



THE UNIVERSITY OF ARIZONA
Foundation



POWER OF MANY

ANNUAL AND ENDOWMENT REPORT 2022



THE POWER OF THE WILDCAT ECOSYSTEM

Students discuss recent photos from the James Webb Space Telescope, a project made possible by University of Arizona researchers. Every day, students benefit from the incredible accomplishments of our faculty, demonstrating the power of the Wildcat collective.

WILDCATS DO BIG THINGS

TOGETHER.

When Wildcats come together for a common goal, big things happen. The University of Arizona holds so many powerful examples of collective impact. Take the enormous success of Giving Day 2022: On a single day, 2,788 Wildcats rallied together to raise \$3,800,834 for the university. Gifts were made to 247 funds across campus for colleges and causes, and every single dollar mattered toward reaching this incredible goal.

Arizona alumni, donors and friends inspire each other with their support and vision, and in this year's report, you'll see how philanthropy brings people together. You'll learn how matching gifts motivate and inspire donors to build on each other's generosity and push philanthropic visions to new heights. You'll learn how shared resources and support from multiple sources can bolster the student experience in myriad ways. You'll also see how giving powers collaborative research, where brilliant minds tackle big questions.

We do much more together than we ever could alone. We challenge each other, we push the envelope of what we thought was possible, and we rally to support what matters to us. We're better together. We build more together. We're Wildcats together.

ANNUAL & ENDOWMENT REPORT 2022

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WONDER UNITES US.

The power of possibility is alive in every corner of the University of Arizona campus: In an adviser's office, a flash of inspiration becomes the roadmap for a career. In a lab, insights from a patient's blood test result in a custom therapy. In a makerspace, a labored-over design becomes a functioning prototype. In a concert hall, repetition from rehearsal after rehearsal ignites into audience-stirring emotion.

Philanthropy is there for it all, running like a current through the heart of the university to the places it is most needed. Scholarships for that student embarking on a new path. Funding for that faculty research lab. Investment to build those essential facilities for making and creating.

At the core of every achievement is a moment of discovery, a what-if moment, a moment of wonder. Philanthropy works when the wonderer unites us on a common journey — and our collective power brings the journey to a meaningful destination.



“Wildcats make a difference together. This year, I am proud to share that the University of Arizona Foundation was in a unique position to help the university on two fronts. One, we offered a \$250,000 match for gifts supporting the Lute Olsen Endowment as part of Giving Day. And two, at the president’s request, we purchased a space in Scottsdale that will allow the university to build out a corporate presence in the Valley, similar to the incredible space in Washington, D.C. It’s an honor to help move the university and its priorities forward.”

JOHN-PAUL ROCZNIAK

President and CEO, The University of Arizona Foundation

“The University of Arizona is part of the story of my life and the life I shared with my late husband, Craig. Serving the university as members of the Foundation Board of Trustees was a priority for both of us, and I am honored to continue in that role at this important time for the university. Dr. Robbins led the university through a global pandemic and a time when many have questioned the value of higher education. Together, we have answered that question with life-saving research, community-building arts and athletics experiences, life-changing career preparation, and more. I’ve never been prouder to call myself a Wildcat.”

NANCY BERGE

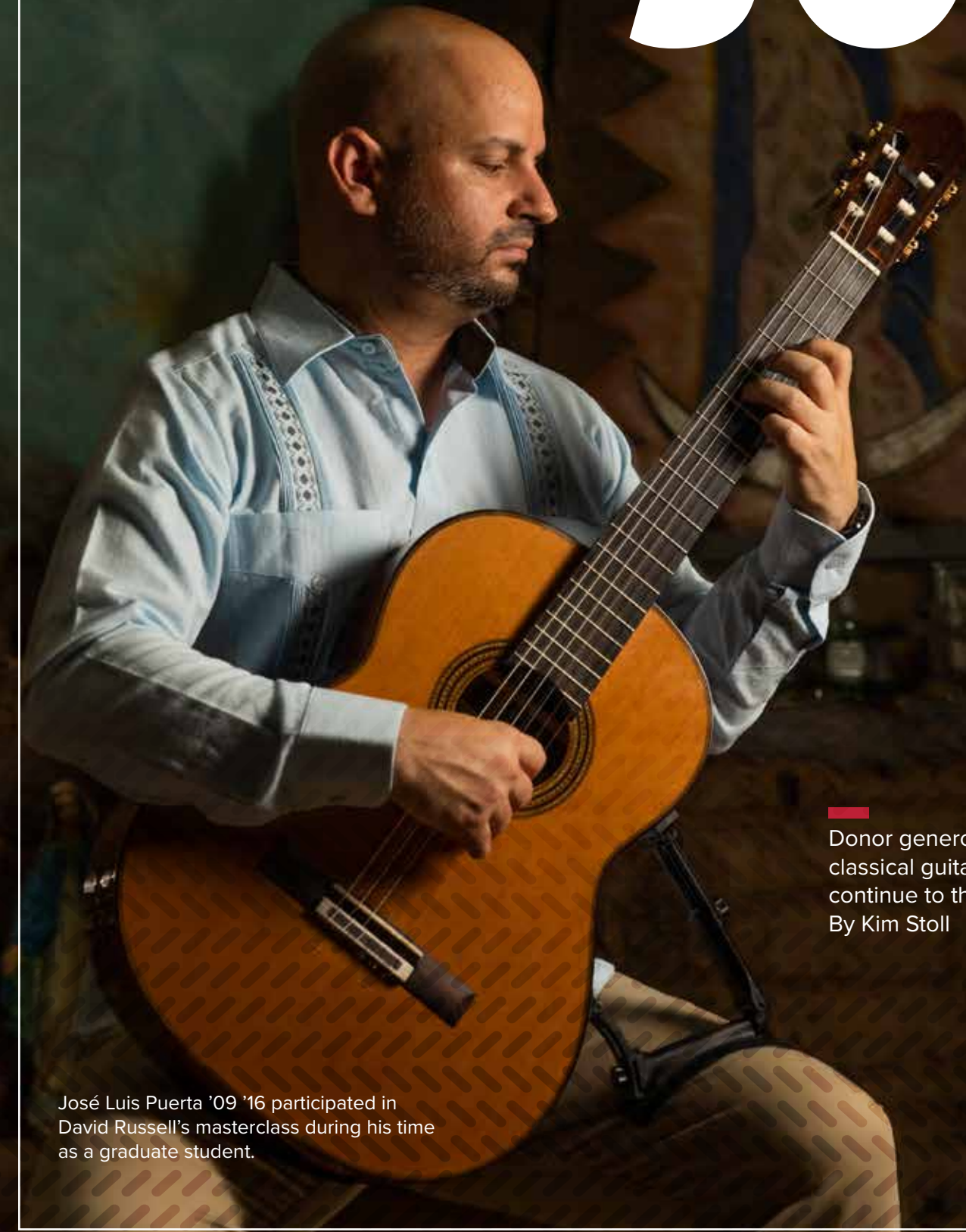
Chair, The University of Arizona Foundation Board of Trustees

“I could not be more excited to share with you all the incredible things on the horizon for the University of Arizona. In the year to come, I hope to engage with as many of you as possible about our aspirations to expand human potential, explore new horizons and enrich life for all. That means building on our expertise in personalized medicine, peering into the history of our universe, tangibly investing in the success of our student body and our state, and so much more. Thank you for your support, and for being part of the university’s story.”

ROBERT C. ROBBINS, M.D.

President, The University of Arizona

MOMENTS OF JOY



Donor generosity ensures classical guitar studies continue to thrive.
By Kim Stoll

José Luis Puerta '09 '16 participated in David Russell's masterclass during his time as a graduate student.

Classical guitar brought joy and peace to Phyllis and Sanford 'Sandy' Bolton.

The love Phyllis and Sanford "Sandy" Bolton had for the University of Arizona's guitar program was nothing short of extraordinary — so much so that they ensured that guitar studies at UArizona would be supported during and long after their lifetimes. They set up an estate gift to endow the program through the Bolton Trust, and today, the couple's enthusiasm for classical guitar is an integral chord that sets the tone for the program's success.

When Phyllis passed away in 2011, the guitar community rallied around Sandy, who was alone after nearly 60 years of marriage. Guitar students even played for him, making him more comfortable, when he spent time in the hospital before his death in 2012.

"Sandy was like many of us, looking for moments of happiness and moments of joy," says David Russell, a Grammy Award-winning guitarist and UArizona artist-in-residence. "And I think with us, with the guitarists, he often was a happy man."

Sandy's background as an educator shaped his interest in giving. He understood the impact of a transformational gift, says Thomas Patterson, the Sanford & Phyllis Bolton Endowed Chair for Classical Guitar.

"Sandy had a vision of how their gift would protect the guitar program during lean times. He knew about budget shortfalls, faculty research needs and community outreach programs," Patterson says. "He knew their gift would ensure we could do things for current students and also attract the best students, to make a model guitar program."

Thanks in part to the Boltons' transformational support, the Bolton Guitar Studies program is one of the best guitar programs in the country. The program

offers unique opportunities to students, including masterclasses with Russell that are open to both students and the community. It was part of Sandy's vision to keep Russell an active part of the guitar program, Patterson says, and his annual weeklong residency is funded for a lifetime by the Bolton Trust.

"Being able to study with an artist of such high caliber and recognition as David Russell on a yearly basis during my student years was a privilege and an honor," says José Luis Puerta, an ethnomusicologist and assistant professor of practice in general education at the Fred Fox School of Music. "Not only is David able to demonstrate and share his musicianship and technique with the students, he does it in such a welcoming and kind manner that makes the most nervous student give his best."

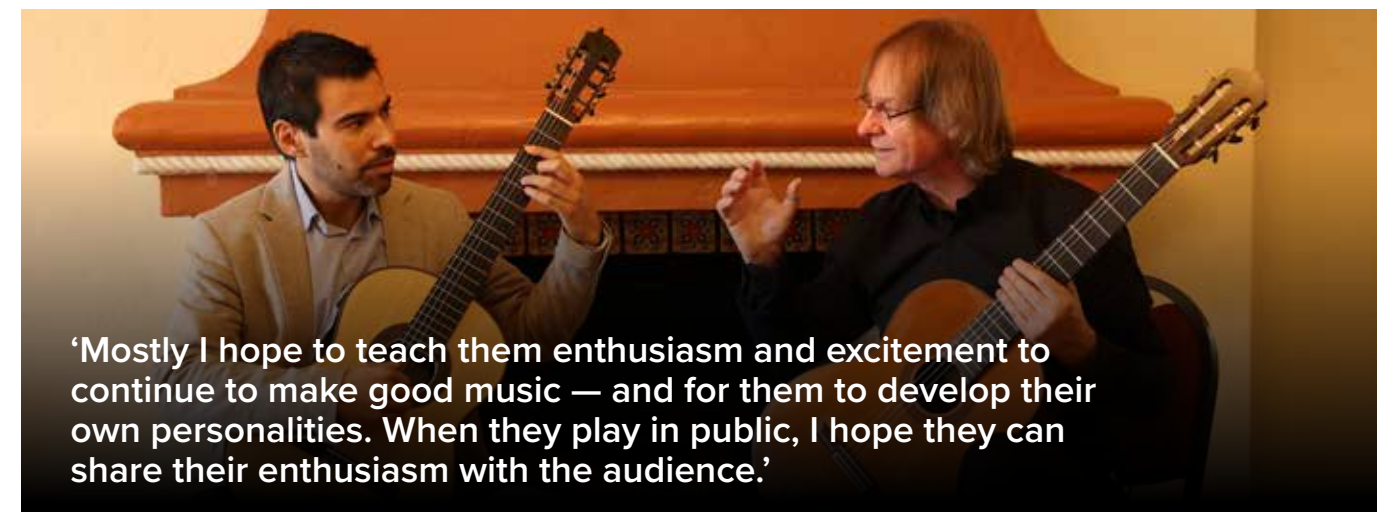
"I would always leave the masterclass with a sense of accomplishment as well as a sense of inspiration and encouragement," Puerta adds. "With David Russell, you learn how to be a better performer and teacher and a kinder person."

"I hope the students receive education and details of how to do things," Russell says. "But mostly I hope to teach them enthusiasm and excitement to continue to make good music — and for them to develop their own personalities. When they play in public, I hope they can share their enthusiasm with the audience."

Thanks to the flexibility of the terms in the Bolton endowment, Patterson can use funds at his discretion for the good of the program. In 2015, Patterson and Russell established the David Russell Bach Prize. Judged by Russell, students perform Bach's works to compete for a new classical guitar; costs for such a quality instrument can range upwards of \$15,000.

"The David Russell Bach Prize brings together Sandy's interest in supporting David and elevating the education of the students," Patterson says. "The prize makes students reach higher."

"There is a legacy that has been created by Sandy and Phyllis's endowment here," Russell says. "What Sandy has done for the guitar department — it'll be here long after we're gone. It's something that is going to be a part of the guitar world for the foreseeable future, and I think it's marvelous."



'Mostly I hope to teach them enthusiasm and excitement to continue to make good music — and for them to develop their own personalities. When they play in public, I hope they can share their enthusiasm with the audience.'



BRAIN RESEARCH FOR THE AGES

Studying aging takes a village and benefits the world. | By Riley Beck

Carol Barnes is a Regents' Professor in psychology, neurology and neuroscience at the University of Arizona College of Science. She also is the Evelyn F. McKnight Chair for Learning and Memory in Aging and the director of the Evelyn F. McKnight Brain Institute.

When Barnes became interested in brain aging, the picture was bleak, literally and figuratively. Standing in a library in 1972, she turned the page of one of the few available books on brain aging to diagrams of brain cells and saw what looked like progressive deterioration at different ages in humans. The message was clear: As we get older, our brain cells die, and those that remain atrophy, losing functionality.

This was before the founding of the National Institute on Aging, at a time when no journals on aging existed and little research was devoted to the topic. Barnes was devastated but also skeptical, and her continued curiosity led her to earn a doctorate in psychology in 1977. During her studies, she examined the neurobiological mechanisms of normal memory decline with age, which launched her decades-long career studying aging in the absence of neurodegenerative disease.

By 2006, Barnes was a renowned researcher in psychology, neurology and neuroscience. At the urging of the Evelyn F. McKnight Brain Research Foundation, which strives to better understand and alleviate age-related cognitive decline and help people maintain brain health as they age, she spent her winter break that year writing a research proposal that established the Evelyn F. McKnight Brain Institute and catalyzed her research with an associated \$5 million gift. Barnes and her team used the funding to further their research on dynamic changes in cellular circuits and the genetic markers that underlie memory change.

Barnes and her collaborators have been so successful in advancing knowledge on normative aging that the foundation offered a \$5 million matching gift less than 10 years after the brain institute was established at UArizona. The gift created an endowment that not only supports the recruitment of renowned researchers and expands participants for research studies but also covers research needs like buying supplies for genetic testing and analyzing blood samples.

Thanks to the matching-gift support, the institute will be able to do even more groundbreaking work.

"The whole purpose of the Evelyn F. McKnight Brain Institute is to improve the quality of life for an individual, for however long we live. We want to find ways to maintain cognition for as long as you're lucky enough to live," Barnes says.

Regarding the benefits of philanthropic funding relative to grant funding, Barnes says, "The remarkable thing is the flexibility and swiftness with which you have to take your idea and then implement and experiment — and then turn around and report your exciting results to

the field and maybe actually make a difference in older individuals' lives."

The matching gift also helped Barnes pilot an idea for multidisciplinary study of the brain. Over several years, she pulled together a large group of colleges, departments, institutes and centers at UArizona along with several research universities and institutes across the United States, forming the Precision Aging Network (PAN) to conduct a series of projects to study the aging brain. Barnes wrote a grant proposal to fund a five-year national study, and in September 2021 she was awarded \$60 million from the National Institutes of Health and National Institute on Aging to launch PAN and begin research at four participating sites across the United States: UArizona, the University of Miami, Emory University and Johns Hopkins University.

Barnes and the PAN team are now recruiting participants aged 50-79 for an in-depth, face-to-face study on memory and attention, using a novel internet-based testing platform called MindCrowd that was initiated in 2013 by PAN members Matthew Huentelman, a researcher at the Translational Genomics Research Institute, and Lee Ryan, head of the UArizona Psychology Department and the associate director of the Evelyn F. McKnight Brain Institute.

The participant pool for PAN, via MindCrowd, is the largest and most representative sample in a study of its kind and the largest sample of participants aged 18-90 in the world. MindCrowd currently has over 317,000 participants.

The results of the PAN study will offer longitudinal data vital to understanding memory function over time. As Barnes explains, "We want to close the gap between cognitive healthspan and human lifespan."

Barnes' early curiosity has paid off. Thanks to her research, we have a much different picture of the aging brain than we did 50 years ago. We now know that people do not lose a dramatic number of brain cells over the course of aging, but rather lose some flexibility in individual neurons and some connectivity between them. The brain is capable of forging new connections in service of our neurological needs as we age.

As Barnes reported to Congress in 2014: "Alzheimer's disease is not inevitable. You don't have major cell loss as you age. The brain is continually adapting, and many genetic and lifestyle factors can alter your trajectory toward a positive cognitive outcome."

Contrary to what was posited on the aging brain in the early '70s, the research by Barnes demonstrates that most people can hope to experience aging without neurodegenerative diseases. And every day that research on brain aging is supported, new knowledge may open doors to prevention and treatment in the realm of brain pathology.

LASTING LEADERSHIP, COLLABORATIVE GIVING

The Tucson Foundations have a deep impact on Southern Arizona.

By Kim Stoll

Tucson cityscape



L-R: Tricia Lohse, Linda Lohse, Bob Lohse, Jennifer Lohse

The Tucson Foundations are the embodiment of collective giving. Directed by the Lohse family, the 11 private foundations that make up the Tucson Foundations are committed to supporting the communities of Southern Arizona. Their partnership with the University of Arizona has spanned decades, and their impact can be seen throughout campus in the form of scholarships, endowed chairs, community and outreach programs, and facility upgrades.

The Tucson Foundations were established by prominent Tucson estate attorney Ashby Lohse, beginning in the late 1950s. Clients entrusted him to create private foundations in their names, leaving lists of their general philanthropic interests in their wills. After their deaths, their foundations funded their interests.

“When we get a proposal requesting funding, we look at the matchup of which foundation would best fit the category of giving,” explains Linda Lohse, Tucson Foundations’ managing director.

“Several of our donors were educators, so a lot of the money goes towards education, and the university receives a lot of those funds,” she says. “For example, Dr. Roy Graesser of the Graesser Foundation was the head of the math department at the University of Arizona. And some others, like Martha Neff, Lucille Williams and Lillian Calistri, were all elementary school teachers.”

Jennifer Lohse, Tucson Foundations’ vice president of external relations, says the foundations’ goals with the university are threefold: to help Southern Arizona residents earn undergraduate degrees, to support endowed chair positions and to partner with the university to solve community problems.

“The more that the university can be engaged with community organizations or is responding to community needs, those are great programs we like to fund,” Jennifer says. “The Center for Recruitment and Retention of Mathematics Teachers is a perfect example of that, as is Camp Cooper because it’s reaching kids in the community and targeting Southern Arizona folks.”

Jennifer notes the Center for Recruitment and Retention of Mathematics Teachers as a personal favorite and a program likely to have a large community impact. Its mission is to develop, support and retain Arizona math teachers through innovative training and

continued education programs, which will ensure that teachers are helping inspire the next generation, for a sustainable state educational system.

The Tucson Foundations are committed to enriching the Tucson community and to providing local nonprofits with efficient ways to seek funding. This is one benefit of operating under the umbrella of the Tucson Foundations, Linda Lohse says. “While each of the foundations is its own corporation, instead of nonprofits requesting funding from 11 different foundations, they can save time and money by submitting just once to us.”

It is the power of the collective in action.

“Some of these foundations are very small, and they don’t have a lot of funding,” Linda says. “But we can combine them. If what’s needed is a \$100K grant and we just can’t do that, we could combine four foundations at \$25K and make a collective impact. That’s how we operate.”

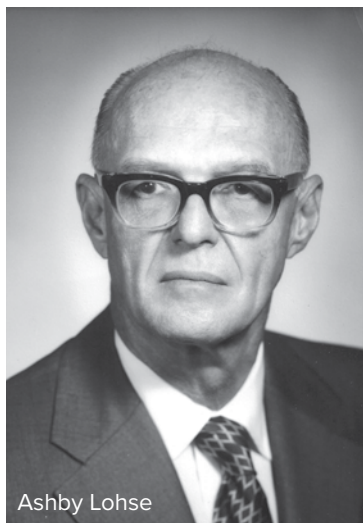
“Like the Martin Gluck Endowed Chair in the Division of Trauma in Health Sciences,” she says. “That was funded by four different foundations to create that endowed gift.”

Collaborative efforts and strategic investments that ripple out to have wide-reaching impacts across Southern Arizona are what the Tucson Foundations are all about. Jennifer and Linda note that Ashby was particularly proud of funding the Ashby I. Lohse Endowed Chair in Water and Natural Resources Law, because he knew the huge impact it could have on natural resources in the state.

“The faculty that are involved in water law at the university really are leading the charge at the state level,” Jennifer says.

With decades’ worth of projects funded by the Tucson Foundations, it is difficult to find a part of the university their giving has not touched.

“Working with the university has been an honor,” Jennifer says.



Ashby Lohse

‘THERE’S ALWAYS AWAY’

With scholarships and mentorship, 40-year-old Hispanic Alumni Club lights paths forward.

By Matt Morris

Melisa Celaya

August 8, 1993, fell on a Sunday. In Tucson, some likely congregated on the shaded patio of the Blue Willow, waking up slowly over pancakes and eggs, and others at the trailhead for Seven Falls. By 2 p.m., temperatures hit an even 100 degrees, and before the dinner hour rain came down steadily — about half an inch — as thunder rolled over the Sonoran Desert. By nightfall, only an overcast sky remained.

It was, in other words, a typical 24 hours for Tucson in late summer. But for Melisa Celaya, then a rising University of Arizona sophomore, that day in an expanse of desert days held outsized import.

And for her future sisters, the same was bright and true as the desert sun.

On August 8, 1993, Celaya, along with seven others, founded the Wildcat chapter of Gamma Alpha Omega, only the second multicultural sorority on campus. The group at first welcomed mostly Latina students — but without some help, Celaya might never have been involved.

For Celaya, just piecing together the money to attend school had been a trial: Because of corporate downsizing, her father had recently been laid off, so when she had traveled to Tucson from her family’s home in Phoenix for her first year, she had made her own way.

That’s where the UArizona Hispanic Alumni Club, founded in 1982 to support Hispanic students across the state, had entered her life, awarding a tuition scholarship. The money did not cover everything, but it sewed sturdy patches.

“It came,” Celaya says, “in a very timely [moment] in my life.”

Today, Celaya is a research assistant professor in internal medicine at the College of Medicine — Phoenix, a Wildcat triple-graduate and a mother of three. In 1993, she was a student who could remain in Tucson — and, through Gamma, make college better for others.

Her story reflects the intertwined fates of the Hispanic Alumni Club, known broadly as UAHA, and its two thousand-plus scholarship recipients. UAHA, 40 years old this fall, eases access to school for top-notch students and offers mentorship and community, working in cooperation with the Mexican American Studies Department and the Adalberto and Ana Guerrero Student Center.

UAHA SCHOLARSHIPS

UAHA reviews applications and makes award recommendations for over 120 scholarship recipients each year. The funds come from two pass-through scholarships, six endowments and a tuition scholarship funded by the University of Arizona. Thanks to all who have contributed to the UAHA Club Scholarship, as well as the Julieta Bustamante Memorial Scholarship, the Naomi Estrada-Weber Memorial Scholarship, the Alejandro and Josefa Islas Scholarship, the Pacheco Hispanic Alumni Club Endowment, the Rosalio and Virginia Ronquillo Mexican American Scholarship, the Richard C. Salvatierra Memorial Scholarship, and the Edward and Phyllis F. Soza Scholarship.

Gamma, with Celaya and her co-founders at the helm, achieved liftoff, ushering in sisters of color and shifting meetings from Drachman Hall to the James E. Rogers College of Law when the Drachman space became too small.

Celaya earned her B.A. in 1997 and in 2003, by then a parent, her master’s. She chased her academic goals all the way through a Ph.D. in epidemiology and biostatistics, supported by her mother, who never attended college. She would often tell Celaya, before her passing on Christmas Day 2021, that she “lived through the experience with [her].”

Celaya’s father, like her mother, never earned a degree. Called away after enlisting during the Vietnam War era, he studied in Tucson for about six months. But beside her mother, he remained her first and best role model until his passing in 2012.

In December, Celaya’s firstborn will graduate from Arizona State University, reflecting what early UAHA leader Marty Cortez calls “generational expansion”: With changes in opportunity come changes in outcome.

Without clubs such as UAHA, of course, those changes might be harder — though never impossible — to come by.

These days, Celaya reflects on her journey with gratitude for both UAHA and Gamma — for her lasting friends and mentors during and after school. Such connections, she says, light paths forward.

Celaya knows that for students in financial binds like hers, the path can’t be easy. But, she says, it is always navigable. And this is the truth she wants future UAHA scholars to hold.

“It doesn’t matter how determined and how successful you are,” she says. “There will always be a time where you think, ‘This is too much,’ and you will second guess if you can do it. And you definitely can.”

“There’s always a way. You just need to ask for help.”



EXPLORING HEART-BRAIN CONNECTIONS

PRECISION

Flinn Foundation's gift to the College of Medicine – Phoenix turns abstraction into action.
By Matt Morris and Sarah Beaudry

Just as music theory finds concrete expression in four-part counterpoint and sports analytics become more than data via high-level athletic performance, so does translational research in medicine morph whiteboard thoughts into actionable results.

But in the health sciences, practical application saves lives.

This is what the Flinn Foundation, a privately endowed Arizona grant-maker since 1965, understood in April when it promised an investment of \$5.5 million in the University of Arizona College of Medicine – Phoenix (COM-P), to be disbursed over the next five years. The foundation's gift will support translational research into three of the nation's most pressing areas of concern: cardiovascular disease, neurosciences and mental health.

The gift will support the college's multimillion-dollar commitment to develop the Translational Cardiovascular Research Center, a new Department of Translational Neurosciences, and a Center for Pharmacogenetics and Genomics in Mental Health. Recruiting faculty with significant experience is a priority both to support translating research findings into the clinical development of therapeutics and to treat cardiovascular disease, stroke and serious mental illness.

"Gifts from the Flinn Foundation are critical to the research enterprise at COM-P. The Flinn Foundation is interested in funding research aimed at discovering new therapies and treatments for patients. So that fits well with our work, because that's what all of the researchers in our Center are interested in, too," says Christopher Glembotski, Ph.D., the inaugural director of the Translational Cardiovascular Research Center. His research in molecular cardiology focuses on identifying new therapeutics for treating ischemic and hypertrophic cardiomyopathies.

"We keep an eye on the mental image of our goal — like athletes who focus on making it to the Super Bowl, or the Olympics, finding the cure for heart disease is always in our minds — that's where we're headed. And that's what everybody in our center is working together to tackle," Glembotski says.

As part of its strategic plan, the college has prioritized translational research in cardiovascular diseases, neurosciences and mental health to better serve the clinical needs of communities in Arizona.

"We work to translate scientific discoveries made in the research lab into treatments for patients," he says. Glembotski also is the associate dean for research and values synergy among different research fields.

"Collaboration between research fields can catalyze new discoveries that would not have been made without the interdisciplinary collaborations that are so highly valued at COM-P," he says. "For example, those of us who do heart research are very interested in collaborating with neuroscientists, because there's a heart-brain connection we need to better understand. We know that when the

heart is failing, the brain knows and is often affected. When the brain is failing, the heart is also affected.

"We're very interested in learning more about the heart-brain connection, or axis, because we believe it can lead to treatments that benefit more than just the heart or the brain."

And teaming up with people like Ayman Fanous, M.D., psychiatrist, researcher and chair of psychiatry at COM-P, Glembotski says, "will enhance this collaborative network."

The CDC estimates that more than 50% of Americans will be diagnosed with a mental illness or disorder at some point in their lives. Serious mental illnesses, such as schizophrenia, bipolar disorder or major depression, affect 1 in 25 Americans. Combatting such serious and prevalent health risks requires a comprehensive approach.

The gift from the Flinn Foundation will allow UArizona researchers to partner with clinical research leaders at Banner – University Medical Center Phoenix, the VA Phoenix Health Care System and Phoenix Children's to develop new solutions for unmet medical needs.

"The gift from the Flinn Foundation will allow us to recruit a well-established, highly productive researcher in the field of pharmacogenomics and psychiatry," Fanous says, "and get results that develop precision medicine modalities, which I believe will be the future of psychiatry."

Precision medicine, Fanous explains, considers the genetic and environmental factors that influence our health. His greatest hope for the field of psychiatry is that research into therapeutics for mental illness will apply to clinical care. For example, an individual could arrive at a clinic appointment, and their physician could use their genomic information and decision-support tools to determine their best medications.

"Every time I see a patient and get to know the difficulties they go through and the degree to which their illness has sort of robbed them from living a normal life, the more I realize we're doing the right thing," he says. "There is so much pain out there that needs to be addressed. We're able to do a good job in many cases, but we're not doing enough."

Getting the right medication based on precision medicine findings in conjunction with high-quality psychotherapy will help lead to better outcomes, he says.

Fanous' research projects also incorporate minority populations, such as people with ancestry from the African subcontinent and Latin America.

"Our work has an international component to it. The more groups that we study, the more variation we have, the closer we're going to get to actual results."

A portion of the Flinn Foundation gift also will provide opportunities for students from underrepresented backgrounds, including a summer internship for minority high school students to work with medical scientists and clinicians. The program will provide mentorship and guidance to help recruit talented students for careers in biomedical research and medicine.

A SPECIAL COMMUNITY

QUEST

With record-setting gift for endowed chairs, James C. Wyant College of Optical Sciences benefactors set the stage for a radiant future while honoring luminaries past.

By Matt Morris



David Brady holds a gigapixel camera.

A 1980s Bell Labs researcher whose early advances in laser technology undergird today's iPhone facial-recognition capabilities. A chemist who — as University of Arizona president, a post he assumed at 36 years of age — green-lighted the institution's involvement in the Multiple Mirror Telescope project, helping to change the game in optical-telescope design. An emeritus professor who, 28 years after his 1969 arrival in Tucson, gathered his accrued knowledge of lens construction in the 600-page book "The Art and Science of Optical Design."

Jack Lee Jewell, John Paul Schaefer and Robert R. Shannon all made substantial contributions to their field of endeavor, forging pathways for future researchers to travel. And so it is only fitting that three of the 14 endowed chairs recently established through \$28 million in gifts to the James C. Wyant College of Optical Sciences, announced in January 2022, will bear their storied names.

The fundraising campaign — among the most ambitious of its kind in university history, with each of the 14 chairs endowed at an initial level of \$2 million — proved long in the making and achievable only through partnership. In 2018, Harrison and Catherine Barrett funded an eponymous chair for a new faculty member in cancer imaging, seeking a researcher dedicated to addressing significant issues in our understanding and treatment of the disease.

Next came a \$20 million gift from James Wyant and his family. Wyant, former professor and dean, helped transform the Optical Sciences Center, founded in 1964, into the College of Optical Sciences in 2005. It was the largest single gift for endowed chairs in university history, and was made with a request that fellow donors pitch in. A leader in optics and photonics, Wyant also directed the Optical Sciences Center beginning in 1999.

Donors responded to Wyant's offer by pledging \$500,000 to create each new named endowed chair, with \$1.5 million coming for each from the college's Distinguished Endowed Chair in Optical Sciences Fund.

The namesakes for the new chair endowments were selected by the partnering donor. Among them were Jewell, the Bell Labs researcher, and SPIE, or the Society of Photo-Optical Instrumentation Engineers, an international nonprofit founded in 1955.

The fundraising campaign has raised enough support to help shepherd the Wyant College into a future bright with the promise of sustained achievement. Today, it is the largest and most diverse academic optics education and research program in the country, habitually spinning out patents, licenses and fresh talent. Six of the chairs have been awarded to David J. Brady, formerly of Duke University; Matt Eichenfield, formerly of Sandia National Laboratories; and UArizona faculty members James T. Schwiegerling, Lars Furenlid, R. Jason Jones and Saikat Guha.

"The College of Optical Sciences is a very special community. There are things that are possible here that just aren't possible anywhere else," Brady says.

Brady holds the J.W. and H.M. Goodman Endowed Chair in Optical Sciences. While at Duke University, he partnered with UArizona scientists to build the world's first gigapixel camera in 2012.

"Having an endowed chair honors pioneers in the creation of our society and creates a narrative that helps people understand that real people are doing this work," he says. "The College of Optical Sciences has a deep history with ties to astronomy and the James Webb Space Telescope, for example. It is the human quest to understand our place in the universe at the most fundamental level — it speaks to a quest for excellence that is very exciting."



James C. Wyant / Jacob Chinn photo

The namesakes for the college's endowed chairs are accomplished faculty and researchers and university and industry leaders as well as two private foundations and two professional optics societies. Of the 14 endowed chairs, 12 of the namesakes have been publicly announced, with the remaining two to be made known in January.

- Jean M. Bennett Optica Endowed Chair in Optical Sciences
- Nelson E. Claytor Endowed Chair in Optical Sciences
- Robert M. Edmund Endowed Chair in Optical Sciences
- John B. Hayes Endowed Chair in Optical Sciences
- Harrison H. and Catherine C. Barrett Endowed Chair in Optical Sciences for Cancer Imaging
- J.W. and H.M. Goodman Endowed Chair in Optical Sciences
- Robert R. Shannon Endowed Chair in Optical Sciences
- SPIE Endowed Chair in Optical Sciences
- John Paul Schaefer Endowed Chair in Optical Sciences
- Nasser Peyghambarian Endowed Chair in Optical Sciences
- Jack Lee Jewell Endowed Chair in Optical Sciences
- Thomas R. Brown Endowed Chair in Optical Sciences



A MEANINGFUL MINING MATCH

The combined generosity of two families of alumni doubles the impact of a gift establishing an endowed leadership chair. | By Emily Dieckman

Greg Boyce was accepted to two universities after he finished high school. But a springtime visit to Tucson made it an easy choice: He would study engineering at the University of Arizona.

“Obviously, I’ve never regretted making that decision,” says Boyce, who earned his bachelor’s degree in mining engineering in 1976 and went on to a successful 40-year career in the global energy and mining industry. His wife, Lisa, a 1978 business administration alumna he met at UArizona, has been by his side throughout.

With a \$1.5 million gift to UArizona and a plan to give an additional \$1 million, the couple will establish the Gregory H. and Lisa S. Boyce Endowed Department Leadership Chair in Mining and Geological Engineering. Endowed chairs help the university attract and retain faculty members who have achieved national or international distinction. Kray Luxbacher, former head of the Department of Mining and Minerals at Virginia Tech, is the chair’s inaugural holder.

“Expanding and strengthening our mining and geological engineering program has been one of my top priorities since I joined the college in 2019,” says David W. Hahn, the Craig M. Berge Dean of the College of Engineering. “Greg’s long and impactful career is a perfect testament to the value of a mining engineering education, and we are proud to name this leadership chair after two such successful University of Arizona alumni.”

Doubling Impact to Support New School

Greg Boyce, chairman of the board of the Lowell Institute for Mineral Resources and the 2013 College of Engineering Alumnus of the Year, said he felt the time for the gift was right because of the university’s new School of Mining and Mineral Resources.

Co-administered by the College of Engineering and the College of Science, the school brings together students and professionals from a range of disciplines as well as community members to tackle industry challenges, with a particular focus on sustainability. Its location is key, as Arizona produces three-quarters of the nation’s copper, and nearly 50,000 jobs in the state are connected to mining in some way. The Arizona State Legislature provided \$4 million in ongoing yearly funding for the school in fall 2021.

The Lundin family, of the Lundin Group, a collective of public companies in the resource sector, donated \$2 million to the school in 2020. The family also offered a \$2.5 million match for funds raised by December 2022. With their gift, Greg and Lisa Boyce are not only establishing the endowed chair but also having double the impact by meeting the match.

“This is a meaningful example of alumni leaders in industry working together to move the university forward. When alumni give to programs that made a difference in their own lives, it sets the stage for all Wildcats to compete with the best,” says John-Paul Rocznik, president and CEO of the UArizona Foundation.

Now a member of the American Mining Hall of Fame, Greg Boyce says his UArizona education set him up for a challenging global career in the mining industry.

“I feel very strongly about the importance of mining and mineral resources, and strong leadership is critical to the evolving nature of the mining industry,” he says. “Lisa and I are so pleased to be able to provide the endowment to further the mining and mineral resources education goals of the university and train the next generation of mining industry leaders.”



Kray Luxbacher

Pride of Arizona marching band at Homecoming



‘BEAR DOWN, ARIZONA’

TURNS 70

Fight song composed by UArizona’s Jack K. Lee continues to energize Wildcat faithful.
By Matt Morris

“Bear down, Arizona/ Bear down, red and blue/ Bear down, Arizona/ Hit ‘em hard, let ‘em know who’s who.” Devoted University of Arizona fans have sung those beloved words from the top rows of McKale Memorial Center and Arizona Stadium, supporting Wildcat teams alongside thousands of others, and they have bellowed them from the bowels of Arizona playing fields, gazing up at the game clock, hoping for last-minute, go-ahead wins.

For almost anyone who spends time on campus in Tucson, “Bear Down, Arizona,” the fight song that turns 70 years old this year, might as well be a permanent fixture on Billboard’s Hot 100. Set to the tight rhythms of snare drums and featuring blaring brass, the song has a way of seeping into life at the university, where students can hear the Pride of Arizona band in rehearsal right through the walls of the Main Library — even on the top, “silent” floors.

Composed by Jack K. Lee during a flight from Tucson to his home state, Ohio, after he interviewed for the position of UArizona marching band director in 1952, the song has gained traction over the decades. It was not Lee’s only contribution as a composer — he published more than 80 songs for marching band, orchestra, choir and concert band — but “Bear Down, Arizona” continues to capture the imagination of the Wildcat community.

As the song completes its seventh decade of near-round-the-clock play, it is worth remembering Lee and another figure, John Byrd “Button” Salmon, without whom the tune might never have been.

The song’s signal phrase, after all, comes from Salmon, a leading Wildcat scholar-athlete in the 1920s, not long after UArizona completed its first-ever football

season in 1899. Salmon played quarterback, suited up as a catcher for the baseball team and was serving as president of the student body in 1926 — the same year, as fate would have it, that his life came to an end and the university’s journey toward “Bear Down, Arizona” in a sense began.

Driving that October from Phoenix to Tucson, his teammates beside him, Salmon sustained critical injuries in a wreck outside the town of Florence. His coach, J.F. “Pop” McKale, visited the injured Salmon multiple times, with the quarterback passing along this message to his team: “Tell them to bear down.”

Thus, the fight song represents a plea — originally to the teammates who would press on without Salmon — to push forward, no matter the obstacles.

“Go, go, Wildcats, go,” Lee’s song concludes. “Arizona, bear down.”

Lee, for his part, received the band directorship at the university and remained there until 1980, taking his students in 1967 to perform at Super Bowl I — contested by the Bart Starr-led Green Bay Packers and the Kansas City Chiefs at Los Angeles’ Memorial Coliseum, which still stands today.

A creative mind in both composition and marching technique, Lee would fly his Wildcat bands to Europe in the summers, where they performed in more than 15 countries during his tenure. The Akron native passed away in 2005, but across campus, new generations continue to sing his rousing song.

The Jack Lee Bear Down Endowment, 40-10-4193, supports the Pride of Arizona marching band.



The Arizona Daily Star covered the debut of Jack K. Lee’s enduring fight song, which he composed in 1952 while flying from Tucson after interviewing — successfully — to direct the Wildcat marching band, today known as the Pride of Arizona.



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