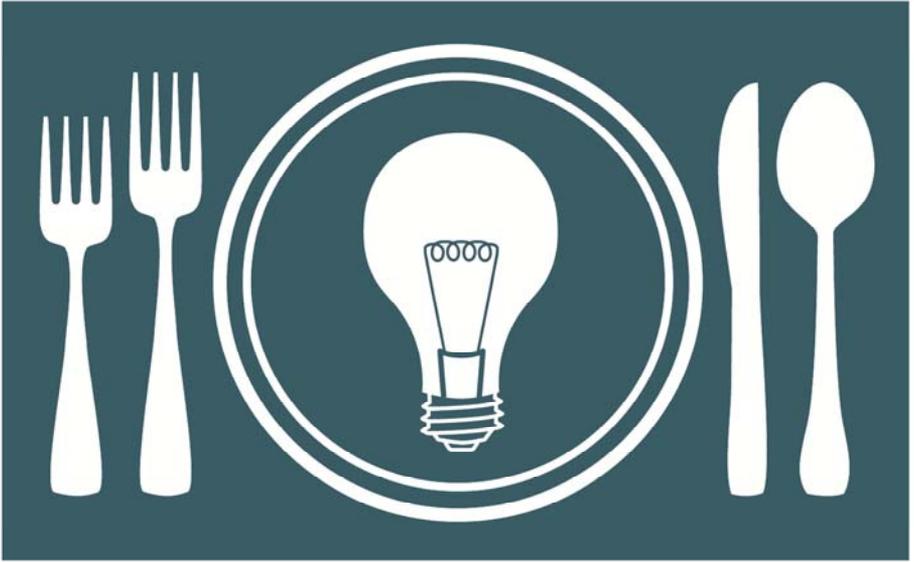

Oakland Unified School District



DINNER with
a **SCIENTIST**

May 29, 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
Elizabeth Donald, 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
-

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

Elizabeth Donald

Keynote

Scientist, The Clorox Company

elizabeth.donald@clorox.com

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 Ph.D. 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!

Alyssa Rosenbloom

Table 7, 8, 9

Graduate Student, UC Berkeley

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!

Ashley Gibb

Table 26, 27, 25

Graduate Student Researcher, UC Berkeley

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!

Christine Beavers

Table 17, 18, 16

Beamline Scientist,

Lawrence Berkeley National Lab

cmbeavers@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

Table 18, 16, 17

Curriculum and Training Specialist,
Bio-Rad Laboratories*damon_tighe@bio-rad.com*

I am a Training Specialist focusing on science education with Bio-Rad Laboratories. Before this job, I worked on the Human Genome Project, Biofuels, at the National Labs. Seeing the major impacts of science on society in the past and the impacts it has for the future brought me into a science career.

Dan Werthimer

Table 9, 7, 8

Research Astronomer, UC Berkeley

danw@ssl.berkeley.edu

I direct the Search for Extraterrestrial Intelligence (SETI) program, focusing on the SETI@home project. My work includes working with volunteers to analyze data from our planet's largest radio telescope. Many participants are elementary school students who use their computers to search for signals from other civilizations. Together, the SETI@home volunteers have formed one of Earth's most powerful supercomputers to try to answer the question, "Are We Alone?"

Darin Brown

Table 3, 1, 2

Commander, Navy Recruiting , US Navy

darin.j.brown@navy.mil

I enlisted in the United States Navy in 1985 as a Nuclear Machinist Mate and graduated from Auburn University with a degree in Electrical Engineering in June of 1990. I have served on various navy vessels including the USS *Greenling*, USS *Seawolf* , USS *Pennsylvania* and USS *Michigan*. I have held various jobs in the US Navy include a Submarine Junior Officer Detailer, Engineering Officer, the Director of Nuclear and Submarine Recruiting, and Deputy for Readiness on the staff of Commander Submarine Squadron Seventeen in Bangor, Washington.

Erin Jarvis

Table 19, 20, 21

Graduate Student Researcher, UC Berkeley

erinjarvis@berkeley.edu

I am a PhD student at UC-Berkeley researching how genes control the development and evolution of the many different kinds of legs that crustaceans, like lobsters and crabs have. When I was young, my favorite subject was science. I spent hours outside in my backyard watching birds, searching for frogs, and catching fireflies. I wanted to be a scientist so that I could discover how nature works.

Heather Bruce

PhD Candidate, UC Berkeley

Table 28, 29, 30

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 BudworthBiochemist Project Scientist,
Lawrence Berkeley National Lab

Table 23, 24, 22

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-JordanProject Engineer,
Del Monte Foods

Table 14, 15, 13

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.

Janiece Hope

Senior Scientist, The Clorox Company

Table 11, 12, 10

janiece.hope@clorox.com

I am a Scientist at the Clorox company. My PhD is in analytical chemistry and my current job is to work on making sure our products work well for our customers. I have always enjoyed science experiments. When I was young, I watered my younger brother to make him grow and I also tested the hardness of his head by breaking my hairbrush over his head. In high school, I knew I wanted to study science for my career.

Katherine Copic

Table 21, 19, 20

Staff Scientist, Physics Division,
Lawrence Berkeley National Labkcopic@lbl.gov

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!

Katie McKinstry

Table 27, 25, 26

Graduate Student,
UC Berkeley, Mechanical Engineeringmckinstry@berkeley.edu

I am a graduate student in the Department of Mechanical Engineering at UC Berkeley, and I work in the Laboratory for Manufacturing and Sustainability. I am researching ways to reduce our environmental impact throughout the manufacturing processes. This summer, I'm working with General Motors to help them use less energy and generate less waste when they paint their cars. In the future, I am planning on looking at ways to make things so it is easier to take them apart and recycle or reuse their components.

Kenyon Johnson

Table 6, 4, 5

Public Information Officer, Caltrans

kenyonjohnson2002@yahoo.com

I was born and raised in San Francisco by parents who encouraged my curiosity. That interest in knowing how things work has served me greatly throughout my career of nearly 20 years in engineering. I now work as a Public Information Officer on the San Francisco Oakland Bay Bridge Project. It has given me the unique opportunity to use my engineering background to speak to students and the greater community about the importance of STEM programs and infrastructure projects like the Bridge. I hope to encourage children to never lose their curiosity in their careers and to keep learning about the world around them.

Kevin Metcalf

Graduate Student, UC Berkeley

Table 29, 30, 28

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.

Kurt Krueger

Mechanical Technician,

Lawrence Berkeley National Lab

Table 24, 22, 23

KRKrueger@lbl.gov

I am a Mechanical Technician for Lawrence Berkeley National Laboratory. I support scientists by listening to them describe what they thing they need to perform their experiments. Then, I design and build what they describe. Before my current job, I worked in motorsports and studied Industrial Arts.

Lindsay Waldrop

Postdoctoral researcher, UC Berkeley

Table 10, 11, 12

lwaldrop@berkeley.edu

I recently received my PhD from UC Berkeley in integrative biology. My research focuses on how organisms interact with the fluids in their environments. I studied how crabs sniff on land and in the sea for my dissertation, and now I am interested in how sea squirt hearts pump blood. I got interested in science because I ask lots of questions, and it turns out science is the best way to find the answers!

Lisa Bailey

Medical Director,

Alta Bates Summit Medical Center

Table 16, 17, 18

baileyalisa@msn.com

I am a surgeon and medical director of the Carol Ann Read Breast Health Center at Alta Bates Summit Medical Center. I take care of patients with breast cancer and other breast problems. Surgery is one specialty in which you can both cure patients and also investigate how our bodies work. To be a surgeon, I went to college at Northwestern University, then to medical school at Northwestern University Medical School, and then I had to train in General Surgery and Surgical Oncology.

Lisa Fernandez

Graduate Student, UC Berkeley

Table 13, 14, 15

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.

Manfred AuerStaff Scientist & Director,
Lawrence Berkeley National Lab
& Joint BioEnergy Institute

Table 30, 28, 29

mauer@lbl.gov

I am a scientist at the Lawrence Berkeley National Laboratory. I view science as gateway to see the world and explore how the world around us works. The most important job of a scientist is to ask good questions and not be satisfied by the superficial or easy answer. My curiosity started when I was very young. Many times, my parents were not able to answer my questions, but I just kept asking! Science is an incredible adventure and the big social equalizer, it does not matter who your parents are but only how curious and determined you are.

Marc BadgerGraduate Student,
UC Berkeley, Integrated Biology

Table 1, 2, 3

mbadger@berkeley.edu

I am a biomechanics graduate student in the Department of Integrative Biology at UC Berkeley. I research how birds and insects fly in changing, windy conditions. My background in physics gives me a unique view on animal movement in biology. I will be traveling to Costa Rica this summer to study hummingbird flight in the rain forest.

Mary Kate MorrisResearch Virologist,
California Dept of Public Health

Table 22, 23, 24

marykate.morris@cdph.ca.gov

I am Virologist at the California Department of Public Health and received my PhD at UC Berkeley. I develop vaccines and treatments for HIV/AIDS. I am currently working with antibodies that have unusual properties that may eventually help patients infected with HIV. I first became interested in HIV when I was in the Peace Corps in the Central African Republic in the 1980s (near the beginning of the epidemic) and have been working with this virus since then.

Percy Link

Table 5, 6, 4

Graduate Student,

UC Berkeley, Earth & Planetary Science

plink@berkeley.edu

I am a graduate student at UC Berkeley studying atmospheric science and hydrology (the study of the water cycle). I investigate how water evaporates from the land surface and returns to the atmosphere as vapor. The water cycle is really interesting because it is very dynamic, and because water is so important for people and ecosystems. I enjoy being an earth scientist because I love learning about how the natural world around me works.

Rahul Shinde

Table 8, 9, 7

Senior Scientist, The Clorox Company

rahul.shinde@clorox.com

I am a scientist at the Clorox Company. I have a Bachelor's degree in Chemical Technology and a Master's degree in Food Technology. One of the primary reasons I moved to the field of science was the inherent curiosity I had regarding everything around me. These questions often lead to a chemistry related answer. Science is as exciting as sports, if you just take interest in it!

Sandra Lee-Takei

Table 25, 26, 27

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.

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.

Scott Douglass

Table 12, 10, 11

Nuclear Engineering Programs Coordinator,
US Navy*scott.douglass@navy.mil*

I attended the United States Merchant Marine Academy in Kings Point, New York and graduated in 2002 with a Bachelors Degree in Intermodal Logistics and Transportation. I served on the USNS Sisler and USNS Watkins. I am currently assigned to Navy Recruiting District San Francisco as the Nuclear & Civil Engineering Programs Coordinator. I also serve as the District STEM coordinator for NRD-San Francisco.

Susan Molloy

Table 2, 3, 1

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 15, 13, 14

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!

Zachary Hanna

Table 4, 5, 6

Graduate Student,

UC Berkeley, Museum of Vertebrate Zoology

zachanna@berkeley.edu

I am a graduate student at UC Berkeley studying owls. In particular, I am using genetic information to learn about how different groups of birds have interacted in past and their present population dynamics. Currently, I am excited to be studying the hybridization of two owl species: the Spotted Owl and the Barred Owl.

Participating Elementary Schools

Chabot, Cleveland, Crocker Highlands, Emerson,
Hillcrest, International Community, Joaquin Miller,
Kaiser, Lakeview, Laurel, Lincoln, Martin Luther King Jr.,
Montclair, Piedmont, Place at Prescott, Sankofa,
Santa Fe, Sequoia, Thornhill

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