



**Applications for Fall 2022 Due September 15<sup>th</sup>, 2022**

<https://envhealthcenters.usc.edu/ehmatters>

## **Program Introduction**

EH MATTERS offers USC undergraduate students from under-represented groups a paid, two-year, three-semester per year internship (Summer/Fall/Spring) to build capacity of diverse students to engage in environmental health sciences and community health disparities research. Rising sophomores and juniors are encouraged to apply.

This community-engaged environmental health research program will expand students' understanding of fundamental concepts in environmental health, exposure, susceptibility, risk, and health disparities. This formal training will provide a basis for a firm academic understanding of community environmental health disparity issues and firsthand experiences that look at environmental health through the lens of environmental justice.

EH MATTERS fellows (program participants) are expected to intern the following number of hours each semester, most of which will be in person on the Health Science Campus once campus is fully open:

- Fall – 10 hours per week (during regular workday hours), attendance at cohort meetings twice per month
- Spring – 10 hours per week (during regular workday hours), attendance at cohort meetings twice per month
- Summer – 36 hours per week (during regular workday hours), attendance at cohort meetings twice per week

**Commitment to the above schedule is expected of all EH MATTERS fellows.**

## **Program Objectives**

- Students will understand how urban health disparities and environmental exposures intersect and interact in communities, and how to leverage action-oriented research.
- Students will develop the necessary skills to successfully engage in community-driven environmental health research to address environmental health disparities.
- Students will build skills and confidence to pursue graduate education and careers in environmental health sciences.

## **Internship and Mentoring**

Each EH MATTERS fellow will be paired with a faculty research mentor with whom they will work as a paid intern during their two-year program.

**Below are brief descriptions of the internships by faculty mentor for Fall 2022. Click on faculty member names to view their full profile including research interests and publications.**

***In the online application you will be asked to indicate your top three internship preferences.***

[Jill Johnston:](#) Interns will support community-driven research for environmental justice, will examine the relationship between industrial sources of pollution and community health, and will engage communities in environmental health popular education workshops.

[An-Min Wu:](#) The EH MATTERS intern will gain training and mentoring on spatial thinking, hands-on spatial data sampling and handling, and use of GIS analysis and visualization for a deeper understanding of environmental problems in our community. Projects will be developed upon interest and skill level. Basic knowledge of GIS (e.g. SSCI 165 or 265 or 301) or statistics is preferred; students without either background will be considered if interested in learning and developing these essential spatial science skills during the internship.

Other interns that Wu supervises include undergraduate (B.S. in GeoDesign) and graduate students (M.S. in GIST; Ph.D. in Population, Health and Place) in research on the issues of environmental pollution, their health outcomes and underlying injustice at various spatial and temporal scales.

[Carrie Breton:](#) Research interns will have opportunities to work on projects related to the MADRES study and may include broad topics related to study design and cohort implementation, literature reviews and presentations, science communication, as well as more specialized laboratory techniques related to epigenetics for human studies and data analysis. Interns will have the opportunity to join working group meetings and participate in mentoring activities related to their fields of interest as desired.

[Erika Garcia](#): Research interns with the Garcia Research Group will gain training and mentoring in key areas such as science literacy, methods behind data analysis, preparation and communication of research, and principles underlying the conduct of Public Health research. Interns will work with Prof. Erika Garcia to develop and conduct a research project suited to the student's interests; for example, a project to identify patterns of air pollution exposure in Southern California children. Additionally, the internship will expose students to a variety of different potential careers in the Environmental Health field and offer valuable professional development.

[Max Aung](#): In this internship, you can collaborate with Professor Aung to build on this previous work and co-design a new study to advance mechanistic understanding of maternal and child health outcomes. Through the Environmental influences on Child Health Outcomes consortium, and Professor Aung's recent funded work, we will have the capacity to link these bioactive lipids to multiple environmental pollutants (e.g., phthalates, phenols, and per-and-poly-fluoroalkyl substances) and maternal and child health phenotypes (e.g., maternal cardiovascular health, depressive symptoms, birth weight). In the first year of the internship, we will determine a research question and hypothesis, conduct literature review on the topic, and learn data analysis and visualization skills. In the second year of the internship, you will test your research hypothesis using some of the available data described above.

[Khandaker Talat Islam](#): The internship is focused on providing hands-on training on epidemiological and analytical approaches to investigate the effect of air-pollution on different health outcomes in relation to other environmental exposures (i.e., exposure to metals, microbiome) and social inequality. The intern will get the opportunity to work with experts in the fields of environmental epidemiologists, biostatisticians, and physicians and gain experience in study design, data collection, literature review, statistical analysis, and manuscript preparation.

[Rob McConnell](#): The internship provides opportunities to develop skills in science communication and for hands-on research on selected topics in climate change and health as part of initiatives of EH Centers. Potential for engagement in research on mental health and effects of "forever chemicals."

## Program Highlights

- Students will receive an hourly wage for internship hours (10 hours/week Fall and Spring, 36 hours a week for Summer)
- Highly competitive research positions in environmental health research,
- Faculty mentors in the USC Department of Population and Public Health Sciences
- Students will have the opportunity to be mentored by peers (graduate and postgraduate students.)
- **Community-engaged research skill-building:**
  - Through field trips, lectures, and in-person visits, students will gain exposure to community-based environmental justice organizations, public officials, and policy makers throughout Southern California

- **Academic enrichment:** students will have access to course content in related courses in undergraduate and graduate programs including Health Promotion and Preventive Medicine to increase the ability to successfully compete for acceptance into a doctoral program.
- **Research skill building workshops focusing on:**
  - Developing and Designing a Research Question
  - Understanding Health Disparities
  - Epidemiological Study Designs and Analysis
  - Approaches in Measuring Exposures, Health, and Communities

## Program Eligibility

**The program aims to increase diversity of students in environmental health and prioritizes the following students:**

1. All Native (American Indian or Alaskan Native), African-American, Hispanic, Hawaiian Native or Pacific Islander;
2. Students in at least one of the following categories (including international students and permanent residents);
  - a. A language other than English the primary language spoken at home
  - b. First-Generation College
  - c. Identifying as LBGTQ
  - d. Identifying as multiracial
  - f. Immigrant students
3. Must have completed at least one year of undergraduate study to apply;
4. Minimum overall GPA of 3.0 or greater;
5. Students who qualify for Federal Work Study funding (students who do not qualify are also considered).

**Selection will be based on:**

- Student's academic achievements
- Letters of recommendation
- Essay and completed application

## EH Matters Program Application Information

<https://envhealthcenters.usc.edu/ehmatters/ehmatters-program-application>

Key elements of the application that you can prepare before filling out the online application form include:

Cumulative/Overall GPA for college coursework

How did you hear about EH MATTERS? (Short answer question)

## Short answer essays

The following five prompts should be answered in 150 words or less. Each answer will be submitted in a text field on the application.

1. Tell us why you are interested in being a part of the EH MATTERS two-year environmental health internship program:
2. What relevant experiences: coursework, internships, jobs have you had that support your interest in this program?
3. What do you bring as a student to the EH MATTERS cohort?
4. How will participation in this program make a difference – for you, for your community, for environmental health?
5. How can this internship support your future goals?

## Unofficial college transcripts

As part of your application, you will need to upload a copy of an unofficial transcript. An unofficial transcript will be issued by your university or college registrar's office upon request but may also be accessed through a student portal. An unofficial transcript may also be a physical, official copy that you have opened and uploaded. Avoid uploading degree progress reports, grade audits, or similar printouts; these do not count as unofficial transcripts.

**Preferred grade report from the USC student portal:** *Completed Course Summary* from the OASIS system

**Not preferred/Do not include:** *STARS Report* from the OASIS system

**Acceptable unofficial transcripts from other U.S. institutions must:**

- Have the word "transcript" on the document
- Have the name of your institution attended
- Include the student's name, program of study, and major of study
- Include a term-by-term breakdown of each completed course with its corresponding units and grade
- Be clearly legible

## Two letters of recommendation

One letter from USC or other college faculty; and one letter from a former work or internship supervisor. Students must send the link to the recommendation portal to their people of reference and indicate who they have sent the link to in the online application.

Letters must be submitted by the person of reference through the [recommendation portal](#).

**Program Directors:** Jill Johnston and Max Aung

**Program Administrator:** Dayane Duenas Barahona, [duenasga@usc.edu](mailto:duenasga@usc.edu)

For more information contact: Janelle Vidal, [janellev@usc.edu](mailto:janellev@usc.edu)



Keck School of Medicine of **USC**  
**Division of Environmental Health**