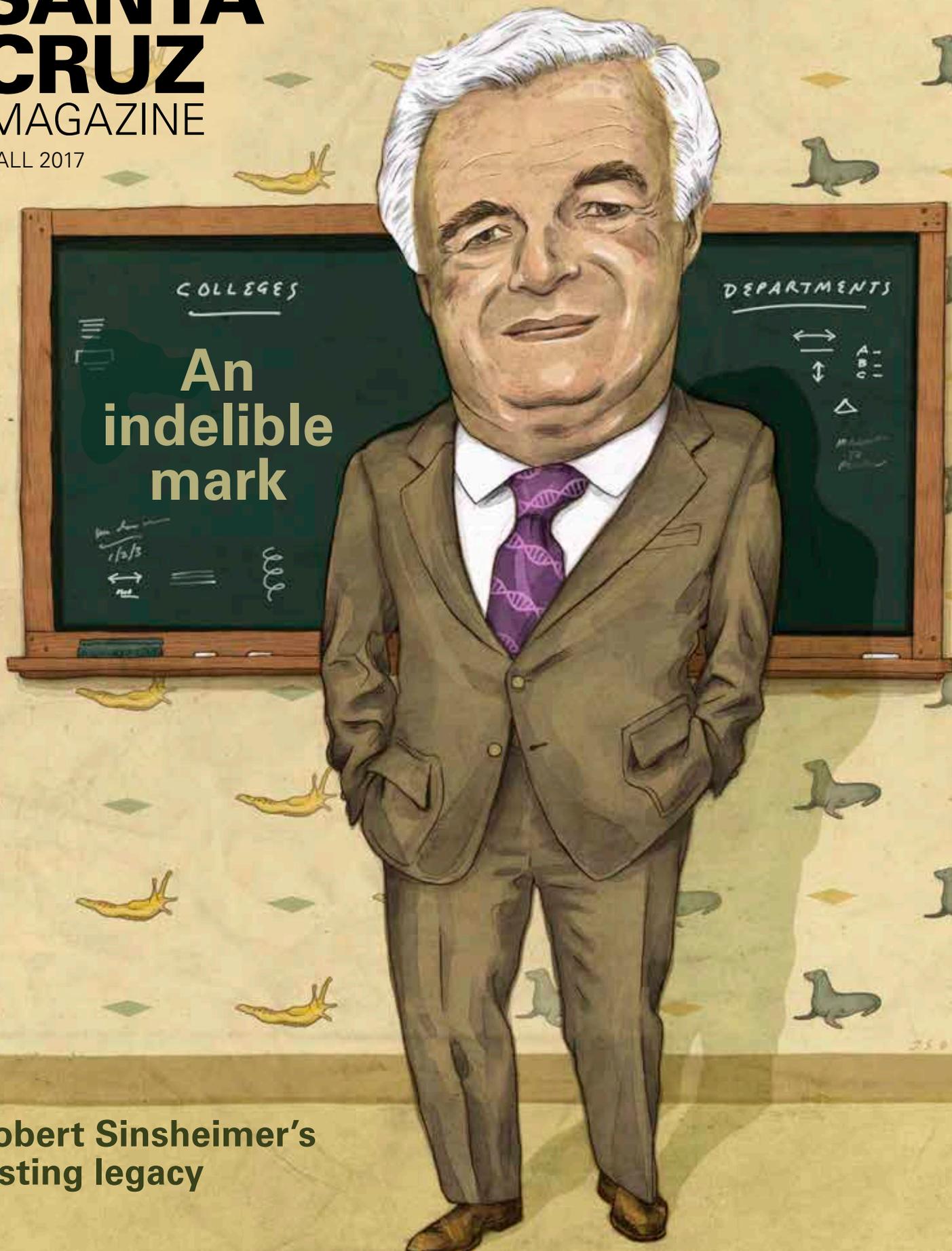


UC SANTA CRUZ MAGAZINE

FALL 2017

An
indelible
mark

Robert Sinsheimer's
lasting legacy



UCSC Silicon Valley
Extension
YOUR UC IN SILICON VALLEY

Unlock your future.

Every day Silicon Valley
opens the door
to new technologies.

How will you contribute?

Develop the job skills
you need to compete
at UCSC Extension.

Because you never know:
your next course could
be the key to an even
brighter tomorrow.



Courses enroll weekly. | 3175 Bowers Avenue, Santa Clara, CA 95054

UC HASTINGS COLLEGE OF THE *Law*

Juris Doctor

- March 1 Application Deadline •
- No Application Fee •
- February LSAT Accepted •
- 3+3 program available for current UCSC undergraduate students •

Master of Studies in Law

- 1 Year Master's Program for Working Professionals •
- Learn to "Think Like a Lawyer" •
- Application Fee Waivers Available •

Scholarships Available

APPLY NOW

uchastings.edu



UC HASTINGS
COLLEGE OF THE LAW
SAN FRANCISCO



UC SANTA CRUZ MAGAZINE

FALL 2017



First-Generation Initiative

UC Santa Cruz has joined a UC systemwide initiative called “#FirstGen College Grad,” focused on supporting our fast-growing first-generation college student population. Our goal is to create a welcoming and supportive campus environment for all of our students. Where we’ve written about first-generation college graduates in this issue, we’ve included the #FirstGen College Grad logo.

8 Pore strength

A company with UC Santa Cruz roots called Two Pore Guys has created a biosensing device that may revolutionize the way we do medicine and live in our environment.

11 Lessons from history reflect on her story

UC Santa Cruz’s new second-in-command, Marlene Tromp, is a respected scholar and professor of Victorian history—and a first-generation college graduate.

14 The Campaign for UC Santa Cruz

UC Santa Cruz’s first campuswide campaign closes with record giving by alumni and friends.

18 Chair raising

The campus has inaugurated 16 new chairs since the start of the Campaign for UC Santa Cruz, bringing new research funds along with heightened creativity, prestige, and influence.

21 An indelible mark

The late Robert Sinsheimer, who served as chancellor from 1977 to 1987, left a lasting legacy by leading a young UC Santa Cruz through major changes, from the audacious to the controversial.

Alumni Notes—online at magazine.ucsc.edu

Calendar

3

Alumni Profiles

25

This Is UC Santa Cruz

4

1 More Thing

28

UC SANTA CRUZ

MAGAZINE
FALL 2017

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Chancellor George Blumenthal

Campus Provost/Executive Vice Chancellor Marlene Tromp

Vice Chancellor, University Relations Keith E. Brant

Assistant Vice Chancellor, Communications and Marketing Sherry L. K. Main

Editor Gwen Jourdonnais

Creative Director Lisa Nielsen

Art Director/Designer Linda Knudson (Cowell '76)

Associate Editor Dan White

Proofreader Jeanne Lance

Photography Carolyn Lagattuta

Contributors Jennifer McNulty, Cheri O'Neil, Ann Parker, Scott Rappaport, Matthew Renda, Joan Springhetti, Tim Stephens (SciComm '90), Peggy Townsend, Dan White

UC Santa Cruz Magazine Fall 2017, volume 55, number 2.

UC Santa Cruz Magazine is published by UC Santa Cruz Communications and Marketing,

1156 High Street, Santa Cruz, CA 95064-1077, (831) 459-2495, magazine@ucsc.edu, magazine.ucsc.edu.

It appears twice a year: spring and fall. Inclusion of advertising in *UC Santa Cruz Magazine* is not meant to imply endorsement of any company, product, or service being advertised. Advertising opportunities: contact Alexandra Sibille, asibille@ucsc.edu, (831) 502-8578. Postmaster: Send address changes to UC Santa Cruz Communications and Marketing, Attn: *UC Santa Cruz Magazine*, 1156 High Street, Santa Cruz, CA 95064-1077. News, notes, and other editorial material should be sent to the address noted above for the Postmaster; (831) 459-2495; or magazine@ucsc.edu. 10/17 (1718-409/110M)



CARE AND COVERAGE. HAND IN HAND.

Nothing should come between you and a long, healthy life. So we've removed the barrier between health care and coverage, giving you the care you need and the coverage you deserve. It's simply health care made simple. **Visit kp.org today because together we thrive.**

KAISER PERMANENTE®  **thrive**

FOUNDERS *Celebration* 2017

Founders Celebration Weekend

October 20, 2017

Convocation of Chairs
4–5 p.m.

Music Recital Hall

October 21, 2017

- Open Houses: Campaign
for UC Santa Cruz projects
2–5 p.m.

Various locations

- Founders Dinner

6 p.m.

Porter College

Cost: \$150 per person

Fall into Philanthropy

October 16–

November 16, 2017

Join us online for a month of
philanthropic opportunities,
hand-selected for you.

Watch your email inbox for
information.

To see a full list
of upcoming
UC Santa Cruz
events, visit
events.ucsc.edu.

Dorianne Laux: Morton Marcus Poetry Reading

November 16, 2017

5:30 p.m.

Humanities Lecture Hall



Questions that Matter: Freedom and Race

January 30, 2018

7 p.m.

Kuumbwa Jazz Center

Cost: \$10, includes one
complimentary drink



Martin Luther King Jr. Memorial Convocation

Date TBD

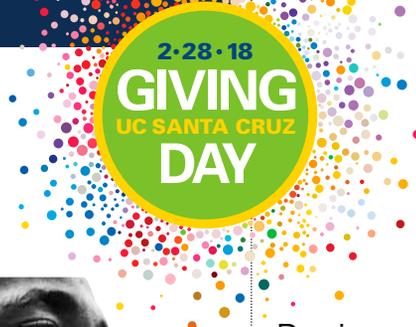
Santa Cruz Civic Auditorium



Giving Day

February 28, 2018

Join us online for a day
of philanthropy



Business Design Showcase

April 17, 2018

6 p.m.

UC Santa Cruz

Silicon Valley Campus



Alumni Weekend

April 27–29, 2018



THIS IS
UC
**SANTA
CRUZ**

Above: The Grateful Dead stand on the corner of Haight and Ashbury streets, San Francisco, 1966. Right: Students gather in the Quarry Amphitheater in 2006 to hear former U.S. ambassador to Iraq Joseph Wilson—the husband of ousted CIA operative Valerie Plame—at a daylong teach-in titled *The War on Terror: A Credible Threat*.

Find UC Santa Cruz on Facebook, Instagram, Twitter, and LinkedIn. Read UC Santa Cruz Magazine stories at magazine.ucsc.edu.

'Love on Haight' celebrates Summer of Love

Love on Haight: the Grateful Dead and San Francisco in 1967—an exhibit commemorating the 50th anniversary of the historic Summer of Love—is open at McHenry Library's Dead Central.

Highlighting materials from multiple collections housed in the library's Special Collections and Archives, the exhibit features posters, photography, and memorabilia from the Grateful Dead Archive and photographs from Ruth-Marion Baruch's 1967 Haight-Ashbury series.

"We want to provide context for the Grateful Dead in 1967 and to highlight two high-profile collections (the Grateful Dead Archive and the Pirkle Jones and Ruth-Marion Baruch Photography collection) as well as lesser known materials from both Special Collections and the McHenry stacks," said Elisabeth Remak-Honnef, head of Special Collections and Archives.

The exhibit will be on display through June 2018. Admission is free and open to the public during regular library hours.

The Quarry rocks again

The beloved Quarry Amphitheater has undergone a major renovation and is reopening this fall.

For nearly 40 years this stunning outdoor gathering

space located in a once-active quarry operation was the key place to go for big events. But the site fell into disrepair and was closed to events in 2006.

The \$8 million renovation project got a \$6.4 million boost from the Student Fee Advisory Committee. And alumni, staff, faculty, and community members also gave to the project.

The funds went toward bringing the space back to its former glory with new infrastructure that will allow for future improvements.

Benches have been replaced, while keeping the Quarry's unique asymmetry. Seating was expanded from a capacity of 1,636 to 2,000, the venue was made current with building codes and accessibility requirements, lighting was introduced for night events, and Wi-Fi capability has been added.

In coming months, the campus will develop a schedule of concerts, performances, and other Quarry events.

Data driven

UC Santa Cruz has launched a new data science research center, Data, Discovery, and Decisions (D3). Led by Lise Getoor, professor of computer science in the Baskin School of Engineering, D3 provides a platform for collaboration between industry and academia in the emerging field of data science.

The ability to collect and analyze vast amounts of data has driven the emergence of data science as a new discipline. The Baskin School of Engineering has identified data science as a key focus area for the school.

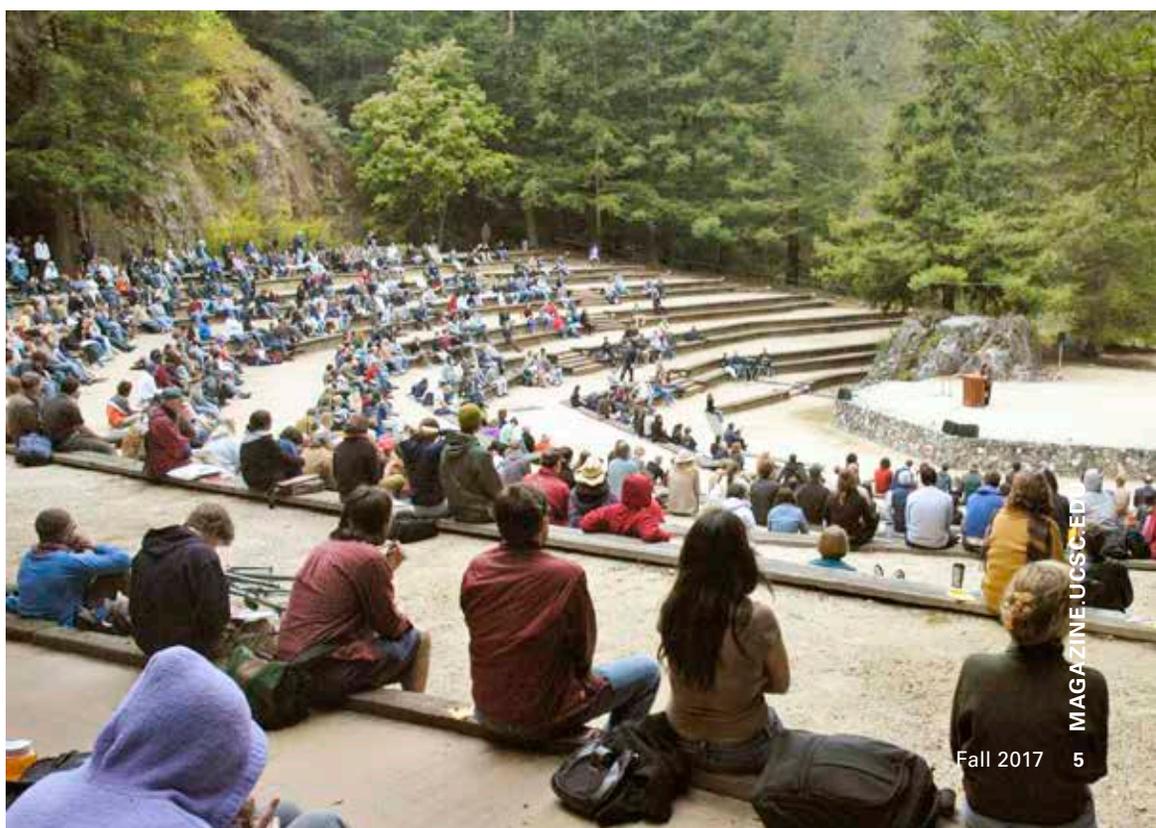
"The establishment of the D3 Research Center

within the Baskin School of Engineering will support our growing activities in data-driven discovery and decision making," said Engineering Dean Alexander Wolf. "It will provide an infrastructure for researchers in industry and academia to exchange ideas and develop practical solutions to data science challenges."

Radical Jewish Politics makes a buzz

A capacity crowd filled the atrium floor of the Museum of Art and History in downtown Santa Cruz for a recent public event presented by the UC Santa Cruz Institute for Humanities Research (IHR).

The occasion was Radical Jewish Politics: From Marx to Bernie, the second installment of the IHR's new "UCSC Night at the





Left to right:

First-generation faculty Catherine “Cat” Ramirez, associate professor, Latin American and Latino studies, and director, Chicano Latino Research Center; Jaye Padgett, professor, Linguistics Department, and vice provost for student success; Veronica Terriquez, associate professor, Sociology Department; Rebecca Covarrubias, assistant professor, Psychology Department; Juan Poblete, professor, Literature Department.

Museum” series for the local community.

It offered a discussion of the history of radical Jewish politics—inspired by both the centennial of the Russian Revolution in 2017 and the stunning electoral success of Bernie Sanders, which has led to a renewed interest in socialism in the United States.

The evening featured a public conversation with UC Santa Cruz alumnus Tony Michels (Stevenson ’89, politics), professor of American Jewish history at the University of Wisconsin–Madison, author of *A Fire in Their Hearts: Yiddish Socialists in New York*, and editor of *Jewish Radicals: A Documentary History*.

First-gen faculty come forward

Public institutions are increasingly focused on the degree to which they enable upward mobility.

For many, it is vital that U.S. higher education afford people from lower-income households, and from traditionally underrepresented

ethnicities and cultural backgrounds, equitable educational opportunities.

“In order to unlock the full potential of the country, you need to do more than educate the same elite population generation after generation,” said acting Vice Provost for Academic Affairs Martin Berger.

With this in mind, UC Santa Cruz launched the First-Gen Faculty campaign, which encourages professors to identify themselves as the first in their families to graduate from a U.S. four-year university.

So far, 54 professors have identified themselves as first-generation faculty, including Rebecca Covarrubias, assistant professor of psychology.

“In drawing attention to the shared identities among students and faculty, we can send a clear message that we want you here, that you belong here, and you will succeed here,” said Covarrubias.

In 2016, 42 percent of the entering class at UC Santa Cruz were first-generation college students.

Making wood work

The U.S. Forest Service awarded a \$250,000 grant to the Center for the Study of the Force Majeure, a research center based in the Arts Division at UC Santa Cruz.

Founded by Newton and Helen Mayer Harrison, research professors in the Digital Arts and New Media Program, the center brings together artists and scientists to design ecosystem-adaptation projects in critical regions around the world to respond to climate change.

The project will estimate the supply of wood biomass in the area east of the central Sierra crest and in western Nevada, and assess the possibility of producing wood products from that supply.

The aim of the grant—part of \$8.3 million in distributed funds from the U.S. Forest Service—is to stimulate the removal of hazardous fuels from forests to reduce the risk of wildfires and promote forest health, while at the same time spurring the economic development of rural communities.

Accelerating success

An off-campus accelerator intended to jump-start technology businesses launched in June with the support of UC Santa Cruz.

Three campus-connected ventures—Fuzz StatiOn, Santa Cruz WaveWorks, and Scoot Science—along with a fourth startup, PhotoBloomAR, began a pilot cohort with the accelerator, called Santa Cruz Accelerates.

The UC Santa Cruz Office of Research provided \$500,000 for Santa Cruz Accelerates to serve early-stage technology businesses that have a product but haven’t started selling it. The accelerator will be run by Santa Cruz Works, a local nonprofit that supports science and technology companies.

The University of California is committed to ensuring that the knowledge and research developed on its campuses are used to the fullest possible extent so the benefits reach the public, said Mohamed Abousalem, assistant vice chancellor for the Office for Research, Industry Alliances and Technology Commercialization.

Los Mejicas: More than dance

Paola Gomez was eager to leave East LA to study film and environmental studies at UC Santa Cruz. But homesickness hit hard during her first quarter on campus.

"I was really struggling. There were a lot of times I wanted to go home," recalled Gomez (Porter '19), whose neighbors in LA were predominantly Mexican American and Central American. "I had culture shock."

All of that changed when Gomez discovered Grupo Folklórico Los Mejicas, a student-run dance troupe that celebrates the regional music, dances, and traditions of Mexico.

"It was more than dance," said Gomez. "I saw I wasn't the only one who needed a home away from home."

Today, Gomez is one of 51 members of Los Mejicas.

The troupe performs regularly on campus and for elementary and high school students, festivals, and special events.

Taking the plunge

Params Raman, 31, churned through the water at UC Santa Cruz's Olympic-sized pool, a feat that was, at once, both ordinary and extraordinary.

Only a month earlier, Raman, a graduate student who is doing research in artificial intelligence, was terrified of the water. He'd grown up in the northeastern and southern parts of India where, he said, there was no access to swimming pools—only dangerous wild rivers and dark cistern-like wells.

But under the watchful eye of instructor Julie Kimball (Crown '78, German literature), Raman was stroking across the pool along with eight classmates.

"I feel like learning to swim opens up your world to so many other things you can do," said Raman, who wants to learn to surf, snorkel, and scuba dive once he's mastered swimming.

"When people work with their own fears, they realize anything is possible," said Kimball.

Beginning swim classes are offered through the Office of Physical Education, Recreation and Sports.

Fraidy cats

New research into the behavior of mountain lions indicates that they don't like encountering humans any more than we like bumping into them.

The findings are particularly valuable as human development encroaches on lion habitat and drives up the number of human-puma encounters.

Justine Smith (M.A. '09), who led the study as a graduate student in environmental studies at UC Santa Cruz, and her colleagues placed audio equipment at puma kill sites in the Santa Cruz Mountains; when a puma came to feed, its movements triggered recordings of people talking, and a hidden camera captured the puma's responses. They broadcast recordings of Pacific tree frogs as a control.

"We found that pumas almost always ran from the



sound of humans—and almost never ran from the sound of frogs," said Smith, now a postdoctoral researcher at UC Berkeley.

In addition to establishing the fear response, the study reveals changes in puma feeding behavior that could have implications for their well-being in human-dominated landscapes.

Above: New research shows that mountain lions don't like encounters with humans any more than we like to encounter them. Left: Grupo Folklórico's elaborate costumes and dances are specific to the different regions of Mexico.



A company with UC Santa Cruz roots called Two Pore Guys has created a biosensing device that may revolutionize the way we do medicine and live in our environment

PORESTRENGTH



Left to right: Trevor Morin, chief scientific officer, biochemistry; William Dunbar, chief technology officer, nanopores and analytics; and Dan Heller, president and CEO

It was early 2010 and Bill Dunbar paced the hallway between his office and his lab in UC Santa Cruz's Engineering 2 building.

A lanky surfer and a drummer with a Ph.D. in feedback control theory, a backbone technology of self-driving cars, Dunbar had come to UC Santa Cruz in 2004 to help bolster the university's robotics degree program.

But a year after he arrived on the wooded campus, Dunbar met David Deamer and Mark Akeson, two UC Santa Cruz professors who were pioneering a way to

sequence DNA strands faster and less expensively by using electronic voltage to pull each molecule through a microscopic hole called a nanopore. They had a problem they thought Dunbar might be able to solve.

The quandary Dunbar faced as he stalked that fluorescent-lit hall was that DNA molecules zipped through the nanometer-scale hole like bullets through a gun barrel, making them hard to read. Was there a way to slow them down and maybe even move them back and forth so you could decipher them with real accuracy?

That's when an idea hit.

Self-driving cars needed two separate functions to get someone safely from Point A to B. There were the sensors that gathered information like your location, your speed, and the moment the idiot driver in front of you suddenly hit the brakes. Then there were the actuators: the steering, the accelerator, and the braking.

Why not use two nanopores, one as a kind of actuator and the other as a sensor, to slow down and control the molecules in order to read them, Dunbar thought.

It was a great idea, but it needed time to develop. Deamer and Akesson's team ended up using another method that was licensed by DNA sequencing company Oxford Nanopore Technologies, which created a series of genome sequencing systems. But the two-pore notion stuck with Dunbar.

Fast forward seven years, and Dunbar's idea became the seed of a company that has created a biosensing device that may revolutionize the way we do medicine and live in our environment.

The device could one day allow a parent to determine if a feverish child has strep throat or the flu with a simple swab of the mouth. It could help doctors diagnose cancer and other diseases, and become a foundation for telemedicine. It could locate *E. coli* in food, let farmers check for crop-killing disease, help ranchers keep an eye on the health of their cattle, and allow government to monitor water quality with the same ease as using a glucose monitor.

Poring it on

Called Two Pore Guys, the company has captured \$25.4 million in venture capital, has grown to 60 employees (more than half of them from UC Santa Cruz), is collaborating with UC San Francisco on a pilot study to detect tumor DNA in the blood and urine of patients with known cancer diagnoses, and already has willing partners waiting in the wings.

At its heart are three men: a successful entrepreneur named Dan Heller, who founded UC Santa Cruz's Center for Entrepreneurship (C4E) in 2010; a former thoroughbred jockey with a doctorate in biochemistry and

molecular pharmacology named Trevor Morin, who worked as a postdoctoral researcher on campus; and Dunbar, who left his professorship at UC Santa Cruz in order to devote himself completely to solving what he sees as a "significant problem" in the modern world.

"There were two reasons we decided to invest in Two Pore Guys," said Vijit Sabnis, a partner in Khosla Ventures, which was started by billionaire and Sun Microsystems founder Vinod Khosla. "The first reason was that the technology is highly, highly differentiated and revolutionary. No one else in the world is working on this and has made the progress this team has."

The second reason, he said simply, is "the quality of the people."

Meeting of the minds

Heller and Dunbar met at UC Santa Cruz in 2010 as Dunbar, now 42, was working on his two-pore idea and Heller, now 54, was teaching courses associated with his Center for Entrepreneurship.

Heller had experience starting technology companies from core inventions like Dunbar's. And the two men bonded almost immediately over science, a shared sense of humor, and a Right Coast background.

"Sometimes, it's just easy with certain people," Dunbar said.

At the time, Heller, who'd earned both a B.A. in computer science (Rachel Carson '85) and a master's in digital media ('13), at UC Santa Cruz, thought he was finished with big ventures. He'd already founded

and sold a successful email software company, helped steer the nascent digital photo industry, written six books, and circled the globe as a travel photographer. But Dunbar's two-pore theory, along with the idea of using a nanopore made out of silicon instead of the biological nanopore Deamer and Akesson developed, intrigued him.

"I have a deep enough science background that I can smell something interesting when it comes up," Heller said.

In 2011, the two men started their company and gave it the tongue-in-cheek name, "Two Pore Guys."

Like others, Dunbar and Heller also attended engineering seminars on campus. There, they noticed a guy who kept asking questions about possible biological and practical uses for whatever device was being discussed. One day, Heller approached the questioner, learned his name was Trevor Morin, and discovered he was working with UC Santa Cruz Professor Phil Berman, a pioneer in the development of recombinant vaccines for AIDS and other infectious diseases. Heller asked Morin if he would like to join him and Dunbar for breakfast at Kelly's French Bakery to talk about nanopore technology.



Two Pore Guys makes a digital, hand-held testing platform that detects viruses, bacteria, antibodies, and other biological molecules.

“I was a poor postdoc,” said Morin, a former horse-racing jockey whose riding career ended when he was thrown into a fence, breaking his wrists, back, and neck. He then went on to get a doctorate in biochemistry and molecular pharmacology. Morin said, “If you buy my breakfast, I’ll talk about whatever you want to talk about.”



Morin, who’d worked for a Massachusetts biotech company before following his wife, post-doctoral researcher Tomoko Tabuchi, to UC Santa Cruz, spent the entire night before the meeting reading about nanopore technology.

“I had four pages of notes about

what we could do with a solid-state nanopore,” Morin said of that breakfast meeting in 2013. A short time later, Morin officially became the company’s first employee, but he is generally considered the third founder of Two Pore Guys.

“I think we realized early on, by combining our collective expertise, we could be a company that would grow as big as our eyes would allow it,” Morin said.

What those eyes allowed was the development of a palm-sized biosensor device, which uses disposable strips with reagents on them to do the kind of diagnostic tests more expensive machines do now—and to do them more quickly.

Lots of potential applications

Taking a page out of the iPhone playbook, which allowed others to create apps for its iconic device, Two Pore Guys also decided it wouldn’t develop the specific

tests for things like bacteria, viruses, and tumor DNA, but rather form partnerships with other diagnostic test makers, according to Heller. Two Pore Guys is currently in contract with five unnamed partners and in negotiations with 15 others.

The first uses are expected to be in agriculture.

Meanwhile, the Two Pore Guys platform is being tested as part of a pilot study led by Dr. Andrew Ko, a professor of clinical medicine in the Division of Hematology and Oncology at UC San Francisco. In this study, patients’ blood and urine samples are being tested for a common mutation in pancreatic, colorectal, and other gastrointestinal cancers called KRAS G12D. If successful, the platform could then possibly be used by patients within their own homes to monitor their response to treatment or discover recurrences early following curative surgery.

“In a grander scheme, this technology even has the potential to become a cost-effective cancer-screening tool on a larger population-wide scale,” Ko said. “There are lots of potential applications.”

Venture capitalist Sabnis, meanwhile, envisions a time that’s very different from how things are now. Instead of a patient visiting his or her doctor and then going to a testing lab, waiting days for results, and freaking out about what the numbers mean before being able to talk to the physician and get treatment, a patient would wait a few minutes while the doctor used the device to test for a suspected disease, explained the results, and got treatment ordered in one visit.

“It saves time and saves anxiety and it saves the system money,” Sabnis said. “That’s a big, big deal.”

Said David Haussler, director of UC Santa Cruz’s Genomics

Institute, who is on the advisory board for Two Pore Guys: “This company really breaks through a longstanding technology barrier by creating a modular, portable assay platform for just about everything people care about.”

Scaling up

On a recent morning, Heller stood in Two Pore Guys’ Santa Cruz headquarters dressed in khakis and an untucked collared shirt.

Describing himself as curious by nature, Heller said he is a problem-solver and a guy who likes the journey even more than the destination.

But above all, he considers himself an entrepreneur, he said, as he walked down a hallway and stepped into the heart of Two Pore Guys, a brightly lit room where scientists, programmers, engineers, economists, artists, and fabricators hunched over computers or stood at lab benches.

Right now, the company is refining Dunbar’s original two-pore technology, and has also developed more than 30 tests on behalf of its partners, who will be selling them under their own brand name. Recent funding allows it to scale up the manufacture of its entire system.

For Dunbar, the leap from tenured professorship into what some might see as a risky venture was a natural decision, he said. He loves discovery, the opportunity to concentrate on and solve a big problem. According to him, Two Pore Guys was that place.

“If I were going to talk to a bunch of young people, I would tell them to find the most significant problem you can think of, or have heard about, and completely devote yourself to it. Otherwise,” Dunbar said, “you’re just kind of wasting your time.”



LESSONS OF HISTORY REFLECT ON HER STORY

UC Santa Cruz's new second-in-command, Marlene Tromp, is a respected scholar and professor of Victorian history—and a first-generation college graduate

When it was time for Marlene Tromp to start college in the mid-1980s, her mother and father helped her pack up to leave early in the morning, and they drove 14 hours to Creighton University in Omaha, Nebraska.

Her parents bought her furnishings for her dorm room, but they couldn't stick around for long to help her get settled. "They simply couldn't take the time away from work and had to go back," Tromp said.

Her parents cared passionately about her education.

"My father told me I could be president one day, if I wanted to do so," Tromp continued. "He was so proud of my academic success and encouraged me to pursue my goals, even though they weren't traditional goals for a girl. He got up at 4 a.m. every

day to drive to work, but he also worked a lot of overtime to help pay my tuition. My mother also gave me incredible emotional support."

Her parents provided a solid foundation for Tromp, the new executive vice chancellor (EVC) and campus provost for UC Santa Cruz, serving as chief academic officer and providing academic leadership for the campus.

The fast learning curve she picked up in her first days of college will serve her well at UC Santa Cruz, where she will manage the campus budget, guide the campus through long-term planning, and advise Chancellor George Blumenthal. She succeeds Alison Galloway, who served for six years and stepped down last December.

Like Galloway, a world-renowned forensic anthropologist, Tromp is distinguished in a field outside of university administration. A respected Victorian and Edwardian scholar and the author of several books, she looks forward to teaching at UC Santa Cruz, although her first year will be spent “learning the ropes” for her new EVC position.

about the value of perseverance, while delving into history gives her necessary perspective on the current political situation in America, with polarization between left and right and the demonization of people who are branded “the other” for the sake of political expediency.

“(UC Santa Cruz) is the sort of place where having people listen to one another is critical,” she said. “I care what people think ... I am not someone who wants to execute (decisions) from the top, imperiously. I think that collaborative leadership is something this place really values.”

These qualities made Tromp stand out in a competitive field of highly qualified candidates during the search for a new EVC, said Chancellor George Blumenthal.

“She understands and appreciates the culture of UC Santa Cruz,” Blumenthal said. “She embraces our innovative spirit, values the role of faculty consultation in effective shared governance, and is committed to diversity and to making educational opportunities available to all.”

These days, Tromp’s family is enjoying the transition to life in Santa Cruz after making their big move from Phoenix, Arizona, where Tromp was a professor and administrator at Arizona State University (ASU). Tromp’s 15-year-old son, Jacob Tromp-Chacko, entered Santa Cruz High School this fall. Her husband, James Spearman, is now finishing up his master’s degree in sustainability at ASU.

Tromp joined ASU in 2011 as director of the School of Humanities, Arts, and Cultural Studies, and worked closely with faculty to invigorate humanities

and arts education. From 2013, she served as dean of the New College of Interdisciplinary Arts and Sciences and vice provost of ASU’s West Campus.

The lessons of history

If you ever find yourself having a one-on-one talk with Tromp, consider the sinking of the R.M.S. *Titanic* in 1912 as a conversation starter.

Tromp will share fascinating and disturbing stories about the people who died in this maritime disaster and why, as well as the social dynamics and prejudices at work among the passengers and crew. When asked why so many people in steerage perished, Tromp sounded indignant, as if the tragedy had happened just yesterday.

She spoke, for instance, of how difficult it was for steerage passengers—third-class passengers primarily made up of immigrants moving to the United States and Canada for a better life—to get to the upper decks in time for the launch of the lifeboats.

Only 25 percent of the *Titanic*’s third-class passengers survived. By contrast, 42 percent of the second-class passengers aboard survived, and about 60 percent of the first-class passengers survived.

“Many factors played a role,” Tromp said. “It was difficult to ascend to the upper decks, when you didn’t know the way. It was a very complex and large ship. In the front of the ship, where single men were housed, water was coming in, which made it a very different experience than it was for people in first-class. People in steerage were often reluctant to go to places they hadn’t been



**#FIRSTGEN
COLLEGE
GRAD**

First generation

Tromp, as a first-generation college student, has plenty of experience when it comes to adjusting quickly. She followed the example of her sister, who also graduated from a four-year institution. Her parents did not have the same opportunity.

“My father was brilliant. But money was tight,” Tromp said. “He went to college, but he was never able to finish. He was working class. My mom came from a working-class family, too. My sister and I are two of the only people in the extended family who ever went to college and completed a degree.”

Tromp’s thoughts often lead her back to the recent and distant past, whether she is reflecting on her life, or delving into the world of the late 19th and early 20th centuries.

Her college years taught her everything she needed to know

given permission to go. In some cases, people were forced back below decks, or were forced to wait when they got close to the lifeboats.”

She spent five years poring through archives and reading newspapers, legal documents, and the transcripts of declassified legal conversations while writing her book, *Untold Titanic: The True Story of Life, Death, and Justice*.

Finding her way

Long before becoming a professor and scholar, Tromp, like so many first-generation students all across America, was a nervous young undergraduate trying to find her way.

“Going to college was like moving to a foreign country,” she said. “You don’t have anyone tell you how things work or advise you about what makes sense because they don’t know the customs of that foreign country.”

Tromp took on a job in her first semester, working hard in the hopes that she could save money and live off her earnings during her other years in college, without having to have a job. But it didn’t work out that way. Even in her senior year, she worked three jobs while handling a full course load.

Asked how she got through this period, Tromp chalked it up to “dogged persistence. I had to keep picking myself up off the ground over and over again. I think I am a natural optimist. That was probably a part of it.”

But she’s also read a lot of scholarship about grit and “the growth mindset,” in which students are committed to self-improvement. She is convinced that the same qualities that got her through can be

taught, helping future generations of pioneer students make their way in the world.

A distinguished career

That resilience and sense of ambition led Tromp forward. After graduating from Creighton University with a B.A. in English, Tromp went on to earn an M.A. in English from the University of Wyoming, and a Ph.D. from the University of Florida.

These qualities also drove Tromp to take on new roles in academic institutions after distinguishing herself as a professor and scholar. Before her career at ASU, Tromp was a full professor at Denison University in Ohio from 2002 to 2008 and served as chair and director of the Women’s Studies Department.

Serving as an administrator never really occurred to her until friends and colleagues urged her to take on leadership roles because of her compassion, her feminist outlook, and her passionate support of faculty.

Administration and historical scholarship may seem like separate spheres, but Tromp said these two sides of her working life continue to inform one another.

“People think history is dead history, but it has shaped where we stand today,” she said. “It helps us understand the ground we stand on.” That understanding comes from “a little distance,” Tromp continued.

“The Victorian age is not that far behind us,” she pointed out, referring to the era from 1837 to 1901. “It’s a little bit harder to understand what life was like in the

Renaissance [1300–1700], but the Victorians are pretty familiar to us.”

Tromp believes that the Victorians are, at the same time, close enough to be very recognizable today but different enough to provide valuable perspective regarding issues such as xenophobia—the fear and the demonization of a perceived other.

She speaks, for instance, about “interaction with cultures that hadn’t existed in their country before,” and how this could lead to prejudice and fear. She points out that we are in an “even more global world now ... The technology and media have changed. The global economy has changed.”

She mentions white Americans who feel anxiety about being the minority in the near future. She argues that xenophobia is an “affective response”—relating to moods, feelings, and attitudes—consisting of a combination of loathing, fear, and panic.

But she said that Americans can analyze and get a bit of distance from such ingrained responses and manage their fear.

“You can’t tell someone having an affective response that it’s wrong” because the response is not rational, she said. “But we don’t need to make that the end of the conversation.”

That spirit of bridge-building enters into her job here at UC Santa Cruz. “I really care, and that is why I want to do this work,” she said. “It has never been about having power or authority. It is about how I can serve the community.”

THE CAMPAIGN FOR UC SANTA CRUZ

UC Santa Cruz's first campuswide campaign closes with record giving by alumni and friends | **63,064** donors, **\$335 million** in gifts

FROM THE CHANCELLOR

Together, we made the future of UC Santa Cruz stronger than ever.

It is hard to overstate the positive impact the Campaign for UC Santa Cruz is having on our campus. When I look around, I see it everywhere: the rebuilt Hay Barn at the main entrance, the renovated Quarry Amphitheater in the heart of campus, new academic programs and scholarships for our students, research and teaching support for our faculty, new cultural programs and archives, deeper engagement with our alumni and community.

The things that make UC Santa Cruz unique—our people, programs, values, and location—resonated with donors. They supported the things we

know make UC Santa Cruz great: an extraordinary student experience, high-impact research, and an ethos of social justice and environmental responsibility.

They saw opportunities to support those values in ways we could not have imagined when we launched the campaign—the quiet phase in 2009 and the public phase in 2013. We'd never before attempted such a comprehensive fundraising effort. In gifts of every size, alumni and friends took our defining pillars to the next level to ensure we are educating the leaders, thinkers, and doers of tomorrow.

Together, we raised more than \$335 million, surpassing our original goal of \$300 million and closing ahead of schedule;

the campaign was expected to run until the end of the year, but because of our success we wrapped it up June 30.

At Founders Weekend this fall we are celebrating. But our commitment to increasing private investment in UC Santa Cruz doesn't end here. Rather, it has begun in earnest. We've seen what we can do, and we are seeing clearly why it matters so much.

Congratulations to all who have been a part of this wonderful success story. You have our deep and lasting gratitude, today and far into the future.

Thank you!

George Blumenthal

The impact of investment in UC Santa Cruz by our donors is being felt all across campus. Here are some of the ways it is changing the future:



Classrooms in the wild

Hands-on learning in the field is available to more students than ever through donor support for the Natural Reserves, Natural History Field Quarter, and the new Norris Center.



Putting genomics to work

The UC Santa Cruz Genomics Institute is uniting the multiple arms of genomics research, including donor-supported data infrastructure and research focused on childhood cancer and other diseases.



The Quarry, next generation

The reopening of the Quarry Amphitheater and plans for its future resulted from a commitment by students and donors to bring the iconic site back to life.



Archives of the counterculture

The University Library has emerged as a trusted partner in preserving the norm-bending underground cultures that grew out of San Francisco and the Bay Area in the '60s and '70s.



Coastal science and policy

From a new graduate program that will launch in fall 2018 to research by our scientists now, philanthropy is advancing the work of coastal conservation practitioners and policy makers.



A network of inclusion

Donors are ensuring that new generations of decision makers with diverse perspectives and experiences will have the benefit of a UC Santa Cruz education.

PHOTOS: MEADOW BY ROBERTO MANDUCHI, UC SANTA CRUZ PROFESSOR OF COMPUTER ENGINEERING; CLASSROOMS, GENOMICS, AND INCLUSION BY ELENA ZHIKOVA; QUARRY COURTESY BARTON-GILLETTE; COUNTERCULTURE COURTESY SPECIAL COLLECTIONS, UNIVERSITY LIBRARY, UNIVERSITY OF CALIFORNIA, SANTA CRUZ (PIRKLE JONES AND RUTH-MARION BARUCH PHOTOGRAPHS); COASTAL BY SEAN BOGLE



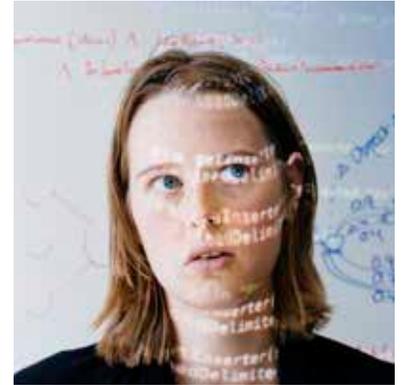
Activating social change

Donors reached out to programs that train students to work with social organizations around the world, shed light on injustices, and explore immigrant and feminist issues.



College Eight meets Rachel Carson

The endowment and naming of Rachel Carson College and two related chairs telegraph to the world the importance we place on environmental education and science writing. (See page 19.)



Innovation in data sciences

Private investment advanced new research and learning at the convergence of machine learning, big data, data science, inexpensive storage, and high-powered computing.



Arts and letters for the ages

Endowments supporting the study of modern poetry and Charles Dickens and the operation of an art press demonstrate the breadth of programs capturing the imagination of donors.



Grounded in history, the future

The philanthropy that rebuilt the historic Hay Barn symbolizes the university's powerful connection to the land—and support for its farm, gardens, and farming apprenticeships.



Connecting the arts and sciences

With donor support for its programs, the Institute of the Arts and Sciences is bringing together research in the arts and sciences in new ways and sharing it with the world.

Doubling down on chairs

Faculty across campus are building on the vote of confidence 16 new chairs confer, using resources to support research and student involvement. (See our story and the full list of chairs on page 18.)

Learn more about what's behind the headlines at giving.ucsc.edu.

PHOTOS: SOCIAL CHANGE, INNOVATION, AND ARTS BY ELENA ZHUKOVA; HISTORY BY C. LAGATTUTA; CARSON BY ERICH HARTMANN / MAGNUM PHOTOS; CORAL REEF COURTESY CO2CA-COZLA OCEAN AT UC SANTA CRUZ, 2017

Together, we raised \$335 million

THE CAMPAIGN FOR UC SANTA CRUZ created real differences and new possibilities in the lives of our students and faculty, providing increased opportunities in education and enabling even more world-class research. In our first-ever comprehensive fundraising campaign, together we built a stronger, more dynamic future for UC Santa Cruz.



Foundations, Other Organizations: \$132.87 (40%)
Parents and Friends: \$90.89 (27%)
Alumni: \$64.71 (19%)
Corporations: \$47.15 (14%)



Students and Programs: \$143.34 (43%)
Research and Faculty: \$130.73 (39%)
Campus Improvements: \$42.80 (13%)
Unrestricted and Other: \$18.75 (5%)



Cash: \$229.62 (68%)
Planned Gifts: \$56.26 (17%)
Gifts in Kind: \$49.75 (15%)

WE BUILT A CULTURE OF PHILANTHROPY

In gifts large and small ...

63,064 donors
40,274 first-time donors
53 gifts of \$1 million or more
51,943 gifts of \$100 or more
8,600 gifts made in two 24-hour Giving Days, totaling \$860,000
121,595 individual gifts

and in interactions ...

89,917 in record attendance by alumni and friends at events, lectures, programs, and reunions

WE SUPPORTED FACULTY AND RESEARCH

16 new faculty chairs established
\$107.5 million for research

WE CHANGED THE LANDSCAPE

Hay Barn rebuilt into environmental center | **Quarry Amphitheater** renovated and reopened | **University Library** major new collections added | **Coastal Science Campus** infrastructure updated | **Natural Reserves** outreach and area expanded | **Rachel Carson College** named and endowed

WE LAUNCHED INITIATIVES

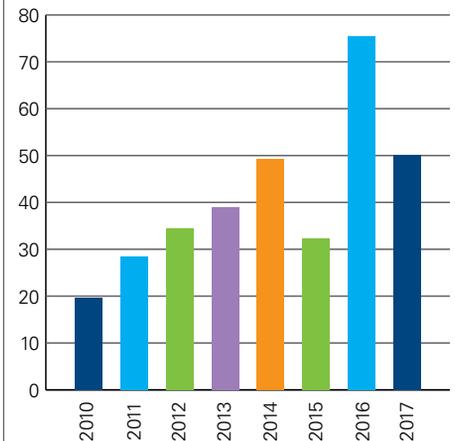
UC Santa Cruz **Genomics Institute** | Institute of the **Arts and Sciences** | Graduate program in **Coastal Science and Policy** | Expanded applications and centers for **data science**

WE EXPANDED STUDENT EXPERIENCES

\$47.5 million for scholarships, fellowships, and student support
\$31.8 million for campus life and undergraduate education

giving totals

(by fiscal year \$ millions)



Note: Fiscal year is July 1 to June 30. Some gifts in FY 2009 are included in campaign totals.



CHAIRRAISING

The campus has inaugurated 16 new chairs since the start of the Campaign for UC Santa Cruz, bringing new research funds along with heightened creativity, prestige, and influence

UC Santa Cruz's new bumper crop of academic chairs promises to do much to elevate research and discovery in a multitude of areas across campus, from advancing the fight against pediatric cancer to adding prestige and permanence to gender studies.

Other chairs will help take current scholarship to a new level, such as helping science journalists increase their impact, and giving high-tech workers of the future an edge in their fight against hacking and data theft.

Chairs, established with funding from donors, are awarded to distinguished scholars and teachers to support teaching, research, and other services. Because being named to a chair is a prestigious award, chairs can attract highly sought-after faculty and academic candidates.

A total of 16 new chairs have been established at UC Santa Cruz since October 2013, when the campus launched the public phase of its first-ever comprehensive fundraising effort, the Campaign for UC Santa Cruz. Donors contributed more than \$335 million in gifts to the university during the campaign, which closed on June 30. The total number of chairs at UC Santa Cruz climbed from 22 to 38.

The chairs' importance can't be overstated, said Paul Koch, dean of Physical and Biological Sciences. "They can spur faculty creativity by offering seed funds to test a new idea that is a little risky or provide a base of support for a talented graduate student."

What is a chair, anyway? Chairs are funded by donors to advance scholarship in specific areas. They are awarded to distinguished scholars and teachers to support teaching, research, and other services. In some cases, the chair payout supports the salary of chair holders or their graduate researchers. A chair can also provide funds in support of a department, research unit, school, or college. Chairs can be named on behalf of the donor or someone they want to honor. They often specify the area of research or administrative expertise supported—at UC Santa Cruz, that includes everything from astrophysics to writing for television.

Here we've highlighted three of the new chairs and their inaugural holders, and included a list of all the chairs that have been established during the Campaign for UC Santa Cruz. A dozen of the new endowed chairs are designated "presidential" in recognition of matching funds provided by the UC Office of the President.

Spreading accuracy

Presidential Chair in Science Communication

Erika Check Hayden, Science Communication Program director

Journalists and communicators have a great burden and responsibility. It is their job to improve the reach and impact of accurate information.

"We can't simply blame social media companies for the influence of 'junk news,'" said Science Communication Program Director Erika Check Hayden. "We must adapt our practice to account for the increasing influence of social and digital media in all realms of public life."

That is why Check Hayden is so excited about the launch of the Presidential Chair in Science Communication, which was established with a joint gift from the Helen and Will Webster Foundation and Mark Headley (Stevenson '83, politics and economics) and Christina Pehl. "We have a small program, and during times of budget stress, it can be difficult for programs like ours to sustain themselves," she said. "The chair offers us a long-term secure future, which we have lacked in the past."

Every year, the program offers intensive training for 10 students with scientific backgrounds who are transitioning into full-time communications work. "The chair will allow me to undertake a number of projects to help recruit top candidates, including candidates from diverse backgrounds, and support their training," Check Hayden said.

The funding will also allow Science Communication faculty to launch themselves into ambitious projects. The program was recently awarded a grant from the John S. and James L. Knight Foundation to explore new ways to use digital and social media more effectively to spread accurate and influential information about science.

A sense of permanence

Peggy and Jack Baskin Foundation Presidential Chair for Feminist Studies

Bettina Aptheker, distinguished professor of feminist studies

The launch of this chair is a very good sign that gender studies are getting the recognition and respect they deserve, said renowned feminist studies professor Bettina Aptheker.

Aptheker is deeply touched by the fact that the donors "recognize and understand that what was once called women's studies—now also sometimes called gender studies—was not just a fad or something that would disappear, that you can't really

do research and understand the world unless you understand gender, race, class, and sexuality, and how these things interlock and connect.”

Aptheker hopes to use the funds to bring visiting scholars to campus. “This is very exciting for the department,” she said. “And it deeply enriches the experience, especially for the graduate students.”

The initial endowment for the department was matched by the UC Office of the President. The result, said Aptheker, “is a sense of permanence to feminist studies, and an understanding that this is a bonafide and important field of study.”

The chair is also a great honor for a scholar of history with a national reputation for her talents as an instructor. Aptheker has taught one of the country’s largest and most influential introductory feminist studies courses for nearly three decades at UC Santa Cruz.

Dealing with a digital dilemma

Veritas Presidential Chair in Storage and Security

Ethan Miller, professor of computer engineering

The Veritas Presidential Chair in Storage and Security will help new generations of high-tech workers explore one of the most pressing questions in modern life: In an age when almost all information is digital, how do you protect your data, and how do you find the data you need?

“How do you manage it and make it reliable so someone can’t break in and steal your information, and how do you avoid losing it?” said computer engineering professor Ethan Miller. “These are issues you have to deal with. What about genomic data, medical data? If you are 20 years old, you’ll want medical records available when you’re 70. But how do you manage and build that? Very large storage and long-term storage are of critical importance.”

The presidential chair will give UC Santa Cruz students access to Git servers running software widely used in industry to efficiently record changes made to code projects.

“Let’s say you made changes to fix something in the code, and something else broke,” Miller said. With the Git server, “you can go compare the new version to the old version to see where to look.” Students can collaborate on complex multi-person projects, work cooperatively, and know exactly what changes each of their team members has made to the code.

The Git software doesn’t cost the university anything, “but you’ve got to run it on something,” Miller said. The endowment money will cover the cost of servers and solid-state drives to store student work, and will soon be expanded to provide storage for research project code as well.

Those students are hard at work addressing “a vitally important issue in our society,” Miller continued. “We are in big trouble if our digital storage fails.”

Bringing chairs to the table

The Campaign for UC Santa Cruz helped the campus establish the following chairs. If an inaugural chair holder has been chosen, that information is also included.

2013

Dorothy E. Everett Endowed Chair for Global Information and Social Entrepreneurship

Chris Benner, professor of environmental studies and sociology

2014

Veritas Presidential Chair in Storage and Security

Ethan Miller, professor of computer engineering (see above)

2015

Kenneth R. Corday Family Presidential Chair in Writing for Television and Film

Jordan-Stern Presidential Chair for Dickens and 19th-Century Literature Studies
John Jordan, research professor of literature and director of the Dickens Project

Stephen R. Gliessman Presidential Chair in Water Resources and Food System Sustainability

Sage Weil Presidential Chair for Open Source Software
Scott Brandt, professor of computer science and vice chancellor for research

Richard L. Press University Librarian Presidential Chair
Elizabeth Cowell, university librarian

Wilton W. Webster Jr. Natural Reserves Presidential Chair

Gage Dayton, administrative director of the UC Santa Cruz Natural Reserves

Faggin Family Presidential Chair for the Physics of Information

Anthony Aguirre, professor of physics

2016

Colligan Presidential Chair in Pediatric Genomics

Narinder Kapany Professor in Entrepreneurship
Sue Carter, professor of physics

Peggy and Jack Baskin Foundation Presidential Chair for Feminist Studies

Bettina Aptheker, professor of feminist studies (see page 19)

E. K. Gunderson Family Chair in Theoretical Astrophysics

Ruth Murray-Clay, professor of astronomy and astrophysics

Presidential Chair in Science Communication

Erika Check Hayden, director of Science Communication Program (see page 19)

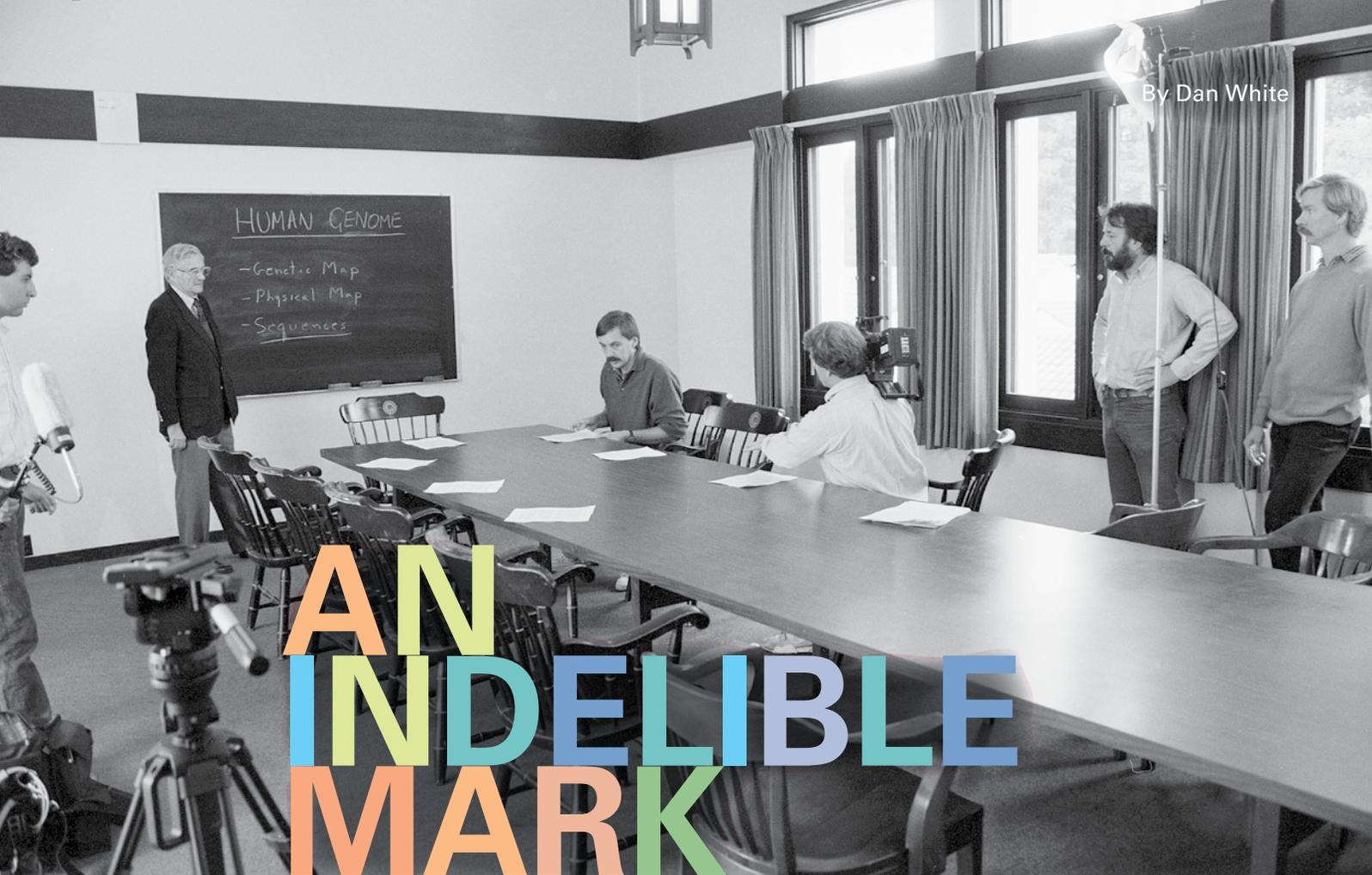
Robert Headley Presidential Chair for Integral Ecology and Environmental Justice

Ronnie Lipschutz, professor of politics

2017

Murray Baumgarten Chair in Jewish Studies

Nathaniel Deutsch, professor of history



AN INDELIBLE MARK

The late Robert Sinsheimer, who served as chancellor from 1977 to 1987, left a lasting legacy by leading a young UC Santa Cruz through major changes, from the audacious to the controversial

Above: A BBC crew films a documentary on the Genome Project in 1988. At left is Robert Sinsheimer, along with (left to right) biology professors Robert Edgar, Harry Noller, and Robert Ludwig.

When internationally renowned biologist Robert Sinsheimer took the job of chancellor at UC Santa Cruz in 1977, admissions applications were dropping and rumors were flying that the campus was going to close.

With his adventurous mind, his love for the sciences, and his direct and sometimes brash way of expressing himself, Sinsheimer, who died in April at 97, made a big impression from the start. To this day, visitors and students can see the signs of his influence on campus, from Sinsheimer Labs on Science Hill to the prestigious and groundbreaking Genomics Institute.

“Sinsheimer left an indelible mark on UC Santa Cruz and in the greater scientific world,” UC Santa Cruz Chancellor George Blumenthal said shortly after Sinsheimer passed away this year. “He was a tireless advocate for UC Santa Cruz and was widely respected by the campus community.”

A 'crazy' question

When referring to the beginnings of the Human Genome Project at UC Santa Cruz, the campus's scientific community looks to 1985, when Sinsheimer convened a distinguished group of scientists to discuss the feasibility of a seemingly far-fetched idea—mapping the complete set of DNA instructions for the making of a species.

At the time, Sinsheimer predicted that such a genome project would have "major medical implications" and lasting influence, while placing UC Santa Cruz at the forefront of biological research.

"Bob characterized the UC Santa Cruz spirit: He was never afraid to ask the big questions," said David Haussler, distinguished professor of molecular engineering and scientific director of the Genomics Institute. "When he convened the world's experts to determine if it would be possible to read the entire human genome sequence, most of his colleagues thought this was so big, it was actually a crazy question."

This skepticism was not surprising, considering that the human genetic code is millions of times larger than what was being read in laboratories at the time, Haussler continued. "But several of the best and brightest came to UC Santa Cruz to examine this question, and the surprising answer was 'yes.' Fifteen years later we had the first draft."

Campus organization

More controversially, Sinsheimer also initiated a dramatic campus reorganization that scaled back the role of UC Santa Cruz's colleges in the campus's academic development. During his tenure, for example, hiring decisions and the

authority to set curriculum were removed away from the colleges.

To some, the reorganization was a welcome sign of progress, allowing the campus to focus more forcefully on research and increase its prestige among the other UCs; to critics, it amounted to a "watering down" of UC Santa Cruz's original mission to provide a world-class education in a small and intimate liberal arts setting and brought it closer to the giant research universities its founders were reacting against.

For his part, Sinsheimer told an interviewer that he believed UC Santa Cruz didn't have the financial resources to run the colleges the way the founders envisioned them. He was also concerned about lingering conflicts between the colleges and what were called boards of studies regarding hiring and tenure decisions. He likened this "standoff" to a constant "tug-of-war" that threatened to harm UC Santa Cruz's reputation.

made and I had to go one way or the other, and I chose the way that made sense to me."

Beginnings of a brilliant career

When he was only 16, Sinsheimer, a native of Washington, D.C., enrolled at the Massachusetts Institute of Technology (MIT). He graduated in 1941. During World War II, Sinsheimer worked on aircraft radar for MIT. In 1957, he became a professor of biophysics at the California Institute of Technology (Caltech), where he worked for two decades before taking the chancellor job at UC Santa Cruz.

At the time, he was 57, and "at a point where you've got enough time to do one more major thing in your career," Sinsheimer told interviewer Randall Jarrell in 1991. "You don't want to put it off much longer than that"

Sinsheimer was familiar with the campus because his daughter,



"It was essential to improve the academic standing of the campus," said Sinsheimer during an extensive interview. "... I think some people felt that I was antithetic to the colleges, and I wasn't antithetic to the colleges. It was that a choice had to be

Kathy Sinsheimer, had attended UC Santa Cruz in the early '70s. Nevertheless, the invitation to apply for the job was "quite out of the blue," he recalled.

Immediately, Sinsheimer saw potential. "In a growing university,

you can impress some new concepts and programs on it. Also at this time, because of my concern with bioethics and with the social impacts of science, I'd come to feel that we had a serious problem—and we still do, it's even worse—in that we have a scientifically illiterate populace.

"I felt that some serious efforts were needed to develop programs that would provide some kind of background for the general student—not the Caltech kind of student, other students," Sinsheimer continued.

Large potential, big problems

But when he got to UC Santa Cruz, several faculty members told him that the enrollment issue was becoming "dire." Sinsheimer, after conversing with students, parents, and faculty, as well as members of the greater Santa Cruz community, came to believe that UC Santa Cruz's reputation, rightly or wrongly, had taken a major hit after an initial glory period, when it received national press for its high standards, its human scale, and, in Sinsheimer's words, a private school atmosphere "with the imprimatur of a great public research institution."

He believed that its once prestigious reputation had given way to the popular notion that UC Santa Cruz was "a hippie school, its reputation tarnished by the Vietnam War, negative publicity engendered by the campus youth culture, and increasingly strained town-gown relations with the Santa Cruz community."

Sinsheimer worked hard to change the structure of UC Santa Cruz, hoping that the campus's image would be elevated as a result.

Even at a time when budgets were tight throughout the UC system, he oversaw major growth in academic programs at UC Santa Cruz, and was heartened to see that more students were seeking out the campus.

"In 1984, application for enrollment at UC Santa Cruz turned upward, and again, sharply, in 1985," he observed in his memoir, *Strands of a Life*. "The bad image of the campus was finally behind us."

During his tenure, a new undergraduate major in computer engineering came online, and graduate enrollments doubled. Under him, the campus expanded linguistics, high-energy physics, and new research programs in seismology, agroecology, and applied economics.

Slugging it out with a sea lion

Fans of UC Santa Cruz's quirky mascot, Sammy the Slug, remember Robert Sinsheimer's name because of his spirited, if short-lived, opposition to the mascot in the mid-1980s.

It all started when Sinsheimer brought the campus into the National Collegiate Athletic Association (NCAA) as a Division III school for the first time. UC Santa Cruz had unofficial sports "clubs" but no NCAA teams up to then.

NCAA Division III-affiliated colleges were expected to have an official mascot. In 1981, a group of student athletes supported the sea lion; Sinsheimer backed their choice. And yet the slug lived on in the hearts and minds of students who wanted a more surprising and nontraditional mascot. "Slime 'em!" and "Go, Slugs!" were common cheers at sports games.

In 1986, the newly formed Student Union Assembly voted to put the mascot issue on a campuswide ballot measure. The students had spoken; the banana slug easily defeated the sea lion at the polls.

Initially, Sinsheimer, in spite of the nonbinding ballot measure results, could not work up enthusiasm for the slug.

Later on, Sinsheimer went along with the vote, though he greeted the news with a characteristically tongue-in-cheek statement:



Above: top, student in Banana Slug costume with Chancellor Robert Sinsheimer at the Banana Slug Spring Fair, May 1986, on the East Field; below, sea lion statues by Thimann Lecture Hall; opposite page, student demonstrators at Chancellor Sinsheimer's inauguration, October 1978.

“As is well known, I would prefer a mascot with more spirit and vigor. However, the students are entitled to a mascot they desire and with which they can identify,” Sinsheimer wrote. “I also suggest that it would be most desirable for our biological scientists to begin a program of genetic engineering



research upon the slug, ‘to improve the breed.’ The potential seems endless.”

Easing into a new life

Sinsheimer retired from UC Santa Cruz in 1987. Donor Arthur Graham, along with his wife, Carol, chose to honor him that year by establishing the Robert L. Sinsheimer Professor of Molecular Biology Chair to support teaching and research in molecular biology. Graham, a longtime campus benefactor, was Sinsheimer’s roommate at MIT. Distinguished professor



Above: Richard C. Atkinson, president of the University of California, presented the UC Presidential Medal to Robert Sinsheimer during the At the Edge of Knowing: Human Genome Symposium in 2001. Left: Karen Sinsheimer, Robert Sinsheimer, and unidentified woman playing croquet at University House in 1982.

Harry Noller, director of the Center for Molecular Biology of RNA and winner of a \$3 million Breakthrough Prize in Life Sciences in 2016, holds the chair.

After his retirement, Sinsheimer moved to Santa Barbara with his wife, Karen. Karen Sinsheimer served as curator of photography at the Santa Barbara Museum of Art until her death in 2015. Sinsheimer became a professor in the UC Santa Barbara Biology Department, then joined the Department of Molecular, Cellular, and Developmental Biology as emeritus professor.

But Sinsheimer took some time to savor his years at UC Santa Cruz before heading off into this new chapter.

In his last days as chancellor here, “There were the accustomed bittersweet farewell dinners and events,” he recalled later on. “Many people seemed

genuinely sorry to see us leave, and I was deeply touched.”

As a parting gift, Karen Sinsheimer was named “Woman of the Year” by the Santa Cruz Chamber of Commerce. Like her husband, she had left a lasting mark on the campus and the Santa Cruz community. She was hailed as one of the “great leading ladies” of Shakespeare Santa Cruz, serving as the founding board president for the festival. Later, she served on the Santa Cruz Shakespeare board.

The Sinsheimers appreciated the good wishes of their friends and colleagues as they prepared for their big move.

“Even faculty and community people with whom I had been much at odds seemed to mellow and sheathe their swords and wish us well as the time drew near,” Sinsheimer recalled. “But it was time to go. Science beckoned.”



Roshawna Novellus: The Wealthy Yogi

Rachel Carson '01, business management economics (B.A.) and engineering (B.S.)

When Roshawna Novellus visited a university in China as a UC Santa Cruz senior, the students assumed she was a sports or television star.

"That was their experience of African Americans," she says. "They couldn't believe I was an engineering student."

Novellus, now 38, lives in Atlanta and has become a star in her own right.

Known professionally as "the Wealthy Yogi" for her combination of mindfulness and financial savvy, she has been featured in *Huffington Post*, the *Wall Street Journal*, and *Fast Company* magazine, and recently authored several articles for *Forbes* magazine.

Novellus cofounded two businesses, Novellus Financial and Bootstrap Capital, and serves on Atlanta's Commission on Women. Now working on her third finance-related book, she holds a coveted spot on *Georgia Trend* magazine's 2017 "40 Under 40" list.

This powerhouse entrepreneur grew up in San Diego, where both her parents were teachers. Before

graduating high school—as valedictorian and homecoming queen—she applied for 200 scholarships and received over \$600,000 in educational funding. Her two concurrent undergraduate degrees from UC Santa Cruz were followed by a master's degree from Rensselaer Polytechnic Institute and a doctorate of science from George Washington University.

"I've always been driven," says Novellus. "And I've always known the importance of money and financial strategy."

While studying yoga in Thailand, she says, "I learned we have all the resources we need—we just have to figure out how to integrate them into our lives."

Novellus applies that concept to everything from meditating and working out to creating her latest venture, EnrichHer, a crowdfunding platform designed to support women-led businesses.

"I'm most proud when people say I've helped them. That's my vision: It drives me to keep going."

Alumni profiles by Ann Parker

Adolfo Mercado: An authentic life

Kresge '98, anthropology

As the son of Mexican migrant workers who met in California, Adolfo Mercado says one of his earliest memories was of picking tomatoes in the field with his family.

His brother, Aldo R. Mercado, a fellow UC Santa Cruz graduate (Stevenson '00, literature), became a lawyer.

After attending Boston University as a freshman, Mercado returned home for a year of community college before touring UC Santa Cruz.

"My grandmother visited the campus with me," he recalls. "She pointed at the Earth and said in Spanish, 'I see you here.'"

His UC Santa Cruz experience, says Mercado, "magnified me." He discovered Latino studies and spent his junior year in Mexico City, realizing a deeper understanding of his Mexican identity. An active member of the UC Santa Cruz Alumni Council since 2010, he is currently the council's president.

Mercado came out as a gay man while attending UC Santa Cruz, and later founded an LGBT ministry at his Catholic church in Sacramento.

"Coming out to friends in college helped me prepare to come out to my family. That's just one example of life education complementing my formal education," he says.

The former director of tuition-free college preparation program Breakthrough Sacramento, Mercado recently became regional manager, Northern California, for California Charter Schools Association. The role

embodies his belief in serving others and giving back.

"We all have a responsibility to make this world better," he says. "To advocate for the marginalized, to be authentic and true to yourself."



#FIRSTGEN
COLLEGE
GRAD

He grew up in a Sacramento neighborhood so notorious that it was called "Danger Island." To safeguard Adolfo and his younger brother, their mother managed to secure scholarships to a private Catholic school.

"She changed our life. That school was so different from our very poor neighborhood," says Mercado.

Susannah Rogers: Stage presence

Stevenson '94, theater arts

A kindergarten disappointment may have shaped Susannah Rogers's career as a professional actress.

"We were doing Winnie the Pooh, and I really, really wanted to be Kanga, but got cast as Eeyore," she recalls. "My mother said, 'That's a much better role: Kanga is boring.' She was right."

That early lesson planted the seed for a love of interesting characters. Rogers says she tends to play strong, even problematic, roles on stage, film, and television, ranging from the infamous Hedda Gabler to an exacting political consultant. In South Coast Repertory's recent production of Amy Freed's *The Monster*

Builder, she portrayed a sharp-witted architect opposite theater arts professor Danny Scheie—her first acting teacher at UC Santa Cruz, and a professional and personal mentor.

Among her many roles, Rogers appeared on Broadway in *All the Way*—in which *Breaking Bad* star Bryan Cranston made his Broadway debut—and toured with the national company of Steve Martin's *Picasso at the Lapin Agile*. She lent her talents to the groundbreaking film *The Diary of a Teenage Girl* and appeared in two award-winning television series, *Mr. Robot* and *Younger*.

"My husband is much more famous," she says



cheerfully about actor Reg Rogers (known for roles in television's *Hell On Wheels* and *Boardwalk Empire*, and in *Present Laughter* with Kevin Kline on Broadway). "We're never competitive: I'm such a fan of his."

A family photo shows their 4-year-old son, Rowan, visiting on set with Kevin Kline.

Combining acting and motherhood is challenging but wonderful, says Rogers.

"Acting is what I've always wanted to do. I grew up watching rehearsals and hanging out with

actors: They were my teen idols."

Her advice to young theater students at UC Santa Cruz: "Do everything. Do main-stage shows and experimental shows. And take advantage of where you are: Choose all kinds of classes."

Nick Vasallo: Hitting all the right notes

M.A. '09, music; D.M.A. '11

He's a loving husband and devoted father, an award-winning composer, a renowned musician, a respected teacher.

Nick Vasallo is also the originator of "deathcore," a genre-blending mix of death metal and hardcore music.

Now the Music Department cochair and director of music industry studies and music composition at Diablo Valley College in Pleasant Hill, Vasallo has an eclectic musical background that started with his father's love of classical and rock recordings.

"My dad was a stereophile," says Vasallo, who is of Filipino and Taiwanese descent.

At 14, a Nirvana concert changed his life.

"Kurt Cobain smashed his guitar onstage: It was such a great, distorted sound," recalls Vasallo, who asked for an electric guitar for his birthday and formed an extreme metal band called Antagony.

After studying music at Diablo Valley College and California State University, East Bay, he earned a master's and doctorate of musical arts at UC Santa Cruz, becoming the first music doctoral candidate to win the President's Dissertation Year Fellowship Award.

"My dissertation was about championing heavy metal within academia," he says.

Vasallo wrote his first song at 14. ("It was about a girl," he admits.) His innovative compositions have been performed internationally by groups such as Contemporary Music Ensemble Korea and the Silesian Philharmonic. He's currently recording two albums.

Teaching is intensely gratifying to this composer/performer, whose many honors include the San Francisco Classical Voice Music Educator Award 2013.

"Seeing students come from point zero to the highest apex of their capabilities is amazing."

Vasallo says of his wife, Denise Linda Vasallo, "I couldn't do anything without her. She's my MVP, and super-mom to our children: 4-year-old Madison and 9-month-old Lucas."

Deathcore has a soft side.



1MORETHING

by Lindsey Dillon

Saving science

In the days following the 2016 presidential election, I grew concerned about the impact of the new administration on environmental science, policies, and federal agencies, like the Environmental Protection Agency (EPA).

As my concerns grew, I knew I had to act. With a dozen colleagues across the U.S. and Canada, I cofounded an organization called the Environmental Data and Governance Initiative (EDGI).

Given some of the campaign rhetoric, we worried about the integrity of federal environmental agencies, including their environmental and climate data and other information.

We began monitoring the websites of environmental agencies. Since January 2017 we have observed and reported on shifts in descriptions of climate change and important environmental regulations, reflecting the new administration's priorities.

EDGI researchers also organized the first "DataRescue" event at the University of Toronto in December 2016, with the goal of independently archiving important environmental and climate datasets.

In collaboration with the University of Pennsylvania's Program in the Environmental Humanities, we coordinated over 30 other DataRescue events, which archived important federal environmental websites and datasets.

EDGI also embarked on an interview project with current and recently retired EPA career employees. Since December 2016, we've interviewed more than 60 employees. These transcripts provide an important window into the agency at a tumultuous moment in history.

Moving forward, EDGI researchers are tackling broader questions about justice and sustainability in environmental and climate data.

My experience with EDGI has taught me the power of public-oriented social science research and reinforced my belief that people, working together, can make the world a better place.

Lindsey Dillon is an assistant professor of sociology who studies environmental justice.



Where there's a will, there's a way



Emma Jean (nicknamed Rusty) and **Barry Bowman** worked side by side for nearly 40 years in UC Santa Cruz's Sinsheimer Laboratories. Now the retired researcher and emeritus professor are putting their department—Molecular, Cell and Developmental Biology—in their will.

The couple's cell research helps us understand bone growth, kidney function, and how we hear, among other things.

Over the years, Rusty and Barry noticed a recurring challenge. Gaps in funding would delay important scientific research. Barry remembers, "You'd find these very bright young people who'd got that first grant and done well, and they were struggling to get that second one funded."

Entering retirement, they created an endowment, the Barry and Emma Jean Bowman Fund for Research in Molecular, Cell and Developmental Biology. Their bequest will help support research during gaps between grants for years to come.

Barry hopes to inspire other professors to establish planned gifts.

"If it has been your whole career, you kind of want to see the university thrive." —Barry Bowman

Whatever your passion, you can help it live on. Find out how to include UC Santa Cruz in your estate planning. Please contact the Office of Planned Giving at (831) 459-1045.

plannedgifts.ucsc.edu

A portrait of Stefanie Brizuela, a young woman with dark hair, wearing a blue and white patterned headband, glasses, and a dark jacket. She has a nose ring and a tattoo on her chest. The background is a blurred green outdoor setting.

A RICH TRADITION OF NON-TRADITIONAL THINKING

UC Santa Cruz bioengineering undergrad Stefanie Brizuela is used to defying odds and thinking differently. It's what propelled her through the rigorous application process as she earned a prestigious research scholarship from the National Institutes of Health. Stefanie, like many Banana Slugs, wants her story to inspire future first-generation, Latina, LGBT, and other students from underrepresented backgrounds to pursue their scientific dreams.

ucsc.edu | [#thinkucsc](https://twitter.com/thinkucsc)



UNIVERSITY OF CALIFORNIA
SANTA CRUZ