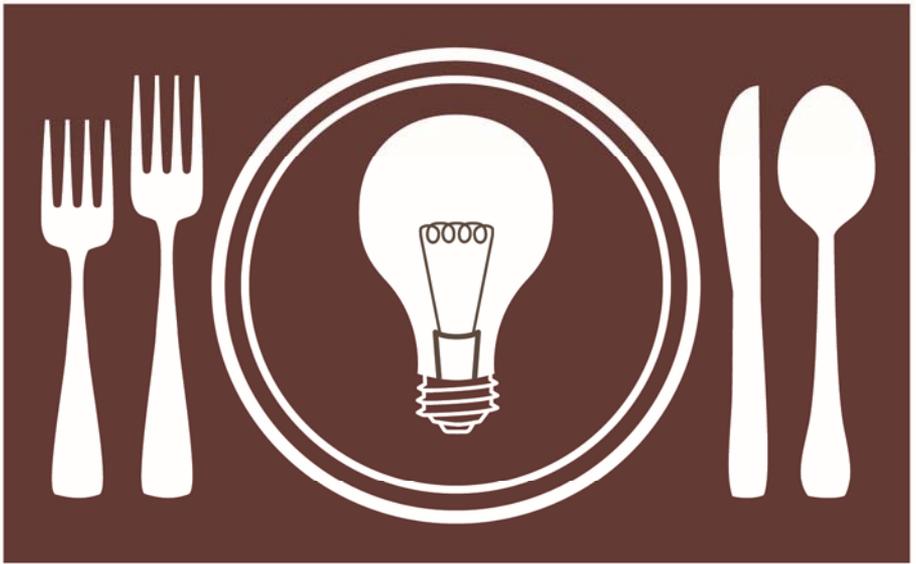


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Oakland Unified School District



**DINNER** with  
a **SCIENTIST**

May 27, 2015, 5-8 pm

Welcome to Oakland Unified School District's seventh annual Dinner with a Scientist! We are proud to collaborate with Chevron Corporation, Oakland Zoo, S. D. Bechtel, Jr. Foundation, and many other science organizations in the Bay Area to offer an evening of science exploration and conversation. Science teaching and learning occurs daily in our schools, but seldom do we have the opportunity to connect scientific concepts with the real work of scientists. Tonight is that rare opportunity to converge education with the local scientific community.

I want to especially thank all the scientists, volunteers, and teachers who made this event possible. The field of science is ever changing as evidenced by the diverse group of scientists in attendance. Whether you are a student interested in science, a science teacher, or a scientist working to improve our understanding of the world around us, my hope is that you broaden your perspective through this evening's activities.

Caleb Cheung  
*Science Manager, OUSD*

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On behalf of the Oakland Zoo, we would like to thank the Oakland Unified School district for organizing this inspiring, exciting event. We are honored to be a part of an evening that brings together teachers, students, and scientists who are interested and energized about science. Among us are current and future leaders of the scientific community. Also among us are the tireless, extraordinary mentors, the ones that have brought all of us to where we are now - teachers.

Whether you are aspiring to become a biologist, chemist, veterinarian, green engineer, or simply a nature lover, we invite you to explore the Oakland Zoo and be inspired by our animals, research, programs, and plans for the future. We hope this evening will help fuel new ideas for learning and bring about career opportunities that many youth have never explored or thought about. Thank you for being passionate about science and have a wonderful evening.

Dr. Joel Parrott  
*Executive Director, Oakland Zoo*

## Program

- 2:00 Visit Zoo (optional)
- 5:00 Registration & Live Animal Encounters
- 5:25 Welcome & Ice Breaker
- Duffy Ross*  
*Science Specialist, OUSD*
- Bo De Long-Cotty*  
*Director of Education, Oakland Zoo*
- Katie Jaxheimer Agarwal*  
*Program Officer, S. D. Bechtel Jr. Foundation*
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Aspiring Scientist Panel
- Maricarmen Hernandez, UC Berkeley*  
*Naylani Allen, Castlemont HS*  
*Claire Shorall, Castlemont HS*
- 6:45 Dinner & Conversation with Scientist #2
- 7:15 Raffle
- 7:20 Dessert & Conversation with Scientist #3
- 7:50 Appreciations and Conclusion
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## Menu

Random Leaves and Solutions  
Wheat, Yeast, and Garlic Mixture  
Extract of Newton's Favorite Fruit  
Dihydrogen Monoxide in Two States with Citrus Accents  
Sodium Chloride & Piper nigrum  
Steamed Random Plant Parts  
Grass Seeds and Random Plant Parts  
Grilled Poultry with Fungus and Roots  
Herbivore Option: Plant Pasta with Marinara Sauce  
Heat-Treated Cacao Carbohydrate Solids with Ripened Plant Ovaries  
Wrapped Cacao with Metha or Rubus

## Panelist Biographies

### **Maricarmen Hernandez**

Undergraduate Student, UC Berkeley

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Maricarmen is a junior at UC Berkeley. She grew up in South Gate, in the greater Los Angeles area with her parents and two younger sisters. She is the oldest of the three and a first generation college goer. She is involved and active in many different spaces because she truly enjoys learning. Her drive comes from her strong desire to explore the world, learn about different cultures, and see different faces. Her ultimate career goal is to become a neuroscientist.

### **Naylani Allen**

Student, Castlemont High School

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Naylani am a junior at Castlemont High School. She was born in Oakland, and grew up in Hayward. She returned to Oakland for high school in 2013. She has a single mom and two sisters. Naylani is the middle child. She is taking AP Bio this year and hopes to become a doctor. Teachers made a difference in her life.

### **Claire Shorall**

Teacher, Castlemont High School

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I am an AP Biology, AP Calculus, and AP Computer Science teacher at Castlemont High School. I love teaching all three - every period means that we are exploring something new. In college, I studied Biochemistry and Cell Biology, but I tried to take at least one class in every department. I've always been curious. Right now, I am most interested in learning how to code. I am happiest when my students are working on solutions to tough problems that they care about.

## Scientist Biographies

### **Amanda Veitch**

Tables 4, 5, 6

R&D Scientist, The Clorox Company

[amanda.veitch@clorox.com](mailto:amanda.veitch@clorox.com)

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I am a Research and Development (R&D) scientist at the Clorox Company where I develop products and manufacturing processes for Kingsford charcoal. I have always been interested in learning how things work, which inspired me to pursue science and engineering. I love to cook and bake, and working on product and process development is very similar to creating and following your own recipe! There is something for everyone in science!

### **Annie Ragusa**

Tables 7, 8, 9

Scientist, The Clorox Company

[analisa.ragusa@clorox.com](mailto:analisa.ragusa@clorox.com)

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I recently graduated from the University of California, Santa Barbara where I studied Chemical Engineering. When I was younger, I loved learning how things work and how things are made. When I reached high school, I began to learn about chemistry and realized that it was the closest thing I've ever done to making potions and doing magic like Hermione Granger from Harry Potter. Now, I get to use chemistry and problem solving skills to make cleaning products for people to use to keep their homes healthy and clean.

### **Chloe Higgins**

Tables 10, 11, 12

Scientist I, The Clorox Company

[chloe.higgins@clorox.com](mailto:chloe.higgins@clorox.com)

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I am a Chemical Engineer at the Clorox Company and I work on Hidden Valley Ranch. I am a process developer, which means that I take new products from a lab to a plant and play a huge role in putting products in your grocery store! I chose a career in science because I wanted the chance to work on improving products that are used every day. As an engineer, I face challenges, but being able to overcome those challenges and succeed makes all of the hard work worth it!

**Darcy Ernst**

Graduate Student, UC Berkeley

Tables 5, 6, 4  
dfkernst@berkeley.edu

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I am a graduate student in the Integrative Biology Ph.D. program at UC Berkeley. Over my career I've studied the brains and behavior of crickets, ground squirrels, giant orange sea slugs, and birds! Studying slugs was especially fun as it allowed me to SCUBA dive to see them in their natural habitat. Now I study how hormones in the brains of birds and how they respond to the environment to allow them to breed. Whatever animals I'm studying, I love learning about how the brain controls the behaviors of animals as human behavior is determined in much the same way!

**Elise Piazza**

Doctoral Researcher, UC Berkeley

Tables 3, 1, 2  
elise.piazza@gmail.com

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As a lifelong musician, I've always wanted to know how our different senses (hearing, vision, touch) combine to allow us to understand and play music. As a graduate student at Berkeley, I test how people respond to different types of images and sounds in the lab. These results tell us a lot about how the brain interprets the world around us, from other people's faces and voices to instrument sounds and photographs.

**Heather DePaul**

Associate Scientist, Amyris

Tables 11, 12, 10  
depaul@amyris.com

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I am an associate scientist at Amyris Biotechnologies where we use synthetic biology to make renewable products. I earned a Bachelor of Science degree in Biology with a minor in Chemistry from Sonoma State University. I have been in love with science from a young age. Science is so intriguing to me because it is all around us, and there is always something new to discover!

**James Valenti-Jordan**

Project Engineer, UC Berkeley

Tables 18, 16, 17  
james.valenti-jordan@delmonte.com

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I went into engineering to figure out tough logic problems using science. I chose the food industry because it is something real that you can touch, and when you are done with your experiments, you can eat them! I work on all sorts of projects from solar panels to soup, so it is something new every day. Before Del Monte, I worked for Campbell Soup, General Mills, and Pillsbury.

**Jeffery Seitz**

Tables 9, 7, 8

Professor, California State University, East Bay [jeff.seitz@csueastbay.edu](mailto:jeff.seitz@csueastbay.edu)

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I am a professor of Earth and Environmental Sciences and my specialty is in geochemistry (that's the chemistry of the Earth). Currently, my research focuses on the chemistry of the origin of life on Earth and in the Solar System. I became a geologist because of my love for our planet. I think that I have the best job because I get to study interesting problems with my students and teach others about our planet.

**Jonathan Weisman**

Tables 1, 2, 3

Scientist, The Clorox Company [jonathan.weisman@clorox.com](mailto:jonathan.weisman@clorox.com)

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I am a Chemical Engineer at the Clorox Company. I decided that science was perfect for me because I loved to figure out why things work when I was younger. I also liked to build things and learn about structures such as bridges and skyscrapers. In school, I actually math and science wasn't always easy, but it was worth the struggle.

**Josh Long**

Tables 15, 13, 14

Engineer / Scientist II, The Clorox Company [Josh.long@clorox.com](mailto:Josh.long@clorox.com)

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Science is everywhere, all around us every day. We become so focused on our lives that sometimes we forget to take in the miracles around us and walk right past some of the most amazing things this world has to offer. I grew up in the Pacific Northwest and I always felt the most alive when I was away from the city and could just take in what nature has to offer. Science allows us to better understand the nature of how everything works in the world and from those basics we can start to understand everything else. The better we understand, the more we can come up with new ideas and inventions. And that's what makes science so exciting. Anything is possible. As my dad used to say, "Nothing is impossible.... it just hasn't been invented yet." I want to be the inventor of what others see as impossible.

**Kayla Carpenter**

Tables 17, 18, 16

Microbiologist, The Clorox Company [kayla.carpenter@clorox.com](mailto:kayla.carpenter@clorox.com)

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I am a microbiologist at Clorox. Basically, I help design sanitizing and disinfecting products that kill germs around your house, on your skin, and in hospitals. I earned both my bachelor's and master's degrees from the University of Arizona. When I was young, many little girls liked dressing up as princesses for Halloween. I preferred being a mad scientist screaming "It's alive! It's alive!"

**Kristina Cervantes-Yoshida**  
Graduate Student, UC Berkeley

Tables 21, 22, 19  
kcervantes@berkeley.edu

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When I was a kid I used to love fishing and exploring the urban creeks around the Bay Area. These experiences encouraged me to go to college and earn a PhD in environmental science. I used to teach science in elementary schools, but now I am now a fish ecologist and study how humans affect streams around the Bay Area.

**Laura Yee**  
Project Manager, Bayer Healthcare

Tables 13, 14, 15  
laura.yee@bayer.com

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I have a BS from Mississippi State University and a MS from UC Berkeley, both in Chemical Engineering. I decided to pursue a career in biotechnology because it combines my interest in biology, chemistry and engineering all into one field. I was fortunate to be starting my career in the bay area at the same time this industry was just starting in the late 1980s and have been involved with several exciting technological developments. What I love about my job is that I get to design, build and test manufacturing facilities that use cells to make life saving drugs.

**Leslie Storer**  
Senior Zookeeper, Oakland Zoo

Tables 2, 3, 1  
lstorer@oaklandzoo.org

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I am a zookeeper at the Oakland Zoo. As a junior volunteer at the San Francisco Zoo, I realized that I enjoyed caring for animals and sharing my enthusiasm with others. I have a degree in zoology, and I have worked with a wide variety of amphibians, reptiles, mammals, and birds. In addition to feeding and cleaning up after animals, which requires knowledge of biology, I also train them, which involves knowledge of psychology, to perform behaviors that allow us to take better care of the animals and keep them mentally and physically active.

**Lucy Chang**  
Graduate Student, UC Berkeley

Tables 14, 15, 13  
luchang@berkeley.edu

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I am a graduate student at UC Berkeley studying how ocean-dwelling animals were affected by environmental change millions of years ago. In college, I studied earth science and visited places like the Bahamas and Nevada desert to learn about the fossils found there. I've always loved mysteries, and fossils provide major clues that help us better understand why life looks the way it does today and what will happen to it as environments change in the future.

**Marius Cătălin Lordan**  
PhD Candidate, Stanford University

Tables 22, 19, 20  
mci@stanford.edu

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Since I was little, I've been fascinated with how our brains give rise to our understanding of the world. Now, I'm a graduate student at Stanford studying neuroscience. I use advanced math to try and figure out how our brains group the visual world into categories and how each and every one of us can instantaneously put a name to something we see, such as a dog, your shoe, or a picture of a beach.

**Mark Lescroart**  
Postdoctoral Fellow, UC Berkeley

Tables 8, 9, 7  
mark.lescroart@gmail.com

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I study how our brains allow us to see objects in the world around us. I scan people's brains while they watch movies, and then try to figure out why their brains respond the way they do. I've been interested in science all my life, and after years of trying to figure the world out. I got my PhD from USC in 2011. I've been working in Jack Gallant's lab at Berkeley since.

**Michelle Moy**  
Food Technologist, Del Monte Foods, Inc.

Tables 16, 17, 18  
michelle.moy@delmonte.com

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I am a food scientist working at Del Monte Foods, Inc. in Vegetable Research and Development creating new products. I received a Bachelor's Degree in Food Science from the University of Illinois at Urbana-Champaign. Food science combines my interest in cooking and chemistry. Understanding the science behind food products makes walking through the grocery store an adventure.

**Morgan Shirley**  
Research Scientist, UC Berkeley

Tables 12, 10, 11  
morganshir@gmail.com

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I had wanted to be a lawyer my whole life until I was exposed to all the possibilities and ways that science impacts our lives. My excitement for problem solving and learning about the world and how things are made caused me to pursue science. I decided to become a chemist in college after pursuing many different sciences doing archaeology in Alaska, meteorology in Kansas, biochemistry in Taiwan, and marine biology in Bonaire. I then continued to get my PhD in organic chemistry where I learned to make drugs and pharmaceutical compounds, and also worked with Pantene making shampoo additives. Now I work with making lubricants for Chevron here in California. Science has literally taken me on a journey through the world and can for you as well!

**Natanel Dukan**

Chief Operating Officer, RobotsLAB US Inc.

Tables 6, 4, 5

[natanel@robotslab.com](mailto:natanel@robotslab.com)

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I specialized in humanoid robotics, robots that resemble humans and can perform tasks similar to human movements. My background is Electrical Engineering and I have been training and implementing robots in labs and schools for the past 7 years. I have written curriculum and taught several courses on the NAO robot.

**Scott West**

Research Engineer, Chevron

Tables 19, 20, 21

[sp.west@gmail.com](mailto:sp.west@gmail.com)

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BS in Chemical Engineering at Tufts, PhD in Organic Chemistry from UC Berkeley. My career has focused on chemical process development which involves developing chemistry on lab-scale (under 1 gallon) and implementing it in commercial reactors (500 gallon reactors or larger). I enjoy developing new and interesting chemical solutions to challenging problems using chemistry and chemical engineering. I have always been excited about making new molecules and then producing chemicals on a large commercial scale.

**Stefan Brown**

R&amp;D Scientist, The Clorox Company

Tables 20, 21, 22

[stefan.brown@clorox.com](mailto:stefan.brown@clorox.com)

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I studied Chemical Engineering at UC Santa Barbara and started working for The Clorox Company after college. I became interested in science after watching Bill Nye the Science Guy and realized how awesome it is. Chemical Engineering brings the magic of chemistry and the real life applications of Engineering.



## **Participating Schools**

*Acorn Woodland Elementary, Allendale Elementary,  
Bridges Academy, Community United Elementary,  
Franklin Elementary, Fruitvale Elementary, Futures Elementary,  
Garfield Elementary, Glenview Elementary, Global Family School,  
International Community School, Korematsu Discovery Academy,  
Laurel Elementary, Manzanita SEED Elementary,  
Melrose Leadership Academy, Peralta Elementary,  
Redwood Heights*

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## **Acknowledgements**

### Oakland Zoo

*Bo De Long-Cotty and the Education Department  
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### Volunteer Scientists and Panelists

*Amanda Veitch, Annie Ragusa, Chloe Higgins, Claire Shorall,  
Darcy Ernst, Elise Piazza, Heather DePaul, James Valenti-Jordan,  
Jeffery Seitz, Jonathan Weisman, Josh Long, Kayla Carpenter,  
Kristina Cervantes-Yoshida, Laura Yee, Leslie Storer, Lucy Chang,  
Maricarmen Hernandez, Marius Cătălin Lordan, Mark Lescroart,  
Michelle Moy, Morgan Shirley, Natanel Dukan, Naylani Allen,  
Scott West, Stefan Brown,*

### Oakland Unified School District

*Caleb Cheung, Christine Chen, Claudio Vargas,  
Duffy Ross, Herberta Zulueta,  
Ricky Logan, Rosita Young, Sonnie Dae*

### Other

*Sara Rusche, Photography  
Teresa Barnett, Community Resources for Science (Setup)  
Espresso Gourmet (Catering)*

Photos from tonight's event will be available at  
<http://science.ousd.k12.ca.us>