Franklin College of Arts and Sciences
UNIVERSITY OF GEORGIA

A Multidisciplinary Research Ecosystem within the Franklin College of Arts and Sciences – A Strategic Framework

Drafted on November 2024

Executive Summary

Franklin College invests in research and instruction to understand and improve the world. This is one of the core tenets of our mission and underpins our values. Grand challenges facing society as well as pace-setting innovation are inherently multidisciplinary and will require collaborative scholarship that erodes traditional disciplinary boundaries. Our research drives innovation, shapes public policy, and advances instructional excellence. At its core, the College has centered its research mission around:

- Cultivating a culture that supports faculty innovation and creativity.
- Developing and maintaining a state-of-the-art environment for research and scholarship
- Establishing and expanding interdisciplinary opportunities and strategic collaborative partnerships

The Franklin College of Arts and Sciences is a key contributor to research enterprise at the University of Georgia. It comprises elite faculty and students, knowledge generation, growing expenditures and a critical infrastructure base. With FY24 sponsored project expenditures approaching $90M, the College has identified opportunities for growth and a target of $100+M per annum over the next five years, while continuing to value original scholarship and creative inquiry that may not be externally funded. The College will be a catalyst in the shared goal of elevating the University of Georgia to Association of American Universities (AAU) membership status. Yet, its leadership fully understands that innovation, new capacity, and strategic "north stars" will be required to expand our research foundations.

The College is taking bold steps towards enabling and sustaining a dynamic multidisciplinary culture that should scale over time. To achieve this goal, a focused vision is required to optimally-hone our research capacity, needs, and opportunities. As an investment on this goal, Dean Anna Stenport inaugurated a new Associate Dean position focused on multidisciplinary research, scholarship, and partnerships.

A framework for strategic research priorities is presented and organized into the following themes: *(1) Emerging Multidisciplinary Enablers, (2) Expanded Federal Engagement (3) Foundation and Industry Strategies, (4) Infrastructure Needs, (5) Health, Data, and Society, and (6) Cross-Cutting Components.*

Tagline: Enable a sustainable, scalable, multidisciplinary collaboration ecosystem that aligns with FCAS and University strategic priorities.

Motivation and Goals

The Franklin College of Arts and Sciences (FCAS) invests in research and instruction to understand and improve the world. This is one of the core tenets of its mission and underpins its values. Grand challenges facing society as well as pace-setting innovation are inherently multidisciplinary and will require collaborative scholarship and creative inquiry that erodes traditional disciplinary boundaries. Research drives innovation, impacts public policy, and shapes instructional excellence. At its core, the College has centered its research mission around: (1) Cultivating a culture that supports faculty innovation and creativity, (2) Developing and maintaining a state-of-the-art environment for research and scholarship, and (3) Establishing more multidisciplinary opportunities and strategic collaborative partnerships.

FCAS sets the pace for record sponsored expenditures at UGA and exceeds institutional goals of increasing federally sponsored research expenditures but is taking bold steps towards enabling and sustaining a dynamic multidisciplinary research culture that should scale over time and accelerate growth. Multiple pathways of expertise and engagement have enabled this success. *However, a strategic framework is required to reshape and invigorate the FCAS research ecosystem. Implicit in this scalable framework is the assumption that faculty, students, and research staff are empowered to be multidisciplinary, innovative, entrepreneurial, team-oriented, and nimble.* If successful, transcendent pathways articulated in this document will shape how FCAS research enterprise evolves and prospers. Appendix A. details the process for developing our research framework.

Towards A Scalable, Sustainable Multidisciplinary Ecosystem

Kotter (2001) discussed reasons that transformative efforts fail. Of relevance here, *this document establishes a sense of urgency, provides a framework for a guiding coalition within the College, and communicates vision.* These strategies mitigate Kotter's initial four barriers for transformation. To achieve strategic goals, new paradigms will be required to increase research expenditures, stimulate team science, and forge new multidisciplinary collaborations. To move forward, three key components form the basis for "why" we seek to forge a new ecosystem for innovation, collaboration, and team science:

- Assessing the potential growth opportunities in research expenditures to support the *ecosystem*.
- Enhancing collaborations to advance a multidisciplinary research *ecosystem*.
- Nurturing an inclusive environment in which all forms of research, scholarship, and creative spanning our five divisions is valued and seamlessly integrated.
- Ensuring that students remain integral to the success of the ecosystem

As crafted, this framework empowers action, creates opportunities for quick "wins," consolidates an environment of sustained change, and encourages innovation. At the same, it is rooted in the understanding that graduate students, undergraduate research, and new intersecting frameworks

(e.g. vertically-integrated research projects) are critical contributors to the success of the enterprise.

Assessing potential growth in research expenditures: A key strategic objective of the University of Georgia is to receive an invitation to join the Association of American Universities (AAU). Membership indicators published by the AAU (2023) list four Phase I indicators:

1. Competitively funded federal research support.
2. Faculty awards, fellowships, and memberships (membership in the national academies is now included here).
3. Citations (Thomson Reuters InCitesTM citations database).
4. Books (book publications to represent scholarship beyond that found in journals - – especially in the fields of arts, humanities, and social sciences).

Phase II indicators include:

1. USDA, state, and industrial research funding,
2. Doctoral degrees awarded
3. Number of postdoctoral appointees

Sponsored research expenditures are of first-order significance not only to our institutional AAU objectives but the vibrancy of a multidisciplinary research ecosystem at the University of Georgia. In FY24, UGA exceeded $600M in sponsored research and development expenditures for the first time. Extramural research funding associated with FCAS is a significant contribution to UGA total expenditures (roughly 114.8M in FY24). FCAS has consistently produced the largest share of sponsored project expenditures at the university. Total expenditures (figure 1) have grown steadily over the past five years (FY20 to FY24). At the time of writing, total expenditures for FY25 were outpacing FY24 numbers by 4.5%.

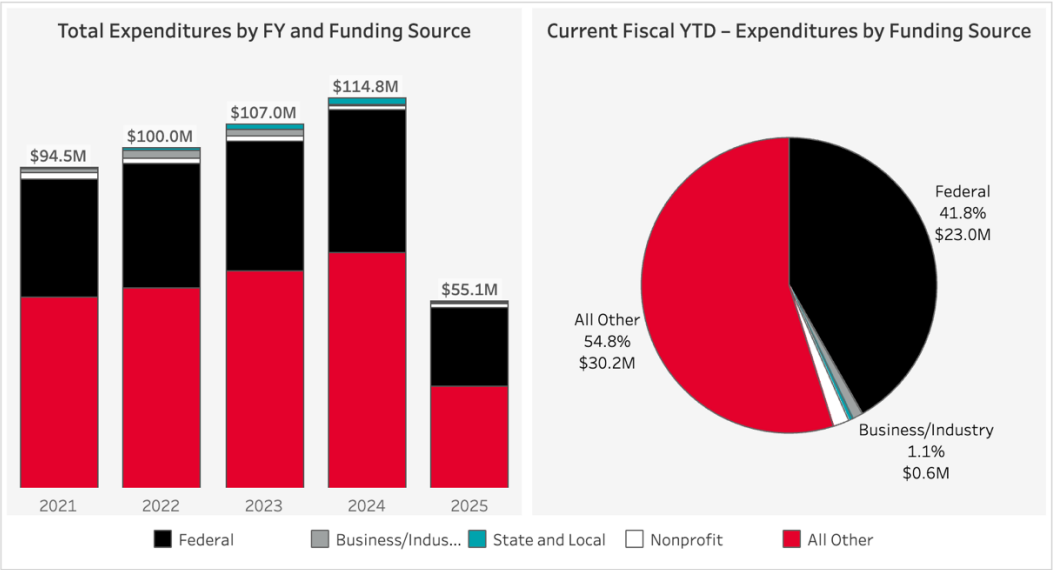


Figure 1: Total Expenditures.

FCAS' top sponsors by expenditures include the National Institutes of Health (NIH), National Science Foundation (NSF), and Department of Energy. In terms of federal sponsors, the top five contributors are NIH, NSF, DOE, DOD, and NASA (figure 2). Data from the Office of the Provost indicates that federal expenditures per faculty member fall below peer and aspirational institutions but is a critical metric for AAU consideration.

The data suggests there is potential growth in funding increments with our core funding like NSF and NIH as well as opportunities to nurture new growth opportunities in the Department of Energy, Department of Defense, NASA, NOAA, Foundations, and Industry. Our strategic guiding pillars, presented later in the document, are informed by these data along with existing and developing strengths within the college. *New growth opportunities in large team science, federal centers, entrepreneurial collaborations, and training grants are important because incremental PI-driven grants, though vital to the FCAS research portfolio, will not produce the type of accelerated expenditure growth targeted by the college and broader institution.*

The OoR charged FCAS to grow federally sponsored expenditures by $20M+ over the period FY22-FY27. The College has consistently exceeded annual targets, but the trajectory could be steeper given emerging capacity within the college. With this target, we strive to exceed $86M in federally sponsored expenditures by FY28 (figure 3) and $100M in Sponsored Projects Expenditures, respectively. This will only be achieved through growth in proposed amounts, increments, and awarded totals accelerated through innovation, entrepreneurial instincts, and large-multidisciplinary teams.

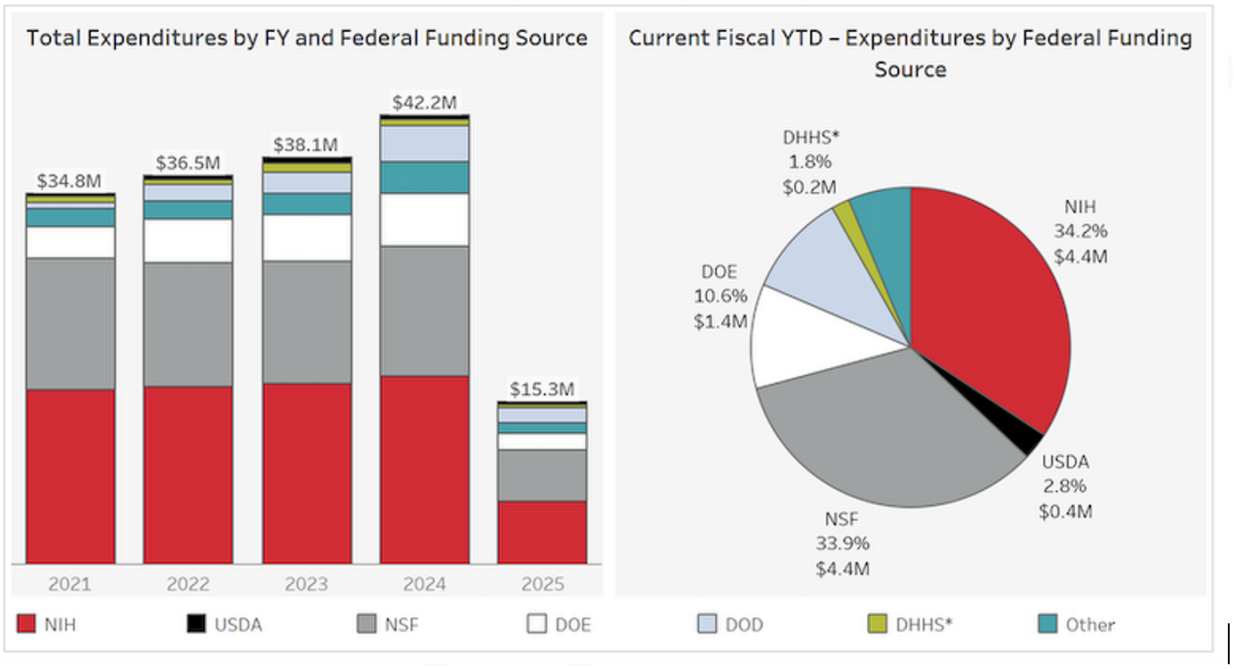


Figure 2: Total expenditures by funding source.

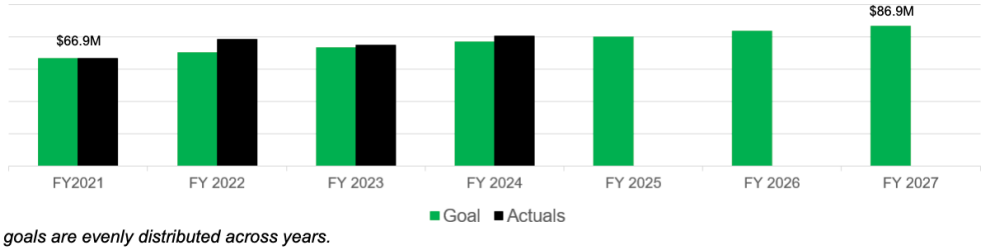
While research expenditures are clear metrics for the institution and AAU indicators, other measures of success will also be assessed:

- Growth in federally funded centers, training grants, and research experiences for undergraduates (REUs).
- Sustained funding from emerging sponsors included DoD, Department of Education, NIST, NOAA, and Foundations.
- A research ecosystem that leverages teams existing and new forms of employment categories that might include research scientists, clinical faculty with significant research responsibilities. post-doctoral scholars, and self-sustaining funding models.
- Corporate or private research funding models.
- IP, copyright and other agreements.
- Scholarly output and creative inquiry (e.g., books, plays, compositions, and significant artistic contributions) that is not anchored to federal competitive funding models.

Federally Sponsored Expenditures Goal: +$20M*

For Franklin College of Arts & Sciences

	Baseline: FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Annual Goal	$66,882,337	$70,215,671	$73,549,004	$76,882,337	$80,215,670	$83,549,004	$86,882,337
Actual Expenditures	$66,882,337	$78,717,453	$74,741,799	$80,769,218			
Variance	$0	$8,501,782	$1,192,795	$3,886,881			



**Expenditure goals are evenly distributed across years.*

Figure 3: Federal sponsored expenditures.

Enhancing collaborations to advance a multidisciplinary research ecosystem: FCAS is inherently constructed, since its inception, to spur collaborations that blur or break disciplinary boundaries. For example, our proposed effort to the National Endowment for Humanities would evaluate, curate, and communicate data to develop and model ethical forms of engagement with AI, through an interlocking and interdisciplinary suite of consulting services, educational resources, and research projects. It also enables collaborative practices that will interrogate and rebuild AI as part of the system of relations we comprise collectively.

To further advance forward-thinking scholarships and partnerships, new strategies, cultures, and best practices will be needed to augment (not replace) the current ecosystem. Ideas that emerged from a 2024 Academic Leadership Retreat (Stenport, personal communication, 2024) include:

- Scaling operations through research scientists, jointly appointed faculty, and other innovative appointments, which can include large training grants for doctoral students.
- Vertically integrated research teams - Teams of undergraduate research students from different disciplines working under the guidance of grad students and postdocs who are mentored by faculty. Integrative research in health sciences and other disciplinary areas.
- Fostering a culture of collaboration, which may include how to engage faculty whose research agendas have stalled, the role of endowed professors in fostering collaboration, and (perceived) barriers to collaboration.
- International collaboration through the development of strategic partnerships and agreements.
- Visionary and distributed leadership and faculty development to elevate our culture and ecosystem.
- Improve the quality of our doctoral programs through academic innovation and new paradigms (e.g. *The New PhD)*.
- Leverage external resources such as the National Center for Faculty Development and Diversity to support a strong research and scholarship culture.

Nurturing an inclusive environment in which all forms of research and scholarship spanning our five divisions is valued and seamlessly integrated. The strength of FCAS is that it embraces its position as "the" arts and sciences hub within a major research institution. While many peer or aspirational trends involve disaggregation of the arts, humanities, and sciences, we fundamentally recognize that the grand challenges and wicked problems facing society must be considered from a convergent perspective, with varied approaches, and inclusive scholarship.

The emerging FCAS research ecosystem will include mechanisms to foster collaborative interactions, build disciplinary-inclusive teams, and recognize scholarship in more expansive ways. While acknowledging that independent and narrowly focused expertise is also essential to a vibrant research community, FCAS will boldly seek ways to blur lines, break down silos, and expand how our community of scholars is exposed or rewarded. This commitment will also be manifested through a broader expansion of recognized scholarly productivity. Research expenditures are highly valued, but scholarly publications, books, invited lectures, media placement or appearances, and major awards will also be emphasized and celebrated. Our faculty are routinely recognized with honors like prestigious Guggenheim and Fulbright Fellowships, NSF CAREER grants, and similar distinctions. Franklin faculty also maintain leadership roles in professional organizations and academic journals as well as federal extramural awards across the breadth of scientific and scholarly investigation, and international prizes and professional awards. FCAS currently seats 3 members of the National Academy of Sciences, 4 members of the American Academy of Arts and Sciences, and 1 member of the National Academy of Engineering.

The Six Pillars of Implementation

With this context and charge, the following six pillars provide a framework to achieve our transformational objectives for our multidisciplinary research ecosystem.
Every single thread of scholarship within the FCAS is significant and contributes to the instructional, research and/or service mission of the University. However, several strategic

themes have emerged that have the potential to catalyze growth in multidisciplinary research expenditures and team science. These include but are not limited to health bioinformatics, drug discovery, neuroscience/aging, data science/AI, materials, biofuels, environmental sustainability/climate, space technology, gaming/graphics arts, synthetic biology, risk and film. This document lays out "why and how" in six pillars. A *Rationale* statement is presented along with a set of *Implementation Strategies. A performance metric plan is also linked to each pillar.*

Pillar 1: Emerging Multidisciplinary Enablers

1.1 The establishment of a Franklin Research Innovation Office in 2024

Rationale: The new Research Innovation Office (RIO) parallels the Academic Innovation Office (AIO). These two offices work thematically and crosscut the entire college, with distinct purpose, objective, aims, and goals to advance our core priorities.

Implementation Strategy: Under Dean Stenport's tenure, this office was established with the onboarding of a new Associate Dean for Research, Scholarship, and Partnership. The ADRSP established the RIO, which works collaboratively with the AIO.

1.2 Multidisciplinary Seed Grants

Rationale: The Franklin College of Arts and Sciences has established two new opportunities for its faculty to tackle complex topics by collaborating across disciplines in research and teaching and in the process engaging with students, scholars, stakeholders, and decision-makers. The development of this new program responds to the need for new paradigms that shape future research, life-long learning, public discourse, service and dynamic entrepreneurship. It also positions Franklin College to develop transcendent pathways at the forefront of research and instruction. The program is partitioned into two tracks: Rapid Interdisciplinary Proposals (RIP) and Innovation in Interdisciplinary Instruction (I-Cubed).

Implementation Strategy: The RIP program seeks annually to accelerate new or existing interdisciplinary projects within the College. It is designed to augment and complement existing institutional seed grant efforts and is intended to foster rapid idea generation, data collection, or team building. RIP grants should lead to pursuit of external research funding and/or other forms of external support or recognition within 6 months of funding. The I-Cubed Program seeks to enable faculty to collaborate on cross-disciplinary course development. Pairs of faculty members, representing two different disciplines per pair, will spend an AY developing two new courses or substantially revised courses, then teach them in the following academic year. Collaborations are particularly encouraged that cross the five conventional divisions in the college (that is, arts, humanities, social and behavioral sciences, mathematical and physical sciences, and biological sciences). Honors course development or vertically integrated projects, and research (VIPR) are also desired. Funding is provided by Excellence Funds in partnership with the FCAS Development Office.

1.3 Opportunistic Funding Mechanisms

Rationale: Periodically, the Office of the President, Office of Research, and other institutional stakeholders issue seed grant opportunities. FCAS researchers submit worthy proposals that often do not make the funding cutoff line. FCAS has developed a "Second Chance" Funding Program to fund a subset of unsuccessful proposals submitted by college principal investigators (PIs).

Implementation Strategy: The College assembles a review committee to review unfunded proposals rated just below the cut line for programs such as the Presidential Interdisciplinary See Grant program. After a rubric-based evaluation, proposals are rated and selected based on available funding.

1.4 Incubation of "Big Ideas" and Multidisciplinary Research Teams

Rationale: Mechanisms for improving the research "process" are important, but "big idea" thinking is also necessary to address the grand challenges and pursue innovative scholarly inquiries. "Sabbatical voids" and robust instructional requirements of faculty limit the ability to think and nurture innovative or unconventional ideas. Additionally, large team proposal support within OoR is an excellent service but is currently limited and highly leveraged. New tools are needed to incubate novel or fledgling research vectors and to support development

Implementation: (1) Implement research-intensive system (RIS) to stimulate collaborative research or instructional opportunities - To catalyze multidisciplinary partnerships, the RIS might spur opportunities, joint meetings, ideation, or dissemination. Incentivize study-in-a-second discipline (SISD) programs within P/T metrics or financial bonuses. Create new intra-semester (4 week) "visiting" faculty rotations through each of the FCAS divisions. (2) Develop an intra-college "think tank" organizational strategy to rapidly develop large team collaboratives across the college. These "Franklin Think Tanks" or FTTs will build upon and expand strengths in core topical areas that might include but are not limited to artificial intelligence, space, climate/sustainability, materials, risk, strategic languages, synthetic biology, data science and visualization, gaming and drug discovery. Each FTT will be comprised of 5 to 8 members and will be organized to identify:

- Institutional expertise
- Gaps and needs
- Emerging Opportunities
- Collective Resources

FCAS will also provide a template with guidelines for catalyzing the FTT operations and establishing potential "north stars." (3) Enable support for large team collaborations through new proposal development staff capacity.

1.5 Organizational Optimization for Multidisciplinary Collaborations

Rationale: University organizations tend to centralize, over time, into narrower and smaller disciplinary units. Yet, units larger than Departments or Institutes can represent an organizing principle for stimulating multidisciplinary collaborations and learning that would not happen organically due to existing barriers (see Anderson and Crow 2022).

Schools can also promote more instructional and resource options for students and optimized resource allocation or disbursement. Schools can also enable a stronger collective voice in institutional discussions related to research, instructional, and resource related issues.

Implementation Strategy: Schools are not new to the College (e.g. School of Music, Lamar Dodd School of Arts, School of Computing). FCAS has engaged in some high-level visioning and discussions about the strengths, weaknesses, opportunities, and threats (SWOT) associated with expanding its "Schools" concept to certain divisional units. While these concepts do not originate from this framework, a "prototype" process for starting schools within FCAS is needed to facilitate research-scalable actions. These might include focus groups, listening sessions, strategic planning, and resource planning.

1.6 Distributed Research Clusters with Research Scientist Models

Rationale: Research clusters inherently promote cross collaboration, team science, and engagement. When populated with entrepreneurial research scientists, such an ecosystem can substantially grow research awards, expenditures, and team science while also reducing pressures on the FCAS budget.

Implementation: The College envisions a scalable research ecosystem emerging from strategic cluster hiring in areas having significant potential for attracting extramural research dollars, including from the Department of Defense and industry, where the Isakson chair for Parkinson's research is the proposed model. The College will also organize more of its retirement/separation hiring in internal cluster hiring to strengthen multidisciplinary collaboration and scale the research ecosystem. Using a hierarchical approach anchored with collectives of senior scholars and research scientists (under step-down salary commitments), both multidisciplinary research expenditure growth and long-term cost savings are possible.

1.7 Leveraging Vertically Integrated Research Projects (VIPR)

Rationale: Vertically Integrated Projects (VIPR) at UGA aligns with existing national models that enables collaborative, interdisciplinary research teams comprised of faculty mentors, undergraduate students, and other team science members including postdoctoral researchers, graduate students, and staff scientists. VIPR projects shift the paradigm away from isolated, short-term projects by immersing students in sustainable, interdisciplinary projects through synergistic instructional and research frameworks.

Implementation Strategy: Outreach and marketing of UGA VIPR program. New incentives for engagement by faculty and students. Engagement through FCAS-CURO partnerships.

1.8 Modification of Authorization, Promotion, Tenure, and Position Description Language

Rationale: Currently very few units within FCAS have specific language acknowledging or incentivizing multidisciplinary scholarship or collaborations. As such, many faculty do not feel empowered or encouraged to engage in such collaborative scholarship.

Traditional narratives around achieving promotion and/or tenure (P/T) through siloed, independent, or limited engagement can shape scholarly trajectories. We also encourage all units to include applied outcomes into their descriptions – patents, tech transfer, startups, licenses, etc. The breadth of FCAS is a significant strength, but that attribute carries disciplinary inertia which inhibits aspirations of multidisciplinary or team research.

Implementation Strategy: A systematic review of P/T requirements, authorization notices and position description language are required to identify meaningful ways to incorporate multidisciplinary-inclusive and applied outcome-language, perhaps in a standard format.

1.9 IDC Modifications

Rationale: Indirect costs (IDC) are important revenue streams for FCAS activities at the unit and college level. This revenue has been traditionally used to address start-up costs, unit operations, and other operational needs. Under new IDC scenarios, revenue recovery at the college level could serve as a stimulus for multidisciplinary collaborations and research.

Implementation Strategy: A modification of research buy-outs and IDC distribution policies internally would create revenue streams for the College. Such new streams can provide funds to support multidisciplinary seed grant initiatives and a mid-career faculty supplement that ideally would spur growth in additional IDC by seeding innovative research ideas, and preemptively address retention concerns, which leads to downstream cost-savings.

1.10 Creation of Spaces for Interaction and Ideation Around Grand Challenges

Rationale: One of the most significant barriers to innovative, multidisciplinary collaborations in a college like FCAS is communication. Legacy organization structures within universities often hinder vital conversations and interactions that lead to new collaborations. Formal and informal spaces for interaction and idea generation have been documented to seed ideas and collaboration. College leaders have specifically identified the need for mechanisms and spaces to coalesce around big questions, grand challenges, ideas or themes.

Implementation Strategy: Establish common “physical” or “virtual” spaces for conversations, engagement and collaborative incubation (e.g., a faculty lounge or meeting space). Such spaces could also be useful for fostering collaborative or Franklin community activities such recurring lunches, brown bags, research slams, and mixers. The Faculty Advisory Committee is a good model for how to move forward with some of these ideas. Enable potential faculty internships within existing institutions like IRIS, ICON, N-EWN, Wilson Center, School of Arts, and so forth. This “hybrid faculty intern or immersive program” could lead to increased engagement and future seed or mature research initiatives across disciplines. W

1.11 FCAS “Accelerator” for Multidisciplinary AI Concepts and Collaborations

Rationale: Franklin College of Arts and Sciences (FCAS) is the "heart" of UGA's liberal arts and learning environment. The heart is the central feature of a circulatory system. In recent months, an array of Artificial Intelligence activity has emerged and is "circulating" through various pathways at the University of Georgia and within the college. FCAS co-administers (with the OoP) the Institute for Artificial Intelligence (IAI), an interdepartmental research and instructional unit that offers three-degree programs: Doctor of Philosophy in Artificial Intelligence, Master of Science in Artificial Intelligence, and Bachelor of Arts in Cognitive Science. The unit also has a new AI Certificate under development. Because IAI is inherently multidisciplinary, it is a natural hub for connecting AI to the arts, humanities, and broader sciences while also forging new questions about what data means in the 21st Century and for innovative and collaborative research across our five divisions. Under the guidance of FCAS and OoP IAI has been reimagined as an organ of innovation and forward-leaning scholarship.

Implementation Strategy: We envision an "accelerator or incubator" function within FCAS to fundamentally move interdisciplinary AI research, training, and applications to the boundaries of contemporary institutional perspectives. Working closely with the IAI leadership and faculty, we see the accelerator as:

- An integration hub for idea generation, community building, rapid grant response, and teambuilding.
- Scalable to integrate emerging capacity in data visualization, gaming, ethics, cognitive science, humanities, AI, IOB, and more.
- Connected to the Institute for AI, Doctoral programs, Innovation Funds, Post-Doctoral Programs.
- Adaptable, dynamic, flexible. Should not be a static academic institution. Program term limits, rapid funding cycles, etc.
- Modeled on DARP-A, ARPE-E programs in philosophy.

Performance Metric Matrix

A: % growth in research expenditures
B: % growth in federal expenditures
C: % growth in large team proposal submissions
D: % growth in research faculty and/or scientists
E: % growth in research expenditures by tenured faculty
F: % growth in undergraduate students involved in research
G: # of new collaborative courses
H: # of publications in multidisciplinary journals, books, recordings, artistic presentations
I: # of new industry-funded grants
J: # of new corporate engagements
K: # of new foundation-funded grants
L: # of new IP or copyright agreements

Emerging Multidisciplinary Enablers	Metrics
1.2 Multidisciplinary Seed Grants	A, B, C, D, E, G, H, I, J, K, L
1.3 Opportunistic Funding Mechanisms	A, B, C, D, E, H, I, J, K, L
1.4 Incubation of "Big Ideas" and Multidisciplinary Research Teams	A, B, C, E, H, I, J, K
1.5 Restructuring Units For Optimization of Multidisciplinary Collaborations	A, B, C, E, F
1.6 Distributed Research Clusters with Research Scientist Models	A, B, E, H
1.7 Leveraging Vertically Integrated Research Projects (VIPR)	A, B, C, F, H
1.8 Modification of Authorization, Promotion, Tenure, and Position Description Language	A, B, C, E

1.9 IDC Modifications	A, B, C, E
1.10 Creation of Spaces for Interaction and Ideation Around Grand Challenges	A, B, C, D, E, G, H, I, J, K, L
1.11 FCAS "Accelerator" for Multidisciplinary AI Concepts and Collaborations	A, B, C, D, E, F, G, H, I, J, K, L

Pillar 2: Expanding Federal Engagement

2.1 Investment in the UGA Research Institute (UGARI)

Rationale: Federal expenditures are key metrics for AAU membership. Sponsored research expenditures from the federal sector continue to grow and outpace OoR target goals. Funding from the Department of Energy, Department of Defense, and other sources have increased in FY23 and FY234, but there is room for additional growth with respect to these federal funding sources. In 2022, FCAS helped seed the UGA Research Institute (UGARI), which was established to develop and grow UGA's applied research partnerships with specific mission U.S. agencies.

Implementation Strategy: FCAS along with the College of Engineering and the School of Public and International Affairs (SPIA) have collectively invested significantly in the formation of the UGA Research Institute. Our expectation is that the UGARI leadership team and affiliated research scientists will engage with FCAS scholars in a sustained manner to cultivate competitive research teams for DoD and DoE centers, large grants, and contracts. FCAS will also continue to leverage UGARI's relationships with Command Strategies and other consultancies for increased exposure to DoD funding opportunities and access to relevant stakeholders.

2.2 Enhanced Washington D.C. Engagement

Rationale: Most federal funding originates in Washington D.C. Many federal sponsors are based in that area, and their funding profiles are shaped by federal policy. FCAS is advocating for expanded engagement by the College and institution to optimize interactions with these important stakeholders.

Implementation Strategy: Develop a strong relationship with our new Federal Relations Officer and a communications strategy for the WDC-based team so that they can begin to get to know Franklin assets. Explore an additional Washington D.C.-based (WDB) presence to provide access to current and emerging information from federal agencies on new programs, priorities, and funding profiles. This position could be formulated as a state-supported position or through a consulting firm relationship. In 2024, the Deans submitted a memo to the OoP requesting such a position to augment ongoing engagement provided by the Office of Government Affairs. In 2024, FCAS also implemented a new "Ask A Program Manager" initiative to bring federal program managers and sponsors to Athens (in person or virtually) to engage with faculty. In FY24, program managers or stakeholders from NSF and DoE engaged with our faculty, and we expect further expansion in forthcoming years.

2.3 Strategic and Proactive Faculty Engagement

Rationale: Many federal grant opportunities have very specific objectives or target audiences, which creates opportunities for strategic and targeted engagement with certain activities. There are opportunities to pilot proactive support.

Implementation Strategy: Working with REST, FCAS has piloted a strategic approach with the NSF CAREER grant program. A set of best practices is compiled and distributed to CAREER-eligible faculty by the Associate Dean for Research. Lessons learned and success metrics will inform other targeted efforts. Franklin and Office of Research proposal development teams will also be critical components here for seeding new multidisciplinary collaborations sponsored by federal partners.

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Expanding Federal Engagement	Metrics
2.1 Investment in the UGA Research Institute (UGARI)	A, B, C, D, E, I, L
2.2 Enhanced Washington D.C. Engagement	A, B,
2.3 Strategic and Proactive Faculty Engagement	A, B, C, D, E, I

Pillar 3: Optimization of Foundation and Industry Interactions

3.1 Increased Philanthropy for Multidisciplinary Collaborations and Doctoral Education

Rationale: Franklin College is uniquely constructed to tackle an array of convergent research questions and societally relevant topics and demand from multidisciplinary teams outpaces available funding, but such teams can rapidly grow large team projects and collaborations. Foundation funding represents an under-tapped source of sponsorship for the college.

Implementation Strategy: Strengthen the support for endowed professorships, faculty research support, and the doctoral education ecosystem, which, taken together, ensure strong recruitment, retention, and success of exceptional individuals. Strengthening support for doctoral education, as a critical piece of the research environment, is a priority for philanthropy Additionally, the College will leverage funds from the Franklin College Excellence/Innovations Fund to award and seed collaborative research across the college enhancing our appeal for support of the college discretionary fund. Further,

proactive engagement will be utilized to enhance research funding from Foundations, especially in STEM- and Social/Behavioral fields.

3.2 Increased Industry Interactions to Support Multidisciplinary Engagement

Rationale: Industry sponsored research is an additional untapped avenue for enhanced FCAS research expenditures.

Implementation Strategy: We are standing up faculty committees across the college's divisions to provide guidance and feedback such that we may support and enhance the FCAS industry engagement ecosystem. Starting with the division of life sciences and SoC, we aim to build strong collaborative partnerships between our faculty and our Innovation District and Office of Business Engagement, with the goal of positioning FCAS faculty to take full advantage of industry engagement opportunities.

3.3 Innovation Fellows Program

Rationale: Effective industry engagement should be multi-faceted and co-produced in collaboration with the OBE, faculty, students, alumni, and industry scholars. The FCAS Development Office has proposed an ambitious and innovative program aimed at growing a culture of innovation.

Implementation Strategy: Using multiple pathways, the program provides convergence for faculty, students, corporate partners, and alumni. Mechanisms include modernized curriculum, mentorship, funding, and immersive experiences.

3.4 Building Relationships

Rationale: FCAS recognizes the challenges and opportunities associated with growing industry engagement. While critical to our success profile, strategic and tactical thinking is required to develop pathways, engagement, and protocols for how we interact.

Implementation Strategy: Workshops on matchmaking and best practices for communicating with foundations and companies (e.g. facilitated by FCAS Development and/or Office of Business Engagement). Best practices tip sheets. Strategic partnerships with new FCAS Marketing and Communication office.

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L: # of new IP or copyright agreements

Optimization of Foundation and Industry Interactions	Metrics
3.1 Increased Philanthropy for Multidisciplinary Collaborations and Doctoral Education	A, B, C, D, E, G, H, I, J, K, L
3.2 Increased Industry Interactions to Support Multidisciplinary Engagement	A, B, C, D, E
3.3 Innovation Fellows Program	A, B, C, D, E, H, I, J, K, L
3.4 Building Relationships	A, B, C, E, F, I, J, K, L

Pillar 4: Infrastructure Innovations

4.1 Infrastructure engagement and advances

Rationale: A world-class research ecosystem within FCAS requires stable, sustained, and emergent infrastructure. Although recently completed and ongoing capital projects are expected to significantly enhance research in the physical and life sciences, the current research infrastructure, both physical and administrative, still needs attention.

Implementation Strategy: The I-STEM Phase I & II facilities have addressed the research infrastructure needs of the Department of Chemistry and have enabled the first phases of the Science and Ag Hill Modernization (SAHM) project, the first of which was completed in May of 2024. Renovations to the Biological Sciences and Chemistry buildings are addressing long-standing problems with the deferred maintenance of critical research infrastructure assigned to the departments of Microbiology and Cellular Biology. Modern facilities resulting from the STEM and SAHM projects are expected to positively contribute to faculty and graduate student recruitment, thereby contributing to growth in research expenditures. Critical facilities that still need significant attention include the Davison Life Sciences and the Miller Plant Sciences buildings. These research facilities house faculty in the life sciences whose programs represent a significant fraction of FCAS total research expenditures. The college is also poised to lead the re-orientation of the Georgia Museum of Natural History toward a research and academic focus under the leadership of our AD for Facilities and Infrastructure and in collaboration with the Office of the Provost.

Pertaining to research IT infrastructure, the college annually funds two initiatives that assist researchers implement technology in support of their projects, campus server space and cloud hosting services. Researchers leverage these services to ensure better outcomes in their research and protections of their systems and data. Investment at this level also allows grant funding to be targeted and resulting in greater benefits to the individual researcher through lowering the barriers to entry and use of these services. Franklin OIT provides additional cost-recovery services to researchers whose needs exceed the existing services or solutions readily available on-campus or through partnerships. Franklin OIT is also exploring partnerships and ways of handling the new Federal compliance challenges as created by Controlled Unclassified Information (CUI), which significantly increases the costs and complexity of performing research for Federal agencies such as the Department of Defense under the Defense Industrial Base. Additional efforts are currently underway in conjunction with the UGA Office of Research to identify staffing and management resources to assist researchers in these areas.

Challenges in research facilities, infrastructure, and technology include the compliance requirements as they pertain to research grants with federal agencies. The continued

implementation and enforcement of the federal compliance criteria have significantly increased the costs and complexity around data collection, storage, and processing that require bespoke facilities and services to meet those requirements, initial and ongoing compliance and certification by third parties, and consumption operational costs. Existing campus infrastructure and computing services cannot meet the current NIST compliance standards required by the Department of Defense and an increasing number of other federal granting agencies. The annual costs for working with data and materials marked as Controlled Unclassified Information (CUI) can range from $20,000 to over $200,000 for instances requiring high-performance computing, such as training AI models. In addition to these operating costs, specialty secure campus facilities and infrastructure, annual training, and annual or tri-annual third-party re-certification of compliance are all costs which are deferred to the Prime or PIs and subsequently the college and departments. In the short-term, an avenue for post-award projects to obtain gap or matched central funding and access to compliance expertise will support the research initiatives and offset these costs. The longer-term need is for targeted investment into secure facilities and resources, such as consultants or on-campus compliance and implementation expertise, which will provide better guidance to researchers on being inclusive of the full costs into their proposals for funding. These activities will be led by the Office of Research in close collaboration with the Franklin College.

In addition, a number of the buildings housing the humanities and social sciences, are in dire need of renovations. The decrepit state of several Franklin buildings is negatively affecting faculty morale and graduate student recruitment.

4.2 Proposal Development Support

Rationale: Administrative barriers to large, multidisciplinary proposal development are often associated with data collection and coordination of faculty investigator teams. Support is offered by the Office of Research; however, capacity is limited within their proposal enhancement office.

Implementation strategy: The Franklin College Dean's office established the Research Enterprise Support Team (REST) as part of the college's shared business services model (Franklin Works). Existing processes and paradigms with OoR and new personnel within REST can support large proposal *development* and augment multidisciplinary research capacity. Full-service project management of large multidisciplinary proposals can be achieved via a partnership between REST and OoR's Office of Proposal Enhancement (OPE). OPE's "Large Proposal Project Management" program provides a readily available framework to support Franklin faculty PIs with the entire proposal development process, through the setting up of initial planning meetings to the final editing of narratives and budgets (https://research.uga.edu/proposal-enhancement/large-proposal-project-management/). Through additional hires within REST and close collaboration with OoR OPE, we aim to expand proposal development capacity for Franklin PIs.

Performance Metric Matrix

A: % growth in research expenditures
B: % growth in federal expenditures

C: % growth in large team proposal submissions
D: % growth in research faculty and/or scientists
E: % growth in research expenditures by tenured faculty
F: % growth in undergraduate students involved in research
G: # of new collaborative courses
H: # of publications in multidisciplinary journals, books, recordings, artistic presentations
I: # of new industry-funded grants
J: # of new corporate engagements
K: # of new foundation-funded grants
L: # of new IP or copyright agreements

Infrastructure Innovations	Metrics
4.1 Infrastructure engagement and advances	A, B, C, D, E, G, H, I, J, K, L
4.2 Proposal Enhancement Office	A, B, C, D, E, G, H, I, J, K, L

Pillar 5: Health, Data, and Society

5.1 Partnership with the UGA Precision One Health Initiative

Rationale: There are numerous health related initiatives at UGA, and they will be leveraged in support of the School of Medicine. FCAS has significant strengths in the life sciences, IAI, School of Computing, humanities, social-behavioral sciences, music, and the arts that will add capacity and complementary strength. Additionally, UGA has established the Precision One Health Initiative, of which several FCAS faculty are affiliates. Its website states, "Precision One Health is committed to studying the intricate connections among genetics, the environment, and lifestyle factors and their effects on disease prevention and treatment." The mission is binned by aggregation into four essential Research Cores: Translational Medicine, Systems Modeling and Data Analytics, Epidemiology and Disease Ecology, and Social Sciences and Medicine.

Implementation Strategy: FCAS faculty are encouraged to become affiliated faculty members in one of the Core areas and engage in broader POH faculty meetings. FCAS has also established a liaison (i.e., the Associate Dean for Research) to POH to facilitate richer engagement and to ensure that the expansive expertise of the College in biological sciences, AI/data science, social-behavioral sciences, art, and humanities are represented.

5.2 Collaborative Partnership with Morehouse School of Medicine

Rationale: FCAS is keenly interested in expanding multidisciplinary collaborations and instructional access for students at Historically Black Colleges/Universities (HBCUs) and other minority serving institutions (MSIs). An emerging partnership with the Morehouse School of Medicine Morehouse School of Medicine Novartis Beacon of Hope Center of Excellence on Climate and Environmental allows for cross-sharing of expertise, instructional capacity, and research.

Implementation Strategy: We will develop a formal MOU to establish instructional relations, adjunct/visiting scholar arrangements, and research collaborations. The partnership is envisioned to be a two-way interaction with co-production of ideas, teaching, and research.

5.3 Engagement in National Academy of Medicine Climate Collaborative

Rationale: The National Academy of Medicine is in partnership with the Medical Society Consortium on Climate and Health. The initiative explores engagement, collaboration, outreach, and research at the intersections of medicine, climate, equity, and society. The **National Academy of Medicine's Climate Collaborative** has been launched to accelerate the n national climate and health movement.

Implementation Strategy: FCAS has relevant expertise across several divisions. Initial meetings and queries between NAMCC and FCAS have been initialized, and the College is working to understand what shape meaningful engagement takes.

5.4 Broadening Pedagogical Collaborations

Rationale: Pedagogical innovation is critical for any new medical school and FCAS has the capacity to lead in this space. Knowledge sharing and integrated instruction will be critical to the success of our program and the medical school. Institutional training grants are mechanisms to train predoctoral and postdoctoral scholars while stimulating collaborations and engagement at the intersections of various disciplines.

Implementation Strategy: T32 NIH (National Institutes of Health) training grant opportunities are key targets for our strategy.

5.4 AI and Data Science Innovation

Rationale: UGA's broadly reimagined AI presence and the Institute for Artificial Intelligence create a structure for engaging critical questions in the context of the School of Medicine. How will medical data analytics evolve, and how can UGA/FCAS lead in this space, drawing on the Hugh Hodgson School of Computing, Data Science hires, and the Institute of Artificial Intelligence strengths?[1] With the emergence of biomedical AI, how will BiomedGPT interpret reports and contribute to diagnoses?

Implementation Strategies: Topical expertise in data science, generalist AI, and bioinformatics can be leveraged for UGA and potential partners to support the medical school and generate significant extramural funding. FCAS faculty are also fully engaged in the data science/informatics core of the Precision One Health Initiative and various corporate collaborations associated with medical research.

5.5 Arts and Humanities Within A Health Framework

Rationale: FCAS is exploring several topics which pertain to Humanities and Arts in relation to medicine and health. While some medical humanities programs at AAU schools have faculty housed within the School of Medicine, it's more typical to draw on

[1] Duke, for example, has the Duke Center for Health Informatics In addition, that university has the well-developed Duke Clinical Research Institute, which supports the med school and also brings in significant research dollars.

existing strengths within established humanities and arts departments.[2] In FCAS we can draw on faculty who specialize in bioethics or medical ethics (Philosophy), the history of medicine (History), and the literature of medicine (English and Comp Lit). The ACTR program in theater currently works with the Colleges of Pharmacy and Veterinary Medicine to train simulated patients and clients for professional examination modules. Health Communications and medical terminology courses in Classics, and language courses that prepare pre-med students to operate in bilingual environments are other areas of potential collaboration. Practical programs also include medical illustration in Lamar Dodd, along with Music, Art, and Dance therapy.

Implementation Strategy: FCAS is actively engaged in School of Medicine onboarding discussions and will continue to document its capacity. Members of its faculty are also affiliated with the Precision One Health Initiative (5.1). Key instructional faculty, researchers, and eminent scholars will likely be co-housed in FCAS.

Performance Metric Matrix

A: % growth in research expenditures
B: % growth in federal expenditures
C: % growth in large team proposal submissions
D: % growth in research faculty and/or scientists
E: % growth in research expenditures by tenured faculty
F: % growth in undergraduate students involved in research
G: # of new collaborative courses
H: # of publications in multidisciplinary journals, books, recordings, artistic presentations
I: # of new industry-funded grants
J: # of new corporate engagements
K: # of new foundation-funded grants
L: # of new IP or copyright agreements

Health, Data, and Society	Metrics
5.1 Partnership with the UGA Precision One Health Initiative	A, B, C, E, H, I
5.2 Collaborative Partnership with Morehouse School of Medicine	A, B, C, E, H, I, J, K, L
5.3 Engagement in National Academy of Medicine Climate Collaborative	A, B, C, E, H, I, J, K, L
5.4 Broadening Pedagogical Collaborations	A, B, C, D, F
5.5 Arts and Humanities Within A Health Framework	A, B, C, D, E, H, K
5.6 FCAS "Accelerator" for Multidisciplinary AI Concepts and Collaborations	A, B, C, D, E, F, G, H, I, J, K, L

Pillar 6: Cross-Cutting Components.

Rationale: The new developments in, and enhancements to, the college's multidisciplinary research ecosystem should result in significant growth and capacity, including the addition of research scientist faculty and postdoctoral scholars who will be essential components of our efforts to scale college research expenditures. Additionally,

[2] Yale, for example, has a well-established program; so, too, does Duke (at the Trent Center). A handful of top-tier public universities have them as well: UVA has a program; so, too, does UNC and Penn State. Occasionally, these initiatives have a catchy title: Stanford's "Medicine and the Muse" program, for example, or Columbia's Division of Narrative Medicine (see here).

the Franklin College Dean's office continues to gain efficiency and learn lessons since implementing a shared services model (Franklin Works) and establishing a Research Enterprise Support Team (REST). New processes, paradigms, and personnel can augment multidisciplinary research capacity.

Implementation Strategy: The following items represent cross-cutting initiatives or best-practices that are emergent or could be implemented in support of the broader FCAS strategy around multidisciplinary partnerships and collaborations.

- A College-level project and process manager to enhance proposal *development,* beyond proposal enhancement/editing/review
- Strategic engagement with UGA Public Service and Outreach to entrain their faculty, partnerships, and institutional knowledge into our instructional and research ecosystem.
- Re-imagined FCAS Research Website (https://stage.franklin.uga.edu/research).
- Red-team/Blue-team reviews or consultants to evaluate proposals. Such functionality could be embedded within the College or contracted via consultants (e.g. Hanover).
- Further enhance relationships with UGA Public Service and Outreach to understand current and emerging ways to develop community engagement and partnerships.
- Elevation of Centers and Institutes representing inclusive and cultural scholarship (e.g., INAS, African American Studies and African Studies Institute) and co-production to more effectively entrain them into the research ecosystem.
- Development of criteria for the evaluation of FCAS institutes and metrics for success.
- "Franklin Top 20" email notices to curate a Franklin-targeted list of multidisciplinary funding opportunities as well as a REST Team Tip of the Month. This listing should be two-way and interactive with communication linkages and connections.
- Self-contained tutorial and training session for FCAS faculty on building collaborative teams.
- Expanded multidisciplinary engagement and outreach for the Statistical Consulting Center (SCC) and institutional graphics support capabilities.
- Science Communication Workshops and Media Training to broaden the reach and recognition of FCAS-based research, instruction, service, and scholarship. Recognition, publicity, and branding are essential to properly positioning FCAS' research ecosystem. This strategy will also fully engage the expanded marketing and communications team.
- Multidisciplinary-focused blog and/or podcast to intentionally highlight collaborations across the five divisions of FCAS.
- Targeted external awards strategy.
- Communications strategy developed with FCAS Marcom, once staffing has been built out.
- Expanded FCAS grant writing capacity, which might include a grant-writer and periodic grant-writing workshops.
- Optimization of faculty research FTEs.
- Faculty and research group websites and public facing pages. Standardized content and format? Use of Experts? Elements?

Appendix A

How The Strategic Framework Evolved

At the charge of Dean Anna Stenport in the 2024 Spring semester, the Associate Dean for Multidisciplinary Research, Scholarship, and Partnerships established a methodology to develop a strategic framework for the College to optimize and grow multidisciplinary research, collaborations, and expenditures, which will form the foundation of the activities associated with the Research Innovation Office. Several steps were employed.

Step 1: Review current FCAS research goals.

A strong foundation for research already exists within FCAS so it was instructive to review research goals articulated on the College website:

Cultivate a culture that supports faculty innovation, creativity, and inclusive excellence

- Provide opportunities for senior faculty to mentor colleagues on funding and professional development
- Enhance startup packages for faculty in the arts, humanities, and social sciences
- Enhance travel funding for faculty participation at professional meetings and conferences
- Use social media and other communication vehicles to recognize faculty leadership in research
- Create infrastructure within the college to facilitate collaborative and/or large-scale grant writing across disciplines
- Restore faculty research development assignments to support new lines of funded scholarship and research

Develop and maintain a state-of-the-art environment for research and scholarship

- Identify priorities for the enhancement of existing space for classrooms, laboratories, studios, and performance spaces.
- Work toward greater efficiency in the use of research resources.
- Identify priorities for new research facilities in collaboration with strategic partners.

Objective: Establish more interdisciplinary opportunities

- Support and promote the Willson Center for Humanities and Arts as a focus of faculty research, grant development, and interdisciplinary work.
- Coordinate the recruitment, retention, promotion, and tenure of jointly appointed faculty.
- Remove bureaucratic obstacles so that all faculty and units are credited appropriately.
- Explore and evaluate ideas for new programs in cross-cutting areas such as sustainability, social sciences, life sciences, or digital humanities.

Objective: Expand strategic collaborative partnerships

- Explore strategic partnerships with world-renowned institutions in Georgia (e.g. Centers for Disease Control, Carter Center).
- Cultivate partnerships with international institutions.
- Initiate strategic research partnerships with University System of Georgia faculty and programs.
- Develop strategic partnerships with new UGA programs including medicine and engineering.

These objectives establish a baseline to build out a forward-looking, multidisciplinary strategy that leverages best practices and institutional knowledge years while taking bold steps forward with a sense of urgency and purpose.

Step 2: Review research strategies within the UGA Office of Research and external peers

Strategic thinking allows organizations to establish roadmaps, guideposts, and "north stars" that shape objectives, operating philosophy, and metrics of performance. As the largest college at the University of Georgia, FCAS is a major driver of the research portfolio of the institution, but the College does not operate in a vacuum. The Office of Research (OoR) is a guidepost at the University of Georgia, and it is important that our research visions appropriately align and are complementary. The OoR strategic document (FY2023 to 2025, https://research.uga.edu/docs/info/about/Office-of-Research-Strategic-Plan.pdf) lays out the following goals that are most relevant to FCAS:

- Catalyze and foster a vibrant, inclusive culture of innovation and entrepreneurship with broad, diverse engagement across UGA's innovation ecosystem.
- Establish a UGA Team Science ecosystem with incentives, support, and training components that builds capacity for new interdisciplinary research teams and strengthens existing teams, with a focus on UGA's strategic research priorities.
- Launch new strategic partnerships with National Defense and Security agencies (Department of Defense, Department of Homeland Security, NASA, and the Intelligence Community) and leverage these partnerships to increase research sponsorship at UGA.
- Create new professional development and mentoring resources and training for postdocs and other research personnel, with a focus on grant writing, diversity, and Responsible Conduct of Research and Scholarship.
- In collaboration with Marketing & Communications, elevate production and dissemination of robust, accessible news stories and marketing content about UGA research and research commercialization for a range of strategic audiences, with a focus on societal impact, innovation and entrepreneurship, and industry collaboration.

Step 3: Co-production of information from across FCAS

This document emerged from a series of coordinated discussions with several FCAS stakeholders spanning the period November 2023 to August 2024. The information gathering consisted of discussions with the multidisciplinary working group of the Dean's advisory committee, targeted listening sessions with Heads, Directors, Faculty and OoR staff as well as interactions with the College administrative team. Perspectives were also obtained from discussions with key alumni, corporate partners, extramural program managers, other colleges and students.