
University of Arizona

Program designed to mentor underrepresented groups in biomedical research to complete PhD programs and develop into leading researchers within the biomedical sciences. Training consists of development of presentation skills, grant writing, and science communication. Less than fifty institutions in the country have been awarded and maintain this fellowship.

Mount Sinai International Exchange Program- Research Fellow 2017

An international program which places students from across the country into research internships across the world including Latin America, Africa, and Europe. The 2017 cohort had an acceptance rate of less than 3%. I was trained to perform biological sampling, Western-blotting, cell culturing, and other laboratory techniques.

University of Arizona Carson Scholar: Agnese Nelms Haury Fellow 2017-2018
Named after Rachel Carson, author of the book called *Silent Spring*, this program focuses on the development of science communication skills for emerging doctoral students involved in environmental studies. The Agnese Nelms Haury foundation is dedicated to advancing environmental and social justice throughout communities and have are funding me through the Carson Scholarship program.

Posters/Publications/Scholarly Presentations

Jessica Thomas, Samantha Shattuck, Kristie Ellickson, El'gin Avila, Yukyan Lam, Natalie Sampson, Julian Rodriguez-Drix (2019). Addressing Environmental Justice to Achieve Health Equity. APHA Policy Statement (Submitted)

Nicolas López-Gálvez, Rietta Wagoner, Lesliam Quirós-Alcalá, Yoshira Ornelas-Van Horne, Melissa Furlong, El'gin Avila, Paloma Beamer (2019) Systematic Literature Review of Take-Home Route of Pesticide Exposure. *International Journal of Environmental Research and Public Health*, 16:2177

Guest Lecturer – “Occupational Health & Safety” (2018) The University of Arizona’s Undergraduate Public Health Program

Invited Panelist: “The Legacy of Groundwater Contamination in Tucson’s Southside” (2018) The University of Arizona’s College of Law – Tucson, AZ

Poster: Arizona Public Health Association Spring Conference: Brower C, Warren SM, Comer B, Avila E, Eller B, Moore Monroy M, & Thompson CA. (2018). Pima County Health Department Coordinated School Health Program Assessment Project.

Poster: Arizona Public Health Association Spring Conference: Warren SM, Avila E, Comer B, Brower C, Eller B, & Moore Monroy M. (2018). Using Theoretical Frameworks to Evaluate a Coordinated School Health Program.

Poster: 14th International Conference on Environmental Cultural, Economic & Social Sustainability
Cairns Institute (2018): Systematic Review of Associations Between Particulate Matter (PM 2.5, PM10) and Cancer Risk

Nicolas López-Gálvez, Rietta Wagoner, Yoshira Ornelas-Van Horne, Melissa Furlong, El'gin Avila, Lesliam Quirós-Alcalá, Paloma Beamer (2018) Systematic Literature Review of Take-Home Route of Pesticide Exposure. *Encyclopedia of Environmental Health*, 2e.

Poster: 35th Annual Eastern Michigan University Undergraduate Symposium (2015). Carly Evich, El'gin Avila, & Heather C. Janisse, Ph.D. Challenges and Lessons in Recruiting At-Risk, Urban Families into Research (Poster Presentation)

Poster: 35th Annual Eastern Michigan University (EMU) Undergraduate Symposium (2015). El'gin Avila, Carly Evich, Zubin Khan & Dr. Heather Janisse, Ph.D. Barriers to Health Behaviors Among Mothers of Head Start, Preschool-Age Children

Professional Experience

Equitable Health Solutions, LLC

2019

Founder, Consultant

Conduct literature reviews, design and develop program planning interventions, suggest training modules and provide technical assistance. Develop and implement new data collection methodologies and train new students on literature review construction.

University of Arizona College of Public Health

2018

Graduate Teaching Assistant

Collaborated and created assessments for students, conduct in-class activities, and develop & present a lecture on occupational health for undergraduate and graduate level courses. Assist with grading and respond to students inquiries, and facilitate student discussions on current topics and timely environmental and environmental health issues.

George Washington University School of Public Health (GWSPH) Career Services	<i>2016-2017</i>
Administrative Assistant	
Developed resume, CV, and cover letter “How-To-Guides” for GWSPH students & alumni, and designed a framework for an online Career Services course to be leveraged by more than 2000 students and alumni. Also responded to student and staff inquiries regarding student employment services and resources, conducted online research for case-by-case projects, and managed student, employer, and job posting database daily.	
Henry Ford Health Systems-West Bloomfield, Michigan	<i>2015-2016</i>
Patient Transporter/Student Physician Shadow	
Engaged with community members, staff, and patients in several capacities including transportation throughout the hospital, assisting with emergency procedures, and ensuring proper monitoring of patient’s health. Additionally participated in opportunities such as shadowing physicians, scribing, and viewing surgeries during rotations.	
Joyce Julius & Associates – Ann Arbor, Michigan	<i>2013-2016</i>
Television Researcher	
Obtained, managed, and cleaned data for further interpretation of ad-exposure during sporting events. Monitored sporting events for brand exposure and prioritized utility of branding sourcing per our clients’ requests. Trained new team members and performed QAQC checks using an original algorithm generated by Joyce Julius & Assc’s.	
Independent Tutor	<i>2013-2020</i>
Tutored and developed curriculum practice techniques for students on topics such as nutritional biochemistry, biological concepts, environmental health epidemiology, exposure assessment, science communication, health policy, foundational chemistry, toxicology, nutritional epidemiology, and various topics in psychology.	

Service & Appointments

<i>Consumer and Small Employer Advisory Committee</i>	<i>2019-Present</i>
MNsure	
<i>Policy Associate</i>	<i>2019-Present</i>
American Public Health Association Student Assembly	
<i>Member - Committee on Health Equity (CHEQ)</i>	<i>2019-Present</i>
American Public Health Association (APHA)	
<i>Student Reviewer/Associate Editor</i>	<i>2019-Present</i>
Harvard Public Health Review	
<i>Environmental Justice Policy Statement Working Group</i>	<i>2018-2019</i>
American Public Health Association (APHA)	
<i>Education Committee – Doctoral Student Representative</i>	<i>2018-2019</i>
University of Arizona	
<i>Session Moderator & Facilitator</i>	<i>2018</i>
Tenth International Conference on Climate Change: Impacts and Responses	
<i>Young Leaders RISE Program - Instructor</i>	<i>2018</i>
University of Arizona South – Nogales, AZ	
<i>Invited Panelist Mentor: ASEMS Transfer Program</i>	<i>2018</i>
The University of Arizona	
<i>Science Committee Head</i>	<i>2018</i>

Environmental Justice Task Force (Local Community Organization)

New England Grassroots Environment Fund 2017-2019
 Grow Grant Reviewer

Abstract Reviewer & Moderator 2017-2019
 APHA Environment, Food & Nutrition, and Human Rights Forum, Occupational Health Sections

Food Security and Social Justice Network Committee Member 2017-2019
 University of Arizona

Student Affairs Committee Member 2017-2019
 University of Arizona (MEZCOPH)

Justice Advocates Coalition – Committee Consultant 2017-2018
 University of Arizona

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 University of Arizona

Graduate & Professional Student Council (GPSC) Travel Grant Judge 2017
 The University of Arizona

Pre-Med Club Vice President/Member-at-Large 2012-2014
 Eastern Michigan University

Independent Mentor 2011-Present

Skills

Exposure Assessment & Risk Communication	Develop & Present Training and Technical Assistance	Gram Staining & Dual Lens Microscopy Operation	Qualitative Methods & Design
Knowledge of OSHA and ANSI codes & Standards	R-/Shiny & SAS Programming, Data Management and Cleaning	Geo-Spatial Analysis GIS (ArcGIS) Proficient	Survey Development & Administration
Program Development and Evaluation	Policy Memo/Statement Development	Systematic & nonsystematic Literature Reviews	Science Communication to Public & Scientific Audiences
Abstract, Article, and Film Review	Lab and Field Sampling Protocol Development	Develop Results Report-back Materials	Biological Cell Culturing, Western Blotting