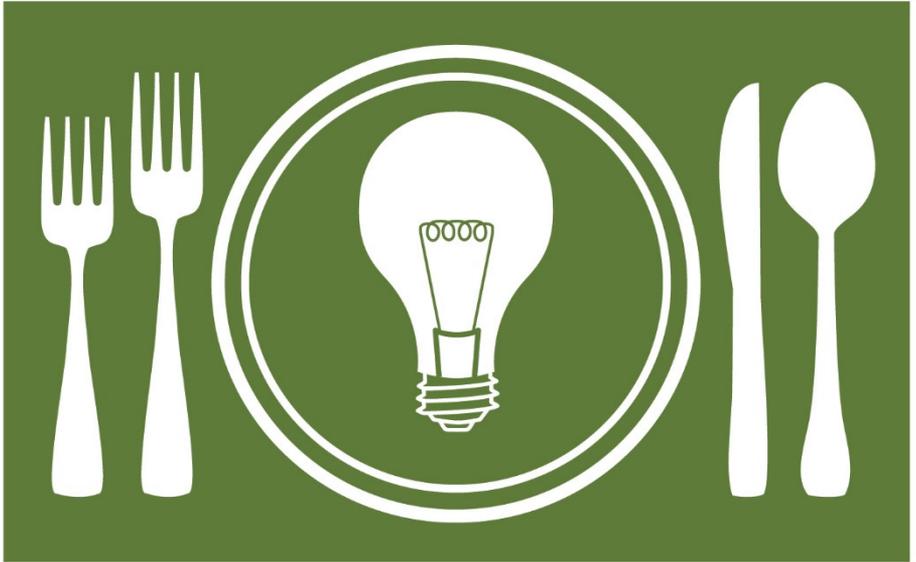

Oakland Unified School District



DINNER with
a **SCIENTIST**

April 30, 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, 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

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
- Brendan Papciak*
Community Programs Manager, Oakland Zoo
- Nicole Rigg*
Global Social Investment Advisor, Chevron Corporation
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote
Sarah Richardson
Distinguished Postdoctoral Fellow,
Lawrence Berkeley National Laboratory
- 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

Sarah Richardson

Keynote

Distinguished Postdoctoral Fellow,
Joint Genome Institute,

Lawrence Berkeley National Laboratory, smrichardson@lbl.gov

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!

Ali Slavens

Tables 18, 16, 17

Scientist, The Clorox Company

alexandra.slavens@clorox.com

I recently graduated from the University of Southern California where I studied Mechanical Engineering. My senior project investigated how wind generated by fast moving cars on freeways could be captured to create energy. This application of science to every day events is why I became interested in Mechanical Engineering!

Amrita Hazra

Tables 17, 18, 16

Postdoctoral Researcher, UC Berkeley

amritah@gmail.com

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.

Annie Kersting

Tables 12, 10, 11

Director, Seaborg Institute

Lawrence Livermore National Laboratory

kersting1@llnl.gov

I direct research in the area of environmental chemistry and nuclear forensics. I am a geologist and chemistry by training. I stayed in school to get my PhD because I like learning. I liked math and science, and learning about the world around me. Science is fun and I want to use it to help improve our environment.

Carolyn Walsh

Tables 8, 9, 7

Graduate Student, UC Berkeley/BASIS

I'm a first-year graduate student in the molecular and cell biology program at UC Berkeley. I love science because it gives me the opportunity to work on fascinating projects with interesting people while giving back to my community!

Chris Reeves

Tables 16, 17, 18

Senior Scientist, Amyris, Inc

reeves@amyris.com

When I was a kid, my friends and I built cool devices or explore nature with the help of adults who also loved science. I got my Bachelor's degree in biochemistry from UC Berkeley. While working on my PhD at UC San Diego, I shifted from chemistry to molecular biology. Now, I have worked in three biotech companies over the past 25 years. Currently, I work at Amyris, where we engineer yeast to produce large quantities of useful material.

Christine M. Beavers

Tables 9, 7, 8

Beamline Scientist, Advanced Light Source,
Lawrence Berkeley National Labcmbeavers@lbl.gov

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.

Damon Tighe

Tables 4, 5, 6

Curriculum Training Specialist,
Bio-Rad Laboratoriesdamon_tighe@bio-rad.com

I went into science because I was curious about how to fix problems in human health. Coming from a very poor community, a career in science had the extra benefit of bring stability to my life. I have a BS in Biology and Chemistry from Saint Mary's College of California. I have also studied film and business. I worked on the Human Genome Project and developed techniques for DNA amplification and sequencing at the National Labs. I currently work at Bio-Rad Labs as a Curriculum Training Specialist.

Douglas Merian

Tables 6, 4, 5

Packaging Developer, The Clorox Company

I graduated from Michigan State University with a degree in Packaging Science. I then moved to California to work for The Clorox Company in the Packaging Research & Development group. Packaging development balances art, science, and functionality and there are many challenges to solve along the way!

Howard Matis

Tables 15, 13, 14

Staff Physicist,

Lawrence Berkeley National Laboratory

hsmatis@lbl.gov

I am a Physicist at Lawrence Berkeley National Laboratory. I earned my BS from Rensselaer Polytechnic Institute and my PhD from the University of Chicago. I do most of my research using accelerators, a large machine that allows scientists to study sub-atomic particles. Presently I am working at an accelerator in New York and at Switzerland's Large Hadron Collider. I have also worked at the South Pole to observe neutrino production from outer space.

Jared Heymann

Tables 7, 8, 9

Senior Scientist, The Clorox Company

jared.heyman@clorox.com

I grew up in rural Pennsylvania and was the first in my family to graduate from college, ultimately earning a Ph.D. in chemistry from Duke University. I have always been interested in understanding how things worked and trying to find creative solutions to make things work better. Now, my job at Clorox is to use chemistry to improve and develop products to help millions of people clean their homes more quickly, easily, and safely.

Jessica Almeida

Tables 3, 1, 2

Latent Print Examiner,

Oakland Criminalistics Laboratory

jalmeida@oaklandnet.com

I specialize in observing the tiny minutiae present on the friction ridge skin of our hands and feet. Latent (invisible) prints are chance impressions we may or may not leave behind when we touch a surface. This area of work encompasses many sciences including biology, embryology, anatomy, anthropology, and genetics to name a few. In my job, I testify in court as an expert in this science for mostly criminal cases.

Jonathan Weisman

Scientist, The Clorox Company

Tables 10, 11, 12

jonathan.weisman@clorox.com

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.

Kaitlin Lawler

Product Development Scientist, The Clorox Company

Tables 13, 14, 15

I received my Bachelor of Science in Chemical and Biomolecular Engineering at Georgia Tech. Currently I am a scientist doing product development for Clorox, specifically working with kitty litter. In high school, I enjoyed chemistry and other sciences because I got to discover how the world worked while doing hands-on activities. The best part about being a scientist is that I get to play around in a lab and learn something new every day.

Katie Pfeiffer

Graduate Student, UC Berkeley

Tables 5, 6, 4

kpfeif@gmail.com

I am a graduate student at UC Berkeley in the field of Chemical Engineering. My job is to develop new technologies that allow us to use grass, wood, waste paper, and other biomass to produce renewable fuels. I work in science and engineering because it is one way to address problems in our society and make people's lives better. It is important to have people of diverse backgrounds working in science because that different perspectives helps us ask better questions and discover better solutions.

Kayla Carpenter

Microbiologist II, The Clorox Company

Tables 1, 2, 3

kayla.carpenter@clorox.com

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!"

Lilah Rahn-Lee

Postdoctoral Researcher, UC Berkeley

Tables 11, 12, 10

lrahnlee@berkeley.edu

My first day of high school, I liked physics more than biology. In the end, I preferred biology, earning my PhD from Harvard University. I specialize in studying bacteria, tiny single-celled creatures that can coordinate complex and amazing behaviors. I am currently working at UC Berkeley finding out how some bacteria are able to build magnets and use them as compass needles to navigate the world.

Lindsey Dougherty

Graduate Student, UC Berkeley

Tables 14, 15, 13

lindseydougherty@berkeley.edu

I am a graduate student at UC Berkeley studying how animals in the ocean use color and light to communicate with each other. Growing up in land-locked Colorado, I didn't get much exposure to the ocean until I was certified as a SCUBA diver when I turned 15. Ever since, my love for the ocean led me to live in Australia, teach diving in Zanzibar, and to conduct reef research in Indonesia.

Monica Lin

Graduate Student, UC Berkeley-UCSF

Tables 2, 3, 1

monica.lin@berkeley.edu

I was first introduced to science through events like this! I remember extracting DNA from strawberries in an afterschool science program, and catching and observing tadpoles in the neighborhood creek. Now that I'm a graduate student studying Bioengineering, I work on building medical devices with engineers and doctors to solve clinical problems. The best part is knowing that you can improve or save someone's life.

Rebecca Bowman

Project Manager, The Clorox Company

Tables 19, 20, 21

rebecca.bowman@clorox.com

I have always loved math and science and asking the questions "why" or "how." I graduated from Howard University with a degree in Chemical Engineering. Now as a Product Manager for Clorox, I work with teams of people to bring new ideas to the shelves. I love being an Engineer because my questions of "why" and "how" are being answered - by me!

Sara Branco

Postdoctoral Researcher, UC Berkeley

Tables 20, 21, 22
sara.mayer.branco@gmail.com

I love mushrooms. Have been studying fungi since I was 16 years old and have traveled the world looking for them. Scientists only know 5% of all the fungal species in the world. I completed my PhD at the University of Chicago and am currently a researcher at UC Berkeley studying how mushroom populations adapt to different environments.

Sean DavidsonMedical Device Engineer,
JFK University School of LawTables 21, 22, 19
SeanC.Davidson@gmail.com

I studied Mechanical Engineering in college. Then, I spent 13 years as a medical device development engineer specializing in Nitinol applications. Nitinol is a nickel-titanium alloy with super elastic and shape-memory properties. It is used in many devices including guide wires, heart valves, and dental tools. I'm now studying law because I want to take my scientific knowledge and experience and help protect the inventions that people and companies create by focusing on patent and intellectual property law.

Tara Burkhart-Grove

Sr Associate Scientist, Amyris, Inc

Tables 22, 19, 20
taragreentree@yahoo.com

I graduated from UC Davis with a BS in Environmental Toxicology. My first job was working at an environmental testing laboratory that tested ground water, drinking water and soil contamination from building sites, schools and parks in a rural community. Results from our testing were used in a law suit to prove that a big power company polluted, making lots of people sick. Now, I work for a company that engineers yeast to make more sustainable products from sugar instead of from animals or plants. I develop analytical methods on intricate machines to test the purity of our products. I particularly like how science can make our world healthier and more sustainable.

Participating Schools

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

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Chris Reeves, Christine M. Beavers, Damon Tighe, Douglas Merian
Howard Matis, Jared Heymann, Jessica Almeida, Jonathan Weisman
Kaitlin Lawler, Katie Pfeiffer, Kayla Carpenter, Lilah Rahn-Lee
Lindsey Dougherty, Monica Lin, Rebecca Bowman, Sara Branco
Sarah Richardson, Sean Davidson, Tara Burkhart-Grove

Oakland Unified School District
Caleb Cheung, Christine Chen, Claudio Vargas
David Avery, Julia Feldman, LaTanya Smith, Liz Woodward
Marilu Boytes, Park Guthrie, Phil Cotty, Ricky Logan
Tasha Russell, Thom Reinhardt

Other
Teresa Barnett, 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>