The University of Alabama

Office for Research & Economic Development

**Strategic Plan
2019-2024**

WHERE
LEGENDS
ARE MADE

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UNIVERSITY RESEARCH MISSION & ORED MISSION

The Research Mission of The University of Alabama is to facilitate and promote the pursuit, discovery, and dissemination of knowledge and the application of knowledge through research and creative initiatives, technology transfer, and economic development that impact our students and our many constituencies within the State of Alabama, the nation, and the world.

The mission of the ORED is to facilitate the growth and impact of the UA research enterprise and to ensure compliance with University, System, State and Federal Regulations related to research.

ORED will achieve this mission by:

- expanding and supporting the University's academic and research programs by promoting the research, scholarly, creative and collaborative activities of faculty, staff, and students;
- enhancing the research infrastructure within ORED to support those we serve in an ever-changing world;
- encouraging and facilitating national and international partnerships for research and academic opportunities, workforce development and talent retention;
- translating university discovery and innovations into viable business opportunities, commercialization, and economic development;
- engaging our communities in mutually beneficial research, education and outreach programs; and,
- creating policies, training programs, and initiatives that educate and develop the necessary skills of students, trainees and researchers so as to ensure compliance with University, System, State and Federal Regulations related to research.

INTRODUCTION

In December 2018, the Carnegie Commission on Higher Education designated The University of Alabama (UA) as a Very High Research Activity doctoral university or "R1". This is the nation's highest level of research activity for institutions that grant doctoral degrees. This places our University among the most elite, public or private, research universities in the United States.

In recent years, UA has invested $2.5 billion in campus construction, and infrastructure, including over $400 million in world-class research facilities. Part of that investment has been the acquisition of the Peter Bryce Campus, which has significant land and facility holdings that are used and available, when justified, for allocation to the research mission. In part because of this investment, research awards have grown by 85 percent over the last five years. In fact, for fiscal year 2018, UA has attained record levels of external grants and contracts for research, instruction, service, and fellowships as well as notable support for scholarship and creative initiatives.

Building on this momentum and opportunity, we now have plans to increase the size and impact of our research and scholarly activity enterprise significantly, with an eye toward synergies and addressing our state, national, and global challenges. Our forward-looking focus will be on growth in faculty (both in terms of numbers and in terms of development of current faculty) and in research and scholarly prominence. Thus, the University is uniquely positioned to become one of the premier comprehensive research institutions in the southeastern United States over the next five years and in so doing translate research productivity and innovation to economic and societal development.

To achieve these lofty ambitions, The University of Alabama's Office for Research and Economic Development (ORED) must continue to foster initiatives and the innovation of faculty and staff as well as support students as the future workforce talent for the state, nation and the world. ORED must promote partnerships and collaborations across the University, as well as with peer institutions, international partners, corporations, foundations, governmental agencies, community-based organizations, and other relevant groups and individuals. ORED must be collaborative, transparent, and thoughtful regarding investments in an effort to maximize return in terms of impact and sustainability.

ORED has developed its Strategic Plan (2019-2024) using seven Guiding Principles (see p. 3) that framed the six Strategic Themes (see p. 4) which in turn guided the development of several Strategic Objectives within each Strategic Theme (see pp. 5-10, and ORED's Mission). Use of these Guiding Principles ensures the effectuation of the Research Mission of The University of Alabama.

In addition to providing for recurring investments by ORED over the next five-years, implementation of this Strategic Plan will require bold, aggressive acquisition and infusion of new resources. These new resources will come from a number of sources including: new grants and contracts; new and expanded partnerships; gifts from individuals, foundations, and corporations; as well as some reallocation of existing funds. ORED commits to raise endowments and other gifts to support this Strategic Plan. To do so, ORED will work closely with faculty, colleges, centers, institutes, and key external stakeholders to best articulate the best value and impact of our research, scholarship, creative activities, and our economic initiatives.

It is the intent of the ORED to incorporate continuous quality improvement activities as part of the Strategic Plan implementation and to evaluate the overall efforts annually and at the end of the five years. The Strategic Plan, and our effort to execute it, will be determined to have been successful if the majority of faculty, staff, and students agree that ORED has adequately facilitated their research, scholarship, and creative activities. Additionally, we will consider these efforts successful if the University's research awards grow by an annual average rate of 15% over each of the next five years. Finally, we will consider our efforts successful if externally available and unambiguous data provide evidence of achievement of the key metrics from across all six Strategic Themes.

GUIDING PRINCIPLES FOR THE PLAN

ORED developed this Strategic Plan with seven Guiding Principles. The Guiding Principles serve as both a compass and gauge for framing the Strategic Themes and the several Strategic Objectives within each Theme. The Guiding Principles dictated the development of the Strategic Plan, which includes an emphasis on efforts and resources and in the "what" and "how" of investment decisions. We recognize that new opportunities will likely emerge during the lifetime of this Strategic Plan and that the Guiding Principles will serve to frame and assess new opportunities, and if pursued, help to prioritize them relative to existing initiatives. The Guiding Principles are:

1. The Strategic Plan will originate directly from the University's Strategic Plan "Advancing the Flagship: The UA Strategic Plan" and specifically Goal #2, which aims to "Increase the University's productivity and innovation in research, scholarship and creative activities that impact economic and societal development."

2. UA has two critical assets that must be the emphasis of all that ORED does: 1.) Faculty & Staff - ORED must support and foster their initiatives and innovation, and 2.) Students - ORED must support and foster students as global citizens and future workforce talent for the state, nation, and the world.

3. Transformative ideas and initiatives, as well as the quality and impact of those initiatives, will be the primary determinants for investments by ORED. In this strategic plan, "transformative" means research, scholarship and creative activities that are highly innovative and shift or break existing paradigms.

4. ORED must strive for excellence in pursuit of its established goals.

5. Research and Economic Development are a synergistic continuum of activities.   An increase in research productivity leads to an increase in economic development, which in turn leads to an increase in research opportunities through sustainable and mutually beneficial partnerships.

6. The Alabama Research Institutes reporting to ORED must create a strong culture and provide opportunities for cross-disciplinary research and creative initiatives throughout campus.

7. Stakeholders including the faculty and staff at large, Center and Institute Directors, the Faculty Senate Research and Service Committee, the Research Advisory Committee, the Council of Associate Deans for Research, the Deans, and the UA senior leadership will inform the Strategic Plan.

STRATEGIC THEMES OF THE PLAN

ORED's Strategic Plan has six Strategic Themes. Each interdependent Theme is critical to the Plan as it defines or expresses a core mission of ORED. In the pages that follow, we will explicate these Themes and provide Strategic Objectives that will guide activities to achieve these objectives. The Themes are:

1. Research Environment

2. Alabama Research Institutes

3. Transformative Initiatives

4. Translating Intellectual Property

5. Economic and Business Engagement

6. Assessing Progress and Impact

1.   RESEARCH ENVIRONMENT

ORED has the important role of creating and sustaining a strong research environment at The University of Alabama. The research environment is comprised of many critical components including: culture, facilitation, communication, trust, transparency, infrastructure, and partnerships. Strategic Theme 1, Research Environment, has eight Strategic Objectives, as follows:

1.1   ORED will promote and enhance the university-wide culture for research, scholarship, and creative activities, and, especially for cross-disciplinary and collaborative efforts in these areas, commensurate with a Carnegie-designated R1 doctoral research university. In collaboration with faculty and staff, ORED will identify barriers to this culture and take a lead role in addressing these barriers.

1.2   The core mission of ORED is to facilitate the growth and impact of the UA research enterprise and to ensure compliance with University, System, State, and Federal regulations. ORED's policies, practices and procedures to facilitate pre-award, post-award, and compliance functions must be efficient, effective and scalable. ORED will invest in new and existing personnel and resources to ensure it is meeting the needs of the research enterprise, and provide professional development for all ORED personnel.

1.3   ORED will enhance strategic communications with campus and external stakeholders. ORED will proactively identify and make the campus community aware of significant emerging funding opportunities and effectively communicate ongoing research, scholarship, and creative activities and their outcomes and impacts.

1.4   ORED will partner with campus deans and associate deans for research to ensure it is facilitating and meeting the needs of the research mission of all colleges and schools including faculty recruitment and retention.

1.5   ORED will collaborate with the Office of Academic Affairs, colleges, and schools to develop a process to identify and nominate faculty for external honorific awards.

1.6   ORED will provide world-class core analytical facilities
    1.6.1   ORED will explore alignment and coordination of the existing core facility (Central Analytical Facility, CAF) and center (Materials for Information Technology, MINT) resources
    1.6.2   ORED will evaluate if other core analytical capabilities are needed
    1.6.3   ORED will continue to invest in the analytical facilities and ensure that the facilities have a sustainable business model, and
    1.6.4   ORED will secure an endowment to support core facilities.

1.7   ORED will work together with the Graduate School to develop programs and initiatives that support the mission of each.

1.8   ORED will, through the Office of Undergraduate Research, support significant expansion of undergraduate research, scholarship, and creative opportunities at UA with a concurrent increase in associated outcomes. ORED will secure an endowment for this initiative.

2.   ALABAMA RESEARCH INSTITUTES

Great research-intensive universities have strong university-wide institutes that serve to invite and coalesce faculty, staff and students from many different departments around a profound research topic or theme. Such institutes are a conduit for the university to address grand challenges and provide solutions and innovations to an extent not possible in its absence. The University of Alabama's existing (and future) research institutes serve as both signatures to distinguish UA and as an opportunity to maximize the impact of its research, scholarship, and creative activities through transformative cross-disciplinary initiatives. Strategic Theme 2, Alabama Research Institutes, has four Strategic Objectives, as follows:

2.1   ORED will invest in and grow the Alabama Research Institutes and evaluate their success. All Alabama Research Institutes will:

    2.1.1   Have full time Executive Directors and personnel that meet or exceed expectations

    2.1.2   Make existing discipline-related centers better and encourage effective collaboration between centers towards the expansion and development of new centers

    2.1.3   Have a sustainable business model

    2.1.4   Have sufficient space to execute their mission

    2.1.5   Be named and endowed

    2.1.6   Be evaluated at least annually on relevant criteria to ensure continued productivity and ability to facilitate and enhance university-wide research and impact, those not meeting the criteria will be sun-set.

2.2   ORED will expand the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) accredited small animal research space on campus to facilitate and significantly expand opportunities for life research.

2.3   ORED will shepherd cross-disciplinary foundational research, scholarship and creative initiatives that focus efforts on identifying, understanding, and solving problems related to rural and underserved communities.

2.4   ORED will develop a university wide process for proposing and establishing new Alabama Research Institute(s), as appropriate, and invest in their initial launch with new Executive Director(s) and personnel.

3. TRANSFORMATIVE INITIATIVES

Consistent with our Guiding Principles, transformative ideas and initiatives, as well as the quality and impact of those initiatives, will be the primary determinants for investments by ORED. ORED will fully evaluate potential investments through a constructive and transparent process using defined criteria. Investments in these initiatives will take the form of major financial investments as well as targeted pilot and seed programs, all of which will have clear expectations and delineated outcomes. Strategic Theme 3, Transformative Initiatives, has five Strategic Objectives, as follows:

3.1 Working collaboratively with campus stakeholders, ORED will routinely and fully evaluate the merits of investments in major research and creative initiatives, using the following criteria: transformative, cross-disciplinary, (pathway to) excellence, return on investment, and societal impact.

3.2 ORED will establish a program to support State-of-the-Art Research and Creativity Conferences on the UA campus that explore and promote new transformative initiatives, and will secure an endowment to support the program.

3.3 ORED will launch new pilot and seed funding programs to facilitate research, scholarship and creative initiatives particularly those that are cross-disciplinary and transformative.

3.4 In an effort to facilitate their success while working collaboratively with campus stakeholders, ORED will seed potentially transformative projects that develop mutually beneficial research, scholarship and creative activity partnerships with other research universities, both domestic and international.

3.5 ORED will establish an External Advisory Board and an Internal Advisory Board (comprised mainly of faculty) to counsel ORED on emerging transformative opportunities and on its progress in executing its Strategic Plan.

4.   TRANSLATING INTELLECTUAL PROPERTY

Consistent with the Research Mission of The University of Alabama and ORED's Mission, ORED must support and foster the initiatives and innovations of faculty, staff, and students. Such support includes, but is not limited to, translating their tangible intellectual property to achieve maximum economic and societal impact. Herein we refer to intellectual property broadly as creations of the mind including inventions, patentable material, socio-behavioral, literary and artistic works, as well as designs and models. As the University's research enterprise grows, the value of its intellectual property will likewise grow. The University's intellectual property should return resources to the University, and ORED will reinvest such resources into the research enterprise. The intellectual property will also serve as currency to engage with industry in development of partnerships for meaningful and impactful research. Strategic Theme 4, Translating Intellectual Property, has five Strategic Objectives, as follows:

4.1   ORED will develop criteria and processes to inform faculty and students if UA-developed intellectual property is more suitable for licensing or a start-up venture.

4.2   ORED will develop a proposal to revise and advocate for changes to the System-wide patent policy to be consistent with best practices regarding faculty consulting and intellectual property.

4.3   ORED will reimagine technology transfer at UA by identifying and securing a strategic outside organization that will work in partnership with the University to facilitate technology transfer on its behalf.

4.4   ORED will promote industry-sponsored projects at the University and remove uncertainty and financial concerns that surround such projects by developing and instituting a suite of licensing options consistent with best practices.

4.5   ORED will launch a new seed fund to facilitate intellectual property development and licensing, and will secure an endowment for the fund.

5. ECONOMIC AND BUSINESS ENGAGEMENT

Consistent with the Research Mission of The University of Alabama, ORED must facilitate and promote economic development. One of the critical assets of the University is our students. These students are the future workforce talent for our state, the nation, and the world. A focus of ORED will be to develop strong partnerships with external stakeholders, especially industry, with the dual goal to increase the number of sponsored projects and, at the same time, create career opportunities for UA students through these partnerships. ORED's ambition is for UA to become the 'go to' university for industry. We seek to accomplish this by developing policies and processes mutually beneficial to maintaining sustainable partnerships, and by collaboratively offering solutions to solve complex problems. Strategic Theme 5, Economic and Business Engagement, has eight Strategic Objectives, as follows:

5.1 ORED will establish a university-wide Economic Development Council (EDC), chaired by the Vice President for Research and Economic Development. The EDC will prioritize, coordinate and align university-wide initiatives and opportunities for all initiatives relating to economic development at UA except those directly relating to the academic mission or the research interests of faculty. ORED will contribute to the University's priorities and strategic goals on economic development.

5.2 ORED will establish an Office for Economic and Business Engagement (OEBE) within ORED and recruit an Associate Vice President to lead the office. The primary mission of the OEBE will be to engage with external partners to develop robust funded partnerships. This will include, but is not limited to, recruitment of Business Engagement personnel, one based at GulfQuest in Mobile to develop partnerships in south Alabama and others to do the same across the rest of the State.

5.3 OEBE will develop a plan to engage industry and other external partners around core research and service disciplines at UA and work closely with Division of Advancement to execute this plan with the primary goal to increase the number of externally funded projects leading to demonstrable impacts and outcomes.

5.4 ORED will identify and secure a strategic corporate partner and join Government-University-Industry Research Roundtable (GUIRR) with the shared goal to maintain a long-term mutually beneficial research and academic partnership. This partnership will serve as a model for other such partnerships.

5.5 ORED will develop strategies and external proposals to build regional and State capacity to translate innovations into career opportunities for UA students through industry partnerships or commercialization assistance to The University of Alabama innovators and entrepreneurs.

5.6 ORED will develop a Workforce and Talent Retention plan that aligns with Accelerate Alabama 2.0/3.0 and partner with key stakeholders (e.g., Chambers of Commerce, Development Authorities, Alabama Department of Commerce, and businesses) to increase the number and percentage of UA students remaining in the State after graduation.

5.7 ORED will obtain an endowment to support workforce development and talent retention of UA students and UA-based start-up companies in Alabama.

5.8 OEBE will ensure that the Bama Technology Incubator (BTI) meets or exceeds best practices as a university-based 'wet laboratory' incubator facility. BTI will work closely with The EDGE to develop mutually beneficial and synergistic programs.

6. ASSESSING PROGRESS AND IMPACT

With the motivation of continuous quality improvement, ORED will track and assess its progress and impact in achieving its Strategic Objectives. Data to support key metrics and outcomes must be reliable, valid, and readily available. The data should be qualitative and quantitative, and this data must reflect the impact and recognition of the University's research efforts on others (e.g., number of citations of University research publications, and the number of external honorific awards received by faculty). Strategic Theme 6, Assessing Progress and Impact has three Strategic Objectives, as follows:

6.1 ORED will routinely survey the University community to ensure it is meeting the needs of the community and continually improving.

6.2 ORED will track and assess both ORED's and the whole University's investment in research over the five-year period with the goal to more than double research awards (i.e., growing research awards by an annual average rate of 15% per year for the next five-years).

6.3 ORED will track and assess Key Research and Business Engagement Metrics and Outcomes, and make available to the campus recurring reports that indicate the University's progress in:

- Increasing the number of grants and contracts submitted

- Increasing the number of awarded grants and contracts

- Increasing the percentage of faculty involved in new and existing externally funded awards

- Increasing the number of graduate students supported by externally funded awards

- Increasing the total Research & Other Sponsored Project Awards

- Increasing overall R&D Expenditures (as defined by NSF HERD Table 21):
  - from the federal government
  - from state and local government
  - from business
  - from nonprofit organizations

- Increasing key outcomes for scholarly endeavors, namely:
  - number of juried exhibitions and performances by faculty
  - number of peer-reviewed publications by UA faculty
  - number of published books written or edited by UA faculty
  - number of citations of University publications
  - number of faculty who receive external honorific awards

- Increasing key outcomes for technology transfer, business engagement, and talent retention in the State, namely:
  - number of submitted invention disclosures
  - number of license agreements
  - annual revenue from license agreements will equal or exceed annual patent expenses
  - number of UA-based start-up companies in and graduating from the Bama Technology Incubator
  - demonstrable impact and outcomes to external partners and project sponsors
  - number and percentage of UA students remaining in the State after graduation