



### Science Team Mission Statement

We are passionate about science. We believe a solid understanding of scientific concepts and thinking is essential to being a good citizen who can make informed decisions about a variety of complex issues. We also believe that cultivating scientific literacy will help our students lead healthier, happier, and more successful lives. We want students to fall in love with science as a way of knowing more about themselves and their world. We believe that all students are born scientists who are naturally curious about how the world around them works. We teach students to ask scientific questions and then how to seek answers to those questions using the same techniques and technology used by scientists. We coach students in how to think critically, analyze deeply, and communicate their understanding of scientific principles. We believe that every student is entitled to a rich and engaging curriculum that prepares them for the dynamic and demanding challenges of college or career choice. We design our own curricula that emphasizes the interconnectedness of science concepts across science, technology, engineering, and mathematics so that they are prepared for the increasingly complex combination of skills required in college and career. We prepare our students to become environmental stewards of the Earth and make sustainable decisions. Most of all we love and look forward to getting our students excited about science!

# EAST SIDE COMMUNITY HIGH SCHOOL 4th Annual WOMEN IN SCIENCE NIGHT!

Wednesday April 26<sup>th</sup>, 2017

### Schedule of Events

- 3:30 – 3:55 pm: Introductions**
- 4:00 – 4:35 pm: Breakout #1**
- 4:40 – 5:15 pm: Breakout #2**
- 5:20 – 6:00 pm: College Fair**

### *Welcome!*

Tonight, impressive women scientists join us from a variety of disciplines to share their story from high school to college to careers in science. We know they will inspire you to pursue your own science careers. We created event just for you because every day we see your incredible potential to become the next generation of Women In Science!

Follow us live:  **#womeninscience**



*Okay, I'm ready to meet the scientists!*

**What should I do before leaving tonight?**

- Ask a scientist at least one question
- Give your business card to a at least one scientist and / or college rep
- Apply to a opportunity inside your folder
- Introduce yourself to next year's science teacher or to Jerome (college counselor)

### Special Guest Scientists

#### **Natalie Accardo**



I'm a seismologist who studies how tectonic plates break apart to form new oceans. Currently I'm focused on East Africa which is in the midst of rupturing in two- this will not happen for several tens of millions of years so don't be afraid! I use the energy produced by earthquakes which is then recorded on seismometers to image the Earth like an x-ray images our bones. With this information I can make inferences on how tectonic rifting occurs and the hazards associated with it.

#### **Sabrina Campbell**



Environmental, Health & Safety at NBC Universal. Studied Civil Engineering (BS) Penn State as well as at Nanyang Technological University in Singapore. I ensure site compliance with local, federal, and state environmental, health, and safety (EHS) regulations and company standards at the CNBC Headquarters.

#### **Marisa Macias, Ph.D.**



Paleoanthropologist at the American Museum of Natural History. Degrees from Stanford (BA), NYU (MA), and Duke (Ph.D.). I study human origins, specifically how our ancestors moved through the environment. I study the skeleton to understand functional morphology, or how the shape of our bones reflects the ways we use our body. With the comparative methods, I rely on our understanding of living humans and other primates. With modeling, I rely on computer simulations of musculoskeletal anatomy.

#### **Odaelys Walwyn, PhD**



At The Rockefeller University, Science Outreach Program (RockEdu) I develop research projects for high school students' participation during our spring and summer research programs. Teach and aid in the development of curricula for our LAB Experience classes. These are day class trips used to engage high school students in authentic science experiments at the lab bench. I earned degrees from Univ. of the Virgin Islands - BS Biology; New York Medical College - PhD Microbiology and Immunology.

#### **Lu Yao, Ph.D**



Evolutionary Biology PhD at University of Chicago. As a scientist, I study the evolution of primates by using both genetics and morphology. My research utilizes the extensive museum collections around the world in order to better understand the evolution of monkeys and apes specifically in Southeast Asia.



**Jen Drieves** - Since college, my science background has been varied (and creative). I designed HVAC systems (including in the Empire State Building), applied engineering to the study of archaeology (working on sites in Israel), taught students how to build Rube Goldberg-inspired machines, and now work as a STEM Director at NYU. I earned my degrees from Cooper Union, BE in mechanical engineering; Univ. of Southampton, England, MA in history; Univ. of Pennsylvania, ME in materials science and engineering.



**Vanessa Arias-Martinez, MPH, MA, LPC.** I serve as the Epidemiologist Coordinator for the SURRG program at the NYC Department of Health and Mental Hygiene. SURRG: Strengthening the U.S. Response to Resistant Gonorrhea is a federally-funded program from the Centers for Disease Control. SURRG activities are conducted across NYC to address the threat of resistant gonorrhea.



**Pinki Mondal, Ph.D**  
As a Senior Research Associate at Columbia University, I analyze images captured by NASA satellites to understand different environmental issues, e.g. how food crops respond to changing patterns of temperature / rainfall in India, or how mangroves are being destroyed in west Africa. I earned my degrees at - PhD: Univ. of Florida; MS: Jadavpur Univ., India; BS: Univ. of Calcutta, India.



**Julia Monk**  
I am PhD student at the Yale School of Forestry and Env studies. I research how food webs affect the cycling of nutrients in ecosystems. Basically, I study how the relationships between animals can indirectly influence their environment. I work with pumas (mountain lions), vicuñas (small llama relatives), and condors (large vultures) in the Andes in Argentina.



**Zuri Sullivan**  
As a PhD student at Yale University, I study the interactions between the immune system and the trillions of bacteria that reside in the mammalian intestine, called the commensal microbiota. My interest is in understanding how the microbiota is affected by diet, and how these changes are detected by the host immune system. I earned my Bachelor's degree from Harvard.



**Anisha Gandhi. PhD, MPH**  
I am a Senior Research Analyst in the HIV Prevention Program at the NYC Department of Health and Mental Hygiene, and am also an Adjunct Assistant Professor of Clinical Sociomedical Sciences at Columbia University. I investigate what factors in peoples' lives affect their risk for HIV, and lead programs to improve access to new tools and services that can help people in NYC stay HIV-negative. I earned my degrees at UC Berkeley (BA & MPH) and UNC Chapel Hill (PhD).



**Najla Arshad, PhD**  
I study the workings of the immune system in infection and cancer. I'm trying to understand how sick cells show the immune system that something has gone wrong with them, and what the disease does to prevent its detection. I earned my degree from the Indian Institute of Science, Bangalore, India (PhD)



**Diana Sanchez PhD MPH**  
As a research scientist at the NYC Department of Health and Mental Hygiene, I oversee partnerships with community organizations and hospitals to enhance services for sexually

transmitted diseases, analyze data to identify targets for improvement, and implement programs based on data. I earned my degrees from Drew University (BA), Yale University (MPH) and University of North Carolina at Chapel Hill (PhD).



**Mary Nagle**  
As a Software Engineer, I spend my day coding and work to improve the performance and stability of our platform. This includes everything from the database all the way up through our website that our customers shop on! I earned my degree from University of Richmond, but did not begin coding until after college.



**Deepti Singh, Ph.D**  
I am currently a Lamont Postdoctoral Fellow at the Lamont-Doherty Earth Observatory of Columbia University. My research is centered on the intersection of physical climate and human vulnerability. I study how Earth's climate is changing, how human activities are shaping these changes, and how these changes in the physical climate system affect our society including agriculture, public health, and water resources. My work aims to improve the understanding of disaster risks in a rapidly changing climate to inform climate policy, risk-management, and adaptation strategies. I received my Ph.D. in Earth System Science from Stanford Univ., M.S. in Aeronautics and Astronautics from Purdue Univ., and B.E. in Mechanical Eng. from Pune Univ. (India).



**Mary Ng**  
Analytical Development at Patheon Biologics, Inc. Completed degrees at SUNY Binghamton (BS) and Rutgers University (MS). I currently work as a scientist at Patheon. In the past, I was a researcher evaluating new cancer therapeutic targets for drug development.

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Special thank you's to all of the guest scientists, East Side staff, East Side Parent Association, and of course the students (future scientists) who contributed their time and talents to make tonight a success.

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[eastsidescience.weebly.com](http://eastsidescience.weebly.com)

