# ACHIEVING EXCEPTION STATES TO SETHER



# INTRODUCTION

#### This is a pivotal moment for our state and the world.

Many see the challenges our society faces. But at the University of Missouri, we see opportunities. Opportunities for energy innovations for a sustainable future. Opportunities for tailor-made precision health treatments that can eradicate cancer and cure other illnesses. Opportunities for agricultural breakthroughs to feed the world. Opportunities to enhance the understanding of our world both past and present through the humanities and the arts. Opportunities to embrace civil discourse, leadership and intellectual pluralism for the exchange of ideals central to a democratic society. And opportunities to educate well-rounded leaders through a unique learning experience.

The University of Missouri is our state's flagship, land-grant, SEC university and one of America's leading research institutions as a member of the prestigious Association of American Universities. Our university includes 13 schools and colleges and is made up of exceptional faculty, staff, and students - all driven by Mizzou's core values of respect, responsibility, discovery and excellence. Our work is focused on improving the lives of others and building a better future for the next generation. Each day, our students, faculty, and staff advance this goal through a shared commitment to student success, research and scholarship, and meaningful engagement.

Through this strategic plan, we will pursue meaningful progress that has a positive impact on all of us. And that's the inspiration for the strategic plan. We're pursuing a vision that's focused on tangible, high-impact changes. It's a plan that fuels our most promising research and creative works to change our world for the better. We're looking beyond the moment and toward a horizon that we can reach — a horizon that's focused on our state, our country and our world.

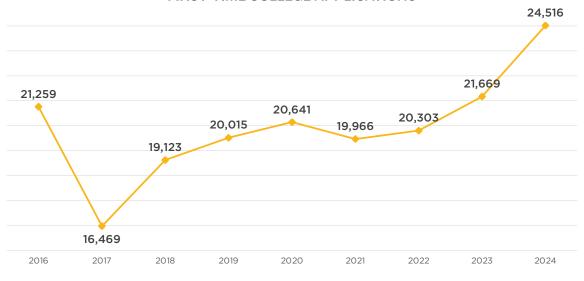


# ACCOMPLISHMENTS FROM "THE FLAGSHIP OF THE FUTURE" STRATEGIC PLAN

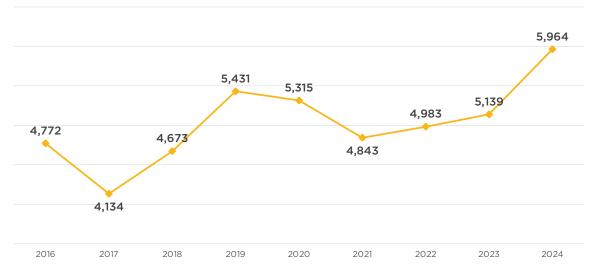
In September 2018, the University of Missouri created a strategic plan, "The Flagship of the Future," in line with the UM System's Missouri Compacts for Achieving Excellence. The plan embodied the university's commitment to excellence for students, faculty, staff, alumni, and the larger community using unifying strategies systemwide to inform and guide university strategic plans.



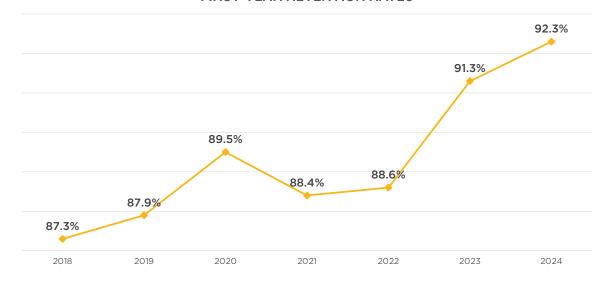
#### FIRST-TIME COLLEGE APPLICATIONS



#### FIRST-TIME COLLEGE ENROLLMENT

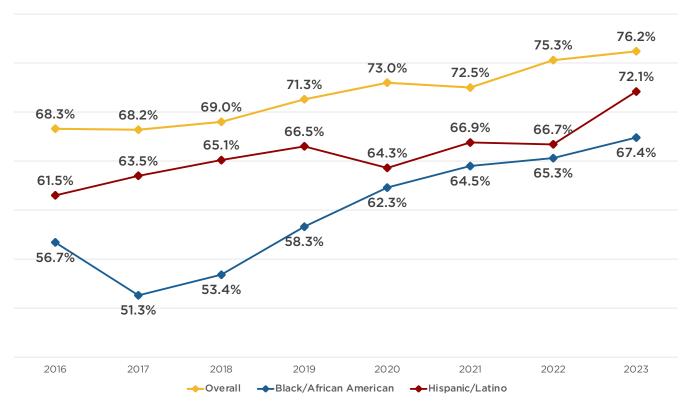


#### FIRST-YEAR RETENTION RATES

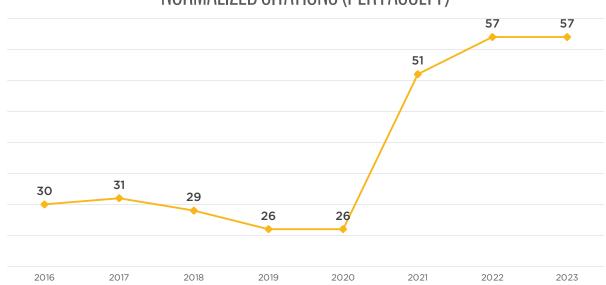


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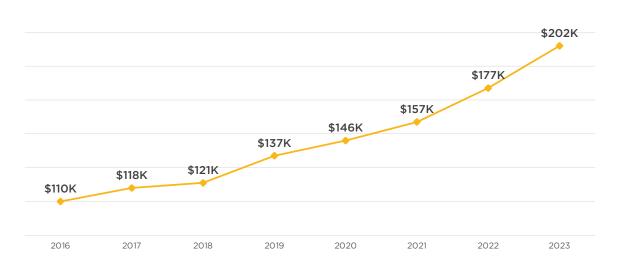
### 6-YEAR GRADUATION RATE BY DEMOGRAPHICS



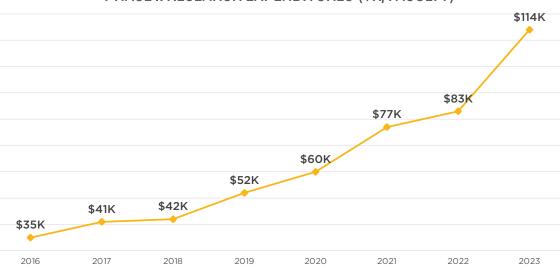
### NORMALIZED CITATIONS (PER FACULTY)



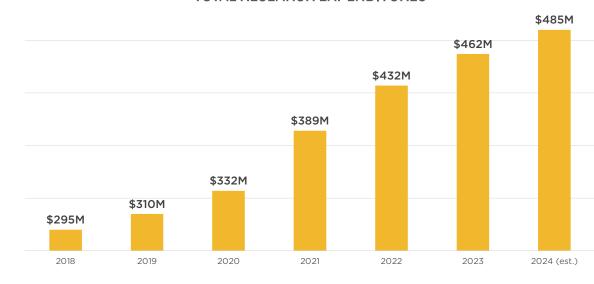
#### PHASE I RESEARCH EXPENDITURES (SK/FACULTY)



### PHASE II RESEARCH EXPENDITURES (\$K/FACULTY)



#### TOTAL RESEARCH EXPENDITURES



# NEW STRATEGIC

Mizzou's new strategic plan maintains specific goals and strategies consistent with the core missions of a public, land-grant research university across three themes:

- Promote Student Success
- Elevate High-Impact Research, Scholarship & Creative Works
- Foster Meaningful Outreach & Engagement

Promoting inclusive excellence and engaging in efficient and effective planning, operations and stewardship continue to be fundamental to the success of our strategic plan. In this plan we conceptualize these original compacts as overarching principles that will help us achieve our goals and implement strategies designed to promote student success, elevate high impact research and scholarship, and foster meaningful outreach and engagement.

Our students, faculty and staff encompass a wide array of backgrounds, experiences and perspectives, including first-generation, rural, and international students; individuals from under-represented groups; veterans; people with different abilities; and many others. An inclusive environment promotes respectful debate that explores differing perspectives about complex topics - intellectual pluralism - and enables all of us to achieve the excellence we seek in teaching and learning, research and engagement. And clearly, in striving for an inclusive university, we must not exclude (or give impressions that we are excluding) individuals with different backgrounds, experiences and perspectives. We believe that fostering an environment





that embraces diverse perspectives and intellectual pluralism leads to better curricular and co-curricular experiences for our students, innovative scholarship from our researchers, and a more welcoming work environment for our employees. We also recognize that to be successful after graduation our students will need to be comfortable working with many individuals who come from different backgrounds and have different perspectives. By aligning these efforts in service of our core campus values of respect, responsibility, discovery and excellence, we stand firmly convinced that we can make Mizzou a better place for all to learn, work, serve, and innovate.

Mizzou is committed to being transparent and efficient with our use of resources, including student tuition and taxpayer dollars. We must ensure that strategy drives our budget and that we invest wisely and effectively in our teaching, research, and engagement efforts through comprehensive data-driven decisionmaking. Mizzou relies on people to operate, and we must continually improve the quality of our services within human resources, finance and information technology, eliminate unnecessary administrative costs, and remain mindful of deficient facilities and needed improvements to make facilities accessible to all.

# CURRENT KEY INITIATIVES

Mizzou relies on its tradition of interdisciplinary collaboration and excellence that brings experts together to address global challenges. Through thoughtful planning, these initiatives are aligned with the MU Master Plan and coordinated with the comprehensive campaign (see below):

#### **MIZZOUFORWARD**

is a 10-year, \$1.5 billion investment focused on student success, research productivity, infrastructure improvements and service to the state of Missouri.

#### **NEXTGEN PRECISION HEALTH**

highlights the promise of personalized health care and promotes innovative research to deliver on that promise.

#### THE UNIVERSITY OF MISSOURI RESEARCH REACTOR (MURR)

improves and saves lives through critical cancer-fighting research and medical isotope production.

#### **NEXTGEN MURR**

will expand MURR's success by creating an innovation hub for nuclear medicine that will expand both clinical and research capabilities.

#### THE CENTER FOR ENERGY INNOVATION

is committed to tackling local and global challenges presented by rising concerns over energy and sustainability and rapid growth in artificial intelligence.

#### THE CYBER EDUCATION, RESEARCH AND INFRASTRUCTURE CENTER

serves as a multi-university, multi-disciplinary center in areas relating to Cyber, Artificial Intelligence and Big Data Analytics to foster information technology innovations.

#### THE CENTER FOR THE HUMANITIES

nurtures the work of humanists by supporting novel interdisciplinary research and teaching and undertaking public outreach at the local and state level.

#### THE KINDER INSTITUTE FOR CONSTITUTIONAL DEMOCRACY

is dedicated to excellence in research, teaching, and community engagement on the subjects of political thought, history, and institutions, with a particular emphasis on the ideas and events of the American Founding and their continued global impact and relevance today.

#### THE NOVAK LEADERSHIP INSTITUTE

is the world's first center dedicated to strategic communication-based leadership education. Their mission is to prepare lifelong leaders to make a positive and meaningful impact in their organizations and communities.

In 2025, Mizzou plans to launch a \$2 billion comprehensive campaign to deliver even more for Missourians and expand its land-grant mission of teaching, research and engagement to a new generation. The campaign themes are aligned to the strategic plan and include:

- Educate Future Leaders
- Save and Improve Lives
- Build a Sustainable World
- Strengthen Communities
- Develop Champions

Each theme provides donors with a variety of opportunities and projects to philanthropically support ranging from agriculture to medicine, the sciences, student success and athletics. The comprehensive campaign will fuel the growth of Mizzou and create real change for Missouri and beyond.



# THEME U

#### **Promote Student Success**

The world around us is rapidly transforming, and effective leaders are the pillars to advance our society. The University of Missouri's key mission is – and always will be – to educate the next generation of leaders with principles of civil discourse, leadership, resilience, intellectual pluralism, respect, and creativity.

We already have a track record of success in educating future leaders across the university. Time Magazine recently named Mizzou #13 among all public universities in educating leaders for the future. Mizzou was also ranked as the #7 Best Value among all flagship universities by the US News & World Report.

We want to continue this legacy of success and become the university of choice for top students in Missouri, the Midwest, and across the country. But the task won't be easy: demographic shifts and changing perceptions of higher education mean we'll have to be bolder and even more creative in our student recruitment efforts.

It's no secret that the campus visit is a key factor in the college search. At Mizzou, we work to distinguish ourselves from our competitors at every step of the enrollment journey, including prospective students' first moments on campus. Modern approaches using artificial intelligence and analytics will enable Mizzou to match our programs with students from Missouri and beyond.

Throughout the recruitment process, we'll further attract the nation's top students by highlighting

educational programs that showcase the Missouri Method for hands-on, experiential approaches. Students at Mizzou work alongside professors in research labs and on field sites, assist professors treating patients at one of the top hospitals in the state, and provide on-air reports for KOMU, our NBC-affiliated, student-staffed newsroom.

In 2024, Mizzou ranked as



among all flagship universities in the United States.

Mizzou faculty and staff seek to create systems, processes, and environments where all students can pursue the successful completion of their education. As a university, we track student success by using measurable outcomes - enrollment, engagement in academic, co-curricular and extra-curricular activities, academic persistence, degree and certificate attainment, reduction in achievement, access and opportunity gaps, high-impact practice participation, belonging and wellness, post-graduate education, and career attainment.



### STUDENT SUCCESS GOALS

#### Goal 1 (Strategies 1, 5-6)

» Increase the annual size of our new incoming undergraduate student class, including both firsttime college and transfer, from 7,200 to 7,500 by 2030.

#### Goal 2 (Strategies 1, 5-6)

» Increase the number of graduate and professional students from 7,200 to 9,000 by 2030.

#### Goal 3 (Strategies 1, 5-6)

» Increase the number of online students enrolled in a degree program from 5,500 to 7,000 by 2030.

#### Goal 4 (Strategies 1-3, 6)

» Increase undergraduate first-year retention rate from 93% to 95% by 2030.

#### Goal 5 (Strategies 1-3, 6)

» Increase four-year undergraduate graduation rate from 58% to 66% by 2030.

#### Goal 6 (Strategies 1-3, 6)

» Increase six-year undergraduate graduation rate from 75% to 82% by 2030.

#### Goal 7 (Strategies 1, 3-4)

» Achieve 100% participation rate of graduating seniors in 3+ high impact educational practices (e.g., undergraduate research; study abroad; practicum/experiential learning experiences; internships; leadership development).

#### Goal 8 (Strategies 1, 4)

» Improve career success rate from 95% to 98% by 2030.

#### Goal 9 (Strategy 4)

- » Increase the number of undergraduate and graduate students applying for prestigious external awards, grants, and fellowships from 30 to 100 by 2030.
- » For goals 4-6, we will have a particular focus on implementing strategies that have the potential to improve outcomes for demographic groups whose outcomes are significantly below the campus average, while still focusing on improving outcomes for all students.

# STRATEGIES & TACTICS

#### Strategy 1 – Enhance Student **Experience & Success**

- » Establish Mizzou 101 as a required first-year course that addresses the key aspects of first-year student success that embeds civil discourse, intellectual pluralism, leadership, and professionalism among other important topics.
- » Introduce the concept of academic interest pathways during recruitment and onboarding and organize lectures and discussion sections around themed academic pathways.
- » Establish enhanced summer course schedule for students to complete their degrees on time.

- » Continue to offer new online courses for students to supplement in-person curriculum to explore new disciplines as well as increase completion rates.
- » Create close-to-degree completion initiatives, focusing on students within one year of completing their degree.
- » Continually evaluate and revise policies regarding dismissals based on financial reasons to enable students to re-enroll and complete their degrees.
- » Develop grant-funded research experience programs for undergraduate students.

- » Develop grant-funded training programs for graduate, professional and post-doctoral students.
- » Develop industry-sponsored internship programs for all students.
- » Improve accessibility, including digital accessibility, course design, and transportation.
- » Increase mental health resources.
- » Create new and enhance existing summer bridge programs.
- » Offer more courses of different length than the traditional semester-long format.
- » Provide resources and support to address achievement, access, and opportunity gaps.

#### Strategy 2 – Enhance Programs to Support Financial Wellness

- » Develop strategies and priorities for awarding endowed scholarships.
- » Establish a basic needs financial wellness initiative for Pell and near-Pell students and their families.
- » Develop strategies to address food and housing security.
- » Expand work related to on campus employment as a student success strategy.
- » Establish a campus-wide policy for awarding emergency aid to students.
- » Continue to utilize Ruffalo Noel-Levitz for financial aid optimization.

#### Strategy 3 – Enhance Proactive Advising

» Increase number of academic advisors to maintain smaller advising loads that allow for regular interactions with advisees.

- » Support onboarding, academic advisor training and professional development that utilizes a more dynamic career ladder for academic advisors and student support staff.
- » Establish transition advisor for every competitive major to enhance academic pathways planning and to create a more seamless process for transfer of divisions and changing majors.
- » Use Stellic student academic pathways mapping to assure course capacity and to track student degree progress.
- » Encourage students to develop academic maps for more than one academic degree program as part of the Mizzou 101 course or other onboarding experiences.
- » Develop comprehensive academic support initiatives for students subject to academic actions.
- » Enhance the use of the academic recovery course, SSC 1151, as well as Starfish Early Alert System for students in danger of being removed from Mizzou for academic reasons.

#### Strategy 4 - Increase Post-Graduate **Outcomes**

- » Enhance central and unit-based employer relationships and provide additional opportunities for students to meet with employers from different industries.
- » Establish new experiential educational opportunities that allow students to establish relationships with potential employers.
- » Conduct professional development for students interested in pursuing an academic career.
- » Conduct professional development for faculty mentors to support student fellowship applications for graduate school as well as postdoctoral fellowships.



- » Conduct regular information sessions and online modules dedicated to educating graduate students about prestigious awards, fellowships, and grants.
- » Establish mentor program pairing experienced award recipients with interested graduate students and post-doctoral fellows.
- » Expand ROTC and Veterans Center programs to inform students about careers in the military.

#### Strategy 5 – Expand Student **Recruitment Efforts**

- » Introduce exciting new majors, minors and certificates to attract students.
- » Develop strong partnerships with high schools in Missouri and surrounding states for undergraduate student recruitment.
- » Develop strong partnerships with state and private universities in Missouri and surrounding states for graduate and professional student recruitment.
- » Add regional admissions representatives in areas that have additional demand.
- » Increase out of state digital marketing and recruitment travel to new and emerging markets.
- » Enhance recruitment in central Missouri.
- » Host professional development opportunities for K-12 educators and community college advisors on campus and virtually.
- » Develop a comprehensive recruitment and communications plan for transfer students.
- » Conduct market analysis to identify new degree programs that could attract new students to Mizzou.

#### Strategy 6 – Enhance Marketing Material & Campus Visit Experience

- » Launch a chatbot that uses AI to develop personalized responses for student inquiries, per recommendations of an audit of our programs by the National Institute for Student Success.
- » Create an internal communications plan to disseminate marketing messages that support relationship-building at the faculty and staff level with potential students and families.
- » Expand on-campus brand training for faculty and staff to enhance interactions with visitors to the university.
- » Increase digital personalization across media in key markets for institutional level campaigns.
- » Improve infrastructure along visitor tour route (sidewalks, stairs, streets, curbs, railings).
- » Improve landscaping along tour route and install wayfinding signage for all types of visitors across campus.
- » Improve campus visitor spaces to create a welcoming atmosphere for prospective students.
- » Enhance Mizzou Welcome to provide intentional onboarding processes.
- » Develop comprehensive communication plan for Mizzou families.

# THEME

#### Elevate High-Impact Research, Scholarship & Creative Works

Mizzou is a powerhouse for innovations in research and creative works. Our faculty, students and staff lead breakthrough programs in fields ranging from personalized health to artificial intelligence to the humanities. Mizzou empowers its faculty, staff, and students to develop initiatives that push the boundaries of discovery and scholarly pursuit, launch breakthrough innovations and technologies, and deliver research that offers beneficial impacts to Missouri, the nation, and the world. Examples of successes in these programs that were enabled by key investments are provided below.

#### PRECISION HEALTH

Personalized health care is helping Americans live longer and healthier lives. Despite these advancements, Missouri's health outcomes are among the lowest in the nation. It's our responsibility to help improve the lives of our community members — and we're already making strides for our state and the nation. With a steadfast focus on research and teaching, we are bringing together the best of patient care while creating new solutions to complex health problems. We're also training a new generation of physicians to provide the best quality of care possible for generations to come.

Researchers at the Roy Blunt NextGen Precision Health building are harnessing precision health to develop individualized interventions for patients diagnosed with cancer, heart disease and other illnesses. Mizzou's Thompson Center for Autism and Neurodevelopment has become a national leader in confronting the challenges of autism spectrum disorders and other developmental conditions through its collaborative research, training and service programs.



Curators' Distinguished Professor Dr. Randall

In October 2021. surgeons successfully transplanted a pig kidney into a human recipient. The historic procedure offered hope that one day there could be a reliable source of donations for thousands of patients awaiting lifesaving transplants. Since then,

more accomplishments in xenotransplantation (using animal organs and tissue in humans) continue to grab global headlines, including pigto-human heart transplants. Behind each of these advances is Curators' Distinguished Professor Randall Prather and decades of foundational research at the University of Missouri. Dr. Prather's research into swine genomics contributed to breakthrough technology used to develop pigs without a molecule that usually causes organ rejection. His lab also helped pioneer the creation of swine models to study a range of ailments, including cystic fibrosis and cancer, as well as pigs that are immune to porcine reproductive and respiratory syndrome — a devastating infection that worldwide costs producers millions of dollars per day.

As a leader in his field, Prather continues to break new ground as director of the National Swine Resource and Research Center, a facility funded by the National Institutes of Health and located on Mizzou's campus. For his lifetime of scientific contributions, Prather was recently inducted into the National Academy of Inventors. The University of Missouri Research Reactor (MURR) is the only U.S. producer of four medical isotopes used in lifesaving treatments for liver,

thyroid, pancreatic and prostate cancer. MURR is also the most reliable supplier of medical isotopes, safely operating for more than 50 years, 365 days a year, and filling production gaps when other research reactors need to go offline. Missouri's central location ensures the medical isotopes produced at MURR can be deployed quickly around the country, which is critical because of their short half-lives. As part of the long-term capital plan, the University of Missouri plans to build a new, state-of-the-art reactor — NextGen MURR — that will benefit Missourians and patients across the country and around the world.

Excellence in precision health extends to our animal patients as well. The College of Veterinary Medicine is leading research into the diagnostics and care of large and small animals. And each year, the Veterinary Medical Diagnostic Laboratory helps safeguard public health by performing more than 167,000 diagnostic tests that support the work of veterinary practitioners, livestock and poultry interests, wildlife conservationists, researchers, government officials and industry partners. Veterinary Education and Training through Extension for Community Healthcare Outcomes (VET ECHO) is a collaboration with Show-Me ECHO and the Missouri Telehealth Network to provide sustainable, virtual continuing education with casebased learning for veterinarians and veterinary students working with livestock producers.

#### ARTIFICIAL INTELLIGENCE

Dr. Prasad Calyam is the Greg L. Gilliom Professor of CyberSecurity in the Department of Electrical **Engineering and Computer** Science and a core faculty member in the MU Institute for Data Science and Informatics. As the director of the Cyber Education,



Dr. Prasad Calyam

Research and Infrastructure Center, Calyam stands at the forefront of innovative AI research integrating automation and artificial intelligence into everyday life. He and his team are already working with the Associated Press to assist local news organizations by automating time-consuming tasks and freeing up staff for more in-depth projects. Additional applications of the work of

Dr. Calyam and others on our campus include cyber defense, bioinformatics and advanced manufacturing, and health care — and that's just scratching the surface of what's possible.

#### **ENERGY AND THE ENVIRONMENT**

A five-year, \$3 million grant from the National Science Foundation (NSF) established a doctoral training program at the University of Missouri to help prepare the next generation of scientists and engineers to work in the emerging fields of materials



Dr. Matt Maschmann

science and data science and analytics. The aim of the program is to empower future workers to be proficient in both subjects — a skillset that is highly desirable in today's global marketplace. This project is led by Dr. Matt Maschmann, a faculty member in the Department of Mechanical & Aerospace Engineering and the Director of the Materials Science & Engineering Institute. He and his colleagues will train a new generation of materials scientists and engineers to be proficient with data science techniques, including machine learning and artificial intelligence, whether it's to discover better materials for building batteries and computer chips, reconstructing technology from ancient civilizations, or harnessing the untapped potential of carbon nanotubes. The data science components of the program will help guide students in conducting and analyzing experiments associated with this research.

Effective policies are key to enable adoption of energy and environmental breakthroughs. Dr. Robin Rotman is an Associate Professor in the College of Agriculture, Food and Natural Resources. Dr. Rotman earned a J.D., was a Rhodes Scholar, and she combines her expertise in issues related to energy, the environment and natural resources with her dedication to student success. Her undergraduate courses on environmental law are helping to spark a passion in her students to understand the policy process in areas like natural resource rights and public lands management. She believes strongly that an important role of a faculty is to prepare our students for the workforce and the jobs for the future.

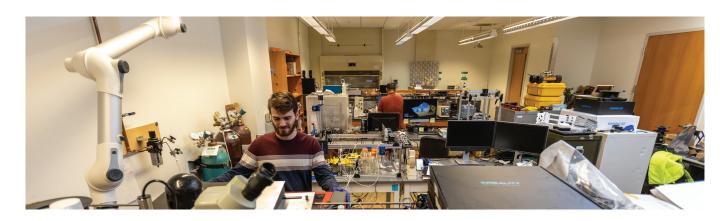
#### THEME 02 | Elevate High-Impact Research, Scholarship & Creative Works

#### INNOVATIONS IN THE HUMANITIES

Humanists engage in a diverse array of practices that help us better understand our world, whether through historical study, analysis of art and literature, or creation of new artistic products. Using interdisciplinary methods of inquiry and diverse objects of study, humanities researchers examine shared aspects of humanity – how language, cultural production, technologies, and institutions shape and reflect cultural identities, collective belonging, and societies in a global world. In doing so, the humanities have always foregrounded vital questions: What is the nature and meaning of

human life? Why did life unfold this way? And what if things were otherwise? At the University of Missouri, the Center for the Humanities nurtures the work of humanists by supporting novel interdisciplinary research and teaching and undertaking public outreach at the local and state level.

We will continue to invest in professorships, state-of-the-art facilities, centers & institutes, and research and training programs to attract and retain the best faculty, staff and students across all disciplines. Inspired by the future, we're collaborating like never before to create breakthroughs at an incredible pace.



# RESEARCH, SCHOLARSHIP & CREATIVE WORKS GOALS

#### Goal 1 (Strategies 1-4)

Increase overall research expenditures from \$485 million to \$700 million by 2030.

#### Goal 2 (Strategy 2)

» Increase the average number of scholarly books published by faculty from 40/year to 60/year by 2030.

#### Goal 3 (Strategy 2)

» Increase the number of faculty with highly prestigious external awards from 52 to 100 by 2030.

#### Goal 4 (Strategies 2-4)

» Increase the number of MU past 5-year citations in Web of Science from 164,000 to 200,000 by 2030.

#### Goal 5 (Strategies 2-3)

» Secure five new federally-funded research centers by 2030.

#### Goal 6 (Strategy 4)

» Increase the percentage of externally-funded graduate research assistantships from 60% to 85% by 2030.

#### Goal 7 (Strategy 2)

» Increase the number of annual patents filed from 67 to 100 by 2030.

## STRATEGIES & TACTICS

#### Strategy 1 – Complete Signature Research Infrastructure Projects & Address Additional Research Infrastructure Needs

- » Develop a dashboard to maximize research space utilization through shared equipment and multi-Pl/shared laboratories.
- » Inventory existing equipment and infrastructure and perform a needs assessment to support faculty work across campus.

# Strategy 2 – Leverage MizzouForward as a Strategic Initiative through 2030

- » Identify priority hiring areas on an annual basis.
- » Maintain centralized support for MizzouForward hires, augmented by college/departmental resources.
- » Maintain central support to encourage faculty to apply for prestigious and highly prestigious external awards and enhance support for techtransfer activities (e.g., invention disclosures; patent applications).
- » Maintain central support for efforts to promote scholarly book production.





#### Strategy 3 – Develop & Diversify Research & Scholarly Initiatives Across Campus

- » Coordinate resources to target large-scale, interdisciplinary research proposals.
- » Identify new and novel opportunities for engagement and collaboration on priority research areas with government agencies, private industry, and community organizations, including translational research opportunities.
- » Provide monthly high-quality data analytics reports to support evidence-based decision making and research growth.
- » Enhance research, professional development, and mentoring initiatives to improve the recruitment, retention, success, and expertise of both new and existing Mizzou researchers.

# Strategy 4 – Increase Funding & Support for Graduate Students & Postdoctoral Scholars

- » Secure additional federal and external funding to develop and support programs and pathways for graduate students and postdoctoral scholars.
- » Establish a central network of successful applicants and mentors for these programs to share insights with new applicants.
- » Hold regular trainings/workshops on strategies for faculty, graduate students and post-doctoral fellows for proposal development.

# THEME U

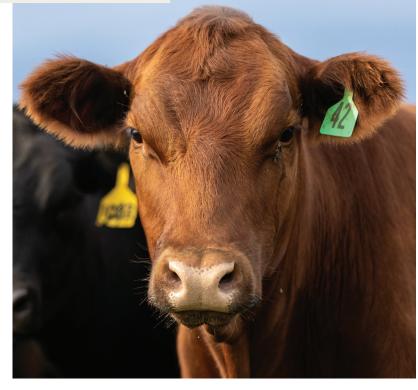
#### Foster Meaningful Outreach & Engagement

It's our land-grant mission to support Missouri's most important industry: agriculture. We know we can deliver even more for families in each of our 114 counties. That's why we've launched ambitious initiatives to double the state's ag economy by 2030 while sustaining our natural resources. These activities include hiring faculty specialists in digital agriculture, livestock toxicology, agronomy, soils and nutrients.

But there is so much more that we can do to support our biggest benefactors, Missourians. Each day, we leverage our unique position to contribute to rural agriculture, rural and urban education, economic development throughout the state, environmental sustainability and so much more! Through discovery and translation of research into technologies, information programs and services, Mizzou improves lives, communities, and economies.

#### ADVANCED AGRICULTURE

Floods, droughts and other severe weather events have significantly impacted farmers throughout the country. Supported by a \$25 million grant from the U.S. Department of Agriculture (USDA) — the largest federal research, education and Extension grant ever awarded to MU — Professor Rob Myers, director of MU's Center for Regenerative Agriculture, is striving to equip farmers with the climate-smart practices and tools they will need to successfully adapt to a warming climate. Professor Myers is also working to double the acreage of cover crops across the country by 2030 using a \$10 million grant from the USDA Institute of Food and Agriculture. Cover crops, which reduce soil erosion and improve soil health, control pests and improve biodiversity, are



a key step in helping farmers continue to feed a growing population. Both projects will support the growth of new markets for climate-smart practices, including the bioenergy sector and Missouri grassfed beef.

#### SUSTAINABLE ENVIRONMENT

When the University of Missouri School of Journalism's Mississippi River Basin Ag and Water Desk launched, led by Professor Sara Shipley Hiles and Associate Dean Earnest Perry in the School of Journalism, the mission was to do more than report on important water, agricultural and environmental stories unfolding in this more than a million-squaremile area. The goal was to explore why issues were arising and what could be done about them.

So far, the team of journalists stationed in 10 core partner newsrooms across the region has produced more than 700 stories on local and regional issues

that have been published, for free, by news outlets around the country. The reporting fills a critical gap in news coverage left by deep cuts to newsrooms across the country, and it's poised to expand thanks to continuing contributions from the Walton Family Foundation.

Other examples of our work in sustainability include The Johnny Morris Institute of Fisheries, Wetlands, and Aquatic Systems, which will be a national center of research supporting the mission to enhance the conservation of Missouri's forest, fish and wildlife resources. Through the cross-disciplinary Missouri Water Center, CAFNR and College of Engineering researchers are examining infrastructure that improves water quality for everyone in the Mississippi River basin.

These partnerships build trust and lead to incredible results, like our collaboration on a \$1.7 billion plan to expand broadband access to rural Missourians and usher in a new era of connectivity to underserved areas.

#### **RURAL MEDICINE**

A student from a rural background goes to college. Then on to medical school. Then returns to their community to practice medicine, providing quality care and helping address the state's shortage of rural physicians. Creating that pipeline is the goal of the Lester R. Bryant Scholars Program at the MU School of Medicine, and it's the path Meredith Norfleet, B.S. '14, M.D. '18, was inspired to follow, seeing the impact rural family care physicians had on her family while growing up in Houstonia in Missouri's Pettis County. After graduating from Mizzou, Dr. Norfleet returned to Pettis County to join Bothwell Family Medicine Associates in Sedalia as a practicing physician. The Bryant Scholars Program encourages young people from rural backgrounds to pursue a medical education, and the Rural Scholars Program offers medical students interested in rural practice a variety of experiences including lectures, mentoring and clinical programs centered around rural care. There are so many stories like Meredith's.

#### RURAL AND URBAN EDUCATION

The College of Education and Human Development (CEHD) is using resources such as the Missouri Prevention Science Institute to reach teachers and students who live in underserved rural and urban communities. The institute's range of centers and programs address the needs of teachers around the state, enhance student success and improve the mental health of young people. CEHD is also committed to addressing Missouri's teacher shortage, particularly in rural areas, by offering online options for education courses. These asynchronous classes will create pathways for those who have considered teaching but are unable to leave home or work to attend an out-of-town university.

The Missouri Prevention Science Institute (MPSI) was founded in 2007 by Dr. Wendy Reinke, and Dr. Keith Herman, both of whom are Curators' Distinguished Professors. MPSI is a multidisciplinary institute dedicated to preventing and treating social, behavioral and emotional problems. The institute brings community members and researchers together to help schools and families apply techniques that promote social and academic success. Through community outreach, the institute's staff provides parent training and teacher consultation services as well as conducting groundbreaking research in the field of prevention science.

MU Extension delivers our world-class research capabilities and knowledge to each of Missouri's 114 counties and the city of St. Louis. Extension outreach includes Missouri 4-H and Future Farmers of American youth development program. Extension's network of specialists and volunteers help train our next state and community leaders, as well as business and community development specialists — a critical resource for small businesses as they strengthen local

We will continue to extend our groundbreaking research and education from campus to every corner of the state. MU faculty, students and staff are uniting advanced technology with communitylevel collaboration to serve citizens and improve the economy for all Missourians.

# OUTREACH & ENGAGEMENT GOALS

#### Goal 1 (Strategies 1-4)

» Expand engagement with Extension programs from 1,200,000 contacts/year to 1,500,000 contacts/year by 2030.

#### Goal 2 (Strategy 1)

» Increase engagement among farmers, ranchers, and agri-entrepreneurs at Extension events from 21,000 to 27,000 by 2030.

#### Goal 3 (Strategy 2)

» Establish 2 new Extension sites per year in rural Missouri to deliver primary health care and telehealth clinic to improve access to health services.

#### Goal 4 (Strategy 3)

» Establish 24 new K-12 partnerships for in- and after-school initiatives, including partners that provide access to innovative pathways to higher and continuing education by 2030.

# STRATEGIES & TACTICS

#### Strategy 1 – Support Agricultural Partners in the State of Missouri through Education, Research & Outreach

- » Increase programs through University of Missouri Agricultural Research, Extension and Education Centers (REEC) to support commodity-groups, individual farmers, agricultural businesses and agricultural entrepreneurs.
- » Increase programs through the University of Missouri Digital Agriculture Research and Extension Center to support agri-technology testing programs.
- » Increase programs through the University of Missouri Meat Science Laboratory to support cattle, swine and poultry operators as they seek to incorporate value-added production.

#### Goal 5 (Strategy 3-4)

» Continue to create high-impact and transformational opportunities to prepare for employment, upskill current workers, and pipeline non-traditional students into degree programs with an increase in reach from 12,000 to 15,000 participants by 2030.

#### Goal 6 (Strategy 4)

» Increase the number of startup businesses served by our entrepreneurial program from 300 to 350 by 2030.

#### Goal 7 (Strategy 4)

» Increase the number of counties implementing Digitally Connected Communities, a broadband planning program, from 8 to 20 by 2030.

#### Goal 8 (Strategy 5)

» Increase the number of faculty engaged in communicating the outcomes of their research with Missourians from 250 to 350 by 2030.

» Increase programs through the University of Missouri Veterinary Medical Diagnostics Laboratory to ensure the health and safety of livestock and other animals in Missouri.

#### Strategy 2 – Improve Community Health for Missourians

- » Conduct mobile as well as county-based health screenings and partner with state and local agencies to identify and overcome barriers to health care access.
- » Develop and expand programs to provide medical, nursing and health science education and training to serve rural and under-served populations in Missouri.
- » Increase ShowMe Echo educational programs to train primary care providers in rural and underserved populations in Missouri.



#### Strategy 3 - Expand Educational **Programs for Missourians**

- » Convene a campus-wide committee to work on decreasing barriers for non-traditional students and increasing pipeline options.
- » Develop and deploy content-rich youth educational programs targeted to out-of-school, afterschool, and school enrichment environments.
- » Increase 4-H and Future Farmers of American youth program participation, including college preparedness mentoring.
- » Develop research-based adult continuing education opportunities to address local challenges.
- » Develop Missouri's civic engagement and use programs to prepare people to lead 21st century communities.

#### Strategy 4 – Support Economic **Development for Missourians**

» Provide educational opportunities to support entrepreneurs and create entrepreneurial ecosystems.

- » Create, implement, and evaluate research-based educational programs focused on rural and urban economic development.
- » Develop and implement relevant certifications, credentialing, and licensure programs that address business and industry needs.
- » Implement the Digital Ambassador program for residents to have access to broadband in all 114 counties.

#### Strategy 5 – Leverage *The Connector* to Provide Opportunities for Researchers to Share Their Work with Campus & Community Partners to Increase **Knowledge Sharing & Impact**

- » Increase faculty and community participation in ongoing engagement programs such as the Young Scientists Expo and Extra Credit.
- » Deliver new professional development opportunities for researchers on engaged scholarship and broader impacts.





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