

Environmental Health Sciences Mailman School of Public Health

Department Newsletter Fall 2016

Table of Contents

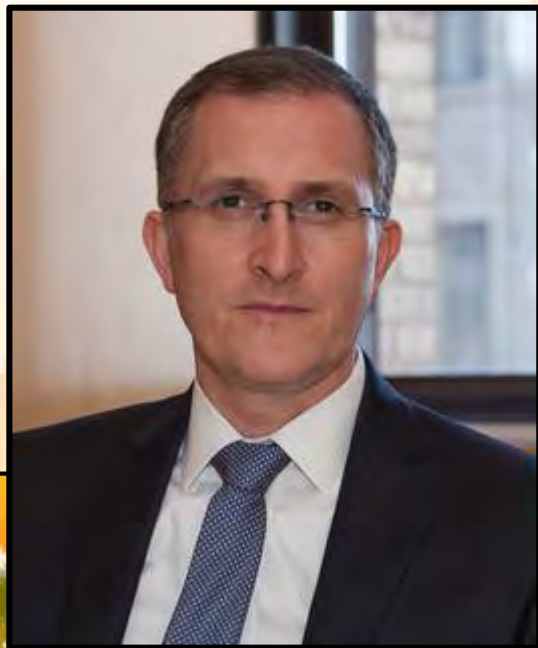
Letter from the Chair	<u>2</u>
Faculty Spotlights	<u>4</u>
Awards & Publications	<u>8</u>
Alumni Highlights	<u>10</u>
New PhD Students	<u>11</u>
2 nd Year MPH Practicum Experiences	<u>12</u>
1 st Year Master Students	<u>19</u>
PrIMER	<u>23</u>
SEA: Students for Environmental Action	<u>24</u>
Events	<u>25</u>

Letter from the Chair

Dear Colleagues and Friends of the Department,

I am here standing on the shoulders of giants. This is how I have seen myself from the very first day in my new position. How many achievements and efforts have made this Department - the leading teaching and research institution we all appreciate every day we come to work. It is fitting then to start with something Joe Graziano (aka Papa Joe) wrote in the past newsletter: "Amazing things are happening here!" How right he is! Here is a sample of amazing for you: earlier this summer, my work on a Department project started two weeks before physically moving here. I got a real-life glimpse of the Department's synergy, creativity, and passion as faculty and staff worked seamlessly on the renewal application of our EHS training grant, a large and demanding application that supports many of our doctoral students. To have faculty and staff work so smoothly together, contribute extended amounts of personal time outside work hours, and to care for a grant that does not aid much of their own research, but betters our students, is a rare occurrence and extremely telling of the core values our Department is based on. I would like to thank each of you who worked tirelessly on this effort as if it were your own.

These caring efforts have continued into my first few months as Department Chair, and I would like to thank everyone for welcoming me so warmly into our family of colleagues, students, and staff. In turn I would like to welcome all of our students, both incoming and returning, for a new and exciting year ahead - a special welcome to Jessica Singh, our very first MS student in the Toxicology program. This is our first year offering the MS programs in Toxicology and Radiological Sciences with program expansions coming in the years ahead. I would also like to welcome new colleagues and staff who have recently joined us. For faculty, Professor Ana Navas-Acien, Associate Professor Markus Hilpert, and Assistant Professor Marianthi-Anna Kioumourtzoglou. We have also been fortunate with our staff as Josie Melendez, Chris Camilo, and Abby Welbourn have all joined us in the past few months. I am delighted that we continue to add faculty and administrative staff to our EHS family.



Letter from the Chair

I would also like to recognize the commendable efforts and incredible success that the Department and Columbia have enjoyed with Ricky Perera, Julie Herbstman, and the Children's Center team, which resulted in a NIH-awarded Environmental Influences on Child Health Outcomes (ECHO) grant. The overall goal of the ECHO initiative is to study the impact of a variety of environmental factors on health in more than 50,000 children and adolescents. Our school has been incredibly successful in participating in ECHO. In addition to Ricky and Julie's project, which will develop, validate, and implement urgently needed new biomarkers measurable in an easy-to-obtain, small-volume cord blood sample that reflect prenatal exposure to widespread environmental pollutants, several of our faculty members are also involved in other ECHO projects. Virginia Rauh and Matt Perzanowski are working with Sanford Health in Sioux Falls, SD; Rachel Miller will participate in an ECHO-funded consortium of 12 asthma cohorts across the U.S., encompassing up to 7,000 children and young adults; and I will contribute to the ECHO project led by my collaborators Bob and Roz Wright at Mount Sinai. The seven-year ECHO grants provide the opportunity to continue expanding our scope of leadership both nationally and internationally in children's environmental health, an important and proud component of our Department.

What makes our Department so amazing was also caught on tape this summer when some of our faculty members were highlighted in an EHS video thanks to hard work and coordination of Norman Kleiman. Please take a moment to check it out and click below.

I am really looking forward to creating new memories and achieving new accomplishments with our EHS family.

Sincerely,

Andrea Baccarelli



Fall 2016 EHS Newsletter

Created & Designed by: Mayra Cruz

Copy Editors: Christina Olbrantz & Nina Kulacki

If you have questions, comments, or news to share, please contact Nina Kulacki at ninakulacki@Columbia.edu or visit our [website](#).

Faculty Spotlight: Dr. Jeremy Porter



Dr. Porter is an Adjunct Professor in the Department. His interdisciplinary background includes degrees in Sociology, Geoscience, and Statistics.

Dr. Porter's recent research has focused on the development of new spatially-centered analytic methods for the investigation of spatial effects across a wide range of social processes. Most recently in this area, he has worked with researchers at the Research and Evaluation Center at John Jay College of Criminal Justice on the current Robert Wood Johnson funded Cure Violence Program in New York City to identify and analyze program sites based on spatial proximity to gun violence and neighborhood characteristics. The goal of the program, since its inception in Chicago in the mid-90's, has been to treat gun violence as a public health issue. Dr. Porter's work with the NYC Cure Violence program was published in the 2015 volume of the *Annual Review in Public Health*.

In a more general sense, Dr. Porter's research focus is centered in the areas of creating new geographic coverages for the analysis of data, developing new spatially-centered statistical methods for application, and better understanding the theoretical relationships associated with the organization of populations in space and the uneven spatial distribution of social outcomes that exist as a result. An example of this work includes his postdoctoral work at Rice University in which Dr. Porter developed a new geographic coverage for the analysis of crime data while implementing a new multivariate spatial clustering statistic. This work received an award for innovation from the *American Statistical Association* and is the subject of his first book *Tracking the Mobility of Crime: New Methodologies and Geographies in Modeling the Diffusion of Crime*. More recently, Dr. Porter's interest has been in pushing for a more theoretical understanding of the role space plays in our understanding of social processes beyond just the mechanical mapping that we do in GIS. In 2012 he published the book *Geographical Sociology: Theoretical Foundations and Methodological Applications in the Sociology of Location* in an attempt to draw attention to the currently fragmented state of the theoretical foundations of spatial theory and the methodological advancements in spatially-centered research that have occurred in recent decades. Following that, his most recent book *Recapturing Space: Middle Range Theories in the Spatial Analysis of Social Data* (2016) is an edited volume in which contributors focused on the theoretical importance of space and proximity in their application of spatially-centered research methods.

This semester, Dr. Porter is teaching the Public Health GIS classes. The class is structured in a way so that students learn to acquire, manage, and visualize data in GIS through the first half of the semester, while the second half of the semester is dedicated to spatially-centered statistical analysis of public health data. The students will be presenting their final projects in class on Dec. 7th, and all faculty, students, staff at EHS are welcome to attend!

Faculty Spotlight: Dr. Marianthi-Anna Kioumourtzoglou



Dr. Marianthi-Anna Kioumourtzoglou joined the Environmental Health Sciences as an Assistant Professor in September, 2016. She is an environmental engineer with a ScD in Environmental Health with minors in Epidemiology and Biostatistics.

Marianthi has been studying and conducting air pollution-related research for more than 15 years. Since her undergraduate studies, she has measured air pollution concentrations in urban environments, used regional photochemical models to predict air pollution concentrations, and contributed to large-scale air pollution epidemiologic studies.

During her doctoral studies, Marianthi became increasingly interested in statistical issues related to air pollution epidemiology. Although air pollution is thought of as a well-studied environmental exposure, there is a plethora of limitations to which previous studies have been susceptible. For example, assessing personal exposures to air pollution for large cohorts and multiple years is simply not feasible. It is impossible to provide hundreds of thousands of people with personal monitors for 20 years! Not being able to do this and having to rely on different methods to assess exposure to air pollution, such as pollutant concentrations measured at centrally-located monitors, results in exposure measurement error that make it harder to detect any associations with health outcomes. Marianthi has worked extensively on quantifying this error and developing methods to correct for it using statistical approaches. In addition, air pollution is a complicated mixture, the characteristics of which vary by location. Evaluating health effects of a single air pollutant at a given time by no means captures the full picture. A lot of Marianthi's work has focused on assessing exposure to air pollution mixtures and using cutting edge methods to incorporate these in epidemiologic analyses.

Currently, Dr. Marianthi's work involves evaluating how exposure to air pollution impacts the nervous system. One of her studies was the first to show that elevated air pollution exposures are significantly associated with accelerated progression of Alzheimer's and Parkinson's Diseases. Given the very tight relationship between air pollution and weather, Marianthi is very interested in exploring how these associations between air pollution and the nervous system will be impacted in a changing climate. The ultimate goal of any public health related research is protection of the public. To this end, Marianthi's research also involves exploring life-style and neighborhood factors that change vulnerability to air pollution exposures. Her work aims to gain the necessary evidence to develop targeted regulations and interventions.

Faculty Spotlight: Dr. Markus Hilpert

Dr. Markus Hilpert is an Associate Professor in the Department of Environmental Health Sciences. His research focuses on the interface between hydrology, environmental engineering, and environmental health. He utilizes his strong foundation in physics, mathematics, computational methods, and engineering in order to solve problems pertaining to the movement of water, pollutants, and energy in the environment with the goal of improving human health. Recent and current research projects include the effects of bacterial chemotaxis on contaminant degradation, colloid and pathogen transport in subsurface environments and water filters, spreading of antibiotic resistance in poultry-waste impacted soil, multi-fluid flow in porous media, enhanced geothermal systems, and chronic hydrocarbon releases at gas stations.

Since his arrival, Dr. Hilpert has become a Principal Investigator on two projects funded by the Columbia Center for Environmental Health in Northern Manhattan. In his first project, he is working along with co-investigators Dr. Steve Chillrud (Lamont-Doherty Earth Observatory), Dr. David Evans (Community Outreach and Engagement Core), Dr. Diana Hernandez (Department of Sociomedical Sciences) and Dr. Upmanu Lall (Department of Earth & Environmental Engineering). The team will conduct a community engagement pilot study in order to enable the South Bronx community to advocate for access to high-quality green space and mitigation of the adverse health impacts of substantial air pollution. This effort is taking place in partnership with South Bronx Unite, a local community organization.

In his second project, Dr. Hilpert is working together with Drs. Beizhan Yan and Steve Chillrud (Lamont-Doherty Earth Observatory) and Dr. Upmanu Lall (Department of Earth & Environmental Engineering), to platform for an unmanned aerial vehicle (UAV). This will give the team the capability to remotely collect air pollution data when it would not be safe to collect such data personally. Furthermore, vertical concentration profiles will be obtained in order to identify and characterize pollution sources (e.g., smoke and flare stacks).



Faculty Spotlight: Dr. Ana Navas-Acien



Dr. Ana Navas-Acien is a Professor in the Department of Environmental Health Sciences. She is a physician-epidemiologist with a specialty in Preventive Medicine and Public Health. Her long-term interest is to understand the role of the environment in chronic disease to improve population health.

Dr. Navas-Acien investigates the long-term effects of environmental chemicals, their interactions with genetic and epigenetic variants, and effective interventions for reducing involuntary exposure to environmental agents. For more than 10 years she has been investigating the role of arsenic and other metals in the Strong Heart Study, a study of cardiovascular disease and its risk factors in American Indian communities.

Arsenic is of particular importance as exposure is widespread and we have substantial evidence that moderate to high exposure levels affect the cardiovascular and metabolic system. This research is highly relevant as in the US arsenic exposure disproportionately affects rural and sub-urban populations, including Native communities. Moving one step further, from epidemiological assessment to prevention interventions, Dr. Navas-Acien and her colleagues are currently developing a multi-level participatory intervention to prevent arsenic exposure in rural communities in North and South Dakota.

Another major focus of Dr. Navas-Acien is to conduct research in support of progressive policies that reduce involuntary exposure to environmental toxicants, with a particular interest in protecting underserved and disproportionately exposed populations. For more than 15 years, she has worked both in the US and internationally to evaluate secondhand tobacco smoke exposure and support the implementation of smoke-free policies around the world. As electronic cigarettes and other tobacco products, such as waterpipes, are increasing in popularity and becoming widespread, she is now expanding her research to understand the toxicants and health effects of these emerging products. “We hope that our research on electronic cigarettes can help characterize the chemical content of these products and contribute to their urgently needed regulation,” Dr. Navas-Acien notes.



Dr. Ana Navas-Acien having dinner with her old and new students

Awards & Publications



Dr. Frederica Perera

ECHO Grant: The Center has been awarded a \$1.5 million grant by the NIH as part of a new initiative to create a virtual cohort of children to explore the health impacts to children and adolescents from early life exposures to environmental toxicants. CCCEH investigators will develop, validate, and implement a new biomarker from cord blood that reflects prenatal exposure to polycyclic aromatic hydrocarbons (PAH), a family of chemicals found in air pollution, in order to predict health risks. As many as 900 children enrolled in CCCEH birth cohorts of mothers and children will take part in the research.

Dr. Frederica Perera's op-ed was featured in Environmental Health News entitled, "[The case for a child-centered energy and climate policy](#)." She says that children suffer the most from air pollution and the adverse health impacts of climate change and emphasizes that "reducing our dependence on fossil fuels would achieve highly significant health and economic benefits for children worldwide." Check out her [TEDx talk](#) on this subject, too!



Dr. Graziano and Dr. Gamble

Both Dr. Mary Gamble and Dr. Joe Graziano were invited speakers at The 8th Princess Chulabhorn International Science Congress entitled "Environmental Health: Inter-linkages among the Environment, Chemicals and Infectious Agents," which was held in Bangkok, Thailand, November 13-17. They presented overviews of their 15+ years of research concerning the problem of arsenic in drinking water in Bangladesh.

While there, Dr. Graziano will be working with colleagues from Columbia, Thailand and Vietnam to finalize the organization of a June, 2017, conference entitled: "Southeast Asia Regional Conference on Groundwater Arsenic: Multi-Disciplinary Approaches to Protecting the Health of the Public." He has received a grant from the National Institute of Environmental Health Sciences to support this international conference that will bring together experts in the fields of environmental health sciences, epidemiology, geochemistry, hydrology and economics. The objective of the conference is to facilitate cross talk and collaboration between scientists in the earth sciences and health sciences who are working on the problem of arsenic in drinking water in South Asia. The keynote speaker will be Professor Dr. Princess Chulabhorn, herself a renowned expert and advocate in the field of environmental health.



Awards & Publications

Dr. Diane Re

Dr. Diane Re, who is an Assistant Professor in the Department, is also a Member of the Columbia University Motor Neuron Center (MNC). Her research on environmental factors and their relationship to adult-onset amyotrophic lateral sclerosis (ALS) is featured on Chideo in a video interview (click on the picture below to watch). Chideo is an online charity broadcast network where celebrities help to raise money and awareness for the causes they care about. Tom Syndicate, one of the internet's most famous video personalities selected the MNC as the place he wanted to fundraise for against ALS, an incurable adult-onset paralytic disorder which is fatal within 1-5 years after detection of the first symptoms. Tom became very passionate about raising money for MNC after losing his grandmother to ALS. He visited the MNC earlier this year and interviewed several scientists and clinicians who are trying to tackle the disease from complementary perspectives. Hopefully this new initiative will help to make a difference in our local effort against ALS, which also took our beloved former Dean Allan Rosenfield.



Daniel Carrion

Daniel (PhD candidate) was recently appointed by Governor Cuomo to be a member of the New York State Minority Health Council. The Minority Health Council is an advisory council to the New York State Department of Health on public health programming, priorities, and approaches. Council members have expertise in diverse areas of public health, specifically working on issues pertaining to health disparities and equity.



Several PhD students and recent Alumni from EHS attended and submitted abstracts to the [ISEE conference](#) in Rome over the summer.



Christina Olbrantz

Christina (2nd year MPH student) was recently elected as a Governing Councilor by the nation-wide Student Assembly of the American Public Health (APHA). The Governing Council is the legislative body of the APHA that votes on association policies and elects the Executive Board. This is the first year students have been allowed representation.



Alumni Highlights



Laura Buckley

Laura Buckley (MPH'16, Climate and Health) recently began a position managing the Energy and Health program at the Public Health Institute's Center for Climate Change and Health in Oakland, CA. In this role, she is preparing a report that will outline key research needs on the health impacts of emerging electricity-generating technologies for the California Energy Commission. The report will focus on renewable sources along with storage and transmission technologies, looking across life cycles to find gaps in current knowledge on exposures, hazards, and impacts. She is also a member of the US Climate and Health Alliance and helps to coordinate related events. Apart from this, Laura is involved in other critical research projects assessing the quality of local taco trucks and the length of time she can fake being an avid biker before being exposed as a sadly mediocre one.



Valorie Richards

Valorie Richards (MPH '16, Toxicology) is currently working at the Environmental Health & Safety Consulting company, Consulting Testing Services, Inc. (CTSI) as an EHS Specialist. She has been involved in a wide range of projects including Cooling Tower Management Plans, Indoor Environmental Quality Assessments, Indoor Air Quality Assessments, Asbestos Inspections as well as Exposure Assessments and Crystalline Silica Training for Construction workers. Most recently, she received her certification as an NYS Mold Assessor. In the next year, she hopes to earn her Lead Risk Assessor License for the State of New York and she hopes to eventually become a Certified Industrial Hygienist. She is thrilled to be able to use a lot of the knowledge she learned in her Toxicology classes and apply it to her everyday job.

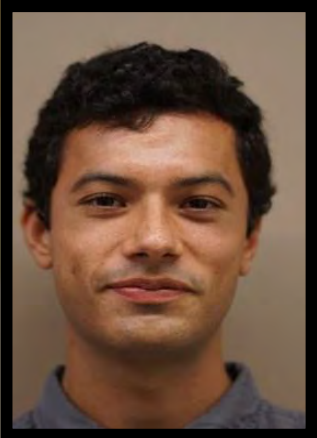
New PhD Students



Anne Nigra

Annie is from Pittsburgh and received her BA in Biology from Oberlin College and her ScM in Epidemiology from Johns Hopkins Bloomberg School of Public Health. While at Hopkins, Annie studied poultry consumption and arsenic exposure from arsenical drug use. She plans to continue working with Dr. Ana Navas-Acien on heavy metal exposure in diet and drinking water. In her spare time she enjoys running with her dog, hiking, and biking.

Carlos Gould



Carlos grew up in Bloomington, Indiana and traveled east for college. He received a BA in Environmental Studies from Yale University in 2015. While at Yale, he studied household energy, the adoption and impact of improved cookstoves, and patterns of woodfuel collection, with field work in Honduras and India. After graduating, he spent a year working on two main projects. The first evaluated the field performance and impacts of two improved cookstove programs in Honduras and in Peru. The second project further established non-renewable biomass and woodfuel-deforestation linkages by ground-truthing the estimated impacts of woodfuel demand on forest resources in Honduras. At Columbia, Carlos is eager to continue and expand his research of the health impacts of climate change and environmental health risks in developing countries, as well as the impact energy use has on human health and socioeconomic well-being. As for his leisure time, Carlos likes the Andes – mints and mountains.

Israel Ukawuba



Israel received a Bachelors degree in Biology from Oberlin College and an MPH degree from Columbia University Mailman School of Public Health. He is interested in studying infectious disease modeling, especially vector-borne infectious disease modeling. Previously, he has worked on the use of climatologically-driven vectorial capacity to describe and examine malaria transmission in sub-Saharan Africa. Currently, he plans on studying the use of local meteorology and hydrology in examining vector population density, survival and transmission of vector-borne pathogens with Dr. Jeffrey Shaman. Israel enjoys going to opera concerts, cooking and exploring NYC.



Lizzy Gibson

Lizzy majored in Environmental Studies at Emory University before joining the Peace Corps as an Environmental Conservation Volunteer. She served in Panama, Central America, where she initiated a project to construct energy-efficient biofuel cook stoves in her community. After returning to the U.S., Lizzy received her MPH from the Department of Epidemiology at Mailman. She researched in utero cadmium exposure and fetal growth outcomes with the Center for Children's Environmental Health and worked with the Climate and Health Program of the NYC Department of Health and Mental Hygiene analyzing predictors of hypothermia death in the city. Lizzy is excited to continue working with the Center to explore environmental exposures in the prenatal window and early life. Lizzy enjoys her adult recreational soccer league, astronomy lectures around town, and sweater vests.



Nicole Comfort

Nicole is from Billerica, MA and received her BS in Behavioral Neuroscience at Northeastern University. She worked at Harvard Medical School studying electrophysiology and cortical computations in mice and later worked at the pharmaceutical company Biogen applying her electrophysiology skills to assay neuromuscular function in a mouse model of ALS. After receiving her BS, she spent a year working at the Boston University School of Public Health studying Gulf War Illness, a chronic condition associated with deployment exposures to nerve gases and other agents, which affects veterans of the 1990-1991 Persian Gulf War. At Columbia University, Nicole hopes to expand her knowledge in neurotoxicology and study its association with neurodegenerative diseases and neurocognitive outcomes. Nicole loves travelling, but when she's not travelling, she enjoys reading and learning about cosmology and taking her dogs to the park.

2nd Year MPH Practicum Experiences

2nd Year MPH Students describe their practicum experiences and other fun highlights from their summer.



Sasha Berns

Location: Fairfield, CT

Employer: GE (General Electric)

Position: Digital Sustainability Intern

I analyzed and re-organized greenhouse gas data from all of GE's global sites. I researched and assisted on various methods to digitize the greenhouse gas inventory process. I also worked on various plans to address material traceability across the supply chain.

Fun Summer Activity: I went on a 3 day sailing trip in the Olympic Peninsula.

Jeremy Brooks

Location: Atlanta, GA

Employer: Centers for Disease Control and Prevention (CDC)

Position: Graduate Environmental Health Intern

I created profiles on CDC-funded partners and states to centralize relevant information on public health and environmental programs including vector control programs, climate change adaptation, asthma control, etc. I also produced a communications protocol and tracking system that standardized the prioritization process for requests received by my office at CDC.

Fun Summer Activity: I camped and hiked the Great Smoky Mountains!



Sarvani Ramcharran

Location: New York, NY

Employer: Dr. Julie Herbstman, Columbia Center for Children's Environmental Health

Position: Research Assistant

I recruited pregnant women for a study looking at prenatal environmental exposures' effect on the health and development of the baby. I also scored Bayley's Scales of Infant Development tests that were conducted to see how the child's mental, motor, and behavioral skills were developing. Lastly, I helped design questionnaires and other forms by researching relevant determinants of fetal health that should be asked about for the study.

Fun Summer Activity: I climbed mountains and played with my guinea pig, Waldo.





Emily Chug

Location: New York, NY

Employer: New York City Department of Health and Mental Hygiene

Position: Graduate Intern

I did research on a number of subjects including VOCs, sleep fatigue and driving, and occupational deaths. I also drafted a research paper on window falls and edited the DOH falls prevention webpage.

Fun Summer Activity: I went to Niagara Falls!

Millie Tung

Location: New York, NY

Employer: Dr. Julie Herbstman

Position: Data Analyst

For my practicum, I worked for the Columbia Center for Children's Environmental Health. I mainly used STATA to do data analysis to understand the association between prenatal flame retardant (PBDEs) exposure and cord blood BDNF levels in children. We also tried to figure out if the methylation of BDNF sites are linked with prenatal exposure to PBDEs by using 450K array data.

Fun Summer Activity: I explored new coffee shops in NYC!



Shanna Keown

Location: New York, NY

Employer: Dr. Darby Jack

Position: Research Assistant

I worked on the Ghana Randomized Air Pollution and Health Study (GRAPHIS) analyzing data to see if efficient cookstoves improved birth outcomes. We are in the process of analyzing exposure and pneumonia data.

Fun Summer Activity: I went to a lot of weddings and caught up with amazing friends!



Yuting Deng

Location: New York, NY

Employer: Julie Herbstman

Position: Statistic Intern

I worked on population attributable risk calculations for the Columbia Center for Children's Environmental Health.

Fun Summer Activity: I saw Sleep No More and lots of great art galleries.





Melissa Robbins

Location: New York, NY

Employer: Center for Environmental Health

Position: Health Energy Intern

I worked on the proceedings for the Symposium on the Public Health Dimensions of Oil and Gas Development.

Fun Summer Activity: I went to Key West for the 4th of July.

Katrina Lu

Location: New York, NY

Employer: Public Health Laboratory of New York City Department of Health and Mental Hygiene

Position:

I worked in the Virology Department at the Public Health Lab, assisting with clinical research on Zika virus. The PHL was initially responsible for all Zika testing in NYC, so we received patient serum and urine specimens from hospitals and clinics throughout the city. After processing these samples, we used RT-PCR to perform both screening and confirmation tests for the presence of Zika.

Fun Summer Activity: I went on a weekend trip with my roommate to visit her hometown in Massachusetts, where we went to a winery and spent a lot of time lounging in her pool.



Christina Olbrantz

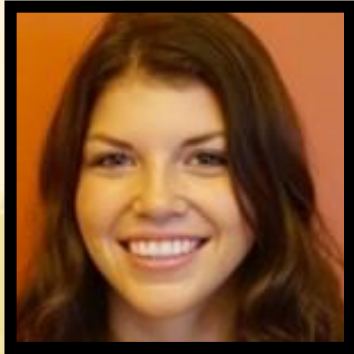
Location: New York, NY

Employer: Maria Diuk-Wasser

Position: Research Assistant

I contributed to several studies in my lab investigating various environmental determinants of tick-borne illnesses. I worked both in the field and lab to create study designs and collected data that will be used in my thesis.

Fun Summer Activity: I went to Sleeping Bear Dunes National Park.



Tina Wang

Location: New York City

Employer: Time Equities

Position: Graduate Intern

I did LEED Consulting and worked on drafting building policies.

Fun Summer Activity: I gained weight by visiting Taiwan.





Alex Hunt

Location: Mexico City, Mexico

Employer: Programming Research in Obesity, Growth, Environment and Social Stressors (PROGRESS) Study

Position: Graduate Intern

I assisted in and observed data collection and interviews, as well as worked with a PhD student on her fetal RNA analysis project.

Fun Summer Activity: Mexican beaches...need I say more?

Mayra Cruz

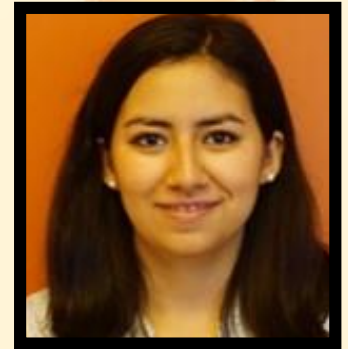
Location: New York, NY

Employer: National Center for Disaster Preparedness

Position: Graduate Research Assistant

I primarily worked on the communications aspect of the Resilient Children/Resilient Communities Initiative. I created and enhanced existing communications strategies for coalition members to use when approaching important stakeholders. Additionally, I spearheaded social media campaigns around hurricane preparedness, extreme heat, and National Preparedness Month through Twitter, Facebook, and LinkedIn.

Fun Summer Activity: I went to the Smoky Mountains for the first time and rode roller coasters at Dollywood.



Vicki Fung

Location: Long Island City, New York

Employer: New York City Department of Health and Mental Hygiene

Position: HRTP College Aide

I worked in the Countermeasures Response Unit in the Office of Emergency Preparedness and Response to help plan for biological emergencies (e.g. anthrax attack). As an intern, I used ArcGIS to assign staff to sites where they would assist in dispensing medical countermeasures to the public. I also converted street directions into operational documents that can be used by the NYPD during a mass prophylaxis response.

Fun Summer Activity: I ATE! ☺



Myla Ramirez

Location: New York, NY

Employer: Darby Jack

Position: Research Assistant

I conducted literature reviews and analyzed air pollution data from Ghana.

Fun Summer Activity: I traveled around Nevada and Arizona for a week!





Sara Zufan

Location: Connecticut

Employer: Maria Diuk-Wasser, Columbia University

Position: Field Assistant

I collected ticks in forests across CT and also from mice along with other biological samples. These samples contribute to a number of multi-year studies investigating the relationship between humans, animals, the environment, and tick borne diseases.

Fun Summer Activity: I went lazy river tubing upstate in the Ausable Chasm, then took a ferry over to Burlington, VT.

Abby Gaylord

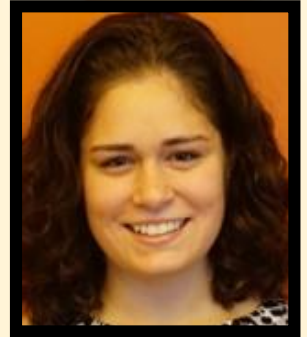
Location: New York, NY

Employer: Julie Herbstman, Columbia Center for Children's Environmental Health

Position: Research Assistant

I recruited pregnant women from Northern Manhattan and the South Bronx to participate in CCCEH's upcoming Fair Start Study. The purpose of the study is to investigate the effects of environmental exposures prenatally and in early childhood on child health outcomes, such as asthma and neurodevelopment. I also helped to develop participant medical history reviews and administer participant questionnaires for the study.

Fun Summer Activity: I began learning Spanish



Kari Patel

Location: New York, NY

Employer: The Sabin Center for Climate Change Law, Columbia School

Position: Graduate Research Assistant

I evaluated how byproducts and wastes generated from carbon capture technologies are re-utilized, recycled, and disposed of, and determined whether they posed a risk to the environment or human health. I also researched how fisheries in the US are preparing for the effects of climate change on fish populations and habitats.

Fun Summer Activity: I went to Colorado for the first time and enjoyed doing some high altitude hiking.



David Cuervo

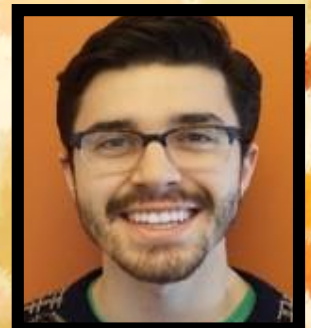
Location: New York, NY

Employer: Columbia Center for Children's Environmental Health, Julie Herbstman

Position: Analyst

I analyzed PBDE data with data from social functioning tests in children.

Fun Summer Activity: I went to the DR for vacation.





Maggie Rice

Location: New York City, NY

Employer: Terrapin Bright Green

Position: Graduate Intern

I collected research on the intersection of green infrastructure and public health. Utilizing the research gathered and my coworkers' knowledge of urban planning, I created a report on how specific green infrastructure strategies can be incorporated into a neighborhood and what the associated public health benefits would be from such strategies. In my time working with architects and urban planners I discovered the need for more integration of research across the various fields.

Fun Summer Activity: I completed one of my items on my bucket list when I saw a concert at Red Rocks Amphitheater in Colorado.

Sandra India Aladana

Location: New York City, NY

Employer: Columbia University

Position: Urban Health Initiative Researcher

I conducted systematic observation of urban spaces, and evidence synthesis to inform planning for scale-up of infrastructure improvement strategies and evaluation of health effects under NextGen NYCHA. I performed research focusing on the association between mold and adverse respiratory health effects, indoor air quality and chronic respiratory illnesses, and mentored Columbia undergraduate SPHSP program students in public health. I assembled a literature review on mold remediation strategies for public housing repair, engaging in regular follow up with NYCHA & DOHMH representatives, and communicated findings with Post-Sandy Renewal Architects KPF.

Fun Summer Activity: I went to the SIA concert!



Jinjin Wu

Location: New York City, NY

Employer: Dr. Regina M. Santella

Position: Research Assistant

In Dr. Santella's lab, I studied epigenetic biomarkers based on a prospective cohort that may indicate an association between smoking status, the blood level of PAH's and the prevalence of liver cancer.

Fun Summer Activity: This summer I found myself interested in lab work, which has made me want to apply for a PhD after graduation!

Meet the First Year Masters Students

Please welcome our first year EHS Master of Public Health students and our first ever MS in Toxicology student.

Learn a bit about them below!

In this section, first year students answer:

- Where is your hometown?
- What is your certificate?
- As a child, what did you want to be when you grew up?
- What is an interesting fact about yourself?

MPH Students



Adriana Garcia

Harleysville, PA

Undeclared

Dentist

I've held a sea turtle hatchling and an owl (unfortunately not at the same time).



Kayla Farrell

Harrington Park, NJ

Undeclared

Doctor

I once played a trivia game on The Ellen Degeneres Show and won \$10,000!



Cassie Trickett

Rocklin, CA

Undeclared

Geologist

I'm really good at imitating a turkey call...



Jamal Lewis

Springdale, MD

Undeclared

Professional Basketball Player or Engineer

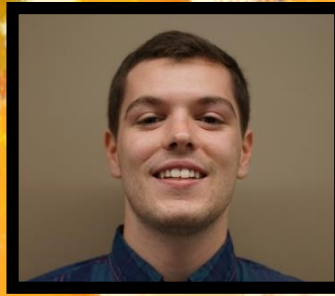
I attended the same high school as Barack Obama's children, Joe Biden's granddaughter, and Chelsea Clinton.



Natasha Sood

Troy, Michigan
Climate and Health
Ballerina

I used to have an irrational fear of escalators until high school.



Kyle Colonna

Rose Valley,
Pennsylvania

Molecular
Epidemiology

Surgeon

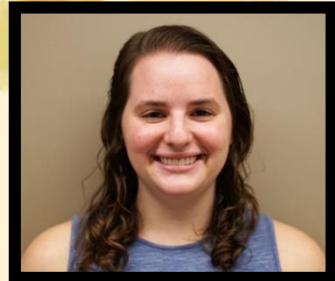
I used to teach surf lessons.



Amy Galvan

Houston, TX
Undeclared
Astronomer

I can name the top 100 most commonly used prescriptions in the United States and their uses.

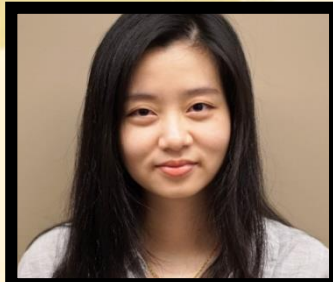


Rachel Locke

Arlington, VA
Undeclared

A veterinarian, artist, and lawyer (I was going to do all 3 jobs every week)

I have hiked on a glacier!



Yiting Luo

China
Undeclared
Ambassador

I would like to have two dogs after graduation.

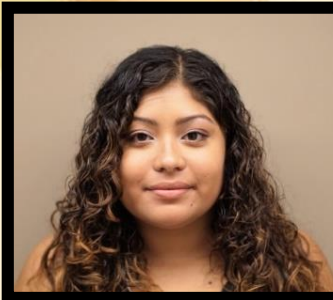


Eva Islam

Queens, NY
Undeclared

Teacher

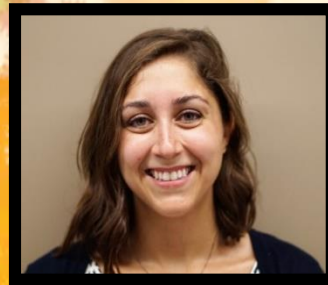
I can speak 4 languages!



Joseline Cruz

Brooklyn, NY
Undeclared
Doctor

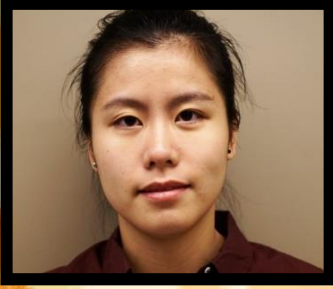
I collect and propagate mini succulents.



Cassie Shah

Chicago, IL
Climate and Health
Nurse

I drove around the entirety of Iceland in 2 weeks last year.



Sam Shangguan

Shanghai
Undeclared
Sports news reporter
I used to pet ten
poisonous snakes.



Anita Ampadu

Brampton, Ohio
Global Health
Business woman
My middle name is
Adomah. My initials
become A.A.A.A.
when you add my
Ghanian day name
Adwoa.



Jungen Yi

Northport, NY
Molecular
Epidemiology
Hero
My face was on a
McDonald's tray
liner.



Tiffany Zau

Hong Kong, China
Climate and Health
Mermaid
I grew up in Hong
Kong.



Nicholas Thomas

Phoenix, AZ
Infectious Disease
Epidemiology
I didn't know
I am a dual Swiss and
US citizen.



Crystal Feng

China
Undeclared
Writer
I love reading novels
and once I wrote a
novel with my friend
based on her name. It
is amazing to look
back on it.



Travis Wilson

White River Junction,
VT
Undeclared
Pilot
I brew my own beer.



Allyssa Desire

Port-au-Prince, Haiti
Child, Youth, Family
Health
An Invisible
Detective
I was a West African
dance "performer" in
undergrad.



Alex Schulte

Erlanger, Kentucky

Undeclared

Professional soccer player

I have been to 21 of the 59 (according to wikipedia) National Parks in the US with my family and we are planning to make it to all of them one day!



Tracey Cao

Beijing, China

Environmental Health Policy

Anything that gets me to travel for free.

I am recognized as local in almost every country in Southeast Asia, part of Russia and even in Iran! People just come up and talk to me in their local language.



Doug Donnelly

Garden City, NY

Environmental Health Policy

Marine Biologist

I spent two months in Tanzania in the Summer of 2015 researching health policy at a regional hospital in Moshi, and this experience was my inspiration for pursuing a career in public health.



Coco Shen

Jiangsu, China

Environmental Health Policy

Scientist

From now on, I love one person, and now, we're getting married!

Master of Science



Jessica Singh

Queens, NY

Toxicology

Doctor

I have a Food Protection Certificate from the NYC Health Department - meaning I'm trained in food protection practices.

PrIMER

This past summer, the **Program to Inspire Minority** undergraduates in **Environmental health sciences Research (PrIMER)** hosted its second cohort of students. The NIEHS-funded program provides students who come from backgrounds typically underrepresented in STEM fields the opportunity to gain valuable research experience in environmental health sciences. PrIMER students commit to a two-year program beginning the summer before their junior year and are paired with a faculty member who serves as an academic and research mentor throughout the program.

This year's PrIMER cohort represented eight Juniors and Seniors from CUNY-John Jay College. The students worked full-time over the summer with faculty and researchers from the Mailman School of Public Health and Barnard College on individualized projects. Some of the research topics included: arsenic contamination in rice, utilizing smartphones to detect eutrophication impacts, and air pollution effects on cardiovascular health. Students gained valuable skills in study design, laboratory practices, and statistical analysis. The summer culminated with each of the students presenting their findings at the PrIMER Research Showcase.

In addition to their projects, PrIMER students participated in weekly professional development seminars in preparation for EHS careers and graduate school applications. Seminars featured guest speakers Dean Marlyn Delva and EHS faculty who shared their own backgrounds and journeys into public health research. These seminars proved valuable and many students have discussed pursuing environmental health graduate programs.

Since the start of the academic year, PrIMER students have continued their research – all while balancing classes and GRE prep courses provided by the program. Many of the students have been accepted to present their research at national and local conferences with the help of their John Jay advisor, Dr. Lissette-Delgado-Cruzada.

With the success of the past two years of the PrIMER program, Co-Directors of PrIMER, Dr. Joseph Graziano and Dr. Greg Freyer, and PrIMER Program Administrator, Nina Kulacki, hope to move forward and continue to develop the program to provide high-achieving students with the opportunity to conduct research at Columbia. This year they are accepting applications from a few different local institutions in order to provide the most deserving and high-achieving undergraduates with experiences essential for a future career in environmental health sciences.



SEA: Students for Environmental Action

The executive board is tremendously excited to share with you our events and initiatives for the upcoming year. We are committed to improving environmental awareness at CUMC and look forward to creating a collaborative space where students and faculty from the Department and across campus can come together, instill awareness, and make a long lasting impact on the CUMC community.

This semester, we are continuing our initiative to reduce paper use on campus by inviting members to join CUMC's Paper Reduction Committee as student representatives. Members are also preparing a proposal for the Green Fund from the Office of Environmental Stewardship, a grant for student-led environmental stewardship projects. We welcome input from students and faculty on sustainable project ideas.

Last semester, we wrapped up our Magnet Committee as members completed the design of a NYC recycling information magnet for new students. A big thank you goes out to those on the committee: Sasha Berns, Millie Tung, Kari Patel, Vicki Fung and Joanna Xing! Magnets were distributed at the Student Life Welcome Expo and our fall General Body Meeting. Be sure to swing by one of our events to pick one up! In addition to promoting the existing recycling infrastructure, SEA hopes to work with the office of Environmental Stewardship to strengthen other areas of recycling, such as electronic waste, over the next year.

SEA has already hosted a number exciting events this semester, including a trip to the Bronx Botanical Gardens, a volunteer day with Harlem Grown, and an up-cycled crafternoon. We are looking forward to our key event, SEA of Thoughts, in collaboration with the Columbia One Health Institute on Friday, December 9th from 11:30 to 1:00 in EHS 1101. We will be hearing from EHS's very own Dr. Jeff Shaman and Dr. Maria Diuk-Wasser from Columbia's Ecology, Evolution, and Environmental Biology Department about the impact of climate change on vector-borne diseases. Lunch will be served at 11:30 with the discussion beginning at noon. We hope you will join us for the conversation.

At the most recent general body meeting, members showed great interest in pursuing new initiatives, including composting in Washington Heights and a student clothing exchange. We look forward to seeing what they accomplish in 2017. With the fall semester coming to a close, it is time for 2015-2016 SEA E-board to pass its torch to the class of 2018. We are excited to announce the next E-board members: **President, Natasha Sood; VP of Communications, Adriana Garcia; VP of Community Outreach, Cassie Trickett; VP of Events and VP of Finance, Kyle Colonna.** Congratulations!

Thank you for your support of Students for Environmental Action. If you are interested in getting involved with one of these initiatives or attending any of our upcoming events, please feel free to reach out to SEA President Sara Zufan (UNI:sz2555). We look forward to a fruitful year!

Sincerely,

Sasha, Jeremy, Maggie, Joanna, and Sara
The E-Board of Students for Environmental Action




Events



9th Annual EHS Chili Cook-Off!

CHILI COOK-OFF



Join your team to compete in one of the featured categories:
chili (both veggie & meat), cornbread, and dessert!

Friday
October 21st, 2016
4-6PM
EHS 1101



Save the Date!
EHS Fall Faculty-Sponsored Social
Friday, September 16th
4pm to 6pm
ARB 1101

Catch up with faculty and peer mentor/mentees! All EHS MPH and Doctoral students are welcomed!
Enjoy food, drinks, and wonderful company!





Environmental Health Sciences Presents:
Practicum Presentations
 EHS students and faculty:
 Please join us for the EHS MPH Practicum Presentations!

Date: Nov 9th & Nov 16th
Time: 11:30a to 1p
Location: EHS 1101

Nov 9th: Milla Rimmer Kristina Lai Sandra India Aldama Jijun Wu Yuting Deng David Cuervo Shuan Jeevan Tina Wang Emily Chng Melissa Robinson Kari Patel	Nov 16th: Maggie Rice Christina Oberstar Mayra Cruz Milin Feng Jeremy Brooks Sasha Berns Siromi Ramnarayan Abby Gayford Alex Hunt Tucki Feng Sara Zustin
---	---

Second year MPH students will share their practicum experiences, including how they found their practicum, initial goals, and outcomes.

© COLUMBIA UNIVERSITY | WUHLER FOUNDATION | ENVIRONMENTAL HEALTH SCIENCES

