Stories of Generosity & Opportunity at Arizona State University

IMPACT

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ASU Foundation for A NEW AMERICAN UNIVERSITY

ARIZONA STATE UNIVERSITY

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Impact is published twice a year by the ASU Foundation for A New American University as a reminder of how private support enables and enriches ASU's creative and innovative enterprise.

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Stories of Generosity & Opportunity at Arizona State University

IMPACT

GENEROSITY + HIGHER EDUCATION = A BETTER WORLD

Benefactors serve society and advance life-changing ideas through Arizona State University.

Donors make their contributions with a hope of elevating the world around them, raising the capacity to flourish for many—or the very ability to survive for many more. Since the advent of the last century, the path for charitable giving intended to better humanity has run through scholarly institutions.

Educational attainment accelerated in the 20th century, advancing how the world works, lives, moves, and communicates—transformation that continues today. University research brings discovery and invention that eradicates disease and gives birth to new industry.

The Arizona State University charter compels rigorous pursuit of that path: by creating master learners capable of acquiring any knowledge at any time and by engaging in research that solves present-day challenges, like leading NASA's lunar mission to map water on the moon (p. 10) or playing a fundamental role in finding the Ebola vaccine—all while maintaining a fundamental principle of accessibility to every student who is qualified to attend.

To do more, it takes more: as the university welcomes greater responsibility for the communities it serves, it also relies on greater support to advance its life-changing ideas.

ASU is increasingly distinguished from its private counterparts not by its public funding but by its promise to sustain and promote society not only at the global and national levels but also within its region, the state of Arizona and, importantly, the places that its campuses call home.

With sincere gratitude for your help in enabling this important work,

R. F. "Rick" Shangraw Jr.
Chief Executive Officer
ASU Foundation for A New American University

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COVER PHOTO BY FELIPE RUIZ ACOSTA






A DIVERSITY OF PASSIONS

MEET OUR SCHOLARSHIP RECIPIENTS

1 SAUMYA GUPTA

JUNIOR, CHEMICAL ENGINEERING

HOMETOWN:
AHMEDABAD, GUJARAT, INDIA

MY SCHOLARSHIP:
PRESIDENT'S CLUB SCHOLARSHIP

When people ask you about ASU, what are you most excited to tell them?

Being a part of a large research university comes with many benefits, particularly the partnerships ASU has built with other universities, employers, and communities around the world. The number of ties ASU has fostered is astounding.

What is the best class you've taken at ASU?

The Barrett Honors Study Abroad Program. The opportunity to learn about Greek and Roman history while being immersed in a different country helped me develop an appreciation of different cultures that I would not have encountered in the classroom.

View travel opportunities available to Barrett students at **barretthonors.asu.edu/academics/enhance-your-academic-experience/study-abroad**

2 LILIANNA VALDIVIA

SOPHOMORE, FORENSICS

HOMETOWN:
PEORIA, ARIZONA

MY SCHOLARSHIP:
SUN DEVIL FAMILY ASSOCIATION SCHOLARSHIP AND MEDALLION SCHOLARSHIP

If you could look into a crystal ball and see yourself in twenty years, what do you hope to see?

I would like to see myself with a solid career—working as a crime lab director or owner of a crime lab. I hope that I am content with my life and am truly happy.

What will be the next big thing happening in your field of study?

The transition from old-fashioned paperwork to a technological form of documentation. I can see a large and secure database being created where lab analysis and details about a case can be shared instantly with authorized persons.

Lilianna has changed her family's future. Find out how in her own words at **asufoundation.org/impact**

3 KYRA TRENT

JUNIOR, INTERDISCIPLINARY ARTS AND SCIENCES

HOMETOWN:
NEWARK, DELAWARE

MY SCHOLARSHIP:
SPIRIT OF SERVICE SCHOLARSHIP

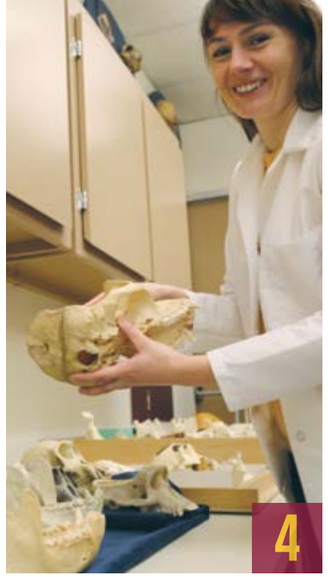
If you had $1 million to give to ASU, what would you give it to?

I would invest in a creative service challenge for students. Recipients would compete to receive a scholarship, office space, volunteers, and a grant to implement their projects in the community. This would encourage cultural engagement, civic duty, diversity, and innovation.

What is your favorite spot on campus?

My favorite spot at the West campus is on the second floor of Sands courtyard, while overlooking the sunset, which needs no explanation.

View Kyra speak on painting, mentoring, and what she calls a "chain of inspiration" at **asufoundation.org/impact**



4 HALSZKA GLOWACKA

PHD, EVOLUTIONARY ANTHROPOLOGY

HOMETOWN:
TORONTO, CANADA

MY SCHOLARSHIP:
ELIZABETH H. HARMON RESEARCH ENDOWMENT, DONALD C. JOHANSON PALEOANTHROPOLOGICAL RESEARCH ENDOWMENT

The best professor you've ever had challenged you to…

Be creative in the way that I approach science. Rather than trying to fill in the gaps, ask questions that haven't been asked and use tools that haven't been used before.

If you could collaborate with anyone, who would it be?

Emily Graslie at The Field Museum. She's a science communicator and hosts a terrific YouTube program called *The Brain Scoop*, which uses humor and wit to describe research to the public. Public outreach is important to me as a scientist.

An ASU researcher discovered Lucy, one of the first females to walk upright. Halszka explains at **asufoundation.org/impact**

5 EMMA CARD

JUNIOR, CHEMICAL ENGINEERING

HOMETOWN:
MONTROSE, COLORADO

MY SCHOLARSHIP:
SUN DEVIL FAMILY ASSOCIATION SCHOLARSHIP

The person at ASU who has had the greatest impact on me is…

Professor Michael Sierks. He took me into his lab as an inexperienced sophomore and allowed me to do research so that I could merge my chemical engineering major and my passion for medical science.

If you could "pay it forward," what would you do?

I would take my knowledge into high schools to encourage students to pursue an engineering degree. I also hope to be in the financial position where I can donate to the scholarships that supported me when I needed it most.

Learn more about Emma Card's major at **semte.engineering.asu.edu/chemical-engineering**

6 ANGELINE YOUNG

MFA DANCE

HOMETOWN:
SAN FRANCISCO, CALIFORNIA

MY SCHOLARSHIP:
ASU GAMMAGE SCHOLARSHIP

What do you do for fun when you're not doing studies, research, or community service?

I love to cook Chinese, Thai, and Indian dishes and cuisine of the African Diaspora. I love to watch foreign films by female directors, like Anna Muylaert's *The Second Mother*, about unspoken class barriers in Brazilian society. I also like to do art projects with found objects in nature and integrate these into dance rehearsals to devise creative approaches to choreography.

What books are on your nightstand?

Cool Gray City of Love by Gary Kamiya, *Sing a Song of Popcorn* edited by Beatrice Schenk de Regniers, *Poesie D'Amore* by Rabindranath Tagore.

Watch Angeline perform one of her dances at **asufoundation.org/impact**

7 ANDREW D. SYPHER

JUNIOR, POLITICAL SCIENCE; MINOR IN PUBLIC SERVICE AND PUBLIC POLICY; CERTIFICATE IN LATIN AMERICAN STUDIES

HOME TOWN:
FALL CITY, WASHINGTON

MY SCHOLARSHIP:
SPIRIT OF SERVICE SCHOLARSHIP

If you had $1 million to give to ASU, what would you give it to?

The Spirit of Service Scholar's program. Many more students who aspire to become public servants in Arizona would be given this transformative opportunity to develop lasting and impactful leadership in our community.

What is your favorite spot on campus?

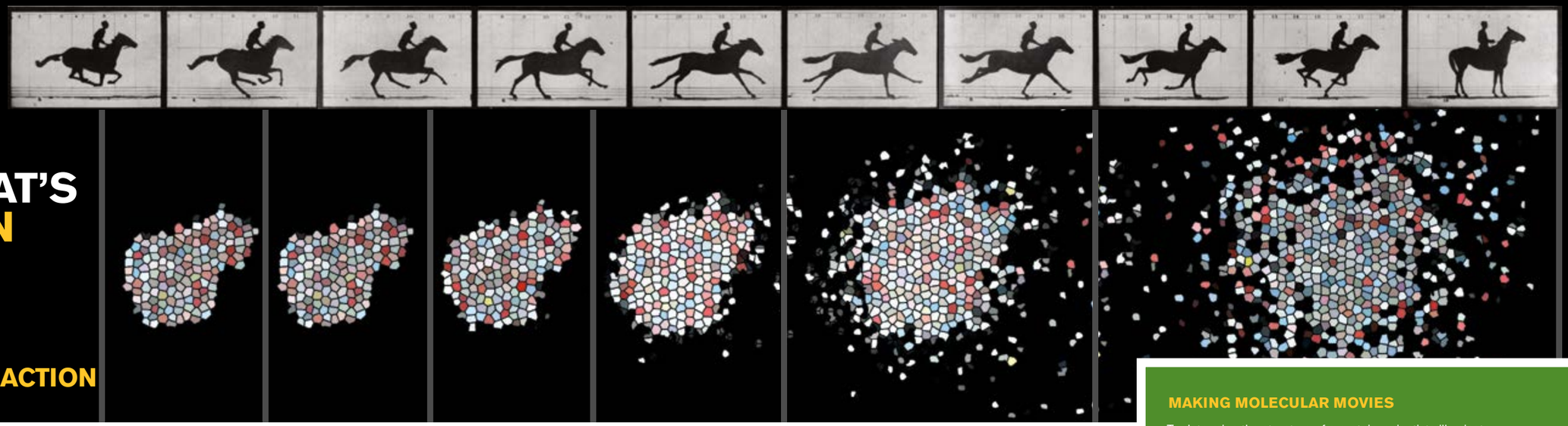
The computer lab in the School of International Letters and Cultures building. I love to study in academic environments surrounded by students from around the world. The variety of cultures and ethnicities help me maintain an open and accepting perspective.

See how ASU values diversity at **diversity.asu.edu**

PHOTO BY PAULA MATURANA

PHOTOS BY PHILAMER BATAGAN EXCEPT WHERE NOTED.

BY MELISSA BORDOW



SEEING WHAT'S NEVER BEEN SEEN

PROFESSORS' OUT-OF-BOX IDEAS SHOW US ATOMS IN ACTION

In 2004, ASU physics professor John Spence had a proposition for his colleague Petra Fromme, a professor of chemistry and biochemistry: Would she join him for lunch at the University Club?

By all appearances this was a working lunch, a physicist and biochemist getting together to talk shop. But, as Fromme describes it fifteen years later, you could have cued the music to *Mission: Impossible*.

Spence and Fromme met to discuss a revolutionary technique for using the world's most powerful electron lasers to map the atomic structure of proteins. In the rarified worlds of particle physics and structural biology, what they discussed not only was untested; among some of their peers, it was ridiculed. "Nobody else was buying it," Fromme remembers.

THE MISSION

To the uninitiated, mapping the atomic structure of proteins may sound arcane, with little purpose outside the world of academia, but Fromme says its applications to medicine and energy creation promised to be game changing.

By unraveling a protein's structure and dynamics, scientists could better understand how it works deep within the cells of the human body or the material world.

For example, scientists could peer deep inside a single protein to understand cancer or other devastating diseases. They'd be able to ascertain how a specific drug works in the human body and develop medicines that suit each individual.

Using the same process in plants, scientists could begin to understand how they efficiently convert sunlight into renewable energy.

THE PLAN

Spence had another proposition at their lunch: Invite everyone who wanted to discuss this field of work—graduate students, professors, researchers from across disciplines—to meet on Fridays to hash out ideas.

Fromme remembers many "hot discussions" as the Friday afternoon working group weighed in on novel ideas.

From those early discussions, Fromme, Spence, and their team submitted ten grant proposals for their project.

They weren't awarded a single one.

"Everyone said, 'If this will work, this will be fantastic, but you will never do it,'" Fromme says. "We did the experiment anyway."

COLLAGE BY FELIPE RUIZ ACOSTA;
PHOTOS COURTESY OF EADWEARD MUYBRIDGE AND ASU BIODESIGN

THE BREAKTHROUGH

Fewer than ten years after they were told it couldn't be done, Spence's and Fromme's discovery was named a "Top 10 Breakthrough of 2012" by *Science* magazine. Since then, their research has been central to a stream of discoveries in the field, including a groundbreaking study published in *Nature* in 2014 that shows the first snapshots of photosynthesis in action as it splits water into protons, electrons, and oxygen—the process that maintains Earth's oxygen atmosphere.

More than $30 million in grant funding has since flowed to the team. In 2014, ASU President Michael Crow announced the creation of an interdisciplinary center devoted to their research, the Center for Applied Structural Discovery, headed by Fromme.

Friday afternoons, you can still find Fromme and Spence debating ideas. After fifteen years, their working group still meets for discussions, hot or otherwise.

> ASU SCIENTISTS ARE UNRAVELING LIFE'S FUNDAMENTAL BUILDING BLOCKS. LEARN MORE AT **BIODESIGN.ASU.EDU/APPLIED-STRUCTURAL-DISCOVERY**

MAKING MOLECULAR MOVIES

To determine the structure of a protein, scientists illuminate crystals with X-rays then map how the X-rays scatter, giving them a "snapshot" of the protein.

This process often requires scientists to cultivate large crystals, which can be painstaking. And, the intense X-ray radiation destroys the protein. Spence and Fromme proposed using a stream of nanocrystals and laser pulses that are so short, they allow a snapshot before the protein is destroyed. By compiling snapshots and piecing them together—like the flip books of yore—they've making "molecular movies" of proteins in action—seeing for the first time how they function.

Petra Fromme

John Spence

MISSION SUPPORT

ASU is creating privately funded chairs and professorships to support and enhance the work of outstanding professors like Fromme and Spence. Exceptional research often requires travel, state-of-the-art equipment, and support from graduate students and university staff.

Fromme holds the Paul V. Galvin Professorship of Science and Engineering, one of ASU's oldest and most prestigious professorships, while Spence holds the Richard Snell Professorship in Physics. These professorships recognize and enrich their internationally recognized work.

William Graves

A LOFTY GOAL

To conduct their research, Fromme, Spence, and their team rely on high-powered free electron lasers, which cost billions to build and are a mile long. With only two in the world, scheduling "beam" time is difficult—80 percent of applications are rejected, impeding important research.

But ASU Associate Professor of Physics William Graves is designing and building a version that will cost a fraction of that amount to build and can fit on a tabletop. The compact version will make laser technology available to scientists around the world. "Not only can we do great science with this," says Graves, who is collaborating with Fromme and Spence, "but *lots* of people can do great science with this."

Sarah Stansbury

RECENT IMPACT

BY BETH GIUDICESSI

MANY GIFTS, ONE ASU

This compendium of gifts to Arizona State University and the scholars within it represents a range of university supporters—from philanthropic organizations to enduring change leaders and first-time student donors.

A GIFT FOR LITERATURE:

Class of 2016's **Sarah Stansbury** is one of the university's first current students to enroll in the ASU Foundation's recurring giving plan. Each month, Stansbury makes a modest donation to the Department of English within the College of Liberal Arts and Sciences, where she is studying literature.

"I chose to attend ASU because I have a passion for theatre as well as English," says Stansbury, who recalls one of her favorite memories is performing with close friends on stage at the Galvin Playhouse. "I knew that at ASU I could participate in shows on campus as a non-theater major while continuing my studies in literature."

In addition to her studies, Stansbury has a part-time job at the Office of Annual Giving's front desk. She says she learned about the impact of private support in her freshman year when she received one-on-one tutoring in math. Her tutoring center's services are free to students because of donors' generosity.

"I chose to give back to my department because I have many friends who wouldn't be able to attend ASU without the support of scholarships," she says. "I am more than happy to sacrifice going out once or twice a month to help a classmate get their degree. Giving back to the English Department—a community that has supported me through my college career in so many ways—simply feels like the right thing to do."

STARTING UP THE STARTUP:

Clarendon Capital Management Founder and Managing Director **Frederick M. Pakis** created The Pakis Social Entrepreneurship Challenge in partnership with the Center for Entrepreneurship and the W. P. Carey School of Business. The prize-based competition encourages students to generate socially conscious nonprofit organizations. Winning teams receive funding to pursue their new venture.

FREE TO TRAVEL THE WORLD:

The Norman Barrett Travel Fund, led by **Carol Norman**, a member of ASU Foundation's Women & Philanthropy group, and **Dan Norman**, is in its second year of subsidizing academic travel opportunities abroad for students in Barrett, The Honors College.

WHERE THERE'S A WILL:

Senior Sustainability Scientist and Regents' Professor **Edward Kavazanjian** made an estate gift to boost research in geotechnical engineering. He has made prior gifts in support of graduate fellowships.

WIRED FOR SUCCESS:

ASU's top undergraduate students in electrical engineering will benefit from new scholarships furnished by **Texas Instruments**, an ongoing supporter of ASU's graduate and faculty research.


Carol Norman


Professor Edward Kavazanjian

HIGHER-ING EDUCATION:

Three-time ASU alumna **Linda Brock** '75, '98, '99, established a fellowship to provide financial support for working teachers who are interested in leadership and in returning to college to earn a doctoral degree in education.

> FOR MORE RECENT GIFTS, VISIT **ASUFOUNDATION.ORG/IMPACT**

PHOTOS BY PAULA MATURANA AND COURTESY OF ASU

BEHIND THE SCENES

WHAT'S COOKING IN ASU'S NUTRITIONAL INSTRUCTIONAL KITCHEN

Arizona State University's School of Nutrition and Health Promotion operates two state-of-the-art, energy-efficient, and environmentally sound instructional kitchens that have become landmarks on the Downtown Phoenix campus. The school, part of the College of Health Solutions, offers twenty-one undergraduate and sixteen graduate majors for students in nutrition, exercise and wellness, kinesiology, health sciences, and medical lab science. Private support feeds their work, giving it the energy and vitality every healthy academic program needs.

[1]
A faculty member for forty years, Professor Linda Vaughan helped transform nutrition education at ASU from a small program in home economics to one of the largest nutrition programs in the United States. To honor Vaughan's long-time commitment, donors are establishing a scholarship endowment to commemorate her retirement in 2016.

[2]
After Professor Carol Johnston published studies showing that apple-cider vinegar can lower blood glucose in people with type 2 diabetes, the family-owned Bragg Health Products company donated vinegar for further studies. Diabetes research has also been supported by donations from the Almond Board of California.

[3]
The Susan N. Coleman Scholarship in Nutrition supports students committed to volunteer work in the field of nutrition. Recipient Baylee Evans, a dietetics undergraduate in the nutrition school, assists veterans at the Southeast Veterans Affairs Clinic.

[4]
Industrial mixers donated by Utah-based Blendtec allow Kent Moody, chef in the Nutritional Instructional Kitchen, to teach healthy cooking skills using freshly grown produce from the ASU kitchen gardens and to integrate those recipes into menus.

[5]
Tempe Sports Authority Foundation President Michael Myrick helps oversee scholarships that recognize the character and courage of those who overcome challenges in life. Its 2015 Tom Burns Memorial Scholarship was awarded to Katelyn Anderson, a junior in the nutrition program.

[6]
The Lloyd S. Hubbard Nutrition Research Fund supported the work of Christy Lespron during her graduate studies and as a clinical assistant professor in the nutrition program. Currently the president of the Arizona Academy of Nutrition and Dietetics, Lespron researches foods that help people manage their blood-glucose levels.

[7]
A breath hydrogen machine donated by the Bragg Company enables honors student Noel Ugarte to study colonic fermentation, a biological process that may improve colonic function.

What can you do with a dietetics degree? Learn more at asufoundation.org/impact

PHOTO BY FELIPE RUIZ ACOSTA

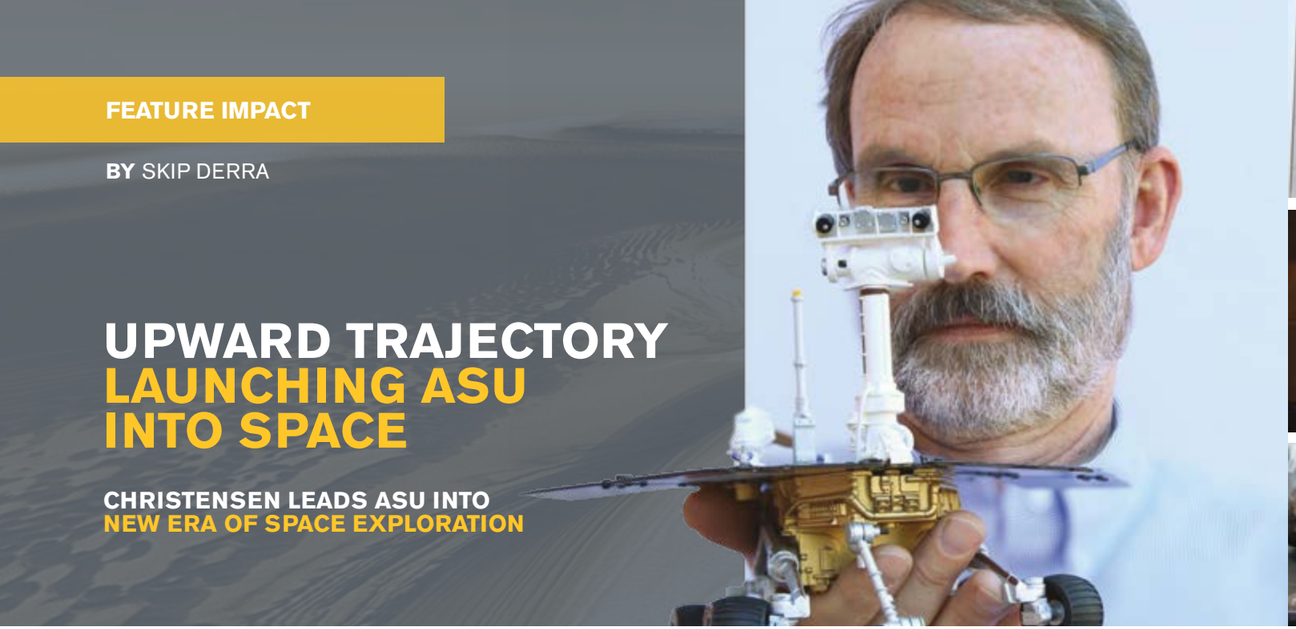
> FIND OUT HOW YOU CAN SUPPORT NUTRITION EDUCATION IN ARIZONA AT **CHS.ASU.EDU/INVEST**

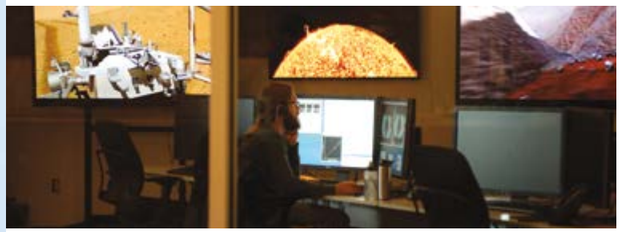
FEATURE IMPACT

BY SKIP DERRA

UPWARD TRAJECTORY LAUNCHING ASU INTO SPACE

CHRISTENSEN LEADS ASU INTO NEW ERA OF SPACE EXPLORATION





In 1986, when he got his first big grant to build an instrument for NASA, Phil Christensen didn't have a grand vision of where it would lead.

But he did have a dream.

"I thought, 'Wouldn't it be great if we could do this at ASU—build the instrument here instead of Santa Barbara [where it resides]?'" says Christensen, a Regents' Professor and the Ed and Helen Korrick Professor of Geological Sciences in ASU's School of Earth and Space Exploration (SESE). "People would chuckle and say, 'Well, maybe someday.'"

"It was kind of funny. At the time, ASU had no idea how to deal with a contract that big [roughly $10 million]. To go from a university—not even a Research I university at that time—to ISTB4 and building instruments on campus is pretty remarkable. To actually have it occur is very satisfying," he adds, referring to the Interdisciplinary Science and Technology Building (ISTB), where Christensen designs and develops spacecraft infrared remote sensing instruments.

In the thirty years since he landed that first big NASA grant for a device called a "thermal emission spectrometer" that measured the infrared spectrum from the Martian surface, Christensen has built a stellar reputation for developing NASA-certified instruments that have redefined our view of Mars.

He has built six in all, and a seventh instrument is on the drawing board. His latest completed instrument was designed, built, and tested in ASU's ISTB4, a first for the university. His work on the Osiris-Rex Thermal Emission Spectrometer (OTES) instrument elevated ASU into the elite class of universities in the United States that can build such instruments on their campuses.

Christensen's work has generated buzz in the school, where multiple ASU teams now have proposals in for NASA instruments and entire missions.

A recent success is Craig Hardgrove, an assistant professor who recently won a CubeSat mission that will map the moon's water deposits.

"Phil is the pathfinder for all the others," says ASU Professor Jim Bell, who has also developed instruments for NASA, including the Mastcam-Z instrument that will be the eyes of the upcoming Mars 2020 rover.

Just as he has inspired his fellow faculty, Christensen also inspires students. He uses funding from his endowed professorship mostly for student activities, like a freshman seminar where he casually engages sixty students in heady space exploration topics over pizza and soft drinks. He even brings in real-world problems that he faces in his instrument projects, making the exercise real for the students.

"Getting students to think about problem solving, whether it's climate change or how to build a better solar panel, it gives them a sense that when they leave the university, they think, 'I can do that. I can solve that problem,'" Christensen says.

> SCHEDULE A VISIT TO THE MARSTEN THEATER AT **SESE.ASU.EDU** OR TAKE A VIRTUAL TOUR OF ASU'S METEORITE COLLECTION AT **METEORITES.ASU.EDU/COLLECTION**

SPACE, IN THREE DIMENSIONS

If you ever wanted to travel through the cosmos in about sixty minutes, the Marston Exploration Theater in ASU's Interdisciplinary Science and Technology Building 4 can help you get there.

In *To the Edge of the Universe and Everything in Between*, a show currently featured in the Marston Theater, you jet away from Earth on a narrated journey all the way to cosmic background radiation. The show is presented in a highly immersive 3-D environment, with computer animation and high-tech planetarium technology utilizing advanced projection systems.

"People come up after almost every presentation saying that the live flying technology of the Marston Theater completely changes their perspective of the size and structure of the universe," says Ric Alling, who directs programming at the theater named for Carolyn "Susie" and Barret Marston in honor of their transformational gift to ASU in support of the SESE.

Because programmers are able to feature current space missions and sky phenomena, Alling says patrons have come to know the theater as a place to stay current in ever-changing exploration technologies.

The Marston Theater, a 238-seat auditorium, exists for students of all ages, abilities, and backgrounds to inspire, support, and encourage the future of science and engineering.

THE GENESIS OF ASU'S METEORITE COLLECTION

Among the showiest parts of the new ISTB4 building on ASU's Tempe campus is a second-floor exhibit of ASU meteorites. There, one can look at the beauty of these space travelers, which have been sliced, polished, mounted, and presented for public perusal. And these specimens are just a fraction of ASU's meteorite collection, among the world's largest held by a university.

The basis of the collection was formed in 1960, when ASU purchased a significant portion of the most important private collection in the world at the time from Harvey Nininger, an Arizonan and self-taught meteoriticist. Although a loan was secured to buy the meteorites, a donation of IBM stock from ASU benefactor Herbert Fales enabled university supporters to complete the purchase.

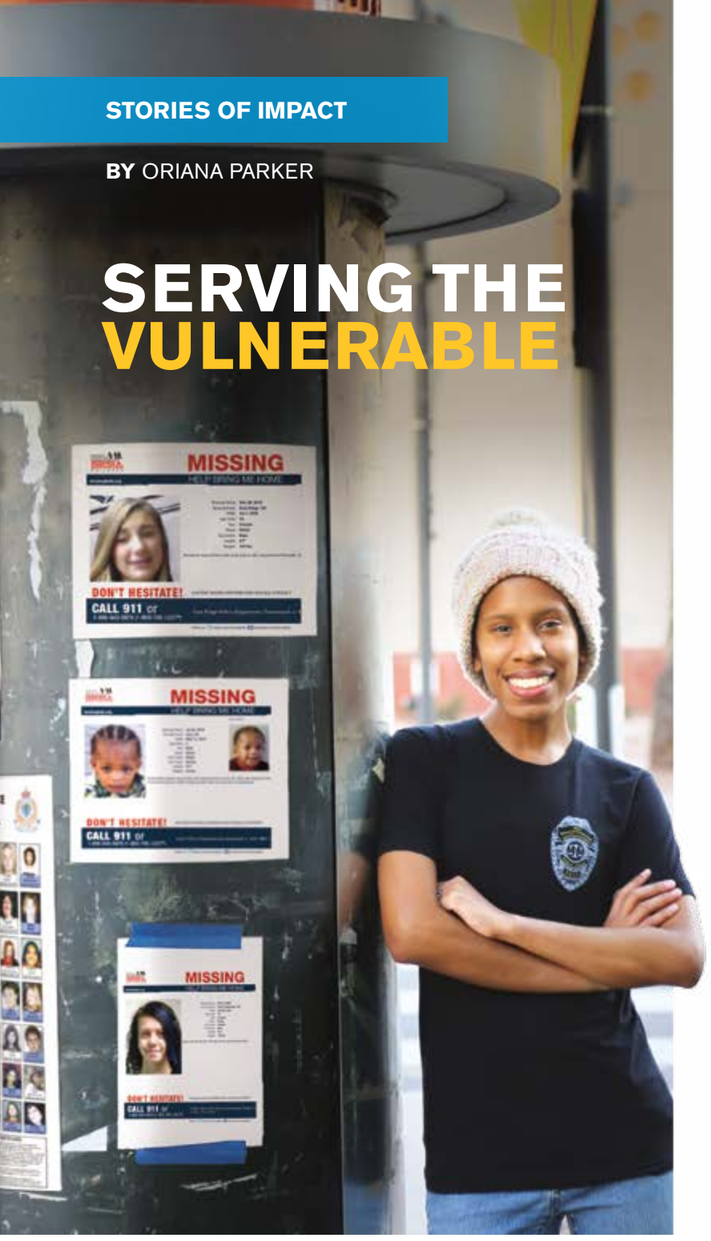
"Our collections numbers also swelled through the significant Dietz (a former geology professor) donation," says curator Laurence Garvie. "Since I was hired eight years ago, the collection has grown from around 1,400 falls and finds to currently around 2,100 falls and finds, represented by several tens of thousands of individual meteorites."

PHOTOS BY FELIPE RUIZ ACOSTA AND COURTESY OF SESE

STORIES OF IMPACT

BY ORIANA PARKER

SERVING THE VULNERABLE



Scholarships are one facet of ASU's Disability Resource Center. To learn more about its impact go to eoss.asu.edu/drc.

When Breana Curtis sees the face of a missing person, she can't look away and forget it. "That's someone's child, or someone's mother," says Curtis, a criminology and criminal justice senior at Arizona State University.

Curtis has spent her ASU career seeking to understand who goes missing and how to help them. She has studied this issue through the lenses of race and crime and sought to understand the victims of human trafficking, particularly women and children.

Now, with support from ASU's Christopher Rearley Scholarship, Curtis can pursue her ambition to make this her life's work.

Awarded annually through ASU's Disability Resources Center, the Rearley Scholarship will enable Curtis to keep a promise she made to herself.

"Before I went to college, I made a commitment that I would not get into debt while in the pursuit of my education, and the Christopher Rearley Scholarship has helped me stick to a personal commitment," she says. "This fills my heart with gratitude."

Created by Robert and Carolyn Rearley in memory of their son, who lost his battle with muscular dystrophy in 2007, the scholarship is given to students in ASU's School of Criminology and Criminal Justice. "We feel that our son—who earned his criminology degree in 1997—is reaching out and impacting peoples' lives in a positive way through this scholarship," Carolyn Rearley says.

Curtis is grateful for the chance to help those missing faces. "I'd like to work for a nonprofit organization, such as the National Center for Missing and Exploited Children," she says. "As long as I could help serve vulnerable populations, I would be happy."

PHOTOS BY PAULA MATURANA

STORIES OF IMPACT

BY MARVIN GONZALEZ

TAKING THE CHALLENGE

STUDENT COMPETITION IGNITES THE ENTREPRENEURIAL SPIRIT

What started as a final project for a class in Engineering Innovation and Entrepreneurship turned into a lesson of perseverance for mechanical engineering alums Rebecca Christensen '14 and Leila Jawhar '14.

The course required that they design a product and enter it in the Sun Devil Igniter Challenge. This competition offers the winning team mentorship, legal advice, and $50,000 in seed money from capital investors Carr Bettis, Les Brun, Thomas Cowan, and ASU alum Allan Kaplan '93, who share a passion for entrepreneurism that is matched by their stellar accomplishments in business and investment.

Christensen and Jawhar—with classmates J. J. McNeill '14, Chieh-An Chen '14, and Gilwon Kim '14—began working on a step-in design for snowboard bindings with a heel-locking system that fastens from a standing position. That enables snowboarders to avoid bending over to fasten bindings, which slows traffic at the top of a lift—a common complaint of snowboarders.

"I'm a snowboarder," says Christensen, "and the idea just kind of came to me." They called their product Helos, for Heel-Locking System.

To their surprise, their team was one of five finalists out of seventy entries.

"I still can't believe it," Jawhar says. "I thought this was just going to be our senior design project."

When the team pitched its idea before the Igniter board and lost, Christensen knew they couldn't quit. "It was obvious at that point that we had a great idea."

They continued to develop Helos.

And when the winning team ended up dissolving, the Igniter board declared Helos the new winner. Board members have since offered funding, mentorship, and legal advice. Under their guidance, the Helos prototype is in the virtual-testing phase.

"Everything they offer through the Igniter Challenge is about learning," says Christensen. "It's never about win or lose. It taught me to not take any idea for granted."

To learn more about Helos, visit **www.helosbindings.com**

> HEAR WHY THESE DONOR-ENTREPRENEURS ARE PASSIONATE ABOUT SUPPORTING STUDENTS AT **ASUFOUNDATION.ORG/IMPACT**

STORIES OF IMPACT

BY BETH GIUDICESSI

A NEW KIND OF SENIOR CLASS

ASU'S OSHER LIFELONG LEARNING INSTITUTE PROVIDES SHORT COURSES—AND COMMUNITY—FOR STUDENTS 50+

Warm weather, affordable living, golf, and the mountains are well-known attractions for Arizona retirees.

But what about the fungal kingdom, Darwin's theory of speciation, and neuroscience?

For students enrolled in Arizona State University's Osher Lifelong Learning Institute (OLLI), classes in an array of subjects—and the friendships that come with them—offer adults age 50 and older the added benefit of university-quality short courses at five locations in the Phoenix metropolitan area.

"I've been taking Osher classes for four years and it's been a life changing experience for me," says retired educator Bonnie Murphy. "I branched out and started taking classes in things I didn't even know I'd be interested in, such as 'The Fungus Among Us,' or 'Sex: Why All Is Fair When Love Is War,' or the brain research class."

Murphy is one of 1,500 students enrolled in OLLI's non-credit, exam-free courses taught by ASU faculty, staff, professors emeriti, and community experts.

ASU's program is one of 119 institutes in America sponsored by the Bernard Osher Foundation, a San Francisco-based organization that seeks to improve quality of life through higher education and the arts.

The Osher Foundation recently announced an additional $1 million investment in ASU's lifelong learning institute, citing its best practices among OLLI communities nationwide.

"They're lifting us up, saying, 'You've done it well and we believe in your community,'" said ASU's OLLI Director Richard Knopf, who is also a professor in ASU's School of Community Resources and Development.

OLLI is now in its tenth year at ASU, and Knopf notes that each year it is more deeply embedded in the lives of Arizona residents and winter visitors.

"OLLI is about impacts. We're looking for ways to expand the impacts for the community that is being developed around the Osher course," he says.

For Murphy, that impact extends beyond what she's learned in the classroom.

"I lost my husband unexpectedly after I retired and I was very depressed. I learned about Osher and from the very first class I took, I started feeling happier and more purposeful," she says. "It just feels right and good to me."

> TO HELP BUILD THE OLLI COMMUNITY, CONTACT ELISE PETERSON: **ELISE.L.PETERSON@ASU**; ENROLL IN OLLI AT **LIFELONGLEARNING.ASU.EDU**

STORIES OF IMPACT

BY ORIANA PARKER

INSPIRING STUDENTS TO REACH HIGHER

Ryen Borden knows even the most unruly school children are capable of learning—they just need the right inspiration.

"Sometimes when a student acts out, it's because of an academic struggle or factors outside of school," says Borden, executive director of the Sanford Inspire Program in Arizona State University's Mary Lou Fulton Teachers College. "Understanding these root causes allows a teacher to develop an intervention that helps a child behave more positively by meeting the student's needs."

Borden can now help teachers better understand and inspire their students, and not just the ones who act out in class. A $5.9-million gift from the Denny Sanford Foundation to the Sanford Inspire Program provides educators with free, online professional development tools that can help improve their skills in myriad ways. Whether a teacher seeks to create a safe and welcoming learning environment, set meaningful and ambitious goals, or manage challenging situations—the lessons are available anywhere, any time. Every module aligns with professional teaching standards and, depending on the district, may fulfill a professional development requirement.

Sanford established the Inspire program with a gift of $18.85 million in 2009. That initial investment enabled the program to develop teacher recruitment and course material and contribute to the college's intensive clinical experience program, iTeachAZ.

Sanford, a businessman and philanthropist whose foundation has invested more than $30 million in ASU, credits his success to grade-school teachers who inspired him to learn. "Teachers want to inspire kids to believe in themselves, yet they haven't had the tools to implement this," he says. "The Sanford Inspire Program will give teachers the systems and procedures to help students believe in themselves and their futures."

> TO LEARN MORE ABOUT THE SANFORD INSPIRE PROGRAM, GO TO **SANFORDINSPIREPROGRAM.ORG/OUR-MISSION/**

PHOTOS BY PHILAMER BATANGAN AND COURTESY OF ASU

BY CRAIG MORGAN

GETTING TO KNOW MIKE AND CINDY WATTS

Mike and Cindy Watts have a long history of engagement and investment in Arizona State University. Both are lifetime members of the ASU President's Club, whose members provide intellectual and financial resources to President Michael Crow, giving him the ability to engage ASU in emerging partnerships and initiatives. Cindy is a member of Women & Philanthropy, a group of investors who pool their annual investments to fund faculty and student initiatives. She also serves as vice chair of the ASU Trustees, an advisory body for the university and President Crow.

The Watts are co-founders of Sunstate Equipment, an Arizona-based equipment rental company established in 1977 that has expanded to eight other states. They recently gave more than $2 million to establish the Watts Center for Academic Excellence and Championship Life, an initiative within Sun Devil Athletics dedicated to the success of the university's student-athletes.

In February, the ASU Alumni Association honored Mike and Cindy Watts as Philanthropists of the Year at its annual Founders' Day event, which recognizes alumni, faculty, and university supporters who have contributed to the growth and evolution of ASU.

PHOTO BY FELIPE RUIZ ACOSTA

Neither of you is an ASU graduate. What enticed you to become so thoroughly involved with the university?

Mike: "I think it's easy for that to happen. …We both got exposed to the leadership through one of our neighbors, who held a dinner specifically for the purpose of introducing Dr. Crow and his wife, Sybil, to bring new people in [to the ASU community]. We got a chance to listen to his ideas about the New American University and where he wanted to take it. He's inspirational and he's likeable, so that meeting led to other meetings."

Neither of you describes yourself as an athletics enthusiast. Why did the Center for Academic Excellence and Championship Life resonate with you?

Cindy: "It was a result of the first President's Weekend on the Tempe campus. [President's Weekend is an annual event that showcases ASU's most innovative and promising programs.] The athletics department was one of the areas of the university I chose to tour and learn about. I had the great fun of meeting some of the young athletes and hearing their hopes and dreams. That evening I met [Senior Associate Athletic Director for the Office of Student-Athlete Development] Jean Boyd. I had the honor of moderating a panel discussion with him and Dr. Crow where I heard [Jean's] personal story and his dreams for making sure each student-athlete gets a good education along with the personal development needed to become a productive citizen.

"Jean's vision and ideas touched my heart. Jean explained what it takes for these athletes to succeed between being in school, all of their workouts and practices and games, and travel—that's a real struggle for them.

"For us, this really doesn't have to do with sports per se. It's about helping the individuals involved. Many of those athletes are there on scholarship and don't have families who can help them or have even taught them the skills to deal with life."

How do you envision this gift impacting student-athletes?

Mike: "One of the principles on which our company was built is about continual improvement, and this is really what we're talking about here. It's continual improvement of that process of moving student-athletes through ASU. They get better grades, they have better graduation rates, and they become better people. That's the way we think, and that is inherent in who we are: not to find fault, but to examine how you get better no matter what arena you are in the world. We really believe that."

Cindy: "Down the road, I would hope that any athlete who goes through this program becomes a well-rounded individual able to contribute to the university and the community—to the lives of others—and will hopefully learn something about philanthropy and want to give back, want to pay it forward."

How important was connecting with the staff and student-athletes to embracing the vision?

Mike: "We've had the opportunity to meet and listen to a presentation by [football player D. J. Foster]. From his perspective, we heard the benefits of the program, and he's going to participate in the perpetuation of this program. What a gentlemen he was—what a class act.

"You can't say the university program necessarily created this young man—his parents get most of the credit for that—but when you have someone like that who signs off and believes this will be great for the university, it further excites you."

Cindy: "All of them embrace Michael Crow's motto of building their reputation on who we include, not who we exclude. That's what it's about, isn't it? Philanthropy is our responsibility, every human being to their ability, and I don't think it always means dollars. There are other ways to be a humanitarian, but I do think it has to be taught. Not everyone learns that from their families. We have learned it from our association with ASU, and these student-athletes will learn that from this center, so it's exciting to think about being a part of that."

> LEARN HOW YOU CAN SUPPORT THE DEVELOPMENT OF STUDENT-ATHLETES AT **SUNDEVILCLUB.COM/WELCOME**

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Alberto Álvaro Ríos holds the Katharine C. Turner endowed chair in English at ASU. The resources it provides enable Ríos to pursue his literary creativity to the frontiers of his talent as well as make an impact on ASU students. Not only has his poetry and fiction received honors—including two National Book Award nominations, a Walt Whitman Award, and a Guggenheim Foundation Fellowship—he also co-founded ASU's Creative Writing MFA, fostering new generations of writers.

Listen to Alberto Rios read his poem, "When Giving Is All We Have" online at **asufoundation.org/impact.**

PHOTO BY FELIPE RUIZ ACOSTA

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