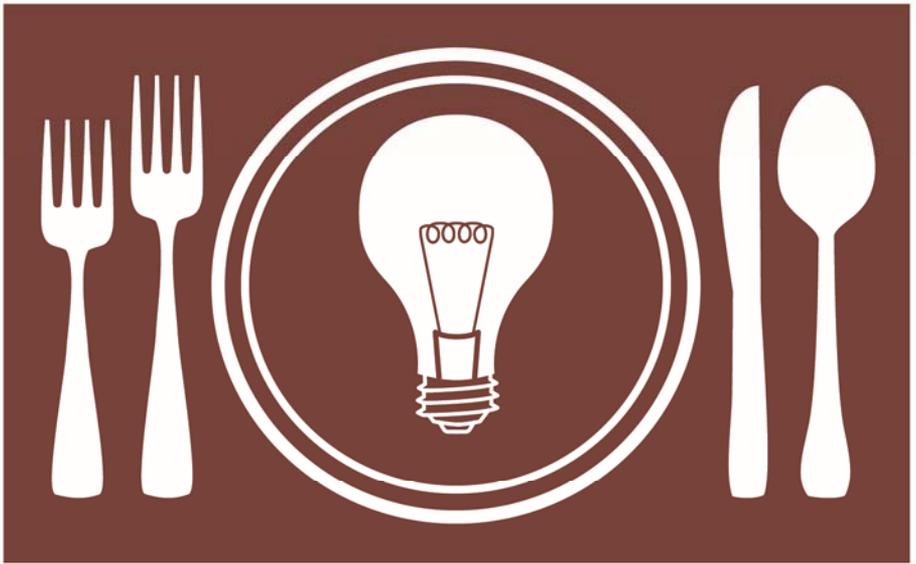

Oakland Unified School District



DINNER with
a **SCIENTIST**

May 29, 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

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
Laura Prival, Science Specialist, OUSD
- Welcome
Tony Smith, Superintendent, OUSD
*Maria Santos, Deputy Superintendent of Instruction,
Leadership and Equity in Action, OUSD*
*Chantel Burnett, Community Groups and Volunteer
Programs Manager*
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote
*Maynard Holliday, Robotics Engineer
Sandia National Laboratories*
- 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 *Mentha* or *Rubus*

Scientist Biographies

Maynard Holliday

Keynote

Robotics Engineer, Sandia National Laboratories mhollid@sandia.gov

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!

Annie Kersting

Table 2, 3, 1

Research Scientist,
Lawrence Livermore National Laboratory kersting1@llnl.gov

I am currently the Director of the Glenn T. Seaborg Institute at Lawrence Livermore National Laboratory. 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.

Ashley Gibb

Table 1, 2, 3

Graduate Student, UC Berkeley ashleygibb@berkeley.edu

I'm a graduate student researcher at UC Berkeley. I studied chemistry in college, then spent a year living and teaching in Indonesia. Now I work to solve problems in physics, chemistry, and materials science. My research involves making and studying new nanomaterials. This means that I get to work with really small things. Occasionally, I get to use an awesome microscope that can see atoms! I went into science because I love learning about the world.

Carla Moreno

Table 3, 1, 2

Assistant Structure Representative, Caltrans

I have been an engineer on the new SF-Oakland Bay Bridge for the past 10 years, I enjoy building big! Seeing something develop from drawing plans to an actual bridge is amazing, even all of these years later. I became an engineer because science was a challenging and I like a good challenge.

Carol Hood

Immunotoxicologist, The Clorox Company

Table 6, 4, 5
carol.hood@clorox.com

I have always been interested in what makes us sick and how to have better health. As an Immunotoxicologist, I provide people with information on how to be safe around cleaning products – which can protect them from germs and viruses. I work on several scientific affair committees, including the asthma forum, green chemistry and children’s health and exposures. The goal of this work I do is to help our government make decisions regarding new laws and regulations that will be scientifically sound and safe for the public.

Christine Beavers

Beamline Scientist,

Lawrence Berkeley National Laboratory

Table 8, 9, 7
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.

Cynthia Cudaback

Scientist, Educator,

Storyteller, Ocean and You

Table 10, 11, 12

cynthia.cudaback@gmail.com

When I was just 6 or 7 years old, my father used a blowtorch to show me why blue stars are hotter than red stars. I have spent my life since then (40 years!) learning and teaching science. I got a physics degree at UC Berkeley, then sailed around the world as an officer on a research ship. Eventually, I returned to school at the University of Washington, where I met my husband, became a storyteller and got a PhD in geophysics. I like to combine my passions for science, education and storytelling.

Darcy Ernst

Graduate Student, UC Berkeley

Table 4, 5, 6
dfkernst@berkeley.edu

I am a graduate student in the Integrative Biology Ph.D. program at UC Berkeley. Over my career I've studied the brains and behavior of crickets, ground squirrels, giant orange sea slugs, and birds! Studying slugs was especially fun as it allowed me to SCUBA dive to see them in their natural habitat. Now I study how hormones in the brains of birds and how they respond to the environment to allow them to breed. Whatever animals I'm studying, I love learning about how the brain controls the behaviors of animals as human behavior is determined in much the same way!

Desiré Whitmore

Postdoctoral Researcher, UC Berkeley

Table 11, 12, 10

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.

Erinn Godfrey

Project Coordinator,

The Energy Coalition

Table 9, 7, 8

egodfrey@energycoalition.org

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!

Howard Matis

Staff Physicist,

Lawrence Berkeley National Laboratory

Table 12, 10, 11

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.

Ina Reichel

Physicist, Lawrence Berkeley National Laboratory

Table 15, 13, 14

ireichel@lbl.gov

I'm a physicist from Germany. I specialize in particle accelerators. Those are large machines that are used for a variety research projects with particles smaller than an atom. They are really fascinating and I get to work with scientists from all over the world.

James Frank**Table 7, 8, 9**

Supervising Naturalist,
East Bay Regional Park District

jfrank@ebparks.org

I am a Naturalist for East Bay Regional Park District. Like you, I grew up near the ocean. I even learned to swim at the beach. At the beach I would grab some friends and a net to find and learn about the animals that lived in the wetlands nearby. Now I explore and teach about aquatic ecosystems with a huge fish tank on wheels, which I take to schools throughout the East Bay.

Katherine Copic**Table 18, 16, 17**

Staff Scientist,
Lawrence Berkeley National Laboratory

kcopic@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!

Kathleen A. Bjornstad**Table 5, 6, 4**

Staff Research Associate,
Lawrence Berkeley National Laboratory

kabjornstad@lbl.gov

I am a Research Associate, managing a laboratory and working in the Radiation Biology field. My sixth grade teacher would bring in Science kits (Gasses and Airs) and it was fascinating. I did well in Chemistry and Math in High School and was fascinated about learning about DNA in College. I earned a BS in microbiology at the University of Washington. I have worked at LBNL for 33 years.

Kurt Krueger**Table 21, 22, 19**

Mechanical Technician,
Lawrence Berkeley National Laboratory

krkrueger@lbl.gov

While I am not a scientist, I support the scientists by building the equipment they need to perform their experiments. This requires me to sit down with them and discuss what it is they are thinking about and then start designing the various parts they may need. I can complete a 3 dimensional drawing for them to make sure we are both thinking about the same thing. Once we agree on the design I then proceed to fabricate the parts using any one of number of machines that I have available to me. After which, I will usually help them install everything in the area where they do their experiments.

Mark Lescroart

Postdoctoral Fellow, UC Berkeley

Table 13, 14, 15mark.lescroart@gmail.com

I study how our brains allow us to see objects in the world around us. I scan people's brains while they watch movies, and then try to figure out why their brains respond the way they do. I've been interested in science all my life, and after years of trying to figure the world out. I got my PhD from USC in 2011. I've been working in Jack Gallant's lab at Berkeley since.

Matthew Fillingim

Research Physicist,

UC Berkeley, Space Sciences Laboratory

Table 22, 19, 20matt@ssl.berkeley.edu

I am a research physicist at the Space Sciences Laboratory at UC Berkeley where I study the upper atmosphere and space around Earth, Moon, and Mars. I try to understand the information that comes back from satellites. I have always been fascinated by other planets. I can remember seeing pictures from the surface of Mars taken by Viking and pictures from Voyager as it flew by planets never seen up close before and thinking, "I want to know more about those places." I also like to tell people about the neat things we've found.

Maya Galson

Food Technologist, Del Monte Foods

Table 16, 17, 18maya.galson@delmonte.com

I am a Food Scientist and I work for Del Monte Foods in the Research and Development group. I became a Food Scientist because I wanted to join my love and food and science into a career. I've gotten to work on food products ranging from ketchup to fruit cups, and everything in between. My workplace includes the lab, the kitchen and factories all over the US so I can create new products that are safe, nutritious and delicious.

Michael Cabot

Senior Process Engineer,

Del Monte Foods

Table 14, 15, 13michael.cabot@delmonte.com

I studied Chemical Engineering at MIT because I enjoyed chemistry and liked learning about the equipment that make chemical reactions happen. I work for Del Monte Foods where I work with Food Scientists. The Food Scientists create small batches (a couple of pounds) and I work with the plant to make larger versions (a couple of tons).

Patrick Hilton

Program Coordinator,
Community Resources for Science

Table 19, 20, 21

volunteer@crscience.org

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.

Percy Link

Graduate Student, UC Berkeley

Table 17, 18, 16

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.

Sukhvinder Kaur

Senior Scientist, The Clorox Company

Table 20, 21, 22

sukhvinder.kaur@clorox.com

An infinitely curious mind rejoices in the simplicity that there is a reason behind everything that goes on in the universe. To me, science is the medium to find these reasons. I became a scientist because I'm a very curious person. The amount of joy and relief I get when I find the reason behind why oceans have waves or why a rainbow is formed, are limitless.

Notes

Participating Schools

Allendale Elementary, ASCEND, Bella Vista Elementary,
Bridges Academy, Community United Elementary,
East Oakland Pride Elementary, Franklin Elementary,
Futures Elementary, Garfield Elementary, Glenview Elementary,
Global Family School, Horace Mann Elementary,
International Community School, Korematsu Discovery Academy,
La Escuelita Elementary, Laurel Elementary, Lazear Elementary,
Melrose Leadership Academy, Redwood Heights Elementary,
Think College Now

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Christine Beavers, Cynthia Cudaback, Darcy Ernst, Desiré Whitmore,
Erinn Godfrey, Howard Matis, Ina Reichel, James Frank, Katherine Copic,
Kathleen A. Bjornstad, Kurt Krueger, Mark Lescroart, Matthew Fillingim,
Maya Galson, Maynard Holliday, Michael Cabot, Patrick Hilton,
Percy Link, Sukhvinder Kaur

Oakland Unified School District
Tony Smith
Maria Santos
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
Matthew Hurley, Gauri Vaishampayan, Erica Wong (Setup)
Howard Ruffner (Photography)
Espresso Gourmet (Catering)