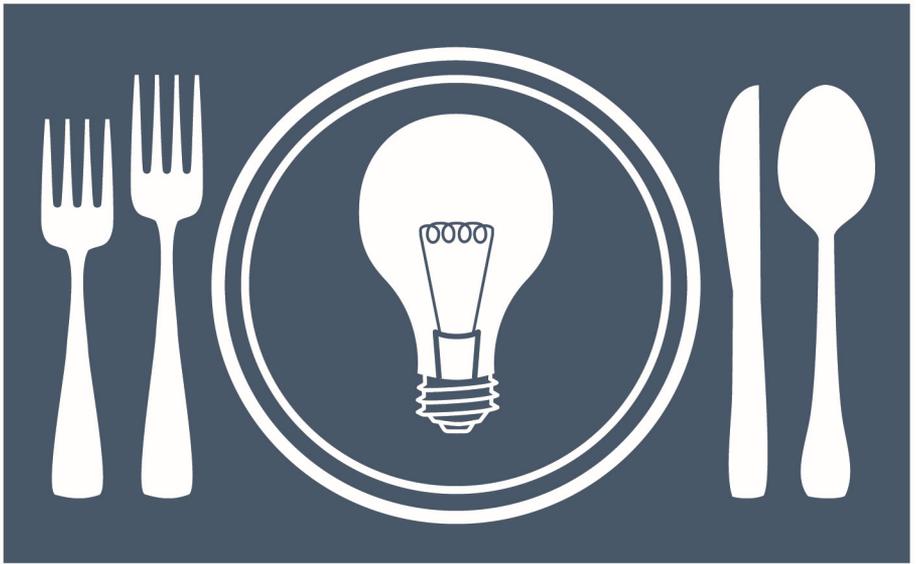


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Oakland Unified School District



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

May 29, 2014, 5-8 pm

Welcome to Oakland Unified School District's sixth annual Dinner with a Scientist! We are proud to collaborate with Chevron Corporation, Oakland Zoo, 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  
*Caleb Cheung*  
*Science Manager, OUSD*  
*Gary Yee*  
*Superintendent, OUSD*  
*Chantal Burnett*  
*Volunteer Programs Assistant, Oakland Zoo*
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote  
*Elizabeth Donald*  
*Senior Scientist, The Clorox Company*
- 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

## Scientist Biographies

### Elizabeth Donald

Keynote

Senior Scientist, The Clorox Company

Elizabeth.Donald@clorox.com

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I am a geochemist, and I love exploring rocks, mixing chemicals, and making new supermarket products! I earned my Bachelor of Science degree from Yale University, and my PhD from Stanford University.

Growing up I loved exploring the outdoors and the library, going to new places, and making messes! Science is exciting because it constantly reveals new things about who we are and the universe around us. The best part is that ANYONE can be a scientist!

### Arun Agarwal

Tables 20, 21, 22

Scientist, The Clorox Company

arun.agarwal@clorox.com

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Science is fascinating, challenging and satisfying! Chemistry helps us understand many fundamental and applied processes taking place in our planet and beyond. I work for a consumer product company as a chemist where I have used large magnets (Nuclear Magnetic Resonance) to understand how chemical molecules look, move and interact with one another. Recently, I started working with the Packaging Innovation group at The Clorox Company, where we develop various packaging options to deliver the most premium products in the most delightful packages! Understanding the chemistry behind products and how to improve them, by working in a collaborative environment, is what I enjoy doing the most. I have a Ph.D. in Analytical/ Materials Chemistry and almost 2 years of Post-Doctoral research experience in Protein Chemistry.

### Carrie Clark

Tables 5, 6, 4

Senior Scientist, The Clorox Company

carrie.clark@clorox.com

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I went to Georgia Tech studying Chemical Engineering. Go Yellow Jackets!!! I worked for Hidden Valley Ranch coming up with new dressings & packages. I also worked on Clorox's cleaning products figuring out what equipment to put together to make the cleaners you see at the store. Now, I design, test and start up plants that make our new packages. I went into science and engineering because I love solving puzzles and working on teams.

**Christoph Maurath**

Tables 18, 16, 17

Scientist,

Livermore Software Technology Corporation

[chris@lstc.com](mailto:chris@lstc.com)

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I am a scientist at Livermore Software Technology Corporation where I create virtual finite element models of crash test dummies which our customers use to design safer cars. As a kid I was always interested in how things worked and took many of my toys apart to see how everything looked inside. Most of the time I could put them back together again. My biggest inspiration to pursue science and technology was my dad who is also an engineer. Now, I have a Doctor of Science in Transportation Safety Engineering.

**Colton Leppink**

Tables 9, 7, 8

Scientist I, The Clorox Company

[colton.leppink@clorox.com](mailto:colton.leppink@clorox.com)

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I attended Michigan State University where I received my BS in Packaging. I worked with Del Monte Foods as a Packaging Engineer. I was hired into The Clorox Company as a "Scientist I" working in the R&D Sector for the Specialty Packaging Division. I love science because it is exciting, creative and all around us in everyday life. If you have a big imagination and passion for creativity, go into a Field of Science!

**Desiré Whitmore**

Tables 14, 15, 13

Postdoctoral Researcher, UC Berkeley

[laserchick@berkeley.edu](mailto:laserchick@berkeley.edu)

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I am a laser scientist at UC Berkeley studying the chemistry and physics of light interacting with matter. Growing up, I was always curious about how and why things work the way they do, and because I was good at math and chemistry, I studied Chemical Engineering at UCLA. After graduation, I decided to focus more on science than engineering and went to UC Irvine to get my PhD in Chemical and Material Physics.

**James Valenti-Jordan**

Tables 12, 10, 11

Project Engineer,

Del Monte Foods, Inc.

[james.valenti-jordan@delmonte.com](mailto: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.

**Jenna Judge**

Tables 22, 19, 20

Graduate Student,

UC Berkeley, Museum of Paleontology

[jennajudge@berkeley.edu](mailto:jennajudge@berkeley.edu)

I grew up in the mountains and loved nature and science class and visiting the ocean in particular. I learned about weird deep sea environments and the animals that live there in high school and ever since then I have pursued those interests and developed them further in college at UC Santa Barbara and now in graduate school at UC Berkeley. Some of my favorite parts of science have been the opportunities I have had to travel the world to work with interesting people and animals and to be able to use remote controlled submarines to do experiments in the deep sea.

**Jesyka Melendez-Rosa**

Tables 4, 5, 6

Graduate Student, UC Berkeley,

Museum of Vertebrate Zoology

[jesykamelendez@gmail.com](mailto:jesykamelendez@gmail.com)

I grew up in rural Puerto Rico, a tiny little island near Cuba. I always loved animals, but in high school I thought the only way I could be involved with them was by going to veterinary school. When I went to college at the University of Puerto Rico, I realized that this wasn't true! I learned about scientific research and went on to study coral reefs, coffee snails, plankton, and green iguanas! Now, as a graduate student, I am interested in non-human mammalian behavior.

**Kate Alfieri**

Tables 8, 9, 7

Graduate Student, UC Berkeley

[kalfieri@berkeley.edu](mailto:kalfieri@berkeley.edu)

I am a chemistry graduate student at UC Berkeley studying the proteins that are involved in the immune response. I got interested in science when I took high school biology and learned about different human diseases. I decided to study chemistry when I discovered that chemistry is fundamental to understanding biology, since big molecules called proteins are responsible for most biological processes.

**Kate Nichols-Smith**

Tables 11, 12, 10

Process Development,  
The Clorox Company[kate.nicholssmith@clorox.com](mailto:kate.nicholssmith@clorox.com)

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I'm a chemical engineering and I work at the Clorox Company developing and modifying our manufacturing processes for new formulas and products. My job is to take the formula from being made in a small beaker and figure out how to make it in a gigantic tank so that every bottle of the formula will be the same. I've always been fascinated by science and how things work by taking toys apart and trying to put them back together, now in engineering the toys I take apart and work I do is just on a bigger scale!

**Kimberly La Pierre**

Tables 10, 11, 12

Postdoctoral Fellow, UC Berkeley

[kimberly.lapierre@berkeley.edu](mailto:kimberly.lapierre@berkeley.edu)

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Looking around the beautiful hills of the Bay Area, where I grew up, I always loved seeing plants of all types. But what are these plants? Many are invasive species that are bad for farmers, ranchers, and people who just want to enjoy nature. My job as a scientist at UC Berkeley is to understand where these plants come from, what allows them to invade our landscape, and how to prevent them in the future.

**Kimberly Long**

Tables 7, 8, 9

Graduate Student, BASIS

[kimlong716@gmail.com](mailto:kimlong716@gmail.com)

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I am a graduate student in neuroscience studying what happens to the brain when you're stressed. Specifically, I'm looking at how stress that happens to a person early in life can affect their brain development and how they react to stress in adulthood. I first started to love science when I was little and my grandpa gave me a small microscope kit for my birthday. I used to take leaves and water samples from my backyard to try to observe them up close!

**Laura Verduzco**

Tables 3, 1, 2

Lead Planning Engineer,  
Chevron Energy Technology Center

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I am currently working as a Lead Planning Engineer in the low carbon technologies group of Chevron Energy Technology Company. My job is to help assess global climate change and provide technical and strategic guidance to the Corporation. My projects include mitigation of and adaptation to climate change, greenhouse gas lifecycle assessment of fuel products, adaptation to climate change, wind energy technologies, and hydrogen for transportation, among others.

**Leslie Storer**

Senior Keeper, Oakland Zoo

Tables 6, 4, 5

[LSTORER@OAKLANDZOO.ORG](mailto: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.

**Liz Buzzard**

Packaging Scientist, The Clorox Company

Tables 15, 13, 14

[zzbuzz10@gmail.com](mailto:zzbuzz10@gmail.com)

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I am a packaging development scientist, and I love conducting experiments on new materials and sketching new packaging designs. I earned my Bachelor of Science degree from the University of Illinois in Materials Science and Engineering. In elementary school I loved building forts, reading, playing sports, and mixing random ingredients together in the kitchen. I love science, because it allows us to be detectives and solve mysteries and problems. It gives us clues as to why something happened and/or how things work!

**Misha Leong**

Graduate Student Researcher, UC Berkeley

Tables 13, 14, 15

[mishaleong@berkeley.edu](mailto:mishaleong@berkeley.edu)

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As an insect ecologist, I get to ask a lot of questions about insects and how they adjust to life in a changing world. I've always been fascinated by insects and spiders. Despite being all around us, they are easily overlooked animals that play critical roles in the functioning of ecosystems. I am currently at UC Berkeley, wrapping up a project on California bees.

**Natalie Winkler**

Scientist 1, The Clorox Company

Tables 21, 22, 19

[natalie.winkler@clorox.com](mailto:natalie.winkler@clorox.com)

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I am a graduate from the Michigan State University School of Packaging with a specialization in Environmental Studies. I love science because it allows you to think critically and creatively! You can think outside the box to solve problems and see how things work. As a kid I loved to get my hands dirty and really get involved with things to help be better understand things in the classroom. I think science is a very important part of life and all people should get involved.

**Phoebe Leppla**

Tables 2, 3, 1

R&D Senior Scientist,  
The Clorox Company[Phoebe.Leppla@Clorox.com](mailto:Phoebe.Leppla@Clorox.com)

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I've always loved science, and it was an inspirational high school science teacher who encouraged me to study science in college. I went to the University of Wisconsin and studied Chemical and Biological Engineering. I then took a job at Clorox as an R&D Scientist and have been there ever since. I have worked in the Process Scale-up and Packaging Development groups, and currently in Product Development in our Cleaning Products Division.

**Rachel Henderson**

Tables 16, 17, 18

Science Consultant and Instructor,  
UC Berkeley Extension[rhenderson@berkeley.edu](mailto:rhenderson@berkeley.edu)

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I became interested in biology in 8th grade when I learned about evolution and was amazed by how it shapes all the different kinds of life forms – from single celled creatures to people. I became fascinated specifically by how the brain grows and develops, so I went on to earn a PhD in Neuroscience from Stanford. I am a science educator who has worked to help Berkeley students from all different backgrounds become scientists.

**Rosemary Romero**

Tables 1, 2, 3

Graduate Student, UC Berkeley, Museum of  
Paleontology[rromero@berkeley.edu](mailto:rromero@berkeley.edu)

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I am a graduate student at UC Berkeley where I study seaweeds and the animals that eat them. I became a marine biologist because I loved exploring tide pools when I was a kid. I learned to SCUBA dive when I was an undergraduate at UC Santa Cruz and have been interested in seaweeds since my first dive in a kelp forest.

**Sarah Bell-West**

Tables 17, 18, 16

Scientist II, The Clorox Company

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I'm always excited about science related to human health. For my PhD, I studied chemistry and biology at UC Berkeley where I studied ion channels, the proteins involved in transmitting electrical signals in living organisms. I wanted to develop new solutions for real-life problems, so I decided to work in industry. I'm currently a scientist at Clorox where I work with hospitals to provide solutions to keep these environments clean and free of disease-causing pathogens.

**Sowmya Ravikumar**

Tables 19, 20, 21

Postdoctoral Researcher, UC Berkeley

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I am an optometrist by training. I started doing research on how well the eye focuses an image. This work was done for my thesis at Indiana University. I have since worked on how well the two eyes work together. I am working on how eyes develop near-sightedness and what happens to the structure and vision when eyes grow out of proportion.



## ***Participating Schools***

*Acorn Woodland Elementary, Brookfield Elementary,  
Carl Munck Elementary, Community United Elementary,  
East Oakland Pride Elementary, EnCompass Academy, Esperanza Elementary,  
Futures Elementary, Grass Valley Elementary, Greenleaf Elementary,  
Howard Elementary, Korematsu Discovery Academy,  
Markham Elementary, New Highland Academy,  
Parker Elementary, Reach Academy, RISE Community School,  
Sobrante Park Elementary*

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## **Acknowledgements**

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#### Oakland Zoo

*Bo De Long-Cotty, Chantal Burnett, and the Education Department  
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#### Volunteer Scientists

##### *Elizabeth Donald*

*Arun Agarwal, Carrie Clark, Christoph Maurath, Colton Leppink,  
Desiré Whitmore, James Valenti-Jordan, Jenna Judge, Jesyka Melendez-Rosa,  
Kate Alfieri, Kate Nichols-Smith, Kimberly La Pierre, Kimberly Long,  
Laura Verduzco, Leslie Storer, Liz Buzzard, Misha Leong,  
Natalie Winkler, Phoebe Leppla, Rachel Henderson, Rosemary Romero,  
Sarah Bell-West, Sowmya Ravikumar,*

#### Oakland Unified School District

##### *Gary Yee*

##### *Maria Santos*

*Caleb Cheung, Christine Chen, Claudio Vargas,  
Duffy Ross, Julia Feldman, LaTanya Smith, Liz Martin,  
Liz Woodward, Marilu Boytes, Ricky Logan, Sara Rusche,*

#### Other

*Elise Zolczynski, Community Resources for Science (Setup)  
Howard Ruffner (Photography)  
Espresso Gourmet (Catering)*

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