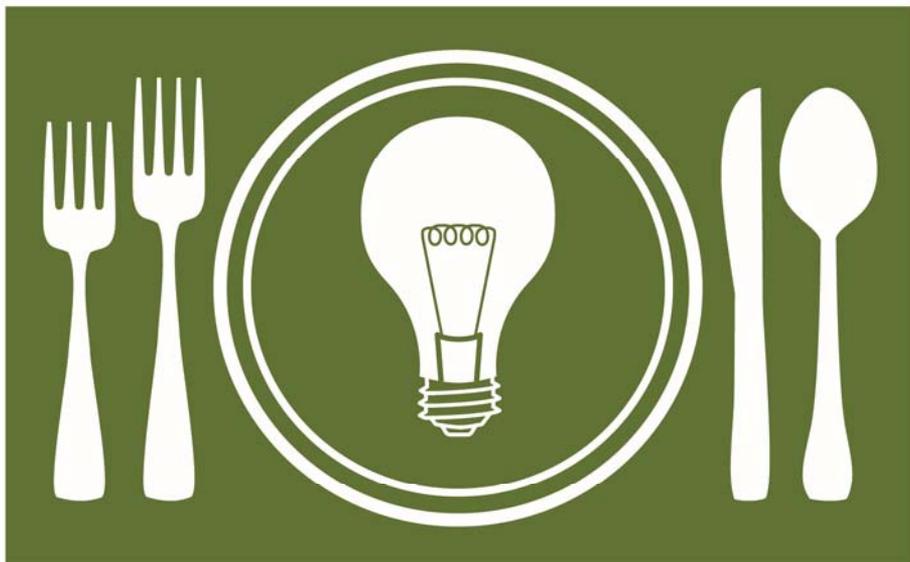


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Oakland Unified School District



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

May 1, 2013, 5-8 pm

Welcome to Oakland Unified School District's fifth 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 Seating (*table # on name tags*)
- Welcome & Ice Breaker  
*Caleb Cheung, Science Manager, OUSD*
- Welcome  
*Tony Smith, Superintendent, OUSD*  
*Jody London, Board of Directors, OUSD*  
*Bo De Long-Cotty, Director of Education, Oakland Zoo*  
*Blair Blackwell, Senior Specialist, Chevron Corporation*
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote  
*Elizabeth Donald, Senior Scientist, 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

- Turbulent 530 nm Salad with Various Suspensions & Emulsions  
*Triticum* Globules with Lipid Spread  
*Malus domestica* Extract
- Dihydrogen Monoxide in Two States with Citrus Accents  
Sodium Chloride & *Piper nigrum*  
Steamed Random Plant Parts  
*Oryza sativa* Seeds & Plant Material
- Grilled *Gallus gallus* with *Allium cepa* & Fungus
- Herbaceous Durum Forms with *Solanum lycopersicum* 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!

### Abby Knight

Table 20, 21, 22

Graduate Student, UC Berkeley, Chemistry

aknight@berkeley.edu

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I am a graduate student at UC Berkeley studying chemistry. Specifically, I am developing materials for water remediation. Ever since I was little I've been fascinated by science. I attended college at the University of North Carolina. There, I realized that what is important to me is working on things that are both interesting and have the potential to help people.

### Alan Poon

Table 9, 7, 8

Staff Scientist, Lawrence Berkeley National Lab

awpoon@lbl.gov

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I have been a physicist at Lawrence Berkeley National Lab since 1998. My research focuses on a tiny subatomic particle called neutrinos. I have performed experiments in various countries, including Canada, Germany, Japan, and the US. I chose a career in physics because of the influence of a few great mentors I had when I was a student in Canada.

### Allie Obermeyer

Table 8, 9, 7

Graduate Student, UC Berkeley, Chemistry

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I am a graduate student at UC Berkeley studying chemistry. Specifically, I am developing materials for detection of heart disease. Ever since I was little I've been fascinated by science. I attended college at Rice University in Houston, TX. There, I realized that what is important to me is working on things that are both interesting and have the potential to help people.

**Amrita Hazra**

Table 11, 12, 10

Postdoctoral Scholar

UC Berkeley, Plant &amp; Microbial Biology

amritah@gmail.com

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As a child, I loved listening to stories. My mother, who is a plant scientist, told me stories about the experiments in her laboratory - how mutants are made, the gene gun she used, and how plant and animal cells are different. It was fascinating, and I wanted to do it all myself! After an undergraduate degree in Chemistry, I completed a PhD at Cornell University studying vitamin synthesis, and am now a postdoc at UC Berkeley studying how bacteria makes these vitamins.

**Ann-Marie Madigan**

Table 18, 16, 17

Postdoctoral Researcher

UC Berkeley, Astrophysics

ann-marie@berkeley.edu

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I am a NASA Einstein Fellow at UC Berkeley. I research how stars move around supermassive black holes in the centers of galaxies. Some of these stars, if they get too close to the black hole, can be ripped apart or even swallowed whole! I love being a scientist because I get to discover new things about our crazy universe.

**Arun Agarwal**

Table 6, 4, 5

Scientist, The Clorox Company

arun.agarwal@clorox.com

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I am a scientist at the Clorox Company where I use large magnets (Nuclear Magnetic Resonance) to understand how chemical molecules look, move and interact with one another. Understanding the chemistry behind products and how to improve them, by working in a collaborative environment, is what I enjoy doing the most. Science is fascinating, challenging and satisfying! Chemistry helps us understand many fundamental and applied processes taking place in our planet and beyond.

**Chessa Scullin**

Table 19, 20, 21

Researcher, Sandia National Laboratories

csscullin@lbl.gov

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I have always loved math and science. I graduated from college with a degree in chemical engineering and worked as an intern in a material science laboratory. I earned my PhD in biomedical science where I studied the how the brain develops and the role of calcium in learning and memory. I currently work in a biofuels laboratory where I convert algae to chemicals. I believe anyone has the ability to learn anything.

**Christine Beavers**

Table 17, 18, 16

Beamline Scientist

Lawrence Berkeley National Lab, ALS

[cmbeavers@lbl.gov](mailto:cmbeavers@lbl.gov)

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I am a beamline scientist at Lawrence Berkeley National Lab. I grew up in the Bay Area and I received my BS and PhD from UC Davis in Analytical Chemistry. I have always enjoyed looking at how things work, and taking them apart. In my job, I work with the Advanced Light Source and get to see the 3-D structure of molecules that no one has seen before.

**Erinn Godfrey**

Table 15, 13, 14

Project Coordinator

The Energy Coalition

[egodfrey@energycoalition.org](mailto:egodfrey@energycoalition.org)

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I graduated from Cal State East Bay with a Bachelor of Arts in Environmental Studies and Program Certification from the UC Berkeley Extension in Sustainable Design. My background includes 14 years of service as a Science Teacher and Senior Coordinator for environmental educational programs. I believe everyone is a scientist and encourage students to actively observe, explore, invent and share every given moment!

**Helen Budworth**

Table 10, 11, 12

Project Scientist

Lawrence Berkeley National Laboratory

[hbudworth@lbl.gov](mailto:hbudworth@lbl.gov)

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I was always fascinated with the workings of the human body and wanted to get at the details of how we are organized and how we function in the way that we do. I studied Genetics and then Biochemistry at Oxford University in England. Today, I get to work with cells and tissues from different areas of the body, including blood, skin and brains and I am able to see how things work at even the most detailed level.

**Jeff Clarkson**

Table 5, 6, 4

R&amp;D Engineer

UC Berkeley, Marvell Nanofabrication Laboratory

[jpc6204@yahoo.com](mailto:jpc6204@yahoo.com)

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I holds a PhD in Materials Science from the University of Rochester and am working in the field of nanotechnology at UC Berkeley. I have researched solar cells, nuclear batteries, transistors, chemical and biological sensors, pressure sensors, and electronics for space flight applications. Growing up I was very interested in car audio systems and wanted to learn more about electronics and circuits. I decided to go into the field of science because I enjoy experimenting with new ideas that can be used to improve our daily lives.

**Jeffery Seitz**

Table 12, 10, 11

Professor

California State University East Bay

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 geochemist 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 science.

**Katherine Copic**

Table 21, 22, 19

Staff Scientist

Lawrence Berkeley National Lab, Physics Division

kcopic@lbl.gov

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I am a physicist at Lawrence Berkeley National Laboratory who looks at data taken by the ATLAS detector from the Large Hadron Collider near Geneva, Switzerland, to learn more about the smallest things in the universe. Inside atoms are protons, neutrons, and electrons. I study quarks- the particles that make up protons and neutrons. So far, scientists have discovered six kinds of quarks. We think there might be more!

**Maynard Holliday**

Table 3, 1, 2

Robotics Engineer

Sandia National Laboratories

mhollid@sandia.gov

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I am a senior engineering and robotics professional. Using my knowledge of robotics and intelligent machine systems, I have published and presented my work internationally over the past 25 years. In addition, I won a scholarship to Stanford University and to the International Space University in France!

**Michael Coyle**

Table 14, 15, 13

Graduate Student

UC Berkeley, Chemistry

coylem@berkeley.edu

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I am a graduate student at UC Berkeley developing new ways to study how cells in the body send chemical messages to each other. When I was in grade school, I loved reading about dinosaurs and astronomy and decided to make a career out of chemistry in college. I love that I get to learn something new every day and understand how the world works.

**Natasha Naidoo**

Table 16, 17, 18

Graduate Student

UC Berkeley, Molecular &amp; Cell Biology

naido20n@berkeley.edu

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Science has taken me all over the world; from field work in South Africa to training Big Cats in Florida. In college I majored in Biology and Geography. The two subjects helped me realize that diversity in science sparks the innovations that will change the world. Now, I'm learning how to create innovations as a first year graduate student at UC Berkeley.

**Pat Zambryski**

Table 22, 19, 20

Professor

UC Berkeley, Plant &amp; Microbial Biology

zambrysk@berkeley.edu

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I grew up in Montreal Canada and fell in love with biology because of a superb high school teacher. I majored in Genetics at McGill University in Montreal and went to graduate school in at University of Colorado at Boulder studying Molecular Biology. I completed postdoctoral studies in animal tumor biology at UC San Francisco, and post-postdoctoral studies in plant tumor biology at the University of Gent in Belgium. I have studied plants and microbes at UC Berkeley since 1986.

**Patrick Hilton**

Table 7, 8, 9

BASIS Program Coordinator

Community Resources for Science

volunteer@crscience.org

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I have used science as a Paramedic, Veterinarian Technician, Wildlife Biologist, Filmmaker, and Teacher. This includes bringing people back from the dead, operating on endangered species, rescuing sea lions, and helping people improve their lives! I have an Associate's in Criminal Justice, a certificate in Paramedicine, and a Bachelor's in Evolution, Ecology, and Biodiversity. Science helps me understand the world and protect the environment. I am inspired by the way that everything in the universe is interconnected.

**Romy Chakraborty**

Table 13, 14, 15

Scientist

Lawrence Berkeley National Lab

rchakraborty@lbl.gov

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I am a microbiologist who studies microbes that inhabit soil, oil spill contaminated ocean water and beach, heavy metal contaminated sediment and groundwater, permanently frozen soil and even plant roots and leaves. These microbes play a critical role in climate change, in biodegradation of toxic wastes, and in the discovery of unique and new functions and products. I earned my PhD from UC Berkeley in 2005 and currently work as a scientist at Lawrence Berkeley Labs.

**Sarah Richardson**

Table 2, 3, 1

Distinguished Postdoctoral Fellow

Lawrence Berkeley National Laboratory

Joint Genome Institute

smrichardson@lbl.gov

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When I was a little girl in Baltimore, I wanted to explore outer space and find aliens. Then I discovered that bacteria is the strangest living thing on earth. Now my job is to 'train' bacteria to solve human problems. This is similar to the way we use horses to travel and cats to catch mice. I am studying how to use bacteria to make fuel or clean up oil spills. While it seems like an odd idea, we already use them to make foods like bread and cheese!

**Simona Zompi**

Table 1, 2, 3

Scientist &amp; Physician

UC Berkeley

simona.zompi@gmail.com

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I am a Medical Doctor and Scientist specializing in Immunology. I study how the human body fights infections, especially viral infections such as Dengue virus and HIV. I grew up in Italy and studied in France. I worked in Africa, Asia and Latin America to help set up better health care systems and I am now directing the Center for Global Public Health at UC Berkeley.

**Terry Hermiston**

Table 4, 5, 6

Vice President, Biologics Research

US Innovation Center Site Head

Bayer HealthCare

terry.hermiston@bayer.com

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I lead the Biologics Research group for the US division of Bayer HealthCare and serve as the Head of the Bayer HealthCare US Innovation Center. My work focuses on developing drugs for unmet medical needs. I received my PhD at the University of Iowa in Medical Microbiology, specializing in Medical Microbiology and the study of Molecular Virology, studying Human Cytomegalovirus, the leading known cause of birth defects.

## Participating Schools

ASCEND, Barack Obama Academy, Castlemont High School  
Claremont Middle School, Edna Brewer Middle School  
Fremont High School, Madison Middle School  
Melrose Leadership Academy, Montera Middle School  
Oakland International High School, Oakland Technical High School  
Roosevelt Middle School, Roots International Academy  
Skyline High School, United For Success Academy  
Urban Promise Academy, Westlake Middle School

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Volunteer Scientists  
*Abby Knight, Alan Poon, Allie Obermeyer, Amrita Hazra*  
*Ann-Marie Madigan, Arun Agarwal, Chessa Scullin, Christine Beavers*  
*Elizabeth Donald, Erinn Godfrey, Helen Budworth, Jeff Clarkson, Jeffery Seitz*  
*Katherine Copic, Maynard Holliday, Michael Coyle, Natasha Naidoo*  
*Pat Zambryski, Patrick Hilton, Romy Chakraborty, Sarah Richardson*  
*Simona Zompi, Terry Hermiston*

Oakland Unified School District  
*Tony Smith*  
*Jody London*  
*Caleb Cheung, David Avery, Laura Binczak, Phil Cotty*  
*Park Guthrie, Ricky Logan, Liz Martin, Nancy Midlin*  
*Duffy Ross, Claudio Vargas, Elizabeth Woodward*  
*Wilma Enriquez, Marilu Boytes, Marisol Boytes, Tasha Russell*

Other  
*Kishore Hari (Setup)*  
*Howard Ruffner (Photography)*  
*Espresso Gourmet (Catering)*