
Oakland Unified School District



DINNER with
a **SCIENTIST**

May 31, 2012, 5-8 pm

Welcome to Oakland Unified School District's fourth 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 Seating (*table # on name tags*)
- Welcome & Ice Breaker
Caleb Cheung, Science Manager, OUSD
- Welcome
Tony Smith, Superintendent, OUSD
Dr. Joel Parrott, Executive Director, Oakland Zoo
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote
Colleen Kinzley, General Curator, Oakland Zoo
- 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: Fried *Cicer arietinum* balls with *Triticum durum* salad
with chopped *Mentha*, *Allium*, and seasonings
Heat-Treated Cacao Carbohydrate Solids with Ripened Plant Ovaries

Scientist Biographies

Colleen Kinzley

General Curator, Oakland Zoo

Keynote

colleen@oaklandzoo.org

I am the General Curator at the Oakland Zoo. I have an MS in biology and I have worked at the Oakland Zoo for the past 20 years and I have always been interested in animals. I study elephant behavior in Namibia, Africa. During tonight's event, I will be sharing my research about male elephants.

Alyssa Rosenbloom

Graduate Student, UC Berkeley

Table 1, 2, 3

kadiya3@berkeley.edu

I am a PhD candidate in the Bustamante Lab at UC Berkeley. I completed my BS in Genetics and Biochemistry at Texas A&M University. I went into science in order to find things out about the world that were previously unknown or not well understood. I became interested in science during high school in my AP Biology course, especially when we studied genetics in fruit flies!

Arun Agarwal

Scientist II, The Clorox Company

Table 2, 3, 1

arun.agarwal@clorox.com

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.

Ashley Gibb

Graduate Student Researcher, UC Berkeley

Table 5, 6, 4

ashleygibb@berkeley.edu

I am a graduate student researcher at UC Berkeley working on designing new nanomaterials which are very, very small particles. I studied chemistry in college, but now work on problems in physics, chemistry and materials science. Occasionally, I get to see atoms! In between college and graduate school I spent a year living and teaching in Indonesia. While there I was able to travel around the country and experience many different cultures, languages and environments!

Buddy Betts

Lead Engineer, Trion Worlds

Table 6, 4, 5

b_betts@yahoo.com

I am an engineer at Trion Worlds, an electronic entertainment company that makes video games. For as long as I can remember I have loved video games. They can be used for relaxation, education and just plain fun! After studying computer science at the University of Waterloo I worked at Electronic Arts on various games including James Bond, Spore, and Lord of the Rings. Now I work on the MMORPG Rift at Trion Worlds.

Christie Canaria

Research Scientist,

Lawrence Berkeley National Laboratory

Table 4, 5, 6

CACanaria@lbl.gov

I am a Research Scientist who runs a microscope lab that studies brain disorders like Huntington's Disease. I started working in labs in high school and then earned a BS in chemistry at UC San Diego and a PhD at the California Institute of Technology.

Desiré Whitmore

Postdoctoral Researcher, UC Berkeley

Table 8, 9, 7

laserchick@berkeley.edu

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.

Donielle JohnsonSenior Regulatory Affairs Specialist,
Abbott Vascular

Table 11, 12, 10

donielle.johnson@av.abbott.com

I am a scientist at Abbott Vascular company in Santa Clara. Prior to this position, I worked as a clinical specialist and regulatory affairs associate living in Minneapolis, MN, Santa Rosa, CA, and Japan. I fell in love with science because of my 9th grade teacher Mrs. Ben. She was the first teacher to ever challenge my mind. My love of science continued through high school as I had great mentors and teachers who nourished my curiosity. Eventually, I earned degrees from Howard University and University of Southern California.

Heather Bruce

Postdoctoral Candidate, UC Berkeley

Table 7, 8, 9

hbruce@berkeley.edu

I am a PhD student at UC-Berkeley studying genetic programs and how they build an entire animal. Changes can lead to the development of new organisms. My parents were not scientists and I did not have a lot of money growing up, but with a lot of hard work, I am able to study what fascinates me most – all the different animals in the world. What's great about being a scientist? My labmates are hilarious, I get to keep little crustaceans as pets, and they pay me to learn about animals!

Helen Budworth

Biochemist Project Scientist,

Lawrence Berkeley National Laboratory

Table 28, 29, 26

HBudworth@lbl.gov

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.

Jamie Valenti-Jordan

Project Engineer,

Del Monte Foods

Table 9, 7, 8

james.valenti-jordan@delmonte.com

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.

Kayla Carpenter

Microbiologist, The Clorox Company

Table 10, 11, 12

kayla.carpenter@clorox.com

I'm originally from Arizona where I went to the U of A. There, I earned my bachelor's and master's degrees studying germs in the world around you. I was always interested in science and what makes things the way they are. When other little girls were dressing up as princesses, I was a mad scientist. I always imagined myself in a dungeon somewhere with fancy glassware full of bubbling liquids screaming "It's alive! It's ALIIIIIIIVE!"

Kelsey Kornaus

Process Developer,
The Clorox Company

Table 14, 15, 13

kelsey.kornaus1@clorox.com

I am a Process Engineer at the Clorox Company focused on our Cat Litter business. I went to college for Chemical Engineering at the University of Wisconsin- Madison. I love challenges, experimenting and figuring out new things. That's why science, math and engineering are so exciting to me!

Kevin Metcalf

Graduate Student, UC Berkeley

Table 17, 18, 16

kjmetcalf@berkeley.edu

I am a graduate student in chemical engineering at UC Berkeley. I study bacteria, which are very small organisms that live almost everywhere, even inside you! Even though bacteria are very small, they can do very big things. The bacterium that I work with is called Salmonella enterica, which causes food poisoning and typhoid fever by secreting protein. I am studying protein secretion to understand what makes Salmonella such a bad bug.

Lisa Fernandez

Graduate Student, UC Berkeley

Table 3, 1, 2

fernandez@berkeley.edu

I am a graduate student at UC Berkeley studying ladybugs in food crops. Ladybugs are beneficial insects because eat harmful pests that destroy crops. I conduct experiments that help determine what harms or helps ladybugs. I love science because it involves doing many of my favorite things: being outdoors, learning about plants and animals, and exploring.

Maria Schriver

Graduate Student, UC Berkeley

Table 29, 26, 27

schriver@berkeley.edu

I am a graduate student at UC Berkeley working in a lab building solar cells. I am excited to be a scientist because it allows me to make game-changing contributions to the energy field, where advances in technology are desperately needed in order to ensure adequate energy for all of our societal needs while preserving the environment. I like science because it helps you understand everything and it allows me to solve big problems.

Michael A. Fisher

Table 13, 14, 15

Postdoctoral Scholar,

UC Berkeley, Energy Biosciences Institute

mikefisher@berkeley.edu

I earned my doctorate in molecular biology from Princeton University in 2009 and currently work as a researcher at the UC Berkeley Energy Biosciences Institute. As an undergraduate attending The College of New Jersey, I was drawn to research science due to the potential for advances in science and technology to greatly improve our society. I enjoy the positive energy, camaraderie, and counterculture spirit of my scientific field.

Patricia Lopes

Table 16, 17, 18

Graduate Student, UC Berkeley

pclopes@berkeley.edu

I am a graduate student at UC Berkeley studying animal behavior and reproduction. I am very interested in understanding why some animals delay their own breeding in order to help raise their siblings. I currently study birds in South Africa. My mother instilled in me a great love for animals and the natural world. We always had lots of animals around my house! But it was my 11th grade biology teacher who inspired me to be a scientist!

Rachel Pepper

Table 12, 10, 11

Postdoctoral Research Fellow,

UC Berkeley

rachel.pepper@berkeley.edu

I am a physicist at UC Berkeley, and I study how fluids (like water) move. In the past I've studied splashing, similar to what happens when a rain drop hits the ground. Now I study how tiny organisms move the water around them to get enough to eat. I got my Ph.D. at Harvard, and worked for two years at the University of Colorado studying how people learn physics before I moved to Berkeley. I decided to go in to physics because I like to understand how things work.

Roland Gangloff

Table 15, 13, 14

Retired Professor & Visiting Scholar,

UC Berkeley, Museum of Paleontology

rgangloff38@gmail.com

I am a paleontologist with a PhD from UC Berkeley. Though officially retired, I am still writing about my work and the experiences that I have been fortunate to have. I began my research career looking at the Cambrian, but fate took me to Fairbanks, Alaska and many years of field work studying Arctic dinosaurs. As a young boy, I was a rockhound and that has stayed with me - the rocks hold amazing stories.

Sandra Lee-Takei

Table 19, 20, 21

Science Educator, Community Resources for Science Sandra@crscience.org

I am a science educator with Community Resources for Science where I work with scientists to help explain their research to elementary school students. In a previous life I studied how plants respond to stresses to pollution in the environment. My love of science began when I found some nasturtium seeds on the sidewalk and my mother let me plant them in our garden. These seedlings became the foundation for many future science experiments and science fair projects.

Sandy Miarecki

Table 23, 24, 25

Physicist,

Lawrence Berkeley National Laboratory

miarecki@berkeley.edu

I am a graduate student at Lawrence Berkeley National Laboratory working with IceCube, a particle detector at the South Pole, and I study particles from space. I always wanted to become an astronaut and a "scientist in space." To that end, I graduated from the University of Illinois with an astronomy/physics degree and joined the Air Force, becoming a test pilot. I interviewed with NASA in 1997, but I was not selected. That's when I decided to go back to college and study physics.

Sarah Coulter

Table 20, 21, 19

Group Manager, Product Development,

The Clorox Company

sarah.coulter@clorox.com

I am a manager for product development at the Clorox Company where I currently lead a team in the Home Care area. I earned my PhD in chemistry from the University of Wisconsin-Madison, a BS in chemistry from Bates College and a business degree from Lehigh University. Before this job, I worked for 7 years at a large gas and chemical company in Pennsylvania as a research scientist and a business technology manager. I like science because I want to understand why and how things work.

Steve Croft

Table 18, 16, 17

Research Scientist, UC Berkeley,
Astronomy Department

scroft@astro.berkeley.edu

I'm an astrophysicist at UC Berkeley. I've been fascinated by our huge, dynamic, mysterious Universe since I was a kid growing up in England. I got my first telescope at age 10, worked hard on my studies through my PhD at Oxford University, and now get to use some of the biggest telescopes in the world to study giant black holes and the things they eat.

Surinder Bains

Table 27, 28, 29

Manager, The Clorox Company

surinder.bains@clorox.com

I am a manager at the Clorox Company where I work with a team of scientists to keep people safe, healthy, and clean. I am a proud graduate of the National University of Singapore, and have enjoyed working as a scientist at the Clorox Company for over 20 years, encouraging and inspiring other scientists to dream up new, exciting ideas and products that will continue to change the world.

Susan Molloy

Table 25, 22, 23

Criminalist,
Oakland Police Dept, Crime Lab

smolloy@oaklandnet.com

I am a firearm examiner and have worked in the forensic science field for 15 years. I graduated with a Bachelor of Science from Cal State East Bay. At my job, I examine guns and ammunition in order to determine if a bullet or cartridge case was fired from a single firearm. My exams provide leads to Police Detectives and link or exclude guns from crimes that have happened.

Ted Sanders

Table 21, 19, 20

Graduate Student,
UC Berkeley/Stanford University

tedsanders@berkeley.edu

I am a PhD student at Stanford University studying Applied Physics. I spend my days using lasers to grow very thin crystals. Then, I conduct experiments on those crystals using x-rays, superconducting magnets, and liquid helium (kept at temperatures only a few degrees above absolute zero). These experiments help reveal the physics of new materials that may someday be the basis for new technologies!

Terrence Satterfield

Scientist I, BioMarin Pharmaceutical Inc.

Table 22, 23, 24

tfs@alumni.stanford.edu

I am a scientist in the Department of Research at BioMarin Pharmaceutical. Raised in Oakland, I attended Bishop O'Dowd High School. Then I earned a degree in Human Biology from Stanford and a Ph.D. in Genetics from University of Washington. From early on, I was very curious about how the world worked. In middle-school I realized that understanding how biology works can allow us to relieve human suffering by curing diseases.

William Thur

Mechanical Engineer,

Lawrence Berkeley National Laboratory

Table 24, 25, 22

gwthur@gmail.com

I am a mechanical engineer at Lawrence Berkeley National Laboratory. I've worked in several fields, but my main career has been helping the scientists at Lawrence Berkeley Laboratory to do their experiments successfully and safely. I like to solve problems and make things work. Designing, building, and fixing machines and systems are what I like best. Scientists and engineers are people who really know how the world works, and they will be even more important in the future.

Yolande Sterling

Scientist, The Clorox Company

Table 26, 27, 28

yolande.sterling@clorox.com

I'm a microbiologist for the Clorox Company working as part of a team to develop products that consumers use to clean and prevent the spread of harmful germs, bacteria, and viruses in their homes.

Participating Elementary Schools

Acorn, Burckhalter, Carl Munck, Community United,
East Oakland Pride, EnCompass Academy, Esperanza, Futures,
Global Family School, Grass Valley, Greenleaf, Korematsu
Discovery Academy, Markham, Marshall, New Highland Academy,
Parker, Rise, Sobrante Park

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Volunteer Scientists
(listed in program)

Oakland Unified School District

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