



*The* UNIVERSITY of OKLAHOMA.  
Office of the Vice President for Research & Partnerships

August 20, 2020

Dear Colleagues,

A lot has happened since my last letter to you dated January 13, 2020. At the time, little did we suspect that this year would be unique in so many ways. We all have had to adjust to the new reality of COVID-19, and to new ways of working and living our lives and of thinking about risk, our safety, and that of those around us. Throughout all of this, research at the Norman and Tulsa campuses has continued to make tremendous progress. The scale, scope and impact of our research enterprise are now larger and stronger than ever. As we prepare to safely reopen our campuses for the fall semester, I wanted to share with you some of the most salient research-related news of the last few months and also give you a preview of the progress we're making defining a robust strategic plan and roadmap for the future of research at OU. Let me start with the strategic plan.

### OU Norman Strategic Plan and Research Framework

As you all know, the University of Oklahoma Board of Regents approved “[Lead On, University.](#)” OU’s Strategic Plan for the Norman campus and Norman programs in Tulsa, at their July retreat meeting. The plan is built upon five overarching pillars that stem from OU’s foundation of providing a world-class, affordable education; creating a welcoming place of belonging; and harnessing innovation and pathbreaking discoveries to advance and improve society. Each pillar is supported by targeted strategies and specific tactics to help achieve these goals. Pillar 1, “Become a Top-Tier Public Research University” and more specifically, Pillar 5, “Enrich and Positively Impact Oklahoma, the Nation, and the World through Research and Creative Activity” clearly define OU’s ambition to truly embrace research and creative activity as key elements of its mission.



Our vision for enhancing OU’s excellence in research and creative activity is centered on the concept of convergence and transdisciplinary research to impact global grand challenges. It is our belief that in order to have the highest impact on society’s most wicked problems and 21st century grand challenges (such as those depicted in the figure on the left) researchers must move beyond and across traditional academic boundaries, collaborating across disciplines and globally with other universities,



policymakers, economists and business leaders to create solutions for a better world. Our goal is to transcend academic disciplines and bring all of OU's institutional strengths together to tackle global challenges, create new knowledge, and accelerate the delivery of practical solutions that impact society in direct, tangible and positive ways.

In order to define a plan and articulate a path forward, we have proposed four strategic theme areas that we believe encapsulate some of the most important and difficult challenges we face in our state, nation, and world in the 21st century. These are:

- Aerospace, defense, and global security,
- Environment, energy and sustainability,
- The future of health, and
- Society and community transformation

Naturally, there exist tremendous synergies across all four of these strategic areas. Integrating science and engineering, as well as design and creative arts thinking, with the humanities and the deepest analysis of societal impacts and risks while also keeping the "big picture" in mind will ensure that the work we do at OU will be truly transformative.

In order to advance our thinking and explore where OU's strengths and faculty interest can converge with maximum impact around these global grand challenge topics, last November my office convened a team of faculty across campus to participate in a series of strategic discussions. The members of the team were nominated by their Deans and the Faculty Senate Executive Committee, and participated in one or more of the working groups that aligned with the strategic theme areas outlined above. By March 2020 these four working groups had drafted white-paper documents outlining priorities within each of the strategic theme areas, and a draft executive summary of that work can be found [here](#). Although the COVID-19 pandemic slowed down progress, the teams (including new members) are now fully engaged with an external strategic planning firm, Thinkenomics, in further refining next steps. As they embark on their work, they will be consulting with faculty across campus over the next few months. If you have an interest in contributing in one or more of these areas, please contact the working group team leaders, [John Antonio](#) for ADGS; [Petra Klein](#) for EES; [Ann West](#) and [Kent Teague](#) for FH; and [Georgia Kosmopoulou](#) for SCT.

As a top-tier research university, it is also critically important that the academic disciplines that provide the basis upon which to create and translate new knowledge into solutions to society's challenges be as strong as possible. Without that strong foundation, our transdisciplinary work to impact society's grand challenges cannot succeed. Therefore, in addition to these strategic themes, we are also starting to engage with colleges across campus in thinking about what

## STRATEGIC THEMES DRIVING SOLUTIONS TO GLOBAL CHALLENGES



enabling, cross-cutting research capabilities need to be strengthened at OU to provide the strongest possible integrated system of research and creative activity.

As an example of this effort to strengthen academic discipline competencies, this summer we announced the establishment of a [Data Science Institute for Societal Challenges](#) (DISC). Led by Gallogly Professor of Engineering and globally recognized expert in data visualization and analytics, Dr. David Ebert, the institute is designed to accelerate and integrate data science research expertise across the university, harness data science innovation to solve real-world problems, and help faculty interested in this critical core competency come together in pursuit of new research opportunities. Data science is a core academic discipline that is at the heart of today's societal transformation and is fundamental to research progress. DISC is designed to apply data science across all of the four strategic theme areas mentioned above. The institute will build and expand on the research excellence in data science already in place at OU to bring the power of methods such as artificial intelligence and machine learning, visual analytics and other emerging tools of the digital era to important problems with high social impact.

In order to advance the vision and culture of convergence and transdisciplinary work, over the fall semester (budget permitting) we expect to be able to release requests for proposals to the entire faculty to seed and support new transdisciplinary teams in the pursuit of system-level projects that integrate social, political, ethical and design and creative arts considerations with advanced science and engineering ideas to generate new holistic solutions to global grand challenges. Please be on the lookout for more news on this front in the near future.

Furthermore, and as discussed in OU's *Lead On, University* strategic plan, we expect that over the next months and years we will be able to stand up and fund new transdisciplinary university-level Centers of Excellence (institutes and centers) that align with the strategic focus areas and core disciplinary capabilities. I will write further on that topic in the not-too-distant future.

## **Research News and Events**

The spring and summer have been difficult for us all. Our research activities were severely impacted when the university had to close down for all but essential activities in March, as the COVID-19 pandemic was raging across the world. Over the next few months following that closure we were able to slowly but systematically reopen research operations on campus, while [maintaining a safe environment](#) for all. I am extremely proud of the amazing work that the team in the VPRP office did, working hand in hand with colleges and departments across campus to ensure an orderly and safe return to research operations. But I am even more impressed and proud of the seriousness and professionalism that all the faculty, students and staff who participated in the various phases of our return to research operations displayed. Every single person of the approximately 1,000 we approved for return to research adjusted and showed flexibility, and most importantly tremendous respect for the safety of those around them.

Despite all of the difficulties of working in a COVID-19 world, our spring and summer were extremely productive. Our research numbers and accomplishments are certainly worth celebrating. For the fiscal year that closed on June 30, we had a record-high \$255.6 million in research awards earned through grants and external funding, a 17% increase over the previous

fiscal year and a [record for OU](#). This is a true testament to the creativity and hard work of OU faculty, students and staff. Similarly, research activity continued to flourish on campus throughout the last few months, and we closed FY20 up 13% relative to FY19 in research expenditures.

This remarkable achievement is truly the result of the concerted effort of a large number of faculty, staff and students across campus. There are many terrific examples of new and exciting research programs our university is involved with, as well as of external awards and recognition our faculty continue to amass, and while it's impossible to list them all, a sampling of news related to such new programs and awards can be found [here](#) and by following @OURResearch on Twitter and other social media.

Many of you know Andrea Deaton retired from her role as an Associate Vice President for Research and Partnerships and Executive Director of the Office of Research Services (ORS) in July. While a search for a permanent Director of ORS is ongoing, Michael Purcell from Legal Counsel has taken over as Interim Director. As always, Michael and the ORS staff are hard at work and will continue to assist you in submitting your proposals. In an effort to make sure that all proposals are submitted before sponsor deadlines, please submit your [Information Sheet](#) as a first step in the process, and make certain that your [routing materials](#) are received by ORS in a reasonable timeframe. ORS staff are one hundred percent committed to your success and need your help and cooperation to ensure all processes flow smoothly within the appropriate timeframes.

In addition to all these outstanding research accomplishments, a team of more than 40 faculty, staff and students from across all three OU campuses led by Tom Wavering, the Director of the Tom Love Innovation Hub, combined their expertise to develop, prototype, validate, and offer recommended essential equipment designs to OU Medicine and other health care and emergency response providers in the [fight against the coronavirus](#). This was a truly wonderful example of the OU spirit of helping others and serving society. All of this protective gear and critical equipment for health care workers, including hundreds of face shields and dozens of isolation boxes, all manufactured at the Innovation Hub, were [donated](#) to OU Medical Center. Norman faculty answered myriad calls from the OU Health Sciences campus to donate thousands of personnel protective equipment articles along with specialized equipment, reagents and other needed items during the early stages of the pandemic. All these items were taken to OUHSC daily for several weeks thanks to the dedication and outstanding efforts of Associate Vice President for Research and Partnerships Melany Dickens-Ray and her Norman team.

During the summer, our office was also able to launch some modest but timely requests for proposals from the faculty. The first one solicited ideas from faculty that could have a significant impact on our ability to address the COVID-19 pandemic. Because of the urgency of the pandemic, the RFP required a one-week turnaround of proposals. Despite the accelerated schedule, the response from faculty across all three campuses was overwhelming with over 70 proposals submitted for funding. A highly representative and diverse team of faculty reviewed the proposals and made recommendations, and ultimately eleven were funded through my office. More information can be found [here](#).

A second RFP solicited ideas from the faculty for research projects related to inequities in research and creative activity within the academic enterprise. The idea for this RFP emerged as the country was dealing, and continues to deal, with the pain and anger that followed the killing of George Floyd in Minnesota and that further exposed the continued inequities that pervade our society. Academia is not immune to these inequities. The intent of the RFP was to support ideas that could lead to actionable strategies to change the trajectory of today's clear and present inequities within the academic research ecosystem. As in the case of the COVID-19 RFP, the response from the faculty was terrific and we were able to support eleven proposals. More information can be found [here](#).

Our office also requested nominations and applications for two new faculty fellow positions. After a thorough review of applications by an independent review team of faculty colleagues, I am delighted to introduce our two faculty fellows who joined our team on August 15. Amy Cerato is the Rapp Foundation Presidential Professor of Civil Engineering and Kirsten Edwards is the Linda Clarke Anderson Presidential Professor of Educational Leadership and Policy Studies, as well as a core affiliate faculty for African and African American Studies, Women's and Gender Studies, and the Center for Social Justice. There is a lot of work to be done, and we all look forward to working with Amy and Kirsten.

One of the hallmarks of higher education is the meeting of expert minds from diverse fields to advise, help define strategy, and provide an independent point of view on progress. On May 21, the Office of the Vice President for Research and Partnerships' leadership team met virtually with its newly founded [Strategic Research Advisory Board](#). This group of 13 experts from across academia, industry and government participated in a day-long discussion of OU's response to COVID-19 and goals for advancing the research mission of the university. The SRAB is made up of an incredibly talented and diverse group of individuals, and their expert and unbiased advice will be a critical element of the work this office does and will continue to do into the future.

In closing, let me just say that I and my team in the Office of the Vice President for Research and Partnerships all appreciate the incredible amount of stress everyone is under in this age of COVID-19 pandemic and we greatly value your commitment to excellence in research and creative activity. Together with interim Provost Jill Irvine and her team, we are all here to help you succeed in your mission to educate the next generation and to advance knowledge and creative activity for the benefit of society. We look forward to working with you towards a safe and productive fall semester.

Cheers,

A handwritten signature in blue ink, consisting of several overlapping loops and a horizontal line extending to the right.

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