



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

October 13, 2021

Dear Colleagues,

It has been a while since my last letter to you in January 2021. A lot has happened at our university in the intervening months, but before I review a few of the most salient issues and accomplishments, I first would like to congratulate each of you for another incredible year of research and creative activity excellence at OU under the most difficult circumstances. Due to your efforts, OU's Norman campus has seen another record year in terms of overall research and creative activity on campus (read on for more details). The list of amazing accomplishments by our faculty, staff, and students is too large to include here, but I encourage you to browse the archives of our weekly [newsletter](#).

I know I speak for everyone in my office (OVPRP) when I say we are all honored to work with faculty and staff who have respected the health and safety of our community while remaining committed to achieving excellence in our collective research and creative endeavors. It's clear the culture of research excellence is alive and well at OU. As President Harroz said during his inauguration last month, our mission is not only to transmit knowledge to our students, but to create and transmit knowledge for the benefit of society. It is this quest for knowledge that changes lives, driving our research and creative activities.

Pillar 5 of the [Lead On, University](#) Strategic Plan contemplates the creation of university-wide, multi-campus, multidisciplinary centers of excellence (institutes) focused on real-world challenges. During FY21, a dedicated team of colleagues, working with strategy consulting firm Thinkenomics, completed our strategic research framework with detailed strategies and tactics for each of OU's [four vertical areas](#) of research and creative activity focus (Pillar 5, Strategy 2, Tactic 1). These verticals form the foundation for the launch of four new university-wide institutes and provide the basis for incentivizing the convergence of transdisciplinary teams of OU faculty, staff, and students to tackle and contribute solutions to some of the defining societal challenges of our time such as social inequality, climate change, energy, health pandemics, national security and global stability, and others.

Along with these verticals, the research strategic framework describes the need for major initiatives in key cross-cutting foundational areas of academic research such as data science, public policy research and analysis, quantum information science, advanced microelectronics and radar applications, and others yet to be defined. Moreover, the plan exists in synchronicity with the strategic plans being developed by the various colleges across the Norman campus and is therefore fully supportive and integrated with those strategies at the college and school/department level. Importantly, the strategic research framework and the research verticals and foundational areas serve as one of several key elements guiding the new process of strategic faculty hires that is envisioned in Pillar 1 of the *Lead On, University* Strategic Plan.



# STRATEGIC RESEARCH VERTICALS

The infographic is divided into five main sections. The top row features four verticals: 1. 'AEROSPACE, DEFENSE, AND GLOBAL SECURITY' in a dark blue box with the Oklahoma Aerospace and Defense Innovation Institute (OADII). 2. 'ENVIRONMENT, ENERGY, AND SUSTAINABILITY' in a green box with the Institute for Resilient Environmental and Energy Systems (IREES) and a portrait of Tim Filley, Director. 3. 'THE FUTURE OF HEALTH' in a blue box with the Institute for the Future of Health. 4. 'SOCIETY AND COMMUNITY TRANSFORMATION' in a purple box with the Institute for Society and Community Transformation (ISCT) and a portrait of Shane Connelly, Director. The bottom row, set against a dark red background, features 'CROSS CUTTING FOUNDATIONS' on the left and four foundational institutes on the right: Data Institute for Societal Challenges (DISC), Center for Quantum Research and Technology (CQRT), Institute for Public Policy Research and Analysis (IPPRA), and Advanced Radar Research Center (ARRC), each with its respective director's name.

**AEROSPACE, DEFENSE, AND GLOBAL SECURITY**  
Oklahoma Aerospace and Defense Innovation Institute (OADII)

**ENVIRONMENT, ENERGY, AND SUSTAINABILITY**  
Institute for Resilient Environmental and Energy Systems (IREES)  
  
Tim Filley, Director

**THE FUTURE OF HEALTH**  
Institute for the Future of Health

**SOCIETY AND COMMUNITY TRANSFORMATION**  
Institute for Society and Community Transformation (ISCT)  
  
Shane Connelly, Director

**CROSS CUTTING FOUNDATIONS**

- > **Data Institute for Societal Challenges (DISC)**  
David Ebert, Director
- > **Institute for Public Policy Research and Analysis (IPPRA)**  
Hank Jenkins-Smith, Co-Director | Carol Silva, Co-Director
- > **Center for Quantum Research and Technology (CQRT)**  
Venky Venkatesan, Director
- > **Advanced Radar Research Center (ARRC)**  
Robert Palmer, Director

In June of this year, the Board of Regents approved our proposal to launch many of the initiatives contemplated in the *Lead On, University* and Strategic Research plans, and we have been busy moving from the planning stage to the execution phase. To help fuel the execution of the plan, a series of strategic hires have been made to lead our new university-wide vertical and foundational institutes and centers.

To lead our Environment, Energy, and Sustainability vertical, Professor Tim Filley, a world-leading environmental scientist, joined the Geography and Environmental Sustainability Department and the School of Geosciences as the inaugural director of the newly established Institute for Resilient Environmental and Energy Systems. To learn more about Tim's background and experience click [here](#). More recently, following a competitive search for the leader for the Institute for Society and Community Transformation, Professor Shane Connelly from the Psychology department in the Norman campus was announced as the inaugural director of this important vertical institute. Shane has an outstanding record of conducting leading edge scholarly research in the fields of institutional and organizational psychology and leadership and a record of working seamlessly across academic boundaries. You can learn more about her background and expertise [here](#). We are also moving forward with a national search for the inaugural director of the Oklahoma Aerospace and Defense Innovation Institute. This institute aligns with the aerospace, defense, and global security vertical, and a search committee is currently evaluating potential candidates. A search for the leader of the future of health vertical and director of the institute in this area will be launched in the Spring of 2022 in partnership with the OU Health Sciences Center.

Last year, Professor David Ebert joined the School of Computer Science and the School of Electrical and Computer Engineering and launched the successful Data Institute for Societal Challenges, a foundational and cross-cutting element of our strategic framework that supports advanced data science applications across all four verticals. Professor Venky Venkatesan joined the Physics and Astronomy Department and the School of Electrical and Computer Engineering from the National University of Singapore and now leads the Center for Quantum Research and Technology, another one of our foundational capability centers. CQRT is supported by a generous gift from the Avenir Foundation, and by the OVPRP. Venky brings a wealth of both academic and highly successful entrepreneurial experience and an outstanding record of scholarly research to OU. You can learn more about his background and experience [here](#). Additionally, the Advanced Radar Research

Center, led by Professor Robert Palmer of OU's School of Meteorology, and the now-renamed Institute for Public Policy Research and Analysis, led by Professors Carol Silva and Hank Jenkins-Smith, from OU's Department of Political Science, continue to be supported as foundational elements of our strategic research framework.

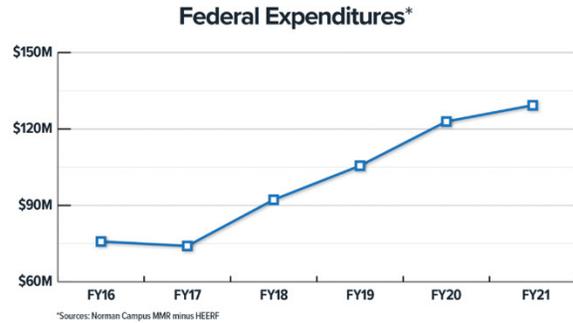
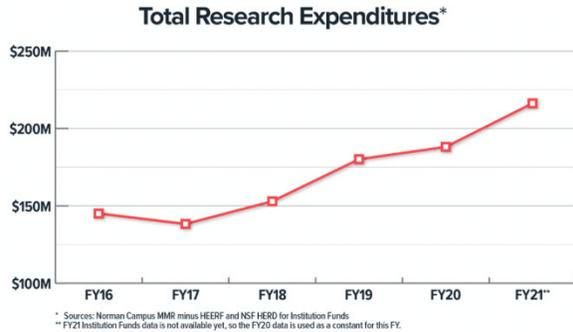
In response to Pillar 5, Strategy 1, Tactic 8 of the *Lead On, University Strategic Plan*, a thorough national search was conducted by a joint OU Norman and OU Health Sciences Center search committee for a new Chief Innovation and Corporate Partnerships Officer for all three campuses of the university. This new position will integrate our efforts to facilitate corporate partnerships for strategic research, licensing of new OU technologies, startup of new companies by faculty, staff, and students based on OU intellectual property, and generally every aspect of the lifecycle on innovation. After evaluation of 52 candidates, the committee made recommendations to fill the position and John Hanak, formerly the director of Purdue Ventures, was selected to lead this new office. You can learn more about John's background and experience [here](#). Similarly, to enhance and facilitate the commercialization of OU IP, and in response to Pillar 5, Strategy 5, Tactic 6, we launched a new approach to [OU IP licensing terms](#) for corporate sponsored research agreements that provides much greater flexibility in negotiating IP terms with potential sponsors. This approach was modeled after best practices at many top-tier public AAU and other universities and is the result of a comprehensive joint effort between the offices of legal counsel, finance and the VPRP.

The core mission of our university-wide strategic institutes and centers is to serve as a resource to all faculty, staff, and students, so that together we may expand and grow the scale, scope, and impact of the university's research and creative activities. To accomplish this, our institutes and centers must be open and accessible to all. Everyone in the OVPRP team is committed to this vision and looking forward to working with all of you in meeting the ambitious goals of the *Lead On, University Strategic Plan*.

A key mechanism to help facilitate inclusivity and motivate cross-disciplinary teaming, is embodied by the partnership between the OVPRP and the Provost's Office Center for Faculty Excellence. This partnership creates open workshops aimed at informing faculty, staff, and students of the mission and goals of each institute with the goal of helping create convergent teams that can work together to launch new, ambitious proposals for sponsored research opportunities. For example, the CFE and the DISC co-hosted 38 workshops with over 750 attendees on a variety of topics since September 2020. Topics have included opioid epidemic research, data analytics and AI for aerospace and defense, AI for science, digital humanities, and in partnership with OU Health Sciences Center, AI for health. During the sessions, researchers share their expertise and interests, discuss challenges, form convergent teams, and develop collaborative one-page summaries which can then become the basis for new sponsored research proposals. New workshops hosted by the CFE, and the various OVPRP research institutes are taking place on a regular basis and more are planned for the future. Please stay tuned for announcements from the CFE and OVPRP on this topic.

In the last year and a half, the OVPRP team has been busy crafting new research incentive initiatives intended to help faculty further expand their research capabilities and interests, and in some cases even enter new fields of research (Pillar 5, Strategy 2, Tactic 5). Through a rigorous process of peer review in response to open requests for proposals (Pillar 5, Strategy 4, Tactic 1), these incentive programs have provided a total of just over \$1.6M to OU faculty and their students. Just this last month, we have launched two new research incentive programs. One is targeted towards stimulating research and creative activity by supporting postdoctoral researchers on externally funded grants. The second is to support lead Principal Investigators in developing competitive large-scale or significant grant applications focused on tackling challenging problems at a national scale that will notably advance OU's global reputation. These initiatives are detailed on the VPRP website [here](#).

Despite the challenges of the COVID-19 pandemic, our university continued the growth of the research and creative activity enterprise during FY21. As you can see in the graph below, this continued growth is consistent with what the OU Norman campus has seen over the last few years. We're on an amazing growth trajectory!



During FY21, and thanks to the tremendous efforts of everyone on campus, research expenditures from sponsored programs at the Norman campus grew to a new record high of almost \$187M, and we're projecting a total of more than \$220M when accounting for internal investments. In FY21, Norman campus sponsored research expenditures saw a 39% increase in international projects, a 12% increase in industry-sponsored projects, and a 5% increase in federal research expenditures to almost \$130M, a new record high in this important AAU metrics indicator. We saw a 25% increase in awards from the National Science Foundation, a 127% increase from the Department of Defense, and a 150% increase from the National Endowment of the Arts between FY20 and FY21.

FY21 also saw the volume of research proposals increase nearly 30% relative to FY20, with 969 proposals totaling \$824.2M submitted during a time when conducting research, field work, and in-person activities were especially challenging. Furthermore, the State of Oklahoma has been very supportive of our research efforts and in the FY21 budget appropriation provided significant resources to enhance our national security research infrastructure, our core biology and engineering research laboratories, and the growth of our engineering faculty.

Overall, the volume of opportunity for support of research and creative activity, both internally and more broadly at the federal and state levels, is at an all-time high. In a sign of what is to come, our partnerships with the state, the community, the private sector, other universities, and the federal government are all growing and strengthening. I am thrilled to see what we can accomplish as operations resume at full capacity.

I wish you a happy and healthy remainder of your semester and look forward to all that we will accomplish together this year and in years to come.

Cheers,

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