

# SJSU

WASHINGTON  
SQUARE SPRING/SUMMER  
2019



## The Point of Transformation

San José State is building a dynamic future  
for our students, our community and our world.



## A message from President Papazian

As Silicon Valley's public university, San José State must be transformational for our students and our community. Students are at our core and our community is our home. This is one of the reasons we have entitled SJSU's new strategic plan *Transformation 2030*. But we transform ourselves as a university only as the needs of our students change, as the region and world around us continue to evolve—not just for the mere sake of change.

Our core mission is to ensure that our students graduate with the tangible skills and knowledge they will need to be successful and to thrive in their post-collegiate careers and in service to their communities, particularly in the innovation economy in which we find ourselves.

This issue of *Washington Square* highlights how growing San José State's dynamic research and innovation environment allows us not only to adapt to, but also to set the pace of change. Learn "Where Research Leads" from four alumni who are making an impact in their fields (page 8) and how wildfire weather researcher Craig Clements and his students are getting close to the flames to understand fire behavior (page 18).

SJSU has broken ground on our Interdisciplinary Science Building (page 33), the first phase of an ambitious plan to create state-of-the-art learning and research spaces in a new Science Park. The Science Park is going to be a game-changer for San José State.

Additionally, the success of our students depends on both academic and personal well-being. Cathy Busalacchi, '76 Recreation, has spent 30 years looking out for our students (page 12). The opening of the new Spartan Recreation and Aquatic Center is the culmination of her vision to create spaces for students to engage and be well.

Through *Transformation 2030*, we are taking the long view, looking forward 10 or 20 years, and even longer into the future. We will ask ourselves: How are we contributing to solving the world's problems? Are we constantly reinventing ourselves, adding or modifying programs that are relevant to the changing and emerging economy that we see around us? Are we addressing these essential questions with solutions that reflect our values?

I hope you'll join us as this important transformation takes shape.

Sincerely,

Mary A. Papazian, PhD

Learn more about *Transformation 2030* at [sjsu.edu/strategicplan](https://sjsu.edu/strategicplan). Please share your thoughts by emailing [sjsupres@sjsu.edu](mailto:sjsupres@sjsu.edu) or on Twitter at @PrezPapazian. You may also subscribe to my blog at [blogs.sjsu.edu/president](https://blogs.sjsu.edu/president).

## WASHINGTON SQUARE

The Alumni Magazine of  
San José State University

### EDITOR

Jody Ulate, '05 MA English

### ALUMNI EDITOR

Kat Meads

### CREATIVE DIRECTOR

Michelle Frey

### SENIOR DESIGNER

Peter Carvalho, '97 Graphic Design,  
'16 MFA Creative Writing

### CONTRIBUTING WRITERS

Adam Breen; Lori Ferguson; Julia Halprin Jackson;  
Tom Kertscher; Kat Meads

### CONTRIBUTING DESIGNERS

Monica Bosque, '17 BFA Graphic Design; Jon Chester;  
Christina Olivas; Jeanne Schreiber

### CONTRIBUTING PHOTOGRAPHERS

Brandon Chew, '15 Photojournalism; Salma Farid;  
Jim Gensheimer; Deborah Gochfeld; Josie Lepe,  
'03 BFA Art/Photography; Christina Olivas;  
Thomas Sanders, '14 MFA Photography;  
David Schmitz; James Tensuan, '15 Photojournalism

### SENIOR ASSOCIATE VICE PRESIDENT FOR STRATEGIC COMMUNICATIONS AND MARKETING

Christine Hutchins

### ALUMNI ASSOCIATION EXECUTIVE DIRECTOR

Brian Bates

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### CONTACT

EMAIL [jody.ulate@sjsu.edu](mailto:jody.ulate@sjsu.edu)

PHONE 408-924-1166

USPS W/SQ Editor

One Washington Square  
San José, CA 95192-0258

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### Where Research Leads

*From engineers to medical doctors, alumni reflect on how their SJSU experiences have helped them make an impact in their chosen fields.*



### Seeing it Through

*The opening of the new Spartan Recreation and Aquatic Center is the culmination of an alumna's vision for creating healthy, student-focused campus spaces.*



### On Fire

*The only team of its kind in the U.S., Craig Clements' Fire Weather Research Laboratory studies and decodes wildfire behavior to improve fire management and prevention.*

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### On the cover

How will SJSU get to the heart of the biggest problems facing our community and our world? As SJSU focuses on our collective future, the campus is exploring ways to create dynamic student experiences—inside and outside the classroom—that prepare them to adapt, to thrive and to solve the questions facing our society.

### Digital W/SQ

To read stories and online-only content on your preferred device, go to [sjsu.edu/wsqa](http://sjsu.edu/wsqa).

## THANKS, SJSU!

SJSU provided the platform to study, excel, compete and explore my potential. The Career Center helped me ace my job interviews, and I got my first job offer before graduating. Today, I am fortunate enough to be working at Oracle America, Redwood City, California. I am thankful to SJSU for all the support and proud to be a part of the SJSU alumni network.

—Abhinav Kapur, '15 Software Engineering

It took from 1962 to 1970 for me to obtain a bachelor's degree. The college/university experience then radically differs from what it is today, but one thing seems much the same: a diploma allows one to pursue jobs and careers that one hadn't considered while in college. I spent several years working at California's Department of Employment Development, then learned of a perfect-match job with the county: vocational services counselor, a very stimulating and challenging job of working with unskilled high school dropouts, usually single young mothers, to guide and support them to become capable and self-sufficient. My diploma made all the difference in the world for me in working with this targeted population and giving them the means to succeed in the labor market or go to college. Thank you, San José State College/University!

—Ann Michelle Meyer Getsla, '70 Drama/Theater Arts

## Share Your Thoughts

**Washington Square** welcomes letters to the editor regarding campus issues and the stories in its pages. Letters accepted for publication may be edited for clarity or space, and may not necessarily reflect the views of San José State.

EMAIL: [jody.ulate@sjsu.edu](mailto:jody.ulate@sjsu.edu)  
 WEB: [sjsu.edu/wsqa/submissions](http://sjsu.edu/wsqa/submissions)  
 USPS: WSQ Editor  
 San José State University  
 One Washington Square  
 San José, CA 95192-0258

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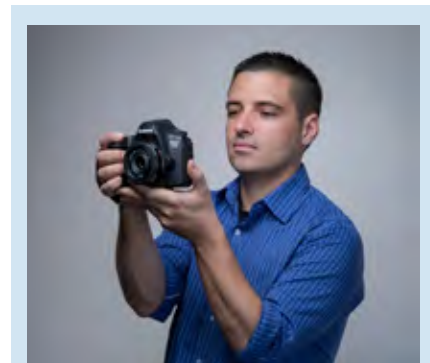


## INSPIRING READS

**Photographer Dan Fenstermacher: art for hurricane relief**

Thank you, Dan, for your selfless action for humanity in Puerto Rico. We should all be so brave as to act on our intentions.

—Ron Archambault



**Sport Sociologist Harry Edwards: "blueprint" for educational achievement**

You've served as an inspiration for me throughout my life. I am now sharing your works with my son Anthony Jr., a freshman at Cal Fullerton.

—Tony Wiggins



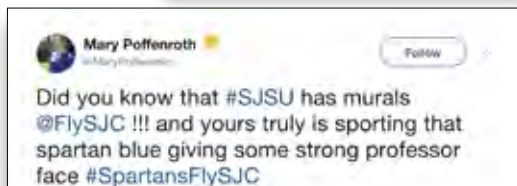
**Craftsperson Yvonne Escalante: SJSU's ceremonial mace**

What a beautiful tradition to carry current and future SJSU graduates forward. Brava on a job well done!

—Janet Wokay



## AIRPORT CONNECTIONS



## SCILL Program

### THE PROMISE OF STEM CELL RESEARCH

For scientists, stem cells offer a unique blank slate. Undifferentiated cells with the potential to be developed into cells with specialized functions, they represent possibility for millions of people living with autoimmune conditions such as Type 1 diabetes, Parkinson's disease or multiple sclerosis.

At San José State, graduate students pursuing either a master's in biological sciences or a master's in biotechnology have the opportunity to research stem cells through the Stem Cell Internships and Laboratory-Based Learning (SCILL) program, which is funded by the California Institute for Regenerative Medicine. Established at SJSU in 2009 by Biological Sciences Professor Tzvia Abramson, the program offers graduate molecular and stem cell course work, a year-long paid internship in a stem cell research lab, and \$7,000 toward the second year of tuition.

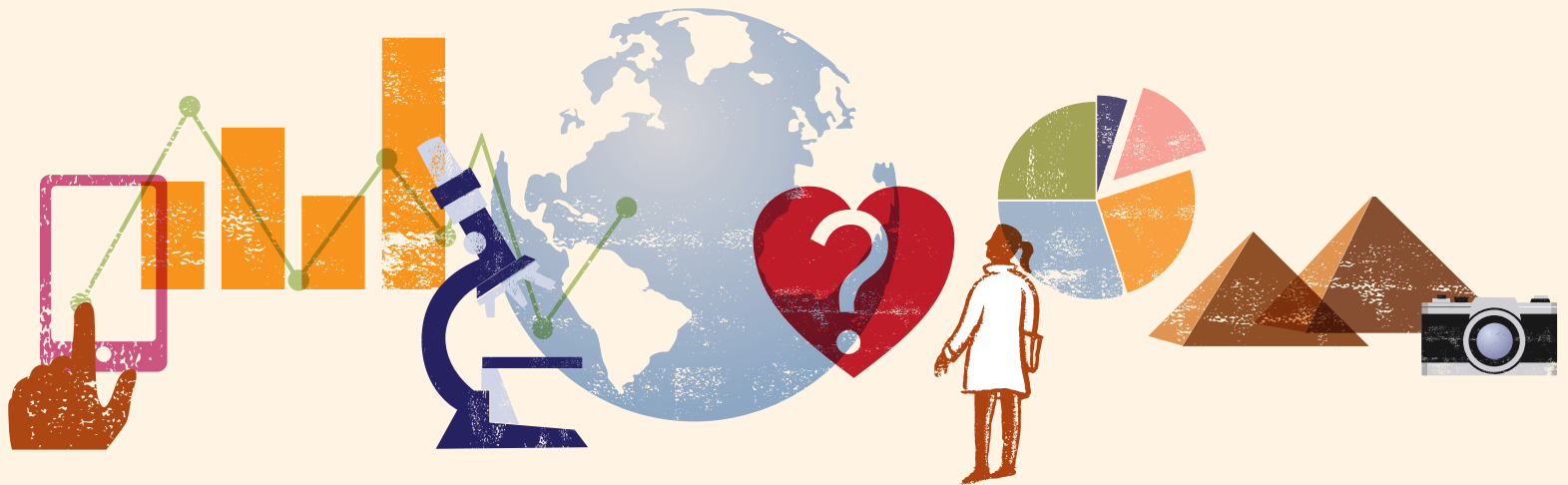
"Stem cell research is still relatively new," says SCILL program coordinator Salma Farid, '92 Industrial Technology. "Students who study it now could soon be considered experts in the field. The job market is strong and the pay is good. Silicon Valley and San Francisco are the hubs of stem cell research. This is the place to be."

Over the last decade, 90 SCILL graduates have received master's degrees and advanced training in stem cell biology, with more than 92 percent employed in biotech, academia or health-related graduate programs. More than half work directly in stem cell research, contributing valuable data that could someday inform medicine, healthcare and biotechnology.

*Learn more about the SCILL program at [sjsu.edu/wsq](http://sjsu.edu/wsq).*



SCILL CLASS OF 2020 STUDENTS WHO WILL RECEIVE GRADUATE DEGREES IN BIOLOGICAL SCIENCES OR BIOINFORMATICS (LEFT TO RIGHT): SHANE GILLIS, ARISA PAUL, WILLIAM ZHANG, COLIN DAILEY, ROBERT KAM, JOAN NDUNGU, STEVE SHAO, NADA KHOUDERCHAH AND RYAN MERRILL.



# HOW TO START A RESEARCH CAREER

**Are you curious about pursuing a research career?  
What big problem do you want to solve?**

These are some of the questions that Maria Elena Cruz asks her students. Director of SJSU's Aspire and McNair Scholars Programs—and a former McNair Scholar at UC Berkeley, Cruz helps first-generation, low-income and underrepresented students pursue PhD programs. The Job Maestro asked Cruz for her top advice on investigating, exploring and discovering the path to a PhD and, ultimately, a research career.

## **What is a research career?**

Students often have this notion of what research is, that it's something only done in a lab. Through our program, I break it down for them. Research stems from the personal. My own doctoral research started with wanting to know why there are so many indigenous people living in *Huejuquilla el Alto, Jalisco, Mexico*, the little town where my dad is from. If something matters to you and you invest resources in it, it can become research. And when it becomes personal, that's when I see the fire. I tell them: This is your story, your own original research, your own voice, and you can make a difference.

There's so much you can do with a PhD, especially here in Silicon Valley. With a doctoral degree, the doors are wide open. You can be a professor or an administrator at a university. You can do a postdoc to see if teaching is what you want to do. But your career doesn't have to be in education at all. You also can work for the government, a private company or a nonprofit.

## Tips for Getting to Graduate School

### 1. One question can turn into a dissertation.

Determine what questions you want to work on and what work experience, life experience and research you bring to the table. If you're working in that field, that's to your benefit.

### 2. Follow people, not universities.

Connecting with professors and people in the research spaces that interest you is key. Reach out to professors directly: "My name is \_\_\_ and I'm thinking about applying to your graduate program."

### 3. Talk to graduate students in the program you're applying to. They know the professors and they'll tell you everything.

### 4. Be nice to department administrators.

They know how the department works and can give you a lot of information—including what funding has been offered in the past.

### 5. Make sure there's money,

including institutional support and external funding from organizations like the National Science Foundation and the Ford Foundation. Some people can fund graduate school with smaller scholarships, but bigger grants help a lot. Many universities post the winners of the big grants.

*Funded by the U.S. Department of Education and named for the Challenger space shuttle crew member, the Ronald E. McNair Program helps promising first-generation, low-income and underrepresented students pursue PhD programs. More than 25 years old, SJSU's program is one of the first McNair programs in the U.S.*

*Learn more at [sjsu.edu/wsqa](https://sjsu.edu/wsqa).*

## WORDS FROM DISTINGUISHED CAMPUS VISITORS AND SPEAKERS

**"Truth is truth. Keep telling the truth. Somebody is listening. When you gather people together and create safe spaces, what happens is disclosure."**

—**Tarana Burke**, founder of the #MeToo movement and *Time's* 2017 Person of the Year, at an SJSU Spartan Speaker Series event.

**"The idea that cutting taxes is a magic bullet never works."**

—Writer, actor and political commentator **Ben Stein** at an Insights Speaker Series event, "The Way Forward: Perspectives on the U.S. Economy."

**"Public higher education is the gift that keeps giving. We need to do everything we can to fortify it."**

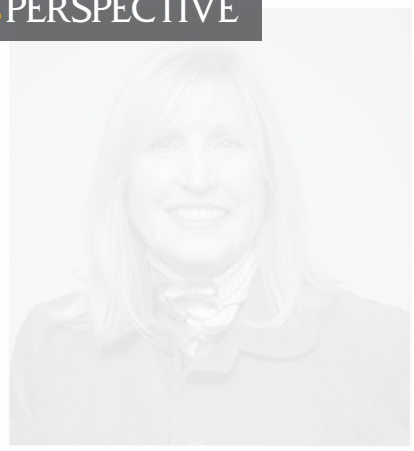
—Economist **Robert Reich** at an Insights Speaker Series event, "The Way Forward: Perspectives on the U.S. Economy."

**"Life is a mirror. It's always going to reflect what's going on inside of you. Whatever you're putting out there is exactly what you're going to get."**

—**Bryan Terrell Clark** at "Finding Your Purpose: From Baltimore to Broadway's *Hamilton*," an SJSU Spartan Speaker Series event.

**"We live in exciting times. Genomic data are rapidly accumulating. A reliable interpretation of genetic data requires an understanding of ecology, evolution and behavior in nature."**

—Princeton University Emeritus Senior Research Scholar and Professor **Rosemary Grant** at SJSU's Grilione Seminar on "The Evolution of Darwin's Finches: Integrating Behavior, Ecology and Genetics."



MS. VON TILL



MISS R...



MRS. DOLL



MR. SPECK



MR. LANE'S THIRD GRADE CLASS AT ROBERT E. MYLES ELEMENTARY SCHOOL IN UPSTATE NEW YORK.

# THE

# BIG

# WHY



MR. SULLIVAN



MRS. MAZZEI



MRS. STILL



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Through a square window in the Hugh Gillis Hall classroom door, I see Communication Studies Lecturer Beth Von Till, '86 MA Communication Studies, welcoming her class. She has asked me to give one of a series of guest lectures in her Communication and Organizational Philanthropy course, where students are

learning to create fundraising campaigns. The class has already heard about different facets of fundraising from seasoned professionals who are doing the kinds of work the students might do one day. She has asked me to talk to them about storytelling and, in particular, what makes a good story.

One lesson I've learned in my career as a writer and editor is the pursuit of "the big why" in storytelling—or any endeavor—is always the point. And the real "why" often is not what you think or expect. As I prepared my lecture on storytelling, including a bit about my own story, as Von Till requested, I planned to talk about what I do as SJSU's chief storyteller, but also why. Why have I spent my career in higher education?

When I really thought about it, the answer was that a series of classrooms led me to San José State. For me, school was the remedy to the chaos and dysfunction at home. My best early memories are in the classrooms of Robert E. Myles Elementary School, where I learned a new way to be in the world.

In Miss Gail's second grade classroom, I had neatly ordered crayons and scented markers beneath the lid of my lift-top desk. As she shared the day's French phrase, "*il fait beau aujourd'hui*," writing cursive letters in white chalk on the blackboard, I'd moon over Mike Redlener, who sat across from me, smiling. Mr. Lane, my third grade teacher, had a bathtub filled with pillows in the corner of the room that was a coveted retreat for reading and imagining. Miss Batista created a symphony of sound and color and texture with shelves and bins of instruments—from musical triangles to rhythm sticks that we tapped on the floor as she played "It's a Small World" on the piano.

Of course, this continued through high school. My physics teacher Miss Rich had us file into the school's pale green

hallways to learn about transverse and longitudinal waves. With Slinkies stretched between pairs of students, we moved them back and forth and then side to side. She taught us how to make waves, something I carried with me through college, thanks, in part, to the letter of recommendation she wrote for me.

If not for the classroom experiences my teachers created, I am not certain what path my life would have taken. Each dynamic experience helped me follow my curiosity and prepared me for what was next, even when I could not see where I'd ultimately end up.

The SJSU students in Von Till's class are eager to transform their lives through learning, and to apply what they learn to raise funds and awareness about issues that matter to them. They are identifying problems to solve, problems that affect us all. To tell a good story, the kind that makes people pay attention and take action, I tell them, they need to understand what matters to the people they're trying to reach.

To get to the big why for themselves and their audiences, they have to go small to find the heart of the question.

For me, that means paying attention to SJSU's classroom experiences. There's a classroom on the other side of my office wall in Clark Hall. The sounds of teaching and learning are ever-present. Chairs shifting across the floor for collaborative work. The gentle tapping of words written on the dry erase board. The rise and fall of voices, debating and discussing the big why.

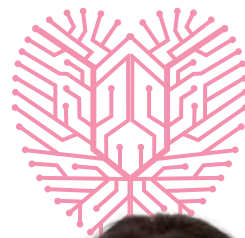
—Jody Ulate, editor

**What are your most memorable classroom experiences?  
Share them with me at [jody.ulate@sjsu.edu](mailto:jody.ulate@sjsu.edu).**

# WHERE RESEARCH LEADS

By Lori Ferguson

Illustration by Jon Chester



**F**or many in industry, research is a way of life. Nowhere is this truer than in Silicon Valley, where innovators of every stripe race to develop cutting-edge solutions in sectors from healthcare and technology to transportation and environmental protection. San José State operates in the heart of this environment, educating students and engaging the surrounding community in collaborative exchanges that connect theory with practice in impactful ways.

Now the university is embarking on a new strategic endeavor to enhance its culture of research and foster transformative change across disciplines. As the following alumni profiles reveal, however, San José State has been successfully engaged in this work for decades. From meteorology to medicine, these high achievers have leveraged student research opportunities and connections with faculty members and industry professionals to maximize their educational experiences, evolve in their careers and make profound impacts in their chosen fields.

## Noemi “Nicky” Espinosa

At San José State, Noemi “Nicky” Espinosa, ’81 Chemical Engineering, participated in a work/study internship with General Electric’s Edison Training Program. “I was assigned to the Nuclear Energy Business Group and liked it so much I decided to pursue a master’s in nuclear engineering,” she recalls. “Then the disaster at Three-Mile Island happened.”

The Nuclear Regulatory Commission turned to GE’s nuclear engineers for answers and Espinosa worked with them to run simulations and assess the data. “I learned a lot about what it was like to work as an engineer in the corporate world, and I also got the sense that the lawyers and regulators had more power in such situations than the engineers did. The experience got me thinking about my career options.”

Espinosa abandoned plans to pursue her masters in nuclear engineering and opted for a career in law. “After the accident, no one was interested in a nuclear engineering degree anymore.” She did, however, remain in the sciences, spending 20 years as a private litigator representing life science and technology companies, then serving as vice president of legal operations for medical robotics maker Intuitive Surgical.

Today, Espinosa is general counsel, chief ethics and compliance officer for HeartFlow, a Redwood City-based medical technology company that assists physicians in diagnosing and treating



cardiovascular disease. “My engineering degree has helped me throughout my career. I enjoy math and science—I understand the technology and I’m not intimidated by it. In fact, I’ve heard from my boss, the CEO, that one of the reasons I stood out as a candidate for general counsel was a little line in my résumé about computational fluid dynamics. The executive team was thrilled that I understood this concept, as fluid dynamics are a critical component of HeartFlow analytics. It always helps to have something that differentiates you from the crowd of qualified lawyers!”

Interdisciplinary knowledge such as this is commonplace, particularly in biotech, Espinosa continues. The more students can do to enhance their knowledge base across disciplines, the better. “For example, I would love to see more cross-pollination between San José State’s fantastic nursing program and the engineering department. Allow engineers to take physiology classes so they understand the body. Encourage nursing students to take computer science classes so they understand how databases work.

“San José State is geographically situated in the perfect location to promote a culture of research,” Espinosa concludes, “and the more the university can do to integrate what’s happening in Silicon Valley with what’s happening on campus, the better it will be.”

## Laura Guio

Technology executive Laura Guio, '86 Marketing, has worked in Silicon Valley for 30 years, although she didn't graduate with a degree in engineering—marriage and a new baby on the way her final year of college pushed her to a degree in marketing. Nevertheless, she asserts her engineering coursework served her well. “After graduation, I spent 18 months at home with my daughter, then applied for a job at IBM. I had to go to a company school for three months to prove that I had the education needed to handle the work, which I did, and I was on my way.”

Guio spent the first 15 years of her career at IBM on the engineering side of the business, then began leading worldwide sales for product lines she had previously been charged with developing. Today, she is responsible for business line management, including investments. “I’m very lucky to have had the career I’ve had—I’ve been able to work in many different business sectors under the umbrella of a single company.”

She asserts that she has realized success because she understands both the science and business behind her job. “I began working alongside researchers, then moved to a part of the company where products were developed and sold. That range of experience has given me the ability to take an idea from conception to market. I know how important it is to keep asking, ‘What is the need in society for what I’m developing?’”



Currently the general manager for the company's Global Cisco Alliance, Guio now works across every business unit in which IBM partners with Cisco. "To do my job well, I have to understand all the subsets of that business—research, development, sales, investment—and know who to contact to get a job done."

Guio credits San José State for teaching her how to work with both theoretical and applied knowledge. "The university allows students to integrate education and life by facilitating internships and night classes and bringing professionals into the classroom." As a student, Guio says, she had many engineering professors who were professionals on sabbaticals from their corporate jobs. "Talk about bringing real life into the university world—these individuals gave us wonderful perspective on what life is like for a practicing engineer. When I entered the workforce, I wasn't surprised. I understood how to apply my classroom knowledge to real-world situations."

## David Persing

David Persing, '79 Biochemistry, was drawn to San José State by his high school music teacher, but quickly realized he was not cut out for a career in music. "I didn't have the raw talent or the will to practice four to six hours a day to become a professional trombone player," he confesses.

What's more, says Persing, he had discovered a love for medicine while on a church mission trip to Guatemala.

"We were building a school in a remote village and I got to know the local doctor. He introduced me to basic healthcare needs in the area—I watched him delivering breech babies, treating parasitic infections and dealing with malnutrition ... real jungle medicine. I loved it and returned to college with renewed focus."

Persing graduated with a degree in biochemistry, then completed an MD as well as a PhD in genetics. "I received an excellent scientific education at San José State, which positioned me for success in medical school," he observes. "The strong focus on teaching, with courses taught by full professors, was incredibly beneficial, as were the close relationships with faculty members. In fact, my research project, with genetics professor Robert Fowler, 'Mutational specificity of the base analogue, 2-aminopurine, in *E. coli*,' led to a publication for me in *Mutation Research*—a big deal for an undergraduate."

Persing went on to found and direct the Mayo Clinic's Molecular Microbiology Laboratory, the first facility dedicated to the revolutionary technique of Polymerase Chain Reaction (PCR), then left academia to pursue translational research in cancer and infectious diseases in the biotech world. "It was gratifying to treat one patient at a time, but I ultimately decided I needed to amplify the impact of my research and touch the lives of many people simultaneously."

**“Research is one of the greatest contributions that a university can give to a community.”**

**—Roger Wakimoto**



Today, Persing serves as executive vice president, chief medical and technology officer for Cepheid and is impacting lives on a scale he only dreamed of 20 years ago. “We have more than 21,000 systems out in the world doing molecular genetic testing,” he notes. “We’re making genetic tests for diseases like TB and HIV affordable and actionable in far-flung locations, and their medical value to providers is quite high because the results are quickly accessible.”

Innovation such as this takes place at a rapid-fire pace, says Persing, making it doubly important for students to diversify their knowledge and pursue every opportunity for practical experience. He’s confident San José State is up to the task. “The university is starting from a position of strength as an outstanding teaching institution—adding a research component can only increase the value proposition for students.”

### **Roger Wakimoto**

Atmospheric scientist Roger Wakimoto, ’76 Meteorology, was an undeclared major when he arrived at San José State, but a pivotal summer internship with then-Chair of Meteorology Albert Miller changed all that. “Professor Miller exposed me to the research he was doing on data gathered from instruments placed on San Francisco’s Sutro Tower,” Wakimoto recalls. “Up to that point, I had no idea what research entailed, so it was exciting to try something new.”

When Wakimoto showed an aptitude for the work, department faculty members encouraged him to pursue a PhD in geophysical sciences at the University of Chicago. “I wasn’t sure I was sufficiently prepared for the rigorous academic coursework that I knew I would experience in graduate school at a private university, but I quickly realized that the faculty members at San José State had taught me exceptionally well.”

Wakimoto completed his doctoral dissertation under the guidance of Ted Fujita, creator of the famed Fujita or F-Scale, a system of classifying tornado intensity based on damage to structures and vegetation. Wakimoto moved on to leadership roles at the National Center for Atmospheric Research and the National Science Foundation Directorate for Geosciences. Today he is UCLA’s vice chancellor for research and a well-known figure in mesoscale meteorology, with a special interest in severe convective storms like tornadoes. “I’m biased, but I believe that my efforts to understand our environment impacts not only our future but that of coming generations,” he observes.

“Research is one of the greatest contributions that a university can give to a community,” says Wakimoto. But, he continues, it must not take place at the expense of education. “It’s important for the university to give students foundational skills, whatever their field of study. I’m confident that San José State will keep the big picture in mind as it augments its teaching mission with this new research focus.”



SPARTAN

# Seeing it Through

The culmination of a vision for creating healthy campus spaces that support students.

*By Jody Ulate*

*Photography by David Schmitz*

“I’ve always looked at campus as a small town. Now we’ve made that town like a square, where people can come and engage.”

—Cathy Busalacchi

There is a quiet space on the top floor of San José State’s new Spartan Recreation and Aquatic Center. In an area alongside a row of exercise studios, above the reflective water of the recreational pool, Cathy Busalacchi drinks her morning coffee and admires a view that has been decades in the making.

Busalacchi, ’76 Recreation, has been looking out for San José State students for 30 years. She joined the university as Sport Club manager in 1989 and then served as associate director of the Event Center at SJSU. When she became executive director of Student Union, Inc. in 1994, she had a vision to create the “heart and soul” of campus. Her vision led to what is now the Diaz Compean Student Union and the Spartan Recreation and Aquatic Center (SRAC). Following this spring’s opening of the LEED Gold certified 128,000-square-foot SRAC, Busalacchi will retire—leaving quite a legacy.

“Seeing students engaging in and enjoying these new spaces, whether they’re studying, socializing, recreating or gaming, puts a smile on my face,” she says. “That’s what my job has been about: How do you create happiness?”

## An Inspiring Plan

To “create happiness,” Busalacchi has kept herself steeped in campus life. Student Union, Inc. employs more than 400 students in the Diaz Compean Student Union, Event Center and

SRAC. Busalacchi also oversees all intramural and club sports on campus. And her favorite places on campus always have a view of students so she can listen to them and learn about their interests and needs. She often walks from east to west on the main floor of the Diaz Compean Student Union because it gives her a sense of the students’ energy.

“I wanted all of our facilities to be full of light, open and visible. I want students to be able to see what’s happening in all of our facilities, so it will draw them in,” says Busalacchi. “Prior to its renovation, the Diaz Compean Student Union was old, gray and dark with its dark wood paneling and dark carpet. It was depressing.”

In those first years at Student Union, Inc., Busalacchi took note of more than the architecture. The university’s student services were spread out all over campus, and student groups and club sports lacked adequate meeting and practice spaces. Providing centralized locations for student groups and increasing meeting spaces for students became top priorities. When she pursued a master’s degree in organizational management, she focused her research on best practices and examples of student unions around the country.

“What we ended up doing was bringing all of the campus life activities into the Student Union,” says Busalacchi.

“It really causes all of these groups to interact and develop creative partnerships,





CHRISTINE WONG MINETA CO-LEADS SJSU'S HEALTHY CAMPUS INITIATIVE, PART OF A NATIONAL EFFORT WHOSE GOAL IS TO PROMOTE STUDENT WELLNESS. KINESIOLOGY CHAIR TAMAR SEMERJIAN AND MEN'S WATER POLO HEAD COACH BRUCE WATSON (CENTER) ON THE DECK OF THE NEW 50-METER COMPETITIVE LAP POOL. VICE PRESIDENT FOR STUDENT AFFAIRS PATRICK DAY (RIGHT) SAYS WE AT SJSU NEED TO TALK ABOUT WELLNESS OUT LOUD.

whether that's Student Involvement, our LGBTQ community, our African-American community, or the Mosaic Cross Cultural Center.”

Busalacchi's research and planning extended beyond the student union to include a renovation of the Sport Club. While her initial proposal was refined over time, it led to decades of collaboration across campus and major construction projects that now house the core of campus life. This kind of transformation required buy-in at all levels of the SJSU community. Busalacchi gave nearly 50 presentations to students and other groups, gaining the support of then-President Don Kassing and, ultimately, inspiring SJSU students to agree to raise their fees to pay for new and renovated facilities. “For a latte a day,” she would tell everyone, you can leave a legacy for the next students to come.

“My staff will tell you that I'm tough on them when it comes to budget because I think we have to be fiscally responsible to our students,” says Busalacchi. “We need to make sure students are getting the most for what they're paying for—and that we're giving our students what they need.”

## Campus Life's Good

Taking care of students' needs, health and well-being is critical for academic success. Nationally, seven out of 10 student academic disruptions are due to health or mental health, according to the National College Health Assessment (NCHA) survey, which SJSU administers about every two years to get a snapshot of how students are doing.

“Wellness is an intractable issue that's affecting every college campus in America,” says Patrick Day, vice president for student affairs, who joined SJSU in summer 2018. “We need to talk about wellness out loud. And we need to talk to students about how to engage in healthy behaviors and give them real skill sets in which to do that.”

In addition to having “new, high-quality facilities that demonstrate that San José State is serious about having a well community,” Day is also undertaking an assessment of SJSU Student Affairs' health and wellness programming. Going forward, he says, SJSU must take a broad environmental approach to wellness. Christine Wong Mineta agrees.

“The definition of health is much more than adopting any one healthy behavior,” says Wong Mineta, assistant director of wellness and health promotion and co-chair of SJSU's Healthy Campus initiative. “It's important to take care of all of the dimensions of health and well-being: physical, social, emotional, occupational, multicultural, environmental, spiritual and intellectual.”

Of course, we want to change individual behavior, Wong Mineta explains, but we also want to create all of the systems and environments that help individuals be successful in making that change. It's really trying to look at the broad picture. “Just like the SRAC, the Wellness Center has clear windows and offers transparency. It doesn't create a barrier between health and





“The opportunity to contribute to the student journey is one of the best ways to commit to your vocation. It’s very much about watching the movement—growth, development and, oftentimes, transformation—in the life of a student.”

— Patrick Day

the built environment,” says Wong Mineta. “These facilities are opportunities for different departments to collaborate, to share resources and to promote taking care of the whole self in a variety of ways. That, to me, is really powerful.”

Interim Chair of Kinesiology Tamar Semerjian says that her department is committed to giving students a breadth of opportunities through the general education-required activity courses. “If we can help students engage, whether that’s in one of kinesiology’s more than 50 activity classes, the SRAC, or the intramurals program, if that helps them feel healthy, that’s a great outcome, especially if they carry that throughout their lifespan.”

Her work with the Silicon Valley Healthy Aging Partnership has targeted health promotion and access to wellness activities for older adults. With the new facilities, along with the collaborative efforts to improve wellness programming across campus, Semerjian says “the hope is that students learn how to be healthy while they’re at SJSU and then become healthy alumni.”

## Thriving Community

SJSU Men’s Water Polo Head Coach Bruce Watson, ’76 BS, ’78 MA, Kinesiology, is a clear example of lifelong wellness. He began surfing and playing water polo as a youth. He played water polo at San José State, competed on the U.S. men’s national water polo team from 1976 to 1978, and won over-50 and over-55 masters championships. A two-time SJSU Sports Hall of Fame inductee, Watson still surfs as often as possible.

He is thrilled the SRAC also includes space for SJSU’s NCAA aquatic teams, men’s water polo, women’s water polo, and women’s swimming and diving, and opportunities for student-

athletes to be more connected to the broader community. Much like Watson’s SJSU teammates in the 1970s packed into personal cars and Volkswagen buses to train at De Anza College, SJSU men’s and women’s water polo teams have spent three seasons training at West Valley College in Saratoga.

“We loved it there, but it’s super exciting to be able to have our own pool and our home games with students and alumni around,” says Watson. “The campus has really evolved. With new facilities all around, it’s changed dramatically for the better and is serving students well.”

Busalacchi expects 6,000 to 7,000 Spartans—including students, faculty and staff members, alumni and other community members—to enjoy the SRAC each day. The opening of the SRAC connects students, student-athletes, faculty and staff members and alumni, offering an opportunity for the entire community to embrace health and wellness, and to engage outside the classroom.

“Co-curricular learning will be a foundation of the educational experience at San José State, whether that learning is about wellness, career development, leadership or social entrepreneurship,” says Day. “The opportunity to contribute to the student journey is one of the best ways to commit to your vocation. It’s very much about watching the movement—growth, development and, oftentimes, transformation—in the life of a student.”

Busalacchi reflects on the transformation she has seen in her 30 years on campus: “I’ve always looked at campus as a small town. Now we’ve made that town like a square, where people can come and engage. Campus now feels like a true community.”



Be well with your fellow Spartans by becoming an SRAC member. Alumni Association members receive a special rate. [Learn more at sjsu.edu/wsq.](https://sjsu.edu/wsq)





## Making and Moving History

On Saturday, January 12, San José State's historic Associated Students House was hoisted onto a carefully constructed platform and moved from its previous home in front of Duncan Hall to Tenth and East San Antonio streets. The 400,000-pound, 6,500-square-foot house was moved to make new history. In April, the university broke ground on the eight-story Interdisciplinary Science Building, where scientific Spartans will collaborate and innovate in the years to come.

*Photo by Josie Lepe*

**WSQ** web extra! Watch a video of the move at [sjsu.edu/wsqa](http://sjsu.edu/wsqa).



# ON FIRE

The only team of its kind in the United States, Craig Clements' Fire Weather Research Laboratory studies and decodes wildfire behavior to improve fire management and prevention.

*By Julia Halprin Jackson*

In November 2018, a catastrophic wildfire ravaged the mountainous town of Paradise, killing 85 people and destroying entire neighborhoods. While firefighters, first responders and local officials worked to evacuate survivors and salvage the remains, a group of SJSU scientists gathered data using meteorological instruments on the back of a research truck 100 feet from the flames of the deadliest wildfire in California's history.

Spearheaded by Associate Professor of Meteorology and Climate Science Craig Clements, the Fire Weather Research Laboratory is the only program in the nation that trains wildfire meteorologists. Clements is driven by a desire to understand how fires create their own weather and to what extent their behavior can be predicted.

"Wildfire meteorology is a relatively new field," Clements says. "Now that these fires are causing more damage, we need a better fundamental understanding of fire behavior, particularly in mountainous terrains. We don't know how winds around wildfires work. With better observations, we can better predict fire spread in the changing climate."

**"With better observations, we can better predict fire spread in the changing climate."**

**—Craig Clements**





Clements estimates that he has collected data on at least 24 wildfires since his lab was established. To collect the most useful data, he needs to be as close to the smoke plumes and the height of the fire as possible without getting in the way of first responders or putting anyone at risk.

## Preparing the Team

Not just anyone can approach an active fire, much less set up a data collection station. When Clements recruited former firefighter Carrie Bowers, '18 MS Meteorology, to his team in 2014, they collaborated with her contacts in the U.S. Forest Service to pursue fireline qualifications for their research team. By enrolling in fire science classes and completing specialized training with professionals from Tahoe National Forest, Clements and his team earned the certification necessary to become technical specialists at fire incidents.

Though the lab's primary objective is to collect research data about fire behavior, Clements is dedicated to supporting the U.S. Forest Service, the California Department of Forestry and Fire Protection (Cal Fire) and other first responders, especially at incidents where the data they collect could make an immediate impact.

"It's a win-win situation," says Bowers, who now works as a fire science meteorologist for San Diego Gas and Electric. "We were able to get connected with the incident management team for the fires and get included in the resources that are assigned to that fire. They would give us fire behavior information and we could give them weather information."

During a fire incident, Clements and team use LiDAR, a tool that detects material such as smoke or ash by beaming light into the atmosphere. By attaching LiDAR to the bed of the research truck, Clements and his team have adapted a unique technique for observing the dynamics of the smoke plume while the LiDAR scans, collecting information on plume height, location of atmospheric

materials and wind speed. As of early 2019, Clements had obtained additional grant funding to purchase radar.

The added tools will collect data that helps decode fire behavior, which will inform fire management and prevention. This is especially important, Clements says, because California residents should expect more fires in the seasons

to come. For more than a century, fire management agencies have managed fire by suppressing it—extinguishing it, without allowing any excess fuel (brush, dead or drought-damaged vegetation) to burn.

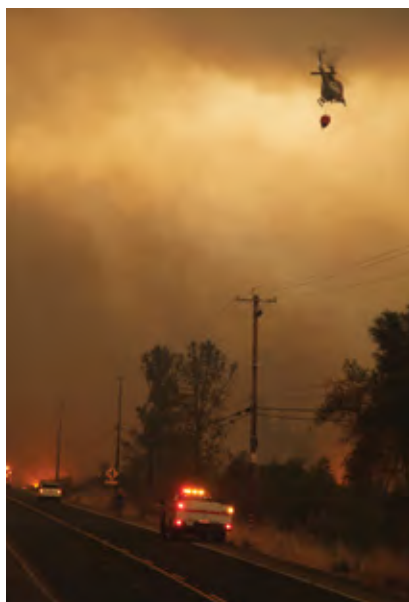
Clements explains that it is natural, and even healthy, for fires to occur periodically, and they only become newsworthy when they destroy cities or communities like Paradise, Redding or Malibu. Over the last few years, it has become common for fires, carried by changing temperatures and sudden shifts in wind direction and speed, to overtake urban areas that were unprepared to respond. The 2017 Tubbs Fire, which destroyed more than 5,000 structures and incurred more than \$1 billion in damage, was unique because once the fire approached Santa Rosa, the houses, buildings and city itself became fuel

to ignite the fire further. This phenomenon has catastrophic repercussions and represents a shift in the way firefighters and scientists must learn from and respond to natural disasters.

"Land management agencies have been putting out wildfires when they should have let them burn naturally," explains Clements. "That's why we have fuel accumulation. And because climate change causes the fuels to dry out, the problem is more complex."

## Fire Modeling

During that feverish weekend in Paradise, Clements was joined by undergraduate researcher Jackson Paladin Yip, '19 Meteorology, and graduate researcher Matthew Brewer, '20 MS Meteorology, who collected wildfire data and communicated with the incident command center, relaying weather information



**“To be able to go and do a field study on an active incident is very unique. The opportunities that it has allowed me have been amazing.”**

**—Carrie Bowers, '18 MS Meteorology**



and moving when the situation demanded. As they witnessed survivors fleeing, saw neighborhoods burn, and watched firefighters and first responders make sense of the limited paths out of Paradise, Clements' team was monitoring the LiDAR amidst the climbing flames. The heartbreaking experience of watching the landscape burn reinforced the scientists' resolve to understand the science behind fire.

“We're doing groundbreaking research on a lot of phenomena that no one has any idea about,” says Brewer, who is writing an analysis of the Paradise fire data for his master's thesis. “Data we collect from our LiDAR can be used to validate computer models, which in turn will help improve fire models and gain a better understanding of the phenomena. While we're not actively preventing fires, we are looking at fire-atmosphere interactions to help with fire models and better understand why things happen.”

Computer models of fire behavior can simulate the size, temperature and velocity of fires, thus helping agencies rehabilitate ecosystems after a fire, says Diana Craig, '82 Zoology, '86 MA Biological Sciences. The deputy director of ecosystem management for the U.S. Forest Service's Pacific Southwest region oversees a staff of hydrologists, soil scientists, tree specialists, botanists, wildlife biologists and natural resource

specialists. Their work includes coordinating teams dispatched after fires in the Burned Area Emergency Response program.

By managing ecosystems and reducing fuels through mechanical treatments and controlled fires in prescribed burns, Craig says they hope to reduce the risk of large, high-severity wildfires. “Fire behavior modeling feeds into fire suppression and fuels reduction,” says Craig. “It helps us determine what makes the most sense and where to start our work.”

Her staff collaborates with local forest teams across California's 18 national forests, working with state agencies, fire safe councils and private landowners on “shared stewardship” strategies to reduce fire impact in spaces where private and public space overlap.

“Fire doesn't see any boundaries,” says Craig. “It doesn't care if there's a fence. Working together, everyone tries to find ways to make the situation better for our lands, our forests, our ecosystems and our species.”

## **After the Smoke Clears**

In 2018, months before the Paradise tragedy and not long after the Carr Fire burned through Redding, the federal government cut the Joint Fire Science program, an interagency

collaboration that supported hundreds of research projects focused on fire mitigation and prevention. Given that there are relatively few wildfire researchers like Clements, who are grant-supported and can hire undergraduate and graduate assistants, there is an even greater need to collect and analyze data that could support emergency responders, survivors and victims, as well as fellow scientists committed to predicting and managing natural disasters.

The Fire Weather Research Lab's findings have a global impact—data they analyze can be applied to regions that also struggle with fire suppression and fuel accumulation. After collecting data in Paradise, Clements, Yip and Brewer returned to San José to begin analyzing results. Clements had previously committed to speaking in Barcelona that same week, where he toured a region that faces similar drought and fire risks. He has also partnered with scientists in New Zealand and Australia to study wildfire behavior during their peak seasons. Despite bleak predictions of fires to come, the professor maintains that there are still some actions that citizens can take to reduce fire risk.

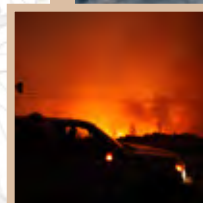
“We need prescribed fire back in the ecosystems,” he says, describing safe methods for monitoring small fires to eliminate fuel. “You can mitigate the risk by managing power lines, keeping people out of the wildland, and improving fire danger calculations. Don't have a campfire if you don't need one. Manage your house—keep pine needles off your roof and out of your gutters.”

Clements says it is critical to cut greenhouse gases, stop global warming and reduce our carbon imprint. To do that, it is necessary to consider alternative energy, electric cars, and adopting fire-safe practices at the community and statewide levels. He warns that unless people are willing to make large and small lifestyle changes to keep the environment safe, “we are looking at a few hundred years of this weather pattern.”

Though there are still many unanswered questions, Yip sees their work as hopeful.

“In terms of research being generated, San José State has one of the best meteorology programs in the country,” he says. “Our industry is really working on how to improve conditions. Over time, fuels should improve, though fires will keep happening. I think there is hope in terms of the severity of fires as we get more insight into forest management in a more holistic way.”

Where will the Fire Weather Research Lab go in 2019? Wherever the weather dictates, wherever the plumes beckon, wherever there is room for two research trucks, LiDAR and radar pointed skyward, ready to gather data that could one day help make the world a safer place.



## From “Camp Fire Thoughts”

CalFire Hueys raced overhead, flying just over the dense underbrush with their buckets to refill and return to the head fire to lay water on the flames. We worked quickly and diligently at our jobs. Matthew and I tended to the LiDAR, Professor Clements spoke with the media about our work. What felt like 20 minutes crept by and darkness began to fall. First everything went orange, then the glow from the fire began to outperform the sun. The ground lit upwards, illuminating the smoke column from autumn to black. Stars began to show gently from beyond the black against the clear bluish horizon to the south. “We heard it's at 10,000 acres,” a news anchor shared with us. It was moving fast.

We waited, watching the LiDAR do its work, collecting the motion tendency of the air above our heads until the smoke stopped about 3,000 feet above. “Wow, there's our jet!” Professor Clements pointed to the laptop in the truck cab showing 40 mph winds about 100 meters above us. “That's why we're here,” he spoke again, looking back up to see the fire's progress. These winds were flowing down the Sierras and filling the canyons around us with flames 100 feet long and 70 feet tall. These winds were the big bad wolf that blew Paradise to the ground.

— Jackson Paladin Yip, '19 Meteorology

*Read more at [sjsu.edu/wsqa](https://sjsu.edu/wsqa).*



“I hope that we will look back at the days when we had to go to a charging station to charge our vehicles and think of them as something from the distant past.”

## ELECTRIFIED TRANSPORTATION

Growing up in Egypt, **Mohamed Badawy** was fascinated by the landscapes of the Nile River Valley, from the desert oases to the mountains. “However, pollution was growing and taking away from Cairo’s incredible beauty, and putting millions of people at significant health risks,” says the associate professor of electrical engineering and founder of SJSU’s Center of Power Electronic Converters. “And, thus, my interest solidified in solving the challenge of reducing gas emissions.”

He learned about renewable energy systems and quickly discovered that electrified transportation systems were underdeveloped. So Badawy majored in electrical engineering and has since directed his academic, research and industrial work in this field. He and his students are researching “dynamic charging,” which would allow electric vehicles (EVs) to be charged while moving along a highway.

“Consumers may refrain from purchasing EVs due to the limitations of chargers and range anxiety,” Badawy notes. “Therefore, a distributed public charging infrastructure is essential for the future of EVs.” It’s a form of wireless charging that would liberate electric vehicles from the need for high-cost and bulky battery systems, allowing them to charge while in motion. Dynamic charging would require the collaboration of local and federal governments, continued research and funding.

Still, from the technological development in the semiconductor industry to the emergence of electrical vehicles and the wide use of renewable energy systems, Badawy saw the value in building a power electronics program from the ground up that caters to the industry surrounding the university.

Badawy works with students who are “first-generation, underserved minority groups or international students who left the security of their home behind and came to this country to pursue a dream and positively contribute to our society.” His lab works on several projects funded by Silicon Valley companies, which, he says, “enables our students to work on real-world problems and crack industrial technical challenges.”

Since the establishment of the lab, more than 20 students have received master’s degrees and 90 percent of them are working in the valley.

“I hope that we will look back at the days when we had to go to a charging station to charge our vehicles and think of them as something from the distant past,” Badawy says. “More importantly, I hope that the days of fossil fuel cars polluting our roads will end. We are too wise to risk the health of our children and our elderly.”

—Adam Breen





## MUSIC, MUSIC, MUSIC

Department of English Lecturer **Regina Arnold's** *Half a Million Strong: Crowds and Power from Woodstock to Coachella* (University of Iowa Press) probes the history and cultural impact of large American music festivals in a book Lou Reed's biographer Anthony DeCurtis recommends as "compulsively readable ... a great, welcome pleasure." A former rock journalist, Arnold is also coeditor of *The Oxford Handbook of Punk Rock*.

## FOOTBALL AS COMMUNITY

Department of Sociology Lecturer **Joel Franks** sheds light on an underreported area of sports history in *Asians and Pacific Islanders in American Football* (Lexington Books), revealing how Asians and Pacific Islanders used football to create community in the face of social prejudice and economic injustice. A "well-researched narrative" that "provides an insightful analysis of ethnic identity and racism in the United States as it traces the history of American football," praises Washington State University Professor Richard King.

## ART AS SOCIAL PRACTICE

In his second book for children, *Art in Action: Make a Statement, Change Your World* (Bloomsbury), **Matthew "Levee" Chavez**, '13 Creative Arts, offers up ideas for art projects that engage in social practice and community involvement, delivering a "change in perspective about what art can be," according to *Kirkus Reviews*. Chavez is the creator of Subway Therapy, an ongoing public project at Manhattan's Union Square subway station.

## LOVE, LOSS AND RELIGION

Described by the *New York Times Book Review* as a "dark, absorbing story of how first love can be as intoxicating and dangerous as religious fundamentalism," 2014–2015 Steinbeck Fellow **R.O. Kwon's** debut novel, *The Incendiaries* (Riverhead Books), has collected rave reviews from (among others) the *Washington Post*, *The Guardian* and *Chicago Review of Books*. A native of South Korea and recipient of a National Endowment for the Arts fellowship, Kwon's fiction and nonfiction have also appeared in *Playboy*, *Buzzfeed* and the *Wall Street Journal*.

## GRACE IN MANY GUISES

African American Studies Chair **Theodora Regina Berry's** *States of Grace: Counterstories of a Black Woman in the Academy* (Peter Lang) combines scholarship and memoir in an "important book" that "forces us to reckon with the interconnectedness of race and gender," praises Portland State University College of Education Dean Marvin Lynn. A "robust, accessible book, equally at home in an undergraduate teacher education course or an advanced graduate theory class," adds Kent State University Associate Professor Walter Gershon.



# ALUMNI UPDATES

Spartan stories always make us proud. Share your update at [sjsu.edu/wsqa/submissions](http://sjsu.edu/wsqa/submissions).

Get connected to the Spartan network! Join the Alumni Association online at [sjsu.edu/alumni](http://sjsu.edu/alumni) or call 408-924-6515.

Are you on LinkedIn? Join more than 28,000 Spartans who stay in touch through SJSU's official group—and see the power of your SJSU connections.

## '50s

### BOB PENTZER

'57 Journalism, CSU Chico public information officer from 1976 to 1996, has been elected to the university's Retired Staff Hall of Honor. At SJSU, he served as *Spartan Daily's* editor-in-chief.

## '60s

### DAVE NEWHOUSE

'64 Journalism, retired *Oakland Tribune* columnist, published his 13th book, *The Incredible Slip Madigan: The Flamboyant Coach Who Modernized Football* (St. Johann Press), examining the career of the University of Notre Dame center and College Football Hall of Fame coach.

## '70s

### CERO ANTHONY

'75 Advertising, owns Santa Clara's Cake Expressions, creating multi-tiered wedding cakes of all sizes and flavors as well as sculpted centerpieces for other special occasions. Among his specialties: mango cake and tiramisu.

### TOM FARRISH

'78 Psychology, is sales and marketing director at Foothills Senior Living in Angels Camp.

### PATRICIA GARDNER

'79 Political Science, CEO of the Silicon Valley Council of Nonprofits, received the Legal Advocates for Youth Award from the Law Foundation of Silicon Valley.

### GENE HERNANDEZ

'77 Criminal Justice Administration, a city of Yorba Linda councilmember, joined the Orange County Transportation Authority Board of Directors, an 18-member board that oversees transportation planning and funding for the county's 3.1 million residents. A 34-year law enforcement veteran, Hernandez retired as the city of Chino's chief of police in 2006.

### JESSE ORTIZ

'78 Social Work, was sworn in as a member of the Yuba Community College District Board of Trustees in January. He retired in 2018 as superintendent of the Yolo County Office of Education.

## '80s

### DAVID ANDERSON

David Anderson, '85 Aeronautics, was confirmed by the U.S. Senate in January for the post of United States attorney for the Northern District of California. A 1990 Stanford Law School graduate, he previously served as assistant U.S. attorney (1998 to 2002) and first assistant U.S. attorney (2008 to 2010).

### SHARON BARBARI

'82 Accounting, joined the board of directors of Foamix Pharmaceuticals, a firm that specializes in topical, dermatological drugs. From 2014 to 2017, she served as CFO of Cytokinetics and in 2017 received a YWCA Silicon Valley Tribute to Women Award.

### SAM BHAUMIK

'87 Finance, previously executive vice president at Square 1 Bank, is currently executive vice president, Venture Lending Group, at Avidbank in San José.

### JIM BURTON

'89 Accounting, '92 MBA, partner-in-charge of audit methodology and standards at Grant Thornton LLP, was named chair of the Assurance Services Executive Committee, American Institute of Certified Public Accountants.

### STEVE CARP

'80 Journalism, who reported on the Las Vegas Golden Knights for the *Las Vegas Review Journal* from 2015–2018, joined *Gaming Today* as senior editor. He has received Nevada SportsWriter of the Year honors six times during his career.

### ANTHONY CIABURRO

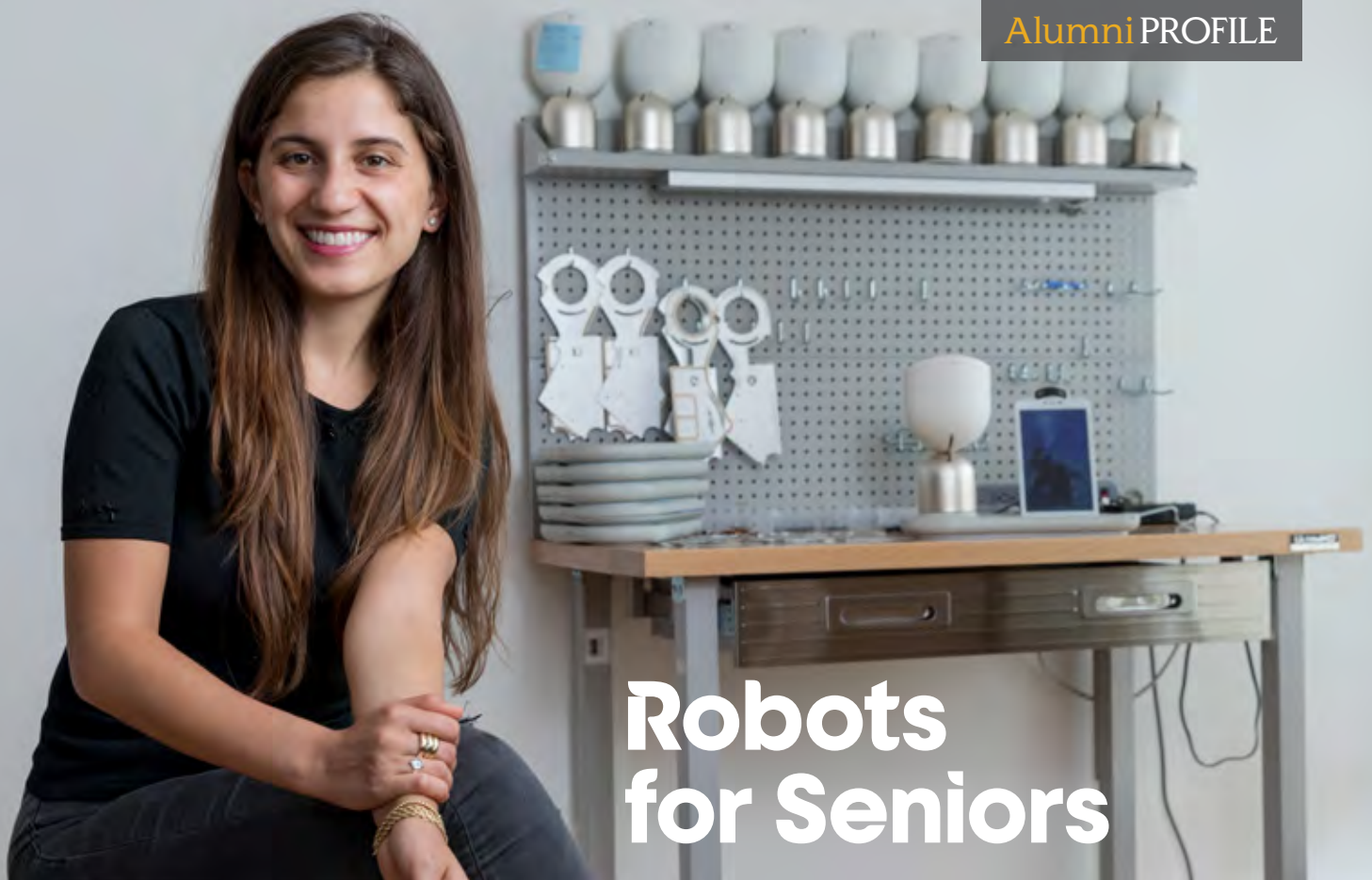
'89 BS, '03 MS, Administration of Justice, is the East Bay Regional Park District's assistant general manager of public safety, supervising approximately 70 police officers as well as overseeing the communications center, fire department and aquatics division. His staff patrols the district's more than 120,000 acres by means of helicopters, horses, boats and motorcycles.

### G. BRADLY COLE

'83 MBA, CFO of Genomic Health, joined the board of directors of Castle Biosciences, a skin cancer diagnostics company headquartered in Friendswood, Texas. In 2017, the *San Francisco Business Times* named him Bay Area CFO of the Year.

### MARCIA DASZKO

'89 Mass Communications, founder and CEO of the consulting firm Marcia Daszko & Associates in Santa Clara, published *Pivot, Disrupt, Transform: How Leaders Beat the Odds and Survive* (Diversion Books, 2018). Author Barry Posner describes the book as "filled with sage advice about taking the roads less traveled."



# Robots for Seniors

**Danielle Ishak**, '16 MS Human Factors and Ergonomics, is only three years out of graduate school, but her empathy for the elderly is keen.

"I don't believe that most technology that's out there has been designed for older adults. It's very hard for them to use and it's unfair," says Ishak, a user experience researcher at Intuition Robotics. "Many in the older generation haven't learned how to interact with technology. They know what it can do for them, but it's very scary. They feel like they might break it if they touch it."

Ishak, who began taking care of older people as a volunteer in high school, wants to develop technology that is easy for the elderly to use and that helps relieve what she sees as an epidemic among the elderly: isolation. She remembers as a teenager taking care of an older woman who became something of a surrogate grandmother. "I grew up far away from my grandparents, and I felt awkward among older adults. My mom realized this and she told me I should go volunteer," explains Ishak. "I would go visit my friend very frequently. She had a lot of things that she needed help with. It became very important to me at a personal level, even at a young age. I started a volunteering group at my high school for this, too."

Ishak's attachment to her friend created a lasting love for older adults.

"I think it's just neglect," Ishak says of the current state of most tech products. "It's sad that once you're past a certain age, you're no longer relevant and companies stop designing devices for that population."

In 2019, Intuition Robotics will put ElliQ on the market. ElliQ, a robot for senior citizens that Ishak has helped develop, was featured by *Bloomberg*. The business publication said Ishak is making "a home assistant the elderly might actually want."

Elli was the Norse goddess of old age in Scandinavian mythology and EQ is short for emotional intelligence quotient. ElliQ, the "social robot," is driven by artificial intelligence and is designed to suggest activities for older people, get them online and make it easy for them to connect with loved ones. Among other things, ElliQ can tell jokes, suggest breathing exercises and offers reminders to drink water.

During beta testing, Ishak says she found that ElliQ—just by greeting senior citizens when they enter the room and giving them something to interact with—helped the seniors feel less isolated.

"I feel really good about the fact that I'm doing something that I know provides a lot of value to people," she says. "I get immediate feedback about the hard work we're doing and I can see this really has the power to change people's lives."

—Tom Kertscher

Learn more about Ishak's work at [sjsu.edu/wsqa](https://sjsu.edu/wsqa).

# Spartan Sweethearts Give \$2 Million



**Steve and Cheryl Caplan** met as San José State students. Now, their \$1 million gift is the latest commitment in a growing list of seven-figure gifts that will support a new football operations center on the east side of CEFCU Stadium, Home of the Spartans. An additional \$1 million from their estate will establish the Caplan Family Faculty Fellowship in the Lucas College and Graduate School of Business, the Caplan Family Teacher Innovation Fund in the Connie L. Lurie College of Education, and a Spartan Athletics Fund Scholarship endowment.

**Your gift to the Spartan Athletics Fund supports all student-athletes: [sjsu.edu/saf](http://sjsu.edu/saf).**



## **RACHEL MICHELBERG**

'84 Music, portrayed Mother Abbess in Foothill Music Theatre's production of *The Sound of Music*, her third time playing the role. "I love musical theater. I've done it my whole life and I love it," she told the press.

## **SHERRI SAGER**

'83 MPA, chief government and community relations officer at Lucile Packard Children's Hospital at Stanford, received the Athena Leadership Award from the Palo Alto Chamber of Commerce in recognition of her contributions to the community and her profession. She has served on the board of multiple nonprofits, including the San Mateo County Economic Development Association, the Menlo Park Chamber of Commerce and Ravenswood Family Health Center. "I think of myself as a pragmatic idealist," she said. "I want to leave the world a better place than when I entered it."

## **KAZUHIRO SONODA**

'87 Biological Science, dean of the College of Arts and Science at Heritage University in Toppenish, Wash., has assumed the posts of provost and vice president of academic affairs as well. He joined the faculty of Heritage University in 2007 as associate dean of the College of Arts and Sciences.

## **FLORENCE SPYROW**

'80 Nursing, who served as interim president and CEO of Northern Arizona Healthcare for six months, has been named permanent president/CEO of the organization. She joined NAH in 2015, initially serving as executive vice president and chief administrative officer of Flagstaff Medical Center.

## '90s

## **DANIEL ACOSTA**

'93 Psychology, a San José Police Department veteran, is the newly appointed chief of police at Foothill-De Anza Community College.

## **RON CALVIN**

'91 Marketing, who joined Alaska Airlines in 1986 as a customer service agent and most recently served as managing director of inflight operations, was promoted to the company's vice president of inflight.

## **WILLIAM COGGSHALL**

'95 Political Science, who previously practiced law at Walnut Creek's Archer Norris, joined Gordon Rees Scully Mansukhani's San Diego office as partner. He is a member of the Defense Research Institute, the Association of Defense Counsel and the Contra Costa County Bar Association.

## **ROBERT DE GEUS**

'99 Business Management, '09 MBA, was appointed city manager of Westlake Village and took up his new post in March. A native of Australia, he previously served as Palo Alto's deputy city manager.

## **BRAD EGGLESTON**

'98 MS Civil and Environmental Engineering, a 20-year veteran of Palo Alto's Department of Public Works, was named the department's new director last September. He first worked for the city as an industrial waste investigator and more recently has been instrumental in implementing the city council's 2014 infrastructure plan.



# Hidden History

In 2017, while giving a TED Talk, artist, painter and sculptor **Titus Kaphar** unveiled a replica of a 17th-century Frans Hals painting that depicted a white family with a black figure in the shadows. As he spoke, Kaphar painted swaths of white across the canvas, obscuring the prominent characters and directing the focus to the hidden figure. The artist, who received a 2018 MacArthur “genius” grant, says art can be used to shift perspectives. As president and a founder of NXTHVN, an arts incubator in New Haven, Connecticut, which provides resources for artists, Kaphar sees painting as a language that offers diverse perspectives on history, justice and change.

“We can’t erase this history; it’s real,” said Kaphar, ’01 BFA Photography. “We have to know it. I want to make paintings and sculptures that are honest, that wrestle with the struggles of our past but speak to the diversity and the advances of our present.”

One example of his aesthetic is The Jerome Project, which features reimaged mug shots of imprisoned black men

named Jerome on gold leaf and dipped in tar. The project began when Kaphar Googled his father Jerome, who had been incarcerated, and was amazed to find 99 other men of the same name who had been imprisoned. By investigating the prison-industrial complex and the incarceration of black men, Kaphar challenges the way people of color are represented in art. In 2014, *Time* commissioned him to respond to protests in Ferguson, Missouri, following Michael Brown’s death. The resulting painting, entitled “Yet Another Fight for Remembrance,” features African-American men with hands held high, faces and bodies concealed by white paint.

“The act of painting itself becomes a fight to remember the names of all the young black men who were taken too soon,” said Kaphar in a 2014 *Time* interview. “A fight to remember that when this issue disappears from the media, it is not permission to forget. A fight to remember that change is possible.”

—Julia Halprin Jackson

**WSQ** web extra! Watch a video interview with Kaphar at [sjsu.edu/wsq](https://sjsu.edu/wsq).

# Under the Sea

**Marc Slattery's** research has taken him to Antarctica, the Caribbean and across the Pacific, where he dives into depths up to 400 feet to examine coral reefs. Once underwater, there is no shortage of research questions to explore.

"Is disease a problem?" asks Slattery, '87 MS Marine Biology. "Is climate change a problem? What about overfishing and pollution? Everyone wants to know if the coral reefs are going to be around for the next generation. Are our kids going to have the same opportunities that we had?"

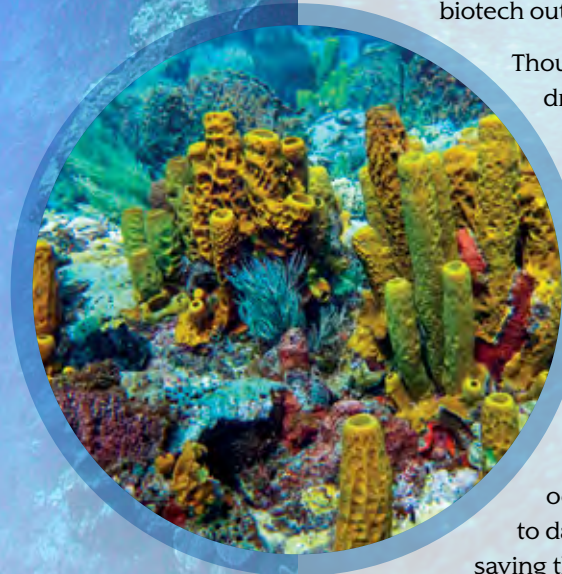
The professor of pharmacognosy and environmental toxicology at the University of Mississippi studies how the chemical makeup of marine invertebrates, algae and bacteria could be applied for drug discovery. Through collaborations with his chemistry, biology and pharmaceutical colleagues, he shares unique specimens that could potentially contribute to drug development.

"A lot of the organisms that I am interested in are attached to the ocean bottom," he says. "Many have unusual chemistry to fight off predators, competitors and pathogens—their version of an immune system. Working now at the Research Institute of Pharmaceutical Sciences, I'm very interested in the chemistry that marine animals produce, and I recognize that there is a biotech outcome. How can we use that to our benefit?"

Though it can take 30 years to bring new drugs to market, Slattery says the data they collect reveals valuable information about marine biology and chemistry. The University of Mississippi presented him the 2018 Distinguished Research and Creative Achievement award in recognition of his work. He loves involving undergraduate and graduate researchers in his lab.

"I really enjoy making a difference with young scientists," he says. "As vast as the oceans are, they are incredibly susceptible to damage. I want to see the next generation saving the oceans because they have a huge impact on this planet and our future."

—Julia Halprin Jackson



SLATTERY DIVES IN POHNPEI, MICRONESIA.

RIGHT: A COMMUNITY OF SPONGES OFF THE COAST OF SABA IN THE CARIBBEAN.

#### **ROSIO GONZALEZ**

'95 Social Work, is the new president of the Consortium of Catholic Academies, a nonprofit that supports students of four inner-city Catholic elementary schools in the Archdiocese of Washington. D.C. The former director of the Department of Pastoral Offices for the Archdiocese of San Antonio, she has also served as social director of Catholic Charities for the Archdiocese of Washington.

#### **LORNE JOHNSON**

'94 MA Applied Economics, is managing director/client portfolio manager of global multi-asset solutions at Quantitative Management Associates (QMA). The firm is headquartered in Newark, N.J.

#### **MIKE MATTEUCCI**

'91 Economics, who joined the Burlingame Police Department in 1991 and was promoted to captain in 2004, was sworn in as the city's chief of police in January. He holds a master's degree in emergency services administration from CSU Long Beach.

#### **CHRISTOPHER QUEEN**

'98 Humanities, currently based in Washington, D.C., recently received his master's degree in paralegal studies from George Washington University.

#### **MONICA FLORES ROWLEY**

'96 Interior Design, executive director and co-founder of Santa Rosa's Goals Foundation, received a 2018 Latino Business Leadership Award from *North Bay Business Journal*. The former operator of Sports City Inc., she also co-founded Epicenter Sports and Entertainment.

#### **JON SELOVER**

'91 MFA Directing, is artistic director of The Western Stage in Salinas, a professional community theatre that celebrates the history of the region. "We have a great challenge in keeping theatre relevant to young people today. They have to experience art if they are to become patrons or artists. We're working on it!" he told the press.

#### **RICK SUNG**

'95 Criminology, a 16-year veteran of Santa Clara County's Sheriff's Office, was promoted from assistant sheriff to undersheriff. "As a first-generation immigrant, I am fulfilling a lifelong dream to serve a culturally rich county," he told the press. Born and raised in Seoul, Korea, he and his family settled in the South Bay when he was 15 years old.

#### **CEM TANYEL**

'96 MBA, former executive vice president/general manager of professional services at Kony, joined Sabre Corporation as executive vice president/ president of airline solutions last September. Headquartered in Southlake, Texas, Sabre provides technology to the travel industry, serving customers in more than 160 countries.

#### **SCOTT TAYLOR**

'93 Economics, joined WiSA, the wireless speaker and audio association, as vice president of marketing last October.

#### **DEBBIE TUCK**

'91 Accounting, who has worked at BlackBerry, Good Technology, Sunrun and Verisign during her career, joined Dtex Systems, a cybersecurity firm based in San José, as chief financial officer.

## '00s

#### **LAURA DUNBAR**

'04 MBA, most recently vice president of marketing at Get Well Network in Bethesda, Md., joined Global Healthcare Exchange as senior vice president of global marketing. A healthcare and data automation firm, GHX is based in Louisville, Colo.

#### **PASQUALE ESPOSITO**

'09 Music, a lyric tenor, made his operatic debut with the San Francisco Opera in 2015 and has since recorded six CDs, toured internationally and drawn praises from the *New York Times* for his "airy charm" as a singer. Last October, he returned to Sacramento's Crest Theater to perform selections from his latest album, *Pasquale Esposito Celebrates Italian Piazzas*.



## Supporting Students with Disabilities

A business professional who has lived with dyslexia, Management Information Systems Lecturer Richard Sessions established a scholarship for business students with disabilities by making SJSU's Accessible Education Center a beneficiary of his retirement plan.

**"I identify with San José State students," says Sessions. "Now I have the ability to give these Spartans an opportunity for a better future."**

Want to ensure that future Spartans are able to enjoy inspiring opportunities? Including SJSU as a beneficiary in your retirement plan or will is an easy, yet significant, way to leave a lasting legacy. **Learn how you can make a legacy gift at [plannedgiving.sjsu.edu](https://plannedgiving.sjsu.edu).**



**Stay Connected**

**SHARE** your story and alumni updates at [sjsu.edu/wsqa/submissions](https://sjsu.edu/wsqa/submissions).

**JOIN** the Alumni Association at [sjsu.edu/alumni/join](https://sjsu.edu/alumni/join).

#### ELAINE FRENCH

'07 MA Art History, gave a lecture at the Sun Valley (Idaho) Center for the Arts in October titled "Ambrogio Lorenzetti's Allegory of Good and Bad Government: 14th-Century Ideas with Relevance Today," based on the Italian painter's fresco panels in Siena's Palazzo Pubblico.

#### MARISA JOHNSON

'09 Marketing, owns La Create Space, a community co-working space in Inglewood serving creative artists, entrepreneurs and small business owners. She is also founder of the She Is Speaker Series.

#### LANCE KILPATRICK

'08 MA Education, was appointed dean of the School of Education at Olivet Nazarene University in Bourbonnais, Ill., last July. He joined ONU's faculty in 2011 and previously taught middle school at Valley Christian Junior High in San José.

#### EVAN LOW

'03 Political Science, was reelected to the California State Assembly in November 2018. He represents the 28th Assembly District, which encompasses parts of the South Bay and Silicon Valley.

#### TRINH MAI

'05 Art, recently exhibited artwork at The Foodie Space, an interactive pop-up museum at the former site of the Pasadena Museum of California Art.

#### STEVEN NAYLOR

'05 Management, is vice president of IT infrastructure at Santa Clara County Federal Credit Union.

#### EMILY PARKER

'07 Humanities, a leather goods artisan, opened a storefront shop in Menlo Park last December to sell her EM Parker label. Earlier in 2018, the label had a soft launch online.

#### VISHNU PENDYALA

'00 Computer Engineering, who received his doctorate in computer engineering from Santa Clara University, was appointed to the Distinguished Speaker Program of ACM, the world's largest educational and scientific computing society. He is the author of *Veracity of Big Data* (Apress, 2018).

#### ANA MARIA RUIZ

'03 MUP, is general manager of the Mid-Peninsula Regional Open Space District, a public agency created by voters in 1972. As general manager, she oversees more than 170 staff members and the implementation of land conservation projects. She joined the organization as a planning technician in 1998 and became assistant general manager in 2013.

#### JOAN TORNE

'06 MA Sociology, former director of SJSU's Human Resources Administrative Services, currently serves as chief of staff, human resources in the CSU Chancellor's Office. She received her doctorate in organizational leadership from the University of San Francisco.

#### JAMIE TURBAC

'00 MLS, was appointed director of library services for the city of Oakland. She has served as interim director since March 2018 and first joined the Oakland Public Library as a temporary assistant in 2001.

#### LURA WILHELM

'05 Art, who teaches at University Preparatory School in Redding, recently exhibited her artwork at Redding's Main Street Gallery in a show titled "Intrinsic Reality."

#### HENRY WOFFORD

'00 MS Journalism/Mass Communications, an Emmy-winning journalist, joined the Napa County Sheriff's Office as public information and outreach officer.

## '10s

#### CHRIS AMANI

'10 MBA, is the new CEO of San Francisco-based Humanity, a provider of cloud-based scheduling solutions. Over the past five years, he has served as the company's chief operating officer, vice president of growth and operations and headed finance and analytics operations.

#### GABRIELA AMERICO

'14 Child and Adolescent Development, opened Little Strivers Academy in Manteca, a preschool designed to help children in low-income families succeed.

#### OLIVIA ASIS

'17 Animation/Illustration, won first place in the Warner Bros. Employee Film Showcase in November for her animated short, *A Radish Tale*, the story of a young radish separated from his family. Studio employees and creative executives from New Line Cinema and Warner Bros. Pictures voted on the prize.

#### ROBIN BOLSTER-GRANT

'12 MUP, previously a principal planner for Santa Cruz County, is the county's current cannabis licensing manager, a newly created post. She holds a law degree from Monterey College of Law.

#### ANDREW HILL

'16 Music Education, a trombonist who has performed across Europe with San Francisco Symphony's Youth Orchestra, is Los Gatos High School's new music director.

#### JOHNATHAN HSU

'13 Music Education and Performance, teaches at John F. Kennedy Middle School in the Cupertino Union School District. His advanced orchestra performed at the 72nd annual Midwest Clinic, a band and orchestra conference held in Chicago.





## FACULTY IN MEMORIUM

### TRENTON HUGHES

'13 Business, author of *The Christmas Note*, published *Counting on Christmas* (Sweetwater Books/Cedar Fork Media & Publishing) in 2018.

### MELISSA KELLY

'12 MLIS, is the new director of the Lake Oswego (Ore.) Public Library. She previously served as manager of the library's circulation division.

### CHING KIM

'18 Business Administration, based in Manteca, works in production material control at Quanta Computer.

### ALESSANDRO LENARDUZZI

'18 Management, based in San José, is an account manager at GreenWaste Recovery.

### MARIAH MCGUIRE

'18 MLIS, based in Napa, is head of marketing and programming at St. Helena Library.

### ASEEM MOGRE

'18 Geography, is pursuing his master's degree in geographic information systems (GIS) at Johns Hopkins University in Baltimore, Md.

### ROBERT RIVAS

'11 MPA, was elected to the California State Assembly in November's elections, representing the 30th Assembly District, which includes the Salinas Valley, Big Sur, San Benito County, Watsonville, Gilroy and Morgan Hill.

### JUSTIN TENNANT

'18 Computer Science, is a technical director at Walt Disney Animation Studios in Los Angeles.

### RANDY VAZQUEZ

'15 Journalism, is a visual journalist, reporting for the *San Jose Mercury News* and *East Bay Times*. He previously worked for the *Sun Sentinel* in Fort Lauderdale, Fla.

### AISHA WAHAB

'10 Political Science, made history with her election to the Hayward City Council. A pro-housing millennial, she is the only renter on the city council and one of the first two Afghan women to hold public office in the U.S., according to KTVU Fox 2. A board member of Adobe Service and the Tri-City Volunteers, Wahab holds an MBA from CSU East Bay.

### JEFFREY WALDROP

'17 MLIS, former associate provost and director of the David Allan Hubbard Library at Fuller Theological Seminary in Pasadena, is the new dean of the University Library at Mercer University in Macon, Ga. He is also the author of *The Emergence of Religious Toleration in 18th Century New England: Congregationalists, Baptists, and the Contribution of John Callender* (de Gruyter, 2018).

### JUSTIN WASTERLAIN

'15 MLIS, previously a reference librarian in the adult services department of Santa Clara County's Central Park Library, is currently acting program coordinator at Mission Branch Library, a full-service library offering programs for all age groups.

**MICHAEL EGO**, age 68, on Jan. 27, in Stamford, Conn. Dean of SJSU's College of Applied Sciences and Arts from 1994 to 2004, Ego was professor of human development and family studies at the University of Connecticut's Stamford campus. A member of the University of Connecticut faculty since 2005, he also served as associate vice provost at the Stamford campus from 2005 to 2010. He received his undergraduate degree in physical education from CSU Dominguez Hills in 1974 and his doctorate in leisure studies from the University of Oregon in 1980. His recent research focused on sports reminiscence therapy for individuals with dementia.

**JAMES LIMA**, age 94, on Jan. 27. An SJSU Department of Electrical Engineering professor emeritus and former associate dean of academic affairs, Lima received his master's degree in electric engineering from SJSU in 1962 and a graduate degree from Stanford in 1968. An Oakland native, he was a World War II and U.S. Army veteran. He retired from SJSU in 1988.

**HARRY POWERS**, age 91, on Dec. 3, 2018, in San José. A painter, sculptor and photographer, Powers taught in SJSU's Department of Art and Art History for 30 years. A U.S. Navy veteran, he received his undergraduate degree in art from SJSU in 1951 and a graduate degree in painting and art history from Stanford University. In addition to his SJSU classes, he taught workshops in Australia and England during his career. His artwork has been shown and collected by institutions and individuals in California, New York, Ireland, Spain, Australia and elsewhere.

*Alumni who have passed away are remembered online at [sjsu.edu/wsqa/memoriama](https://sjsu.edu/wsqa/memoriama).*



## SCIENTIFIC PIONEER

In 1957, San José State College celebrated its centennial and legacy of being “Pioneers for 100 Years.” That same year, **Ruth Yaffe** was hired as a temporary instructor in the chemistry department. A specialist in radioactive chemistry and true pioneer herself, Yaffe’s teaching career had begun years before as an undergraduate at Macalester College, where she took over her professor’s summer class for soldiers returning from World War II. The young scientist had earned a fellowship to pursue her PhD, taught in Tennessee and moved out west with her family. Once in San José, Yaffe became the first woman tenured professor in chemistry at San José State. She taught for more than 30 years, helping more than 500 undergraduates apply to graduate programs and pursue careers in science, medicine and law.

“Throughout my academic career, I did not want to be a ‘woman chemist,’” Yaffe says. “I wanted to be a colleague on par with men, accepted by merit, not sex. By the time I retired, women were deans and vice presidents, and our university president was Gail Fullerton.”

—Julia Halprin Jackson

**WSQ** web  
extra!

Read more about this trailblazing scientist  
and professor emerita at [sjsu.edu/wsq](http://sjsu.edu/wsq).

PHOTO: THOMAS SANDERS



PHOTO: DAVID SCHMITZ

The scientific enterprise is one of the greatest ongoing human achievements. As dean of the College of Science, I am deeply committed to providing meaningful research opportunities to all students.

Research informs our teaching and ensures that our graduates are ready to use the latest knowledge and techniques within their fields. At the 15th Annual College of Science Student Research Day this spring, more than 250 students displayed recent work on 110 projects that span the pure and applied areas we study in the college, from neurophysiology and polymer chemistry to machine learning and internet security. With students working side by side with faculty members, the research we are doing prepares students for careers in industry research labs, K-12 classrooms or advanced degree programs.

SJSU’s April 25 groundbreaking for our Interdisciplinary Science Building (ISB) was the first step toward the creation of a new Science Park, which will provide a home for more breakthrough discovery and applied research. Most importantly, it will connect science to all other disciplines. We will cross traditional academic lines and fuse creative fields of study to explore climate change, fire weather and ocean acidification, quantum computing, genetic engineering and emerging disciplines. We will create an environment where aspiring scientists and entrepreneurs can hit the ground running through student, faculty and industry partnerships. An “innovation wing,” called Silicon Valley Edge Laboratories, is proposed for a future phase of the project.

Our goal is to make teaching, research and collaboration inseparable. Imagine the many more experiences we will provide to students when the ISB is complete.

—Michael Kaufman  
Dean, College of Science

**“Research is a fundamental part of higher education, allowing our students to build practical skills and work to solve some of society’s biggest problems.”**

—Michael Kaufman

# BREAKING NEW GROUND

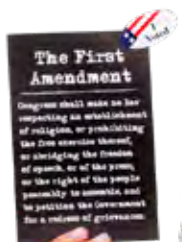
## Support Science and Innovation

SJSU's Science Park will be a focal point for collaboration on campus. To ensure funding for this ambitious vision for science and innovation, including what happens inside these new, modern spaces, we will need partners in this endeavor. As a public institution, SJSU relies in large measure on funding through the state of California. An initial investment of \$181 million from the CSU and SJSU capital reserves will support construction of the Interdisciplinary Science Building, Silicon

Valley Edge Laboratories, however, will require private support from individuals, corporations and foundations. A recent \$1.6 million gift from an anonymous donor to support faculty members in our computer science program is a start.

Learn how you can be part of this exciting new endeavor at [sjsu.edu/sciencepark](https://sjsu.edu/sciencepark).





# My Story is Here

**Navya Kaur**

'20 Computer Science

**“I want to create something that I know will have a big impact.”**

Navya Kaur sees technology as a force for public good. As the youngest participant in the 2018 Reimagine Lab fellowship, a design-thinking challenge that addresses social problems, Kaur presented a prototype of an online tool that supports survivors of domestic violence. To help communities in need, Kaur says it is critical to use technology to solve social issues. She wants to give people “a sense of autonomy and help them find the information they need.” Her dream? To someday apply her technical skills to “transform the way the government serves the American public.”

## Share Your Story

*My Story is Here is a statement of pride in being a member of the SJSU community. In 100 words, tell us how you've used what inspires you to make a difference in the world. Include your name, major, year of graduation and telephone number. Send information via email to [wsqeditor@sjsu.edu](mailto:wsqeditor@sjsu.edu) or USPS: WSQ Editor / SJSU / One Washington Square / San José, CA 95192-0258.*