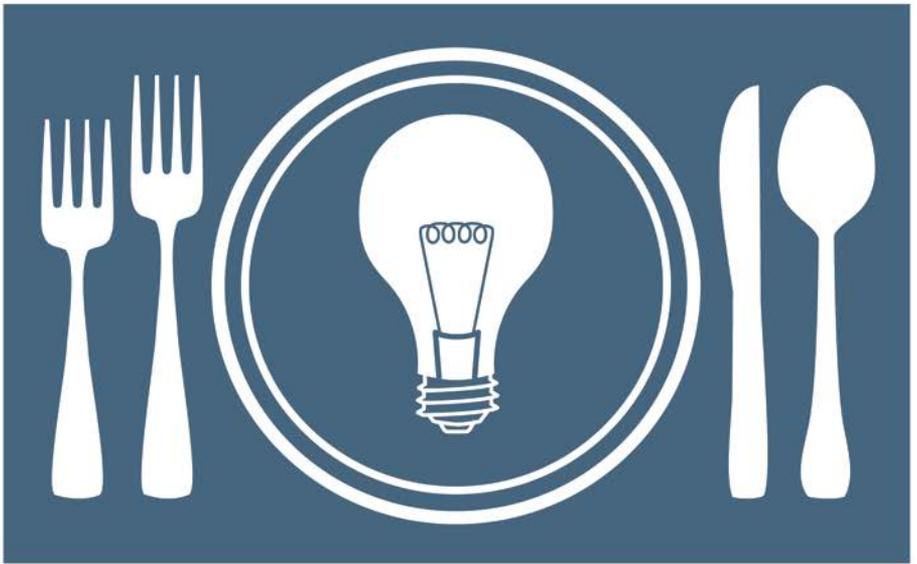


Oakland Unified School District



DINNER with
a **SCIENTIST**

May 25, 2016 5-8 pm

Welcome to Oakland Unified School District's eighth 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
- Sonnie Dae*
Science Specialist, OUSD
- Dan Flynn*
*Program Director, Family, School,
& Community Outreach, Oakland Zoo*
- 5:50 Dinner & Conversation with Scientist #1
- 6:20 Keynote
- Lisa Dyson*
Chief Executive Officer, Kiverdi
- 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
Random Quotes in a Warped Surface

Scientist Biographies

Lisa Dyson

Keynote

Chief Executive Officer, Kiverdi

Dr. Lisa Dyson is the CEO of Kiverdi, a technology company with a mission to develop innovations that go beyond traditional agriculture to help us feed and power a growing world, one that will include 3 billion more people by 2050. Kiverdi's bio-process uses natural microbes to convert CO₂ into the proteins and oils that are the same as the proteins and oils that we use today for sustenance and to power industry. Dyson holds a PhD in physics from MIT and has done research in bioengineering, energy and physics at Stanford University, UC Berkeley, and Princeton University, among others. She was a Fulbright Scholar at the Imperial College London in the United Kingdom, where she received a master of science, and has degrees in physics and mathematics from Brandeis University. From 2004 to 2006, Dyson worked in Boston Consulting Group's Atlanta office.

Adam Bradley

Tables 6, 4, 5

Postdoctoral Researcher,

Lawrence Berkeley National Laboratory

awbradley@lbl.gov

I am a postdoctoral researcher in neutrino physics on the MAJORANA Demonstrator. I earned my PhD on the LUX Dark Matter experiment at Case Western Reserve University in Cleveland, OH. Both projects take place a mile underground in a former gold mine in Lead, SD. I love learning about how things work, and I love building things that have a useful purpose. I take every opportunity to engage people, particularly young people, about science: what it is, how it's done, and how it's good for us to pursue.

Analisa Ragusa

Tables 2, 3, 1

Scientist,

The Clorox Company

analisa.ragusa@clorox.com

I recently graduated from the University of California, Santa Barbara where I studied Chemical Engineering. When I was younger, I loved learning how things work and how things are made. When I reached high school, I began to learn about chemistry and realized that it was the closest thing I've ever done to making potions and doing magic like Hermione Granger from Harry Potter. Now, I get to use chemistry and problem solving skills to make cleaning products for people to use to keep their homes healthy and clean.

Ashley Truxal

Tables 9, 7, 8

PhD Researcher, Scientific Illustrator,
UC Berkeley,

Lawrence Berkeley National Laboratory

truxal@berkeley.edu

I accidentally fell into science in high school when I took an optional chemistry class as a senior and was completely surprised at how fascinating it was to learn how molecules look and interact with one another to create everything around us. I always figured I would be an artist. As a graduate student researcher in physical chemistry, I work with magnets because they are still mysterious in many ways. I also combine my love of artistic expression with science by working in scientific illustration. By doing this, I get to help other people understand exciting scientific concepts through art!

Brian Putt

Tables 18, 16, 17

Decision Analysis Consultant, Chevron

brianputt@theputts.com

I have an economics degree from Claremont College, two degrees from Stanford in Engineering and Operation Research. Making good decisions in your personal life or in business is key to success. Understanding the life is not certain and that we need to consider both the good and the back outcomes when making decisions. Let's learn how understand the "Arithmetic of Uncertainty" can help up make better decisions.

Carlos Serrano

Tables 12, 10, 11

Electronics Engineer,

Lawrence Berkeley National Laboratory

CSerrano@lbl.gov

I got my masters in Telecommunications Engineering at INSA Lyon (France) in 2007. I joined Lawrence Berkeley National Laboratory in 2006 as a student and have been working there ever since. My work is mainly focused on building electronics instrumentation and software for Particle Accelerators, which are gigantic machines built to explore fundamental science and which can produce small black holes.

Christine Beavers

Tables 17, 18, 16

Beamline Scientist,

Lawrence Berkeley National Laboratory

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.

Claire Robertson

Tables 15, 13, 14

Breast Cancer Biophysics Postdoc,
Lawrence Berkeley National Laboratory

When I was a kid, my mom always told me that "math is your friend, math opens doors." Turns out she was right- I use math and engineering to understand how cells and tissues put themselves together. Now I use lasers to take pictures of cells as they move and try to understand how this balance of forces gets screwed up when cells turn into cancer cells.

Emily Dilger

Tables 7, 8, 9

Public Outreach Manager,
American Society for Microbiology

mlekt@gmail.com

I grew up on Long Island, New York and was fascinated by ocean life. Through a few twists and turns, I wound up falling in love with understanding how the brain works and got my PhD in neuroscience. After my PhD, I decided I wanted to help others love science rather than go on in academia, so I found work sharing science with a range of different people - from students and teachers to politicians and journalists!

Helen Budworth

Tables 4, 5, 6

Senior Science Officer,
California Institute for Regenerative Medicine hbudworth@cirrn.ca.gov

I am a Senior Science Officer at the California Institute for Regenerative Medicine in Oakland. Our mission is to accelerate stem cell treatments to patients with unmet medical needs. My job involves working with scientists and doctors to find the best scientific projects that will develop treatments for diseases. I have always been fascinated by biology and the human body, and I have worked to help uncover what goes wrong in the body when people fall ill and I am now working towards finding treatments. I grew up in Britain and studied genetics at the University of Liverpool and then biochemistry at the University of Oxford. I worked at Lawrence Berkeley National Laboratory for many years as a research scientist and then moved to the California Institute for Regenerative Medicine in Oakland.

Jeremy Nowak

Tables 5, 6, 4

Graduate Student Researcher,
UC Berkeleyjnowak01@berkeley.edu

I am a doctoral candidate in physical chemistry at UC-Berkeley, where I examine how the chemical composition of oil changes over time when exposed to microbial communities. I come from a family of scientists, and my teachers were extremely supportive in my decision to study chemistry at the graduate level. Science helps me understand our environment, as well as providing me with the opportunity to travel around the world and meet amazing new people!

Kirin Basra

Tables 14, 15, 13

Project Manager,
Mattson & COkirin@mattsonco.com

Two of my greatest passions in life are food and science. I was able to combine these two disciplines in UC Davis, where I obtained a Bachelors of Science in Food Science. What is Food Science? Food science is the study of the physical, biological, and chemical makeup of food; and the concepts underlying food processing. My role as in Mattson & Co enables me to develop great tasting products while combining science discoveries and technologies that ensure products are safe and nutritious.

Lauren Ponisio

Tables 16, 17, 18

Graduate student, UC Berkeley

lponisio@gmail.com

My mission is to promote biodiversity conservation. My work focuses on preserving and increasing the biological diversity in our world. I just finished my PhD in Environmental Science, Policy and Management at UC Berkeley on how to maintain pollinator diversity in the face of global change. I grew up in the Central Valley catching insects in agricultural fields, and basically spend my research doing the same thing.

Lucy Chang

Tables 1, 2, 3

Graduate Student,
UC Berkeley Museum of Paleontologyluchang@berkeley.edu

I am a graduate student at UC Berkeley studying how ocean-dwelling animals were affected by environmental change millions of years ago. In college, I studied earth science and visited places like the Bahamas and Nevada desert to learn about the fossils found there. I've always loved mysteries, and fossils provide major clues that help us better understand why life looks the way it does today and what will happen to it as environments change in the future.

Mark Lescroart

Research Scientist, UC Berkeley

Tables 19, 20, 21

mark.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.

Michelle MoySenior Food Chemist,
Del Monte Foods

Tables 8, 9, 7

michelle.moy@delmonte.com

I am a food scientist working at Del Monte Foods, Inc. in Vegetable Research and Development creating new products. I received a Bachelor's Degree in Food Science from the University of Illinois at Urbana-Champaign. Food science combines my interest in cooking and chemistry. Understanding the science behind food products makes walking through the grocery store an adventure.

Monica AlbeScience Administration and Communications,
UC Berkeley

Tables 10, 11, 12

mjalbe@berkeley.edu

I am an administrator in the Department of Molecular and Cell Biology at the UC Berkeley and interact with hundreds of molecular biologists, assists with awards and grant writing, science communications. Previously, I was a Senior Museum Scientist at the Museum of Vertebrate Zoology, where I ran a lab and taught vertebrate anatomy classes. When I was a kid, I loved going outside to collect rocks, plants, animals and anything else that could be tucked away. I often "accidentally" fell into creeks or ponds and would somehow wind up with a frog or snake in her pocket. I was very curious and was always looking under things and had no idea that these activities related to science! I am committed to advocate for equity and inclusion in the work place and enjoy working with people and fostering community. Some people think science is lonely -- but the reality can be very different! It can be extremely collaborative, and involve a lot of team work.

Natalie Winkler

Tables 22, 19, 20

Packaging R&D Scientist,
The Clorox Company

I am a graduate from the Michigan State University School of Packaging with a specialization in Environmental Studies. I love science because it allows you to think critically and creatively! You can think outside the box to solve problems and see how things work. As a kid I loved to get my hands dirty and really get involved with things to help be better understand things in the classroom. I think science is a very important part of life and all people should get involved.

Newt (Heidi) Rockney

Tables 20, 21, 22

Graduate Student,
San Francisco State University amphibiannut@gmail.com

I liked dirt and slimy things as a kid. This is probably the main reason I find myself studying frogs, salamanders and one of the fungal disease that threatens them worldwide. I am a Master's student and currently work in SE Asia, where I am trying to figure out if there any threat of a deadly disease to the hundreds of frog species in Indonesia.

Sarah Richardson

Tables 3, 1, 2

Postdoctoral Fellow,
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!

Sonia Nosratinia

Tables 21, 22, 19

Lab Manager,
UC Berkeley sonia1@berkeley.edu

I have always loved science, nature and puzzles! As a lab manager, I direct a lab and coordinate research activities. As a researcher, I try to reconstruct the evolutionary history of my favorite plants. It is like trying to make a puzzle that nobody has ever made before! Some of these plants are in danger of going extinct and I hope my work will help guide their conservation.

Whitney Reiner

Graduate Student, UC Berkeley

Tables 13, 14, 15
wreiner@berkeley.edu

I love nature and wildlife, especially the inner workings of animals and people. As a result, I developed a special interest in skeletal biology. I love researching biology by using the fossil record to answer questions about human evolution and origins by understanding the information that is still available to us- the fossils. As someone who loves the outdoors, I have been able to work in the field studying wild primate behavior and nutrition in Central America and Uganda and finding and researching vertebrate fossils in Tanzania.

Winnie LieuBiofuels Technology Advisor,
ChevronTables 11, 12, 10
winnie@chevron.com

I am a chemical engineer. I graduated with B.Sc/M.Eng from the University of Alberta (Canada) and a MBA from Cornell University. At Chevron, my team and I are working on new technologies to produce biofuels. I love engineering because it is truly a mix of science, technology and business. I believe that people and technology are the key to innovation and ingenuity that will drive our society forward. As an engineer, I get to work with lots of different people, apply different sciences, solve different types of problems, build technologies and even grow businesses that will change the world. I'm always learning, contributing to society and having fun while doing it!

Participating Schools

*Brookfield Elementary, Garfield Elementary,
Grass Valley Elementary, Greenleaf Elementary,
La Escuelita Elementary, Madison Park Academy,
Markham Elementary, New Highland Academy, Parker Elementary,
Reach Academy, RISE Community School, Sankofa Academy,
Sequoia Elementary, Think College Now*

Acknowledgements

Oakland Zoo

*Bo De Long-Cotty and the Education Department
(Facilities, Donations, Setup, & Activities)*

Keynote Scientist

Lisa Dyson

Featured Scientists

*Adam Bradley, Analisa Ragusa, Ashley Truxal, Brian Putt,
Carlos Serrano, Christine Beavers, Claire Robertson, Emily Dilger,
Helen Budworth, Jeremy Nowak, Kirin Basra, Lauren Ponisio,
Lucy Chang, Mark Lescroart, Michelle Moy, Monica Albe,
Natalie Winkler, Newt (Heidi) Rockney, Sarah Richardson,
Sonia Nosratinia, Whitney Reiner, Winnie Lieu*

Oakland Unified School District

*Brenda Tuohy, Caleb Cheung, Christine Chen,
Claudio Vargas, Grey Kolevzon, Herberta Zulueta, James Narvaez,
Laura Prival, Ricky Logan, Rosita Young,
Sarah Pipping, Sonnie Dae Ross*

Other

*Teresa Barnett, Community Resources for Science (Setup)
Marlene Wilson (Setup)
Sara Rusche (Photography)
Espresso Gourmet (Catering)*

Photos from tonight's event will be available at
<http://science.ousd.org>