

Duke University Strategy Team 2030
Summary Report and Recommendations
Spring 2022

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Executive Summary

President Price charged university leadership in the spring of 2020 to look beyond our current circumstances and think deeply and collaboratively about Duke's most important aspirations. He challenged the university not simply to define where we wish Duke to be by 2030, but also to identify actionable steps that would enable the university to achieve those goals.

Strategy Team 2030 began its work in 2020 with a comprehensive review of the changing higher education landscape, identifying different approaches Duke might take to navigate those changes. Over the course of the past year, four working groups have built upon that work to develop a vision and concrete recommendations for Duke to become the university of our aspirations by 2030 in relation to research, education and models for governance and finance.

[The Research Enterprise in 2030 \(Jump to this section\)](#)

We seek to facilitate risk-taking and lower the barriers to collaboration, whether across the boundaries of disciplines or schools, or with partners at other universities and beyond academia.

To achieve this vision, the research working group recommends a holistic approach that includes: 1) Recruiting and retaining a world-class faculty; 2) Providing a robust research infrastructure to support those faculty; 3) Creating a culture of partnership in research excellence; 4) Re-allocating existing resources to magnify our impact; 5) Creating connections across and outside of Duke; and 5) Rewarding and celebrating what we value.

Specific recommendations for large-scale investment call for the university to:

- Create a menu of supports for mid-career faculty tailored to their ambitions.
- Develop a centralized data infrastructure spanning the university and School of Medicine.
- Expand access to data-related resources for faculty across disciplines.
- Create a cadre of project managers to facilitate the success of complex projects.
- Change the culture of the research administration enterprise at Duke to facilitate research excellence, understood as fostering creativity along with integrity and compliance.
- Ensure that we maintain flexible resources to recruit excellent interdisciplinary faculty.

[The Educational Enterprise in 2030 \(Jump to this section\)](#)

We seek to provide our students with more integrated intellectual pathways and deepen their engagement with research, central objectives that depend on cultivating and rewarding faculty who are passionate about teaching and pedagogical innovation, and building more flexibility into our basic structures and systems.

The education working group identified three levers of change towards this vision: 1) Deepen the coherence of learning journeys and more firmly build research into the student experience; 2) Attract and retain top faculty teachers by incentivizing innovative pedagogy and high-touch teaching and mentoring; and 3) Reimagine structures and systems to enhance flexibility and integration.

Specific recommendations to support these levers include:

- Introduce university courses that cover pressing topics like race relations and climate change.
- Develop a new curriculum that integrates curricular and co-curricular programs.

- Feature and expand capstone experiences.
- Work more closely with students to develop personalized intellectual pathways.
- Support more high-touch faculty teaching and mentoring, with a focus on research.
- Enable deeper collaborations between professional school faculty and students across Duke.
- Measure mastery of content and the development of critical skills and habits of mind.
- Make the academic calendar more flexible, explore hybrid course modalities, and expand opportunities for deeper experiential activities.
- Re-imagine Duke as a perpetual learning community that expands beyond campus.
- Embed incentives for faculty to meet our goals for student-centered learning.
- Ensure that physical learning spaces reflect and enable high-quality teaching and learning.

Graduate and Professional Education

Given the decentralized approach to graduate and professional education, as well as existing efforts already under way to improve graduate education, the working group spent less time on these crucial contexts, but does recommend the following:

- Embed more experiential learning into Graduate School Ph.D. and Master's programs.
- Expand the avenues for student intellectual engagement across programs and schools.
- Accelerate the diversification of student cohorts, and invest in greater supports for students from underrepresented groups and international students.
- Achieve greater consistency in excellent faculty advising.

Mechanisms of Faculty Governance ([Jump to this section](#))

The faculty governance working group re-affirmed the important role of Duke's robust faculty governance structure, recommending several opportunities for improvement, as well as issues requiring additional deliberation.

Key recommendations include:

- Clarify expectations for consultation with Academic Council.
- Broaden representation on the undergraduate curriculum committee.
- Clarify ownership over the curriculum.
- Re-evaluate the relevance, composition, and charge of Presidential and Provostial committees on a regular basis.

Collectively, these recommendations will strengthen Duke's capacity to attract and retain stellar faculty, drive discovery, and equip our students to become grounded leaders who make a positive difference in their post-graduation lives.

The 2030 Work in Context

The work by the 2030 committee built on the President's Strategic Framework, *Toward Our Second Century*, and the Provost's Strategic Plan, *Together Duke*, and has proceeded along a number of fronts. In the past several years, we have made substantial progress in advancing key academic priorities, including the Duke Science and Technology initiative, which aims to increase Duke's cohort of stellar STEM faculty, and the climate initiative, which seeks to move Duke to the forefront of climate change research, education, and policy engagement.

With regard to the crucial work of Diversity, Equity, Inclusion, and Belonging, we have invested significantly in scholarship and education to combat racism and build more inclusive learning and research communities. This past spring, Duke conducted its first ever university-wide campus climate survey. Every school and interdisciplinary unit has developed action plans, informed partly by survey results, and moved to implement those plans. Our faculty hiring procedures now include best practices for constructing broad pools of candidates and ensuring holistic evaluation of their qualifications, work that has already resulted in the most diverse cohorts of new faculty in Duke's history. A Racial Equity Advisory Council is defining campus-wide objectives, monitoring progress, and ensuring the diffusion of good ideas and practices that emerge in one part of Duke.

Through the work of the Duke-Durham Task Force, the university has laid out a new approach to partnering with our community, predicated on the identification of community priorities, and the streamlining of entry points to university resources, and the harnessing of those resources to address community priorities through sustained, equitable engagement.

In response to President Price's charge, a 2030 committee was convened during the 2020-2021 academic year to build on these priorities, chart new directions and develop a roadmap to realize these plans by 2030. To dovetail this planning work with the financial realities of the university, groups of senior administrators and faculty also met to discuss the key missions of research and education, with an eye both to areas deserving cutbacks or consolidation, and those calling for more investment.

In the spring of 2021 Provost Sally Kornbluth charged two working groups with refining our direction with regard to path-breaking research and innovative educational experiences. Since progress on those fronts depends on effective mechanisms of university governance, Kornbluth asked a third group to examine a series of issues related to that set of institutional responsibilities. Each of the working groups worked through the summer and fall, and produced substantive reports. *This document pulls together the key findings and recommendations of those working group reports.* (Additional work also continues, under the direction of EVP Daniel Ennis, to rethink our financial structures so that they can maximally support the efforts detailed here.)

The 2030 working groups focused on themes, issues, and priorities with salience across many departments, programs, and schools. Layered on this are a plethora of local activities that evolve in response to emerging intellectual currents, changing faculty expertise, and shifting student interests. That said, with the right incentive structures, resources, and mechanisms for coordination and sharing of innovations and best practices, as outlined in this report, there are many opportunities for the whole of these activities to exceed the sum of the parts.

This overview of outcomes from the 2030 process begins with recommendations for the research enterprise, reflecting the extent to which other core missions, such as education, patient care, and community engagement, depend on the ingenuity that our researchers demonstrate through discovery, critique, and translation. It then discusses the vision put forward for education, which stresses the imperative to embed research and experiential learning into curricular and co-curricular opportunities across campus, at all levels. Finally, a short section covers the findings of the governance working group, which stressed the crucial importance of updating our institutional structures to address current needs.

The Research Enterprise in 2030

Context Setting

Duke's excellence in research paves the way for critical discoveries that enhance scholarship, public understanding, and applications of knowledge at home and across the world. The track record of our research enterprise allows Duke to recruit world-class faculty, build strategic partnerships, and secure the resources needed to propel new discoveries and analyses that have impact.

As the working group surveyed Duke's current strengths in research and learned about its thorniest challenges, we identified great potential for our faculty to gain even more traction in tackling the most pressing questions of our time. As President Price has made clear in Duke's Strategic Framework, *Toward Our Second Century*, we need to focus investments on the talented people across our university. We have no greater task before us than to cultivate a truly world-class research environment.

What will it take to ensure that we have such a conducive environment for pathbreaking, salient research? First, we must take account of the remarkable heterogeneity of the inquiry that goes on across Duke's ten schools and within its many institutes, initiatives, and centers. All leading major research universities now encompass a wide variety of intellectual activity. Duke reflects that vital pluralism, but also has significant comparative advantage in linking across modes of knowledge creation. *The pivotal questions before us are how to hone those strengths and leverage them even more effectively.*

Our intellectual ecosystem has many niches: humanistic scholars who set up ethnographic field sites, scour archives, or engage deeply with texts to understand the many layers and historical roots of a problem like racial injustice; social scientists who probe the evolving behavior of firms and consumers, track the impact of early childhood trauma on the life course, or uncover patterns in the digital spread of misinformation; scientists whose laboratory teams strive to understand brain circuitry, develop effective vaccines, or create novel nanomaterials; community-engaged researchers from every division of knowledge who build durable, equitable partnerships with organizations beyond campus, around such issues as the improvement of early childhood education or the empowerment of small businesses. Our strategies must provide appropriate support to the superb faculty who pursue all of these varied methods and approaches.

At the same time, we must beware of the pitfalls of hyper-specialization and the tendencies of many academic communities to look inward, to pursue depth and precision at the expense of broader impact. We must stay alert to the trade-offs between maintaining longstanding areas of excellence and investing in emerging fields of inquiry. We must recognize that Duke will never be able to cover every area, nor focus resources equally on every domain. We must also work hard to ensure that our bureaucracy

remains committed to facilitating great research and reducing burdens wherever possible, and that we centralize functions and responsibilities only when the case is clear to do so.

The Vision: Research at Duke in 2030

We seek to facilitate risk-taking and lower the barriers to collaboration, whether across the boundaries of disciplines or schools, or with partners at other universities and beyond academia.

In peering ahead to 2030, we foresee an energized and diverse faculty that brings a full range of perspective and talent to the intellectual puzzles they try to solve. We anticipate the development of innovative programs that direct resources strategically to allow mid-career faculty to take intellectual risks. We imagine even better support structures and access to data that smooth the intellectual road for our faculty, allowing them to address the most vexing questions and bring their ingenuity to answering them. We envisage a campus that regularly connects our most inventive researchers across the divides of schools and disciplines, so that we build sufficient capacity in priority areas, such as mitigation of climate change and the building of climate resilience. And we look forward to even more productive strategic relationships with universities, healthcare providers, and industry partners, both close to home and far afield, as we coordinate the most complex research agendas with collaborators who possess complementary strengths.

As we work to cultivate the robust and generative research environment that we intend Duke to have in 2030, we must nurture creative interdisciplinary groups that can compete effectively for the most prestigious external grants. That goal will depend, in part, on deploying our campus space flexibly to enable the right clusters of scholars to work in proximity. We must similarly equip our researchers to partner with community organizations, here in Durham and across the globe, to co-create research agendas with the genuine promise of impact. Once our scholars have completed research and analysis, we must have the engagement and communication capacity to increase the likelihood that their findings, arguments, and inventions reshape policy and practice.

We can achieve some of the more particular goals that we describe below with better deployment and coordination of existing budgets. To meet our full aspirations, though—to link Duke Health even more closely to the rest of our campus, to seed exploratory ideas for understanding our most vexing challenges and empowering our faculty to engage in translation as well as critique and discovery—we will require new resources. This report charts crucial paths toward a refreshed configuration of our collective outrageous ambition.

Important Presuppositions

Our recommendations presuppose that Duke's schools and departments remain firm in their commitment to recruit, retain, and support a superb community of diverse faculty—along with postdocs, graduate students, undergraduates, and staff—because ultimately our research is only as good as our people.

Our recommendations similarly assume that Duke will retain a constructive balance between key tensions that characterize academic research both in general and on our campus, including:

- **Disciplinary and interdisciplinary approaches.** Interdisciplinary undertakings almost always depend on disciplinary strength; but disciplinary communities can put up walls, preferring narrow specializations and communication within those confines, while framing interdisciplinarity as insufficiently rigorous and discouraging individuals from pursuing collaborations elsewhere. Since

we organize the great bulk of scholarly activity around departments and disciplines, it is essential to ensure that the resulting incentive structures do not inhibit interdisciplinary efforts, especially in areas where Duke has significant comparative advantages.

- **Curiosity-driven fundamental inquiry and goal-driven applied research.** Major universities must provide ample space for scholarly investigations that pursue knowledge for its own sake. As the beneficiaries of extensive public funding and stewards of philanthropic resources, research universities also have an obligation to tackle the most pressing societal issues, whether at local, regional, national, or global scale. Fundamental and applied research, of course, can be synergistic; applied research can generate new questions, findings, and angles of vision that recalibrate theoretical work, while breakthroughs in curiosity-driven research can generate unexpected applications.
- **Team-based and more individualistic modes of scholarly production.** Complex problems lend themselves to collaborative organization of research, which in turn requires attention to mechanisms of collective decision-making, project management, and distribution of credit. Equally important, the largest grant opportunities increasingly presume the participation of convergent teams. At the same time, we must retain our capacity to nurture robust intellectual community and interaction among the many scholars who continue, in the main, to chart their own avenues of question-framing, research, and writing.
- **Investments in intellectual frontiers and maintenance of longstanding, core facets of research and training infrastructures.** Duke has a strong record of directing strategic resources toward emerging arenas for research. We must retain sufficient adaptability to seize such opportunities as they arise. But we must also ensure that vital aspects of our research enterprise, such as adequate support for Ph.D. education and our world-class libraries, remain strong.

Recognition of Barriers

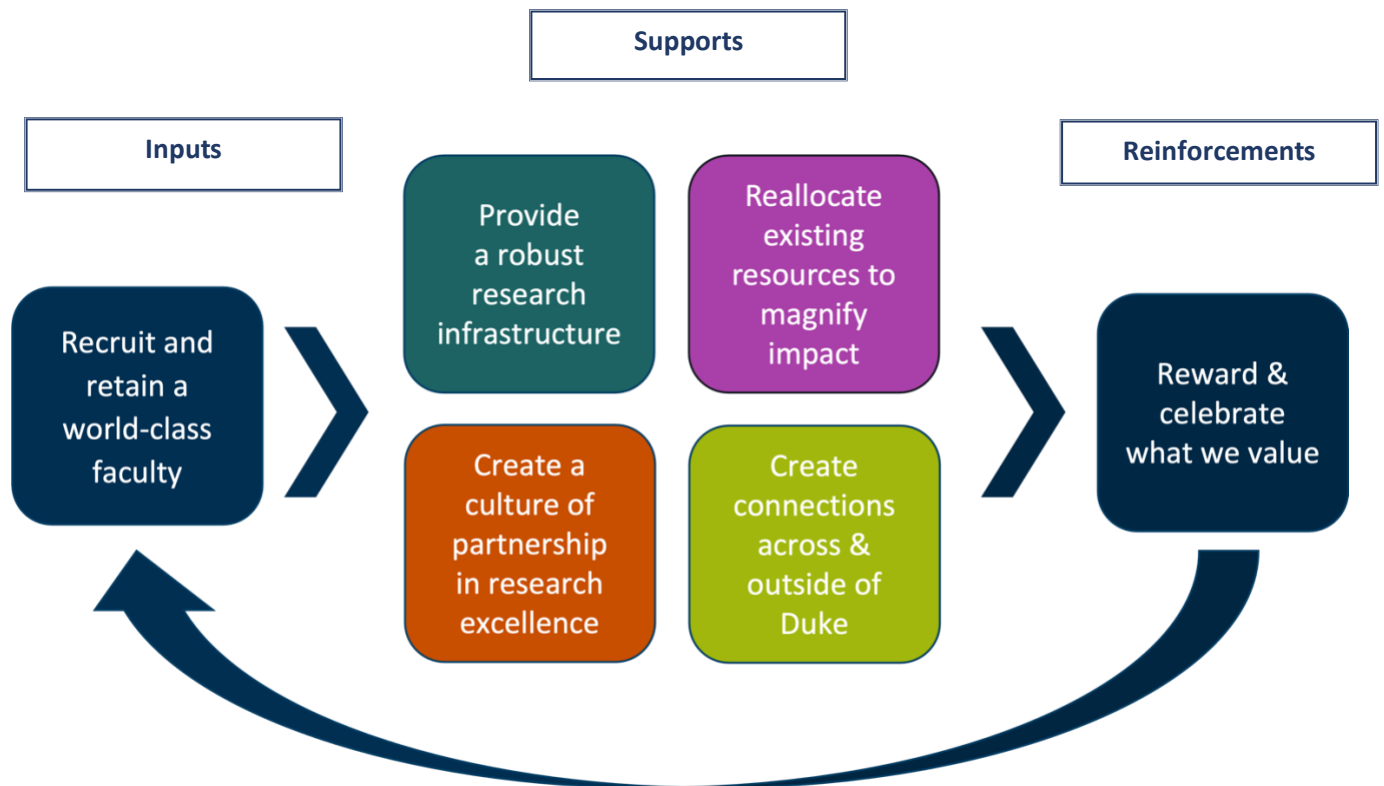
Research at R1 universities takes place in an increasingly complicated and rapidly evolving landscape. Our conversations found that sheer complexity, alongside long-standing cultural norms and expectations, can lead to significant frustrations for faculty, and even derail important research altogether. These barriers include:

- A research compliance posture, necessitated by our obligations to federal agencies such as NIH, that has the potential to swing too far toward the goal of eliminating all risks.
- Patchy mechanisms of support for faculty who lead complex research projects.
- Lack of a unified information technology system, and a unified data management and sharing system, among the Schools of Medicine and Nursing and the university. Data sharing and management challenges also present barriers to external collaborations.
- A culture—reinforced by appointment, promotion, and tenure standards that have been slow to change in many departments and schools—that primarily celebrates individualized accomplishments, rests on assumptions of deep disciplinary success, and can discourage research that is collaborative, interdisciplinary, community-engaged, or high-risk/high-reward.
- Lack of time and often funding to explore and build new collaborations, alongside a knotty and time-consuming process of negotiating the financial implications of partnerships that span Duke schools, and an insufficient number of skilled staff needed to facilitate complex grants, especially in the areas of project management, data analysis/management, and community engaged research.

Few of these challenges are unique to Duke, but if we can lead the way in addressing them, we will enhance our research productivity, expand the impact of our research, and build a culture that is highly attractive to world-class scholars. Achieving these objectives will give us powerful advantages in recruiting great faculty and in rooting them in Durham. There is no scholarly asset harder to recreate than a robust, generative intellectual community.

Recommendations

Below we sketch a holistic system of research support that will extend Duke’s capacity to recruit and retain a world-class faculty, embed those faculty in a thriving research ecosystem, and celebrate and reward research that we value. To achieve those goals, we have focused on a discrete set of especially important changes to our culture, infrastructure, and operations.



These recommendations fall in six categories, depicted above, and framed around the themes of: “inputs”—chiefly recruiting and retaining the most creative and collaborative scholars; a slew of essential research “supports;” and pivotal “reinforcements” to solidify a culture around research that makes a difference. Throughout, we distinguish “big ideas” that will require a significant investment of money or effort but that this working group believes are critical to advancing research at Duke. We do not lose sight, however, of a number of secondary recommendations that pose few challenges of implementation, that are already underway but need amplification, or that call for further investigation.

Major Recommendations

Recruit & retain a world-class faculty

Create a menu of supports for mid-career faculty that can be tailored to support their future research ambitions

Note: The term mid-career faculty used here is defined as all regular rank faculty (tenure- and non-tenure track) who have been recently promoted to the associate level, with the expectation that supports would be tailored to the focus/needs of each faculty group.

The quality of a university's faculty drives its excellence. The best faculty want to work at institutions that support their research ambitions, partner with them to pursue bold ideas, and recognize and reward a full range of creative scholarship. We must continue to recruit the best faculty, being attuned to the need to attract interdisciplinary scholars whose interests cross the boundaries of our traditional structures, and then support them throughout their careers.

The transition to the associate level often presents difficult challenges. Duke frequently provides new assistant professors with start-up packages and junior leave, as well as structured guidance from senior faculty about how to stay on track to promotion, and some degree of protection from time-consuming service assignments. When faculty members reach the associate level, they generally receive signals to spread their intellectual wings, but simultaneously face much more significant service expectations and often receive less guidance about how to develop and execute more ambitious research agendas. Moreover, faculty at this stage may have depleted any start-up resources, but not yet have strong external funding for new intellectual directions. At the same time, mid-career scholars often have reached a stage in the life cycle during which they face growing demands outside of work, such as child or elder care. The result of these various pressures is that too many faculty stagnate at this stage, while others look to move to another institution to secure new resources and supports.

We have every reason to invest in the faculty whom we have judged deserving of promotion to associate professor. It makes no sense for scholars to have to relocate to rejuvenate their research programs, and Duke has much to gain from amplifying the tendency of creative faculty who have recently received the security of tenure to venture out in bold new directions.

Accordingly, we propose providing mid-career faculty with a range of supports—some competitive, others available to all—that will help facilitate the capacity of faculty to be more expansive and willing to take risks at this pivotal career stage. Based on our landscape analysis of other universities, we believe that this approach will stand out, demonstrating Duke's distinctive investment in, and commitment to, our rising faculty—and it will generate the kind of high-risk, high-reward research that can have transformative impact. Once Duke has established the support structures that we call for below, those resources will become a powerful advantage as we recruit prospective faculty, since they will know what they can expect as they move through the system.

Competitive research funding: Recognizing that some faculty may need significant resources to pursue particularly promising new directions, we recommend creating a high-dollar internal grant competition limited to recently promoted faculty. These grants might be applied to purchasing a more expensive piece of equipment; allowing scholars or members of their teams to undertake extensive field work; expanding staff support for a significant project; providing funding for a graduate student or postdoc;

etc. Funding would be awarded to those projects that: 1) seem most likely to push intellectual boundaries in promising directions; 2) have needs that are unlikely to be funded externally without initial research to furnish pilot data and/or clarify goals and methods; and/or 3) would benefit broader intellectual communities at Duke (e.g., equipment that would be a shared resource, a collaborative project, the extension of a current resource to a new group, etc.).

Such an initiative would nicely complement Duke's other seed grant programs (see Appendix G). As with those programs, our approach here would have a flavor of venture investing, as we support compelling ideas, with the expectation that some fraction will not pan out.

Proposed owner: Office of the Provost

“Choose your own adventure” vouchers—for all regular rank faculty at promotion to the associate level: While some mid-career faculty may have needs that require special and larger-scale investments, we also see a strong case for recognizing the significance of this career juncture for *all* faculty. We also recognize that faculty will have different needs, and goals, at promotion. To provide inclusive support, all newly promoted faculty, approximately fifty individuals a year, will receive a “voucher” they can apply to a menu of options, including:

- Fee-for-service research supports such as project management, data analysis or editing support.
- Training.
- Seed funds for new projects/directions.
- A course release to enable faculty to explore a new area of interest, as by auditing a Duke course.¹
- Funding to provide partial support to a postdoc or graduate student.
- Equipment and materials.
- Supercomputer usage/access to software or datasets.

Costs will vary to some extent with need, but we anticipate that such a program would entail something on the scale of \$500,000 per year.

Proposed owner: Resources will be provided centrally, but deans, working with department chairs, will work with faculty to facilitate this process.

Mentoring and coaching—available to all regular rank faculty: Through a series of focus groups, mid-career faculty expressed a strong interest in having mentoring or coaching from certified career coaches and/or other mid-career or senior faculty at this career stage to develop a plan for the next phase of their career. Building the strength of current mid-career faculty will serve the university well in establishing a strong cohort of senior faculty for the 2030's and beyond. The Office for Faculty Advancement, established following the recommendations of *Together Duke*, is currently piloting a group coaching program for entry-level faculty and a 1:1 coaching program for select faculty. Early evaluations suggest that group coaching provides a crucial space for faculty to hear from peers about their own challenges, identify priorities in a supportive environment, and develop action plans for moving forward on those priorities. In addition to deepening community across departmental and

¹ Course releases might be more difficult to offer to faculty in some professional schools with smaller faculties.

school lines, participation can help faculty navigate the pressures associated with promotion and heightened responsibilities. We recommend expanding these offerings to include the following offerings for associate professors who express interest: 1) group coaching/mentoring; 2) 1:1 mentoring, which may include a mentor inside, or outside, of Duke; or 3) 1:1 coaching.

Proposed owner: Office for Faculty Advancement

Provide a robust research infrastructure

Develop a centralized data sharing and data access information technology infrastructure that spans the university and the School of Medicine

Currently, the School of Medicine and the university operate using distinct IT systems, which creates barriers to cross-disciplinary collaborations. Further, in response to tight regulations on the use of certain types of data (e.g., health records), Duke has tended towards a “one-size-fits-all” regulatory stance, creating new burdens on research that on its own requires far less regulation. The capacity to leverage complex, mammoth data sets stands out as one of the crucial avenues for cutting-edge research, from evaluating the social determinants of health and genetic sequencing of viruses, to identifying patterns in renewable energy use and analyzing polarization in political discourse. It is essential that Duke has the infrastructure to handle data—to merge datasets responsibly, to partner with government agencies and firms around sensible, quickly negotiated data use agreements, and to systematically archive both data and the modes of analysis to facilitate replication.

We recommend the following:

- Unify relevant IT data systems between the university and the School of Medicine to support cutting-edge health-relevant research across the university.
- Conduct a thorough review of current data management and data sharing policies, with a goal of reducing unnecessary regulatory burdens. This process should be done with thorough input from faculty, particularly in the fields most affected by current policies (computational social sciences).
- Ensure that we have adequate numbers of research staff who support data management efforts and that those staff, as well as the faculty with whom they work, have the appropriate skills, training, and cultural mindset to *partner* on: 1) problem-solving and facilitating data access, data management, and data use agreements with external partners; 2) accommodating differences in methods across different areas of knowledge; and 3) applying the appropriate level of regulatory oversight based on the situation.

Proposed owner: Office of Information Technology; Office of Research & Innovation

Provide a robust research infrastructure

Expand access to data science resources

Data procurement, cleaning, analysis, and management are increasingly important to research projects in nearly every realm of the university. Yet, for complex projects, these tasks require someone with data science training, which can be hard to find. As a result, many faculty members attempt to complete this

work on their own, call on students who may not have the training or interest in supporting the project, or altogether avoid doing data-heavy research.

The Center for Data and Visualization Sciences within Duke Libraries currently provides well-regarded training, guidance, and advice to students and faculty on data management, use, and analysis. We recommend that the Libraries work with the provost to explore creative funding models to expand services. One option might be a fee-for-service approach, through which researchers purchase a portion of a data scientist’s time to have them join a research project, whether to design complex data collection studies, manage and analyze data, or contribute data analysis to publications and other research outputs. As demand increases, we need to identify ways that the Libraries can support a small cadre of data scientists, each with data expertise in different disciplinary divisions.

Proposed owner: Duke Libraries; Office of Research & Innovation

<i>Provide a robust research infrastructure</i>	Create a cadre of project managers to facilitate the success of complex projects
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Many forms of research have increased in complexity over the past few decades, whether because of more stringent regulatory demands; cross-disciplinary work; partnerships with companies, community organizations, or other academic institutions; or some combination thereof. Heightened complexity is often accompanied by greater potential payoffs, such as extending research into new terrains and enhancing translational impacts. All too often, however, the challenges of organizing more complicated research place significant burdens on faculty and divert their energies from core intellectual matters. Consequences range from burnout and decreased research productivity, to increased risk to the research and regulatory compliance, and failure to fully disseminate and translate important research findings.

We recommend creating a project management team, organized and managed by a centralized group of campus research support offices, that will make a pool of project managers available to support complex research projects, collectively possessing expertise across the divisions of knowledge. The assistance of these specialists will be especially important in early phases, before projects have achieved sufficiently large and long-term funding to enable the hiring of a dedicated project manager. Common tasks undertaken by project managers might include managing timelines, budgets, and resources; facilitating the development of a common set of methodological understandings among collaborators from different disciplines and between faculty and external stakeholders; hiring and onboarding staff and students; compiling reports; helping disseminate research findings; overseeing financial processing and contracting; communicating with project stakeholders; and managing regulatory requirements such as IRB, data management, and animal care.

Over the longer term, these positions will primarily be funded by building staff time into grants. Some degree of institutional support, however, will be needed as a backstop and/or to enable project managers to support high-potential projects that are too early for funding and important research in fields where external funding is limited. See Appendices D–G for information about analogous programs at other universities, and recommendations for implementation at Duke.

Proposed owner: Office of Research & Innovation, Duke Libraries, Office of Interdisciplinary Studies

Create a culture of partnership in research excellence

Change the culture of the research administration enterprise at Duke to facilitate research excellence, understood as fostering creativity along with integrity and compliance

Great universities interweave the imperatives of compliance and integrity into a general culture of creativity and excellence, never shifting focus from questions of how to foster the most searching critical inquiry. The current mission of the Office of Research and Innovation (OR&I) stresses this fundamental point, noting that the office “has overall responsibility for **facilitating** the research enterprise at Duke and works to **encourage and support** the development, promotion, and application of Duke's intellectual property and our world-renowned researchers, students, and facilities” (emphasis added).

Yet, in response to past episodes of research misconduct and a more demanding regulatory environment, research administration at Duke has, in the view of a growing number of faculty, become hyper-regulated, often adding unnecessary complexity and burden, or requiring “one-size-fits-all” approaches that hamstringing important research projects or prevent them altogether. Perhaps most importantly, these dynamics have created a culture in which faculty and research administrators are often at odds with one another, where they should be working in partnership to facilitate research while maintaining a strong culture of compliance and integrity. Former Interim Vice President for Research & Innovation, Sandy Williams, has acknowledged this compliance-heavy culture and its impact on how faculty engage with OR&I. This is a crucial issue for Duke’s newly appointed Vice President for Research & Innovation, Jennifer Lodge, to tackle.

This working group underscores that OR&I needs to re-dedicate itself towards engaging with faculty to find creative ways to support and enable research, while staying attuned to compliance. The new Vice President for Research & Innovation should have a mandate to change organizational culture where necessary; dedicate attention to the training, management, and hiring of staff; and constructively engage with faculty to understand and resolve pressure points. In developing overall strategy, the new Vice President for Research & Innovation should work closely with the Executive Research Oversight Committee and ensure that the committee has appropriate faculty representation from all disciplinary areas.

As OR&I launches its new plan to create local “Quality Officers²,” it might consider designing these positions as partnerships with faculty peers to connect them to resources; troubleshoot around barriers to progress; and ensure that faculty understand necessary compliance issues and provide input on how to reduce the burdens associated with compliance. Moreover, there should be careful consideration of the financial model supporting these positions to avoid placing an undue burden on schools and departments. If done effectively and with appropriate consultation and support, we also see an opportunity for these individuals to become points of contact in their communities about the resources that Duke furnishes to facilitate research, and to help faculty connect with peers outside of their discipline who have overlapping research interests.

Equally important, Duke’s current pre-award services tend to focus on providing support for institutionally-limited nominations or large foundation grant opportunities. Our landscape analysis revealed that some universities have more robust pre-award services to support large, complex grants.

² We recommend that OR&I consider alternatives to this name that also suggest the opportunity for partnership and support (e.g., Resource and Compliance Partners)

We recommend expanding the capacity of the Office of Campus Research Support and the Office of Foundation Relations to provide more robust pre-award management services. The focus should be on proactively identifying funding opportunities and reaching out to faculty to match them with those opportunities (particularly targeted towards units without existing staff in this role). For large, complex submissions (e.g., grants of \$5M+ with multiple PIs in the sciences, and a lower appropriate threshold in the social sciences and humanities), these offices could extend the work that they already provide, including: a project manager to coordinate the compilation of the proposal on time, grant writing support for non-technical elements, substantive editing and proofreading, budget development, collecting letters of support, and if needed, re-packaging of unfunded proposals for re-submissions. The aforementioned project management office should be integrated into this function to allow seamless planning, starting with the project initiation.

Proposed owners: Office of Research & Innovation (including the Office of Campus Research Support), Foundation Relations

Secondary Recommendations

The following recommendations are labeled as secondary because, while potentially significant, they fall in one of three categories: 1) they are already in process but require some amplification; 2) they identify significant issues where the possible solution set needs further investigation; or 3) they are new and well-defined, but more minor in scale and import.

<i>Provide a robust research infrastructure</i>	Ensure that basic research support functions are effectively resourced by knowledgeable staff
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For our research enterprise to achieve its full potential, we need consistent excellence in grants management and other facets of research administration. In addition to attracting a steady stream of talented individuals into entry level positions, Duke must provide strong avenues for professional development, a clearly defined career trajectory, and appropriate coordination and diffusion of best practices across campus.

Research administration, however, is currently fragmented—drawing on a mix of departmental/school administrators, university administration, and School of Medicine administration. The impact of this system is mixed—some units have strong support structures whereas others do not. In units with weaker support structures, faculty encounter unnecessary complexity and staff receive limited training, mentoring, and opportunities for career progression. In smaller units there is also a lack of redundancy, creating gaps when a vacancy arises. In areas such as the IRB, staff shortages have resulted in backlogs that inhibit timely research progress. These backlogs are only poised to increase as Duke seeks to create more opportunities for students to engage in research and as the university prioritizes community-engaged research.

We recommend that each school re-evaluate whether their faculty would be better served by a centralized research administration unit housed in the Office of Research & Innovation, or by a unit-level research administration function. Any unit-level research functions should have a matrixed relationship with OR&I, and OR&I should be responsible for creating a consistent culture and knowledge base for research administration across Duke. This would include common policies, but also developing a

community of practice for sharing best practices, developing a robust training and mentorship system for research administrators, and re-evaluating the research administration career family to ensure progression for staff.

For central research administration support functions, such as the IRB, we must ensure that these functions are appropriately resourced, and that we plan appropriately for predictable expansions in demand.

Due to labor shortages, it is difficult to recruit and retain talented grants managers. We recommend a university-wide, entry level training and recruitment program for grants managers akin to that piloted in the School of Medicine. These individuals could be deployed centrally or to the schools, as appropriate.

Proposed owner: Office of Research & Innovation

<i>Create connections across & outside of Duke</i>	Develop the right kind of funding mechanism to facilitate the ongoing recruitment of excellent interdisciplinary faculty and the fostering of exciting interdisciplinary research within UICs
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Over the last quarter century, Duke has established a strong reputation for interdisciplinarity. As Duke has increasingly fostered research collaborations spanning schools, a healthy tension continues to exist between the impulse to strengthen disciplinary areas of excellence and the imperative to foster greater integration across disciplines. Here, as elsewhere, our structures of organization (departments/schools) often reinforce and support disciplinary divisions, creating challenges to recruiting excellent interdisciplinary faculty, especially when a potential recruit spans multiple schools and/or connects to a university-wide interdisciplinary unit, creating complicated funding negotiations.

From 2008 to 2016, Duke responded to these challenges with a Provost’s fund to encourage joint appointments with University Institutes and Centers (UICs), based on a five-year walkdown of costs to schools. Seventeen faculty were hired through this fund, with several others being hired with significant assistance from UICs in recent years. Partly because of these investments, interdisciplinarity is now strong in all nine of Duke’s schools that make faculty appointments. Within schools that have departments, joint and secondary appointments have become common. The same is the case for appointments that cross two schools, or that also include robust engagement with one of Duke’s UICs.

Some pivotal recent hires, though, make clear that schools at least occasionally need financial assistance and clear connections beyond the tenure unit to recruit especially compelling interdisciplinary faculty. How should we support such efforts? In developing any plan, we should remain mindful that the walkdown feature of the Provost’s original joint hiring program left many schools in a budgetary quandary since they were eventually left fully responsible for faculty members’ salaries, even as half their responsibilities lay elsewhere.

We lay out three possible approaches for the Provost to consider:

1. Raise a new set of endowed provostial chairs that schools could bid for when they wish to hire an individual with a strong interdisciplinary profile and a desire to maintain a significant presence in a different school or in a UIC. The funding for the chair would cover that half of the faculty member’s salary outside the home school.

2. Create a provostial start-up fund to which deans could apply to facilitate recruitment of faculty with joint appointments, whether with another school or a UIC.
3. Encourage UIC directors to use their current budgets to increase start-up packages for the very best interdisciplinary recruits.

A related dilemma concerns the right way to reward UICs for catalyzing cross-school research that results in sponsored research funding. Our current arrangement is to send “F&As”—the portion of indirect costs on external grants not covered by core central grants administration—to the school of the primary investigator on the grant. Duke adopted this approach so that deans would not have a financial incentive to discourage their faculty from taking part in UIC activities. If, however, the university provided even a small fraction of F&As to UICs for grants that would not have occurred without their concerted effort, we could anchor UIC funding in a more sustainable framework. Schools, however, might perceive themselves to be worse off under such an adjustment, and they would take a financial hit if the change did not drive sufficient growth in grant activity to increase their income. And any such shift would require a careful specification of when UIC endeavors justified a slice of F&A return.

The Provost should continue to discuss this issue with the Executive Vice President and the deans.

Proposed Owner: The Provost’s Office

<i>Create connections across & outside of Duke</i>	Create shared and transparent commitments to MOUs between schools
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Deans and their finance leaders spend a great deal of time negotiating memorandum of understandings (MOUs) to govern agreements between schools around hiring of joint faculty, inter-school investments in research centers and equipment, shared services, etc. In addition to the amount of time that units spend on these negotiations, this process can be harmful to relationships between schools, and lead to a lack of clarity or transparency. Further, because there is no central mechanism for tracking these commitments, when there is leadership turnover, new deans or finance staff sometimes are caught unaware of prior commitments.

Templates and models already exist around common negotiations (e.g., joint hires). The challenge is that each negotiation is unique and requires flexibility, making this a difficult issue to solve. We would recommend a few small process adjustments as a starting point:

- 1) Each negotiation around an MOU should begin with a “statement of shared commitment and interests” that articulates each unit’s commitment to the issues under negotiation and how the units believe that the partnership will be mutually beneficial. The idea here is to create a more collegial culture and approach to the conversation, reminding each unit of their shared interests.
- 2) Once signed, cross-school MOUs that involve financial flows over a threshold, or that specify responsibilities of a faculty member outside that individual’s school, should be entered into a central repository, which should then be made accessible to key personnel in a controlled way. This approach will ensure greater transparency around commitments and facilitate awareness during leadership transitions.

- 3) MOUs should be aligned with the budget process, especially for any unit that has a multi-year budget agreement, so that units revisit their MOUs in sync with that budget cycle and provide a list of current MOUs for discussion and reconsideration.

Proposed owner: Executive Vice Provost

<i>Create connections across & outside of Duke</i>	Facilitate greater collaboration with external organizations
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The most ambitious research undertakings increasingly require not just collaborations among faculty or across disciplinary lines, but deep engagement with external partners. Sometimes opportunities emerge to join forces with other universities. In other cases, collaborations beckon with firms, NGOs, community organizations, or government agencies. Success in such ventures often requires painstaking efforts to forge relationships and establish appropriate intellectual groundwork. Duke can point to many effective joint ventures over the last decade, but we nonetheless have work to do—to forecast where big opportunities that dovetail with Duke’s strengths will emerge, nurture complementary connections, and, especially in the case of community organizations, hone our capacity to listen and co-create research agendas.

Duke, in other words, needs to be more purposeful in pursuing sustainable partnerships with other universities that have complementary capacities, industry, and local community organizations. Our current approach tends to be haphazard and dependent on individual faculty relationships, which is diminishing the potential of these partnerships.

OR&I’s Office of External Partnerships is working to strengthen our industry partnerships, while at the same time the Office of Durham & Community Affairs is working to improve our community partnerships. We endorse these efforts. We would further recommend that Duke seek wherever advisable to build more robust partnerships by creating opportunities for:

- Graduate students to do internships and lab rotations with external partners, which not only facilitate career discernment for those students, but can also lead to faculty research collaborations;
- Faculty to take sabbaticals with an external organization, the sort of embedded engagement often necessary to drive long-term partnerships; and
- Career professionals to come to Duke to amplify the ongoing work of an interdisciplinary research team, for the same reason.

All of these avenues appear to be excellent prospects for philanthropic support.

Proposed owner: Office of Research & Innovation; Office of Durham & Community Affairs; The Graduate School; Duke Career Center

Re-allocate existing resources to magnify impact

Create "living wills" to set expectations around the lifespan of centers and institutes

To support Duke's research strengths and priorities and, frankly, sometimes to retain critical faculty, we tend to create new "things" (e.g., programs, research centers) without an off-ramp. While this approach can allow such units to scale up capacity and undertake long-term initiatives, in some circumstances it can also lead to commitments that limit our flexibility to adapt to a changing landscape.

We recommend creating "living wills" for all research centers and institutes that re-set our culture around the non-permanence of such units, making clear that continuity is not guaranteed—and indeed, that declaring success is to be aspired to above self-preservation. This will require a cultural mindset shift.

Living wills should include:

- A clear statement that units are not funded in perpetuity.
- Articulation of the central goals of the unit.
- Articulation of how the unit will measure progress and what success might look like.
- An assessment of whether the unit will be able to become self-sustainable, and if so, the expected timeline for self-sufficiency (note: we do not expect that all centers/institutes will be self-sustainable and argue that there are some instances of public goods that the university should invest in, but it is important to clearly define these expectations at conception).

This process should be flexible, but also avoid creating loopholes.

Proposed owner: Office of Interdisciplinary Studies

Re-allocate existing resources to magnify impact

Create a central repository for seed grants

Various Duke units (schools, departments, centers/institutes, Provost's office, programs) offer seed grants to faculty. However, there is no central repository to identify these opportunities, creating gaps in faculty awareness, difficulty in uniform reporting to funders on other sources of support, and a lack of insight into overlaps and gaps across the university. As part of this process, we have collected information about current seed grant offerings (see Appendix G).

We recommend creating a central repository to house this information. This repository should be used to ensure that our allocation of seed grant resources aligns with the culture we seek to reinforce and with our strategic goals. We further recommend that all units that offer seed grants, or plan to offer seed grants, consult this repository to target their efforts effectively and to become aware of best practices about dissemination of information to faculty, structuring of selection processes, and tracking of research flowing out of seed grant-funded activities. At the same time, we recommend the strategic addition of time-limited seed grant programs to jump start faculty research in particular areas. These

can range from small grants that facilitate convening of stakeholders, to somewhat larger seed programs that provide materials or personnel. For example, as we try to incentivize important research in climate change, such seed money could draw researchers into the area to collaborate with our core faculty in the Nicholas School and the newly merged Nicholas Institute–Energy Initiative.

Proposed owner: Executive Vice Provost and Office of Interdisciplinary Studies

<i>Re-allocate existing resources to magnify impact</i>	Develop new principles that support a flexible allocation of space
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Duke’s strategic framework prioritizes investing in people rather than extensive new buildings. Architecture and careful attention to location remain key contributors to a flourishing research environment—both with regards to the functional surroundings needed in certain research fields (e.g., labs), and ready access to collaboration and collision spaces. We must optimize our current space to maximize the impact of our research. This objective requires resetting our culture around space use. Few issues on campus elicit greater interest or more passion. Many units remain convinced that they lack needed space; and once possessed of a given location, units are extremely loath to give it up, regardless of current use or the needs of other parties.

As a starting point, Duke should clearly establish as a core premise that no unit or individual has sovereignty over space or owns it in perpetuity except the university. Deans and the Provost must have the flexibility to reallocate space, and the associated costs to the unit, to meet evolving research priorities. Any dramatic changes to the allocation of space are sure to be controversial. Yet, Duke’s current use of space is tremendously costly both financially and in terms of the lost opportunities to align resources with needs and facilitate emerging collaborations.

In 2019, prior to the pandemic, Duke hired an external consultancy to review and recommend changes to our use of space. We encourage the university to revisit the recommendations that emerged from the resulting report, while also considering how the increase in remote and hybrid work arrangements may have created new opportunities to free up space for the highest priorities. Any process for space reallocation should have appropriate representation from across the school or university, depending on the context.

Proposed owner: Executive Vice Provost

<i>Reward & celebrate what we value</i>	Redouble efforts to revise tenure standards to align our rewards system with our values
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In 2018, the Duke Tenure Standards Committee issued a series of recommendations to the Provost to revise tenure standards to better recognize the full range of scholarship the university values, including public scholarship, digital scholarship, and artistic scholarship. Despite the headwinds associated with the COVID-19 pandemic, the Office for Faculty Advancement has continued to work with departments and schools to implement these recommendations. In some units, change has been limited.

We recommend that the university redouble efforts to work with departments and schools to ensure that tenure and promotion standards support the full range of methods and modes of engagement and dissemination that the university stipulates as having a valuable place within Duke’s research ecosystem. This goal requires clear standards in relevant units for:

- Community-engaged research, which depends on time-consuming cultivation of relationships with community partners.
- Public scholarship and new developments in how scholars disseminate research.
- Interdisciplinary research, which runs the risk of being undervalued by reviewers with a disciplinary orientation.
- Collaborative research, which by definition raises questions about the role that individual faculty play within larger teams.

In many fields, moreover, faculty from underrepresented groups are more likely to embark on these research avenues. As such, success in facilitating the career trajectories of faculty from those groups has a higher likelihood of depending on attention to these issues.

The Provost’s Office should work closely with deans on the ongoing challenge of recalibrating promotion and tenure standards to remain in sync with university priorities, as well as narrower disciplinary norms.

Proposed owner: Office for Faculty Advancement

<i>Reward & celebrate what we value</i>	Create a new Presidential Award to recognize units that embody an innovative and collaborative culture
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The Presidential Awards program is the highest honor given to Duke staff and faculty, seeking to recognize Duke’s core values. Awards are given in two categories: individual and team. We recommend adding a new “unit” award to recognize a center, institute, department, or school that exhibits an innovative and collaborative approach to research and education. While the individual and team awards are by open nomination, we anticipate that this approach would be more difficult at the unit level. As such, we recommend that this award would be given to one unit each year and would be selected by the Deans Cabinet.

Proposed owner: Duke Human Resources, Office of the President

Next Steps

As a result of far-sighted investments over the past half-century, Duke has established itself as a leading global university with world-class faculty. A robust future depends on the ongoing willingness to engage in candid assessment of our strengths and limitations. Such clear-eyed evaluation will enable Duke to reinvigorate, diversify, and empower our faculty, wisely update our research infrastructure, and ensure that our research endeavors reach their full potential to have an impact, without compromising integrity or our regulatory obligations.

As Duke approaches its centennial, there is no better time to honor the best of Duke’s research legacy by amplifying what we have learned to do well and improving where we have fallen short. Some of our recommendations will be relatively straightforward to implement. Most entail complex, system-level changes that cannot happen overnight, and that will surely require adjustments, as we learn how they interact with other crucial aspects of our missions and operations. Moreover, some of the recommendations require significant new resources at a time when internal sources of support remain quite restricted. We strongly encourage implementers to think at the outset about how the university should assess the impact of any changes in their areas, both to facilitate that process of refinement and to make sure that reforms prove beneficial. We also advise that Duke revisit the issues we have raised and our recommendations at regular intervals, making this report more of a living and evolving document. The world of research has changed enormously over the past quarter century, and there is every reason to believe that the pace of transformation will only accelerate in the years ahead.

This reality confronts any research university with the daunting imperative of ongoing iteration and adaptation. We are confident that this generation of Duke faculty, staff, and administrators is up to the tasks at hand. Through deliberation, collaboration, and decisive action, we can build a research enterprise at once nimble, creative, and responsive. If we wish to enable our scholars to undertake the critique, discovery, and translation necessary to address challenges like racial injustice and the world’s climate crisis, we can do no less.

The Educational Enterprise in 2030

Context Setting for Undergraduate Education

Provost Kornbluth charged the 2030 Education Working Group with attuning Duke’s education model to the deep needs of “emerging adults” and the purpose of a liberal arts university, the evolving ecology of residential and online education, and competitive pressures among peers to deliver the highest quality education. The working group’s report also begins with consideration of crucial context that frames a more extensive analysis of undergraduate education and then identifies three strategic areas of focus—development of more consistently coherent learning trajectories, infused by deeper integration of fundamental and applied research into the undergraduate experience; more clearly defined support and rewards for faculty to develop as excellent teachers; and adoption of more flexible structures for student learning. Some complementary reflections on graduate and professional education follow.

What undergraduates seek when they arrive at Duke, and what they continue to hunger for while they are here, is to grow intellectually and personally to the fullest extent possible: analysis and synthesis, research and composition, thought and action, exploration of the big questions related to self and society and planet. But what many often find (fingers can be pointed in many directions, to their peers, parents and society at large as well as to the signals the university sends) is risk-aversion in pursuit of grade security, a form of pre-professionalism that backfires, a reductive checklist approach to our current Curriculum 2000, and fracturing “certification-itis”: too much done too quickly and little of it ever synthesized, most of it originating in the mandates of others, with the total far less than what could have been. Many feel disengaged and exhausted rather than—this is the phrase that invariably resonates—*drawn out in discovery of self and other*, that is, in the development of their deepest curiosities and affinities and commitments.

Yet we know there are programs here that live alongside our main curriculum (FOCUS, any semester at the Marine Lab, Duke Immerse, DukeEngage, Bass Connections) that foster just exactly that, too often for the select few, who thereafter demand more of themselves. More importantly, Duke has extraordinary resources, especially among its faculty, across Arts & Sciences and the professional schools, many of whom have already chosen (to remain at) Duke because they want to conduct their investigations and create their arts, to nurture wisdom and solve problems, to learn and to make and to institute, *with* students of all ranks and stages, as with colleagues *on the ground* in subfield *and* from far afield.

Stronger collaborative interactions with students via courses and associated co-curriculars can thus not only benefit the students but also open faculty to diverse viewpoints and foster research and artistic endeavors that link to other parts of the campus. Such cultivation is what constitutes an elite residential liberal arts university. Education on this order is expensive (especially in its by-definition inclusivity of students, staff, and faculty) and will become increasingly rare. Yet this type of education shapes students into citizens who are simultaneously wise and adept, generous and informed, serving society in whatever occupation they find their affinity.

The university system is one of the two oldest sustained institutions in the West because it has proven its command over its double mission—to advance philo-aesthetic wisdom (the august English model) and cultivate scientific and social knowledge (the modern German model), at best in relation to one another, in service of and often *by means of* educating the young, determined, and gifted. It is going to take concerted effort over time to formulate strategies including a strong undergraduate curriculum—but by no means only that—to implement a singularly “Duke” vision of this double mission for the future. How are we to harness emergent interests, needs, commitments, methods, technologies, and logistics—given financial realities—to the collective life of mind-and-heart that is our liberal arts university? And how do we accomplish this *without* doing what everyone else is doing and thus undercutting our uniqueness of purpose; our claims upon our supporters; our service to constituencies here, near, and far; and, above all, stellar accomplishment itself?

In anticipation of curricular, residential, and technological change, we must strike a distinctively Duke balance in three key areas:

- Between broad exposure to habits of mind *and* specific areas of expertise; between requisite knowledges (such as writing and coding, ecology and equal treatment, numbers and arts) *and* exploratory self-authorship; and between reflective introspection in pursuit of self-discovery *and* immersion to the point of mastery in methods, materials, languages, systems, histories, cultures, geography, geology, and galaxies that are upon first encounter *foreign* to the self.
- Between the substantive recognition of hiring, promotion, compensation for teaching, broadly understood (classroom, advising, mentorship, co-curriculars, residential presence, research advising, theatrical and musical participation, etc.) and scholarly/creative productivity.
- Between the common spaces and pacing of the traditional semester structure and a more flexible, modular and year-round academic calendar and between learning-and-making modalities facilitated by advances in online technologies, including alumni networks, and the high-touch, in-person residential experience.

The Vision: Undergraduate Education at Duke by 2030

We seek to provide our students with more integrated intellectual pathways and deepen their engagement with research, central objectives that depend on cultivating and rewarding faculty who are passionate about teaching and pedagogical innovation, and building more flexibility into our basic structures and systems.

The education working group identified three primary levers of change to achieve this vision: 1) Deepen the coherence of learning journeys and more firmly build research into the student experience; 2) Attract and retain top faculty teachers by incentivizing innovative pedagogy and high-touch teaching and mentoring; and 3) Reimagine structures and systems to enhance flexibility and integration. These three levers are all inter-related and changes in one area (such as support for faculty engagement) will be necessary to achieve the goals in another area (such as student learning).

Student Learning	Faculty Engagement	Systems and Structures
<ul style="list-style-type: none"> • Introduce university courses • Develop a new curriculum that integrates co-curricular programs and offers a coherent sequence of learning • Feature capstone experiences • Map the landscape to improve advising 	<ul style="list-style-type: none"> • Support high-touch and research-inflected teaching • Better leverage professional school faculty • Focus assessment on the development of critical skills and habits of mind 	<ul style="list-style-type: none"> • Create a more flexible calendar • Explore hybrid courses • Enhance our perpetual learning community through stackable, online learning experiences • Rethink frameworks of teaching expectations to align with student-centered learning • Create adaptable learning spaces
<p><i>Students gain exposure to a wide range of disciplines, have the opportunity to learn with less pressure and in different formats and time frames, experience authentic research undertakings, and construct cohesive intellectual pathways.</i></p>		

The overarching goal is to expose students to a wide range of disciplines, to give them some opportunity to learn with less pressure than they typically experience now and in different formats and time frames, to build some of what is best about our co-curricular offerings into the curriculum, and, as a research university, to do our best to draw undergraduates into the process of critique and discovery.

Recommendations

<p>Student Learning</p>	<p>Deepen the coherence of learning journeys and build research more firmly into the student experience</p>
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Context: Duke has built a powerful reputation as a research university with a strong commitment to the liberal arts and to a residential undergraduate experience. Yet from Focus and the Marine Lab to Bass Connections and Data+, its signature learning experiences for students can seem isolated and segmented in ways that introduce unnecessary complexity and friction into a student’s learning journey. The formal curriculum is often at odds with students’ learning goals and the overall Duke education can resemble an ad hoc collection of experiences rather than a powerful and coherent set of learning

opportunities. The result is a fragmented, unnecessarily competitive, and at times inequitable experience.

Goal: Create a learning experience in which all students have opportunities to engage in deep moments of discovery, integrate their curricular and co-curricular experiences, and cultivate the habits of mind and essential skills that are necessary to be resilient and adaptive citizens, scholars, and workers in all fields.

Key Features:

- **Introduce University Courses:** We envision large-format courses covering topical areas of social import as well as areas that are increasingly important for students to understand no matter what their area of interest (e.g., data analysis); these courses will maximally engage Duke undergraduates across all schools and programs of study and will be taught by faculty across the institution. The university courses should showcase how the diversity of questions and methods used by scholars can be powerfully connected to nurture wisdom and solve problems. The courses also introduce students to the myriad curricular and co-curricular opportunities to explore course content in greater depth. These courses should be undergirded by a learning taxonomy of the fundamental habits of mind and essential skills that Duke believes are necessary to developing resilient, collaborative, and curious citizens, scholars, and workers. This year has seen a successful piloting of this approach in the UNIV 101 course: *The Invention and Consequences of Race*; a second course—exploring causes, consequences, and solutions to the climate crisis—is in the planning stages.

Proposed owner: Office of Undergraduate Education

- **Develop a new curriculum for the coming decade that integrates curricular and co-curricular programs:** The current undergraduate curriculum, Curriculum 2000, was crafted more than a decade ago and neither meets the needs of our current students nor leverages the extensive menu of co-curricular programs that have flourished in the intervening decades. We urge the Provost, together with the Dean of Arts & Sciences, and in collaboration with the other undergraduate deans, to charge a centralized curriculum committee to reimagine the undergraduate intellectual experience. This group and all of our academic units should intentionally cultivate connections between co-curricular programs and academic courses, sequences, and programs. Doing so will mean strengthening existing pathways of learning and forging new ones. The new curriculum, and the ongoing work between deans and academic and co-curricular units, should use the curriculum to better set up co-curricular engagements, such as by identifying required courses that match with co-curricular programs, and better use co-curricular experiences to fulfill curricular requirements, such as by offering credit for the teaching and learning that takes places in programs such as Bass Connections.

Proposed owner: Deans of undergraduate schools, along with Office of Undergraduate Education

- **Feature and expand capstone experiences:** Some academic departments already offer high quality capstone programs. These programs should connect more strongly to co-curricular pathways and they should be prominently featured as central to a Duke education. Deans should work closely with academic units to strengthen and expand existing capstones and to integrate them with student-driven inquiry pathways. In addition, deans should foster opportunities for academic units to experiment with new ways in which faculty and students can build learning communities for advanced research-infused capstone work. The overarching goal is to find more ways for students to

participate directly in research projects. These projects come in a variety of forms including individual and group independent studies, participation in faculty research, and structured preparation for senior theses.

Proposed owner: Deans of undergraduate schools, in conjunction with offices of Undergraduate Education and Interdisciplinary Studies

- **Map the landscape for individual students:** A Duke undergraduate advisor should provide a map of the different pathways that will enable students to progressively deepen their ability to drive inquiry and creativity and to integrate their academic and co-curricular experiences. From admissions to advising, these pathways—whether pre-structured or self-authored—should be presented as the hallmarks of a distinctively Duke form of education. While not all students will follow a pre-existing pathway, the aim is to create a culture in which students and faculty see key experiential and intellectual moments and their inter-connections as critical features of a Duke education.

Proposed owner: Office of Undergraduate Education

Many of our students are great collectors of experiences. Now we want to take the next step and invite them to be connectors and integrators and meaning-makers of those experiences. Some students already do this—they curate and create connected pathways. However, in some ways they create these coherent pathways and connected threads outside of our normative structures and systems. The aim is to nurture an integrative, purposeful, sequenced, scaffolded way of packaging and selling what we already have—and then making it normative, welcoming, and accessible.

For all students, there should be an overarching sequence of learning that encompasses the following:

- Every student should have a Focus-like first semester experience (Focus and What Now are examples, and perhaps versions of UNIV 101 courses could fit this mode as well).
- Every sophomore/early junior should have some type of immersive inquiry-based intellectually disruptive, transformative learning experience deeply connected to a scholarly engagement (the Marine Lab, Duke Immerse, Data+, Bass Connections, DukeEngage, Study Away, Humanities Labs, Story+ are examples).
- And every late junior/senior should have at least one integrative synthesizing capstone or culminating experience (honor thesis, capstone course, capstone project, public-facing work, solitary intellectual creation).

We aim for a three-part sequence:

1. The welcoming invitation to deep inquiry, wonder, and discovery;
2. Transformative experiences that disrupt default ways of seeing, thinking, and doing; and
3. The culminating synthesis and creation of an intellectual “product.”

This overarching sequence would make visible the multiple, diverse, and flexible pathways that enable students to create a coherent, holistic journey. Some pathways may in large part be predetermined and other pathways might be almost entirely student-faculty constructed.

The key question for the faculty is how to make this experience normative. More specifically:

- What form of curricular structures would make it so?

- Should we institute a set of distributed core requirements that provide a foundation and framework for these pathways?
- Can we give students significant choice while more strongly delineating required pathways that they can choose among or self-create?
- What do we think about requiring every student to complete an immersive, co-curricular experience as a distinctive aspect of a Duke education?
- Can we require that students take at least one UNIV 101 class that addresses big questions and scaffold it with smaller cohort discussion groups that form the kind of learning communities that fit into our sequence above?
- Should we create an undergraduate faculty designation—not unlike the graduate faculty model—that helps cultivate a group of scholar-teachers who work collectively to architect, instruct, advise, and support students through this expansive and, we hope, revelatory journey?

These considerations will be discussed with the new curriculum committee, proposed above, to guide the formulation of an enriching and exciting new curriculum for the coming decade.

Faculty Engagement

Attract and retain top faculty teachers by facilitating innovative pedagogy and high-touch teaching and mentoring

Context: While Duke fosters a collaborative and interdisciplinary community of teachers and scholars, some policies and practices diminish teaching excellence. Explicit reward systems and implicit cultural norms pit significant student involvement against faculty scholarly accomplishment and reduce commitment to methods of assessment that promote learning, collaboration, and authentic feedback. Some professional school faculty who deeply enjoy teaching undergraduates and value working alongside colleagues across Duke remain largely siloed. They find it fiscally and administratively difficult to teach or mentor undergraduate students, even as more undergraduate students want the kinds of learning opportunities that these faculty can provide.

Goal: Create sustainable structures and pedagogical tools for faculty from all schools at Duke who are passionate about pedagogical innovation to deepen their engagement with undergraduates in preparation for, and as part of, this learning community. Funding for facilitating cross-school teaching should be a target for philanthropy.

Key Features:

Support more high-touch teaching, mentoring and research-guidance: Duke should reimagine contracts, compensation, and requirements for promotion across employment status/ranks, divisions, and schools so as to better support faculty committed to student-focused and transformative pedagogies. As part of this process, it should intentionally foster a vibrant community of faculty innovators contributing to the scholarship of teaching and learning. Enabling conditions for teaching-forward faculty to flourish will cultivate an environment of inquiry-based, research-oriented, pedagogical experimentation and innovation on Duke’s campus. To motivate and facilitate the high-touch engagement of faculty with undergraduates, we will need to find a balance in the substantive recognition of hiring, promotion, and compensation between teaching, broadly understood (classroom,

advising, mentorship, co-curriculars, residential presence, research advising, theatrical and musical participation, etc.) and scholarly/creative productivity. One way to achieve this is by cultivating faculty who do key forms of research alongside their students, such as in Bass Connections, or whose own scholarship is advanced by working one-to-one with stellar undergraduates. At the same time, Duke could *also* honor both the minority of truly innovative and productive scholars who engage minimally with classroom teaching as well as that other minority of truly effective instructors who embrace intensive or extensive instructional work and engage more minimally with research.

Proposed owner: Deans and Office for Faculty Advancement

- **Enable deep collaborations between professional school faculty and students across Duke:** Removing barriers (for example, providing central funding to “backfill” professional school faculty members’ courses) will allow professional school faculty to engage in pivotal undergraduate moments. A rotating undergraduate teaching designation for select graduate and professional school faculty could create a cohort of cross-university faculty devoted to new forms of teaching and learning. Facilitating deeper forms of secondary appointments for faculty will also open possibilities for research assistants and Ph.D. advisee relationships for professional school faculty.

Proposed owner: Offices of Undergraduate Education and Interdisciplinary Studies

- **Focus learning on measuring mastery of content and the development of critical skills and habits of mind, instead of “seat time”:** Designing more flexible summative assessments has the potential to increase retention of students across diverse backgrounds in large introductory courses and to build more solid foundations of essential content knowledge as students move into upper-level courses. An example might include options for students to take summative assessments up to three times to provide more opportunities to demonstrate that they have achieved competency. In other courses, students might design individualized learning canvases that provide avenues for self-evaluation.

Proposed owner: Office of Undergraduate Education

Systems and Structures	Reimagine structures and systems to enhance flexibility and integration
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Context: The 21st century higher education landscape has revealed a generation of students who seek more flexibility, depth, and immediate access than generations before. Throughout the pandemic, our students, faculty, and staff have all experienced rapid shifts in learning modalities, course calendars and schedules, and even the very places they live and learn. Yet the current curriculum can never truly evolve and change until we address the dated systems and structures that currently define it. As we emerge from the chaos of the pandemic, now is that time to intentionally rethink these systems and structures. Duke education is already not “one size fits all” and our courses, calendar, and modalities of instruction should better reflect these different types of learning experiences.

Goal: Dramatically increase the flexibility of Duke's current calendar, learning modalities, and space policies to produce deeper, more integrated, and more accessible learning experiences and, as a new curriculum is developed, build in more systems and policies (e.g., pass/fail, ungraded options) that offer low-pressure opportunities for learning and encourage risk-taking in course selection.

Key Features:

- **Imagine new possibilities for the undergraduate academic calendar to increase flexibility and facilitate deeper experiential learning:** We are still on an agrarian calendar and our residence hall space is sub-optimally deployed outside of the standard academic terms. Might we reorganize our teaching periods altogether? Require at least one summer residence? Reduce the undergraduate experience to less time for those who need to do so or restructure it to enable for a 4th year devoted to experiential learning or research and publications? Consider different away experiences as part of the curriculum so that the full undergraduate experience may not necessarily be shortened? Could opening up summers as bona fide Duke semesters create opportunities for new educational experiences and goals? Could flexibility in which semester students attend open up more internship opportunities during a traditional semester when there is less competition for internships?

We should also imagine new possibilities for the undergraduate academic calendar that can accommodate different durations of learning experiences. Doing so can create more opportunities for student exploration and experimentation and create the conditions for faculty to imagine transformative experiential offerings that can be interspersed throughout the semester (and with less of the operational burden that currently challenges such engagements). Courses could be offered within traditional semester blocks that make the most sense for their content and desired learning outcomes. For example, some courses might benefit from deeper, more frequent class time and be offered in 8-week modules within a standard 15-week semester. Consideration could also be given to modifying the 3 year on-campus housing arrangements, which will also open possibilities for integrating more experiential learning opportunities.

Proposed owner: Executive Vice Provost, Office of Undergraduate Education and Student Affairs

- **Introduce greater flexibility in completing a Duke undergraduate degree by exploring how to offer certain classes in hybrid format:** The pandemic has illuminated both the limitations and the possibilities for high quality online and hybrid learning. It has also illustrated the rapidity with which our peers are experimenting with ways to deliver the highest quality education based on both well-tested traditional approaches and the insights drawn from cognitive, psychological and humanistic research about student learning. Can we find ways to reach more students, deliver an improved educational experience, and identify more sustainable financial models? Hybrid and online learning modalities—either in modules and/or in entire courses—will expand options and increase flexibility for faculty and students participating in key pivot points (and other courses as appropriate). Additional support will be provided by options that increase access, flexibility, and affordability by allowing students to complete a semester of coursework online before coming to campus (e.g., students taking a gap year) or to take some courses online/hybrid as they pursue research and practice opportunities off campus.

Proposed owner: Executive Vice Provost, Offices of Undergraduate Education and Learning Innovation

- **Re-imagine Duke as a perpetual learning community that expands Duke's impact beyond campus:** Leverage the opportunity to create stackable, reusable learning experiences to reach new audiences and improve learning outcomes from high school to retirement. Enhance the Duke brand and amplify recruitment channels by increasing upstream, downstream, market share and blue ocean channels without undermining the prestige of Duke's conferred degrees and certificates. Generate revenue for the schools, centers, and other Duke entities by investing in and/or partnering with the

schools to provide a complement of services while helping to align individual school goals with overall Duke strategies. Activate Duke’s global alumni network as a key node in this expanded network of teaching and learning.

Proposed owner: Executive Vice Provost and Office of Learning Innovation

- **Rethink the basic frameworks for teaching expectations to align with key goals for student-centered learning:** Policies around teaching credit, modalities and collaborations should be rethought to enable more flexibility and encourage the integration of research, teaching, and mentoring as a collective whole that puts students and their learning first. For example, faculty could experiment with innovative assessment models that are designed to provide deeply informative feedback, in contrast to traditional grading mechanisms. The aim is to establish a cadence—try, learn, modify, repeat—that makes learning more powerful and combines patterns of intensive collaborative work with self-paced discovery that is free from the space and place confines of a traditional academic calendar.

Proposed owner: Deans and Office for Faculty Advancement

- **Ensure that physical formal and informal learning spaces reflect and enable existing and new forms of high-quality teaching and learning:** For example, gateway courses could leverage hybrid modalities to allow for smaller, student-centered experiences that provide more equitable assessment strategies, making them “on-ramp” courses that better enable all students to undertake advanced forms of independent work. At the same time, the large stadium seating-style lecture halls so often deemed necessary for large introductory courses can be redesigned for more flexible arrangements to better facilitate teams, and smaller cohort and collaborative work. And the introduction or retro-fit of more tiered, tabled, U-shape classrooms and gathering rooms similar to the professional schools, could, if used innovatively, have the potential to be transformative.

Proposed owner: Executive Vice Provost

Graduate and Professional Education

Context Setting for Graduate and Professional Education

The education section of this report focuses primarily on undergraduate education, in part because the university takes a far more decentralized approach to graduate and professional education, though it should be noted that graduate students have an enormous impact on our research operation and agenda, described elsewhere in this report. The latter encompass nearly 150 degree programs, each governed in large measure by the faculty within the units that provide them. Duke has opted for a high degree of delegation here because of the extraordinary heterogeneity across graduate and professional training. The Master’s in Divinity degree or the Master’s in Critical Asian Humanities, like the Ph.D. in Physics, the Nursing Master’s in Adult Gerontology Nurse Practitioner Acute Care, and the Juris Doctor in Law, have distinctive intellectual objectives and relationship to eventual career trajectories.

Nonetheless, three in five Duke students are now either graduate or professional students, and they deserve attention as well, as we envisage a path toward educational excellence in 2030. These students already play crucial roles in undergraduate education, mostly as teaching assistants but also as instructors of record. They also take on pivotal positions within many of the co-curricular programs, serving as sub-team leaders in Bass Connections or as mentors in Data+, Story+, and DukeEngage.

Indeed, following through on our key recommendations for undergraduate education will require intensified deployment of our graduate and professional students as mentors and teachers, and integration of those experiences into their own curricular trajectories.

Our vision for undergraduate education calls for expansion of current co-curricular opportunities, as well as the widening of capstone and honors experiences. Even with the more substantial faculty engagement that we forecast, robust opportunities for the more immersive undergraduate experiences will surely depend on heightened participation by graduate and professional students as intermediary mentors. This kind of leadership experience should become a hallmark of Duke graduate and professional training.

In considering broad goals for graduate and professional education in 2030, we must take cognizance of three crucial aspects of these programs. The first concerns an important divide that parallels key dimensions of the undergraduate context. Most graduate programs place a significant premium on intellectual specialization and deep engagement with focused research. By contrast, all of our professional programs, along with some graduate programs in more applied fields, now include a curricular anchor for experiential learning, whether through practicums, internships/externships, courses designed around client-driven group projects, apprenticeship-style provision of services in clinical, legal, or pastoral settings, or some mix thereof. Students in Master's or Ph.D. programs with more of a focus on disciplinary research have access to experiential learning through our co-curricular offerings. But uptake has been more uneven, partly because of the need to focus on program requirements. Many graduate students also perceive, sometimes accurately and sometimes inaccurately, that their faculty advisers see such activities as less important, or even distractions from the core aspects of their training.

The second pattern involves evolving student demographics. Individuals who reside outside the US have become a growing fraction of those enrolled in graduate and professional degree programs, and have become a majority of students in many programs. This development has widened the base of talent at Duke and expanded our global footprint. But it raises challenges around inclusivity, from welcoming international students and helping them acclimate to Durham, to engaging cultural differences within and outside classroom settings. Within many programs, moreover, our progress in attracting students from underrepresented groups has continued to lag our relative successes in diversifying the undergraduate student body.

Finally, as mentioned above, we must reckon with the crucial role that graduate and professional students, and especially Ph.D. students, continue to play in our research enterprise. Especially in STEM fields, graduate students provide essential contributions to laboratory teams, bringing fresh ideas and amplifying a lab's analytical power.

Our proposed objectives for graduate and professional education engage with these realities, as well as the related findings and analysis of the 2018 Report of the Re-imagining Doctoral Education Committee (RiDE) and recent deliberations of the Board of Trustees Graduate & Professional Education & Research Committee (GPER). The RiDE report, reflecting our most recent deep dive into doctoral education, underscored the importance of diversifying our doctoral student cohorts, and ensuring that all Ph.D. students have access to appropriate professional development opportunities that complement core training. GPER discussions have emphasized that Master's students also should be able to take advantage of opportunities beyond their programs, interacting and collaborating with peers across

campus, and that we need to make sure that we have the support structures in place for international students to make the most of their Duke experience.

Recommendations

Embed Experiential Learning

Embed engagement with experiential learning more deeply into curricular options for Graduate School Ph.D. and Master's programs

For many years, national reports on graduate education have emphasized the importance of sufficient attention to professional development and the cultivation of excellent communications skills, project management, and leadership, alongside research methods and substantive content knowledge. Duke now offers many co-curricular avenues that foster such experience, including the Certificate in College Teaching, Bass Connections, GradEngage, and the new certificate in Innovation and Entrepreneurship. In scattered programs, such as Pharmacology and Cancer Biology; Art, Art History, & Visual Studies; and the Master's in Interdisciplinary Data Sciences, graduate students encounter robust opportunities along these lines. We need more programs to craft analogous offerings, and to look for ways to link their own requirements and expectations to university-wide programs.

Proposed owner: Dean of The Graduate School, Executive Vice Provost, and Associate Deans for Graduate Education in the other schools

Foster Boundary-Spanning Intellectual Engagement

Expand the avenues through which graduate and professional students intellectually engage across the boundaries of programs and schools

Duke's professional schools have invested heavily in experiential learning, often designed around collaborative research and analysis, and/or sustained interaction with clients or other stakeholders outside the university. In addition, they have worked hard to facilitate joint degree programs with both The Graduate School (TGS) and their sister schools. TGS has also made it possible for Ph.D. students to pick up a Master's degree in a different discipline en route to the Ph.D. These investments have created a strong platform for even more expansive interactions across schools. One especially compelling opportunity involves group Master's capstones that grapple with priority areas like climate mitigation/resiliency, social justice, and health and environmental inequities. Applied research in these domains tends to call for expertise that cuts across disciplines and zones of professional expertise. Duke can deepen its capacity to prepare professional and graduate students for careers in these areas by providing funds for pilot cross-school group capstones in these domains.

Proposed owner: Deans and Office of Interdisciplinary Studies

Diversify Student Cohorts

Accelerate the diversification of student cohorts in graduate and professional programs, and invest in greater supports for students from underrepresented groups and international students

Across campus, schools and programs are redoubling efforts to achieve the level of demographic diversity that Duke has established among its undergraduates. A growing set of undertakings focus on pipeline development, such as through summer research programs to bring promising undergraduates from underrepresented groups to Durham. Holistic approaches to admissions are becoming the norm, accelerated by the pandemic, which compelled suspension of required standardized test scores.

Throughout Duke, however, more administrators and faculty have come to recognize that making progress on issues of culture, especially around inclusion and belonging, are crucial for recruitment and retention of admitted underrepresented minority students. Again, we have strong models to build on, such as TGS’s University Center of Exemplary Mentoring, which has facilitated a much stronger sense of community among underrepresented minority STEM graduate students. And Student Affairs, previously focused primarily on undergraduates, has made several moves to expand its work to graduate and professional students. Further investments in affinity groups, peer mentoring, the development of inclusive curricula, the diversification of our faculty, and the collection and analysis of survey data about the student experience all stand out as key priorities if Duke is to benefit fully from a diversity of experiences and backgrounds among its graduate and professional student bodies.

Proposed owner: Dean of The Graduate School and Office of Student Affairs

<i>Ensure Excellence in Advising</i>	Achieve greater consistency in excellent faculty advising
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The quality of faculty advising and mentoring matters enormously for students undertaking high-level research, whether undergraduates, professional students, or graduate students. Through the work of the RiDE Committee, as well as the graduate student surveys that we have conducted, we know that our record is patchy here in research Master’s and Ph.D. programs. Duke is lucky to have many excellent faculty advisers in every school, who provide student-centered guidance to the individuals whose research they oversee. But too many students have less positive experiences.

One key issue concerns the formal articulation of advising/mentoring standards. The School of Medicine and Arts & Sciences have taken the lead with regard to Ph.D. education, asking departments to formulate explicit statements of expectations for both faculty and students. One ongoing challenge here, though, mirrors the situation with undergraduate education, since our incentive structures emphasize faculty research output much more than excellent graduate advising and mentoring.

There is much that can be done through better support for faculty, including workshops and similar mechanisms of peer mentoring and group coaching to those described in the research section. As with undergraduate education, we need as well to give attention to frameworks of faculty compensation and advancement. Directors of Graduate Studies stand out as requiring particular attention for both training and salary enhancements. Directors of Graduate Studies play essential roles as monitors of faculty advising, providers of supplemental engagement, and sources of information about opportunities in the wider university.

Proposed owner: Dean of The Graduate School and Office for Faculty Advancement

Next Steps

Our recommendations for undergraduate, graduate, and professional education account for Duke's existing strengths and culture as an R1 liberal arts university and seek to set it on a trajectory toward an even more robust culture of innovative and meaningful learning among students and faculty. All of these recommendations will require an experimental approach in which faculty and students conceive, build, and test out the best ways to achieve the larger goals. This iterative process can begin immediately with any eye toward both short-term changes and long-term review and adjustments on the way to 2030.

Mechanisms of Faculty Governance

Implementation of the recommendations from the 2030 research and education working groups depends critically on input from and approval by faculty governance groups. Duke has a robust faculty governance structure and senior leadership at the university look to faculty governance processes and participants frequently for informal advice and, in many cases, direct approval of university processes. The overarching guiding principle for faculty governance at Duke derives from the Christie Rules, which state: "except in emergencies, all major decisions and plans of the administration that significantly affect academic affairs should be submitted to the Academic Council for an expression of views at some time prior to implementation or submission to the Board of Trustees."

Accordingly, as part of the 2030 process, the Provost convened a group to discuss possible changes in current governance processes that might best facilitate implementation of 2030 recommendations. After extensive discussion, the working group arrived at a few recommendations as noted below, but believes that the balance of these issues, as well as the details, require deliberation and decision-making by the existing faculty governance structures at Duke.

The working group achieved consensus on the following issues:

- **Christie Rules update:** The working group submitted to the Executive Committee of the Academic Council and the Provost a potential addition to the faculty handbook that provided more details about the Christie Rules. This addition would provide clarifying examples of expected consultation to reduce the chances of erosion of this norm in the future. Some working group members, however, argued against this tack noting that the Christie Rules as written have served Duke well for several decades, and there is a risk that specifying some included items will invite a legalistic and narrowing approach to interpreting what should be shared. The working group recommends that the Executive Committee of the Academic Council decide how to proceed.
- The working group recommends a revision of the faculty governance structure over undergraduate curriculum issues. Some members felt that Duke should have a university-wide curriculum committee with representatives from all 10 schools that is respected by faculty and administration, given our goal of a "One Duke" essence, and the fact that professional schools have both a stake, as well as insight into how undergraduates are educated. Others felt that schools that do not teach undergraduates should not be represented on such a committee. In the past, the Arts & Sciences Council has served as a de facto committee of this type, but it does not contain representation of all the relevant faculty voices. The Provost has recommended a committee comprised of all divisions of Arts & Sciences along with representatives from the other undergraduate schools. Formation of this committee and vetting with the Executive Committee of the Academic Council has begun.

- We see a need for more clarity on the practical meaning of the phrase “the faculty own the curriculum;” we note that faculty don’t own hiring so cannot fully “own the curriculum.”
- Faculty certainly have academic freedom to determine how to teach their assigned classes, though the Provost, deans and chairs certainly have a role in assigning the topics/classes that should be taught. We believe this distinction to be crucial, and an equipoise is needed.

The working group discussed the following issues but did not achieve consensus. These matters are referred to the Executive Committee of the Academic Council and the Provost to determine how to proceed, including making no change:

- The working group discussed the issue of Academic Council representation rules and noted several points. First, the current rules identify 12 divisions representing all 10 schools at Duke, and the number of faculty elected to each division have been in place for some time (last updated when the Sanford School became a school more than a decade ago). Second, regular rank, non-tenure track (NTT) faculty may be elected to the council, but the number is limited to 1 in 10 for a given division. Third, two regular rank, NTT faculty have recently been elected to service on the Executive Committee of the Academic Council. Fourth, the School of Medicine arguably is under-represented on the Academic Council because they are so much more numerous than any other school. This means the default is not “representative” in any sense of how numerous are the various faculty. We note that it is often difficult to get School of Medicine faculty to be willing to stand for election to the Academic Council. Fifth, non-regular rank, NTT faculty may not be elected under the current rules. There was discussion of this fact and whether it constituted an inappropriate truncation of representation by a group of faculty that has grown more numerous over time. There was also an issue raised about unionized faculty not being eligible for election to the Academic Council, regardless of their appointment type. The working group understands this to be a legal issue, and assignments of committees cannot be made to unionized faculty without explicit payment. The union itself serves the function of an Academic Council to represent the perspectives of the faculty who are members of the Union.
- Arguments for and against changes can be made, and the working group identifies the principle that there should be a compelling reason to change the representation rules because the Academic Council has operated well for some time.
- Clarity is needed on this topic—deciding not to change the rules, for example, is a policy decision and should be noted as such. The working group also notes that we are made up of “insiders” to the current and past systems of faculty governance. This topic goes to broader question about what various faculty career tracks look like at Duke, and what they should look like in 2030.
- The current slate of committees (both Provostial and Presidential) should be re-evaluated by the President and Provost in concert with the Executive Committee of the Academic Council.
- Revision of the committee slate should be driven by the following principles: 1) Don’t waste anyone’s time; 2) Committee work should provide for the ability for faculty to learn about the university as well as to provide meaningful input, guidance and oversight; 3) When in doubt, reduce the number of committees; 4) Clarify the goal/role of committees and the sunseting of committees is a sign of a healthy change (see principle (1) above).
- The Provost/President Committee division is not meaningful in terms of function.

- The President’s Athletic Council is more of a “show and tell” experience than any type of faculty oversight committee. This committee is in need of being rethought.
- As above, the working group recommended the addition of a University Curriculum Committee.

Next Steps

Our next steps will include determining financial support for the activities laid out in this report. In addition to philanthropic support and other external sources of funding, Executive Vice President Daniel Ennis and his team are actively engaged with the 2030 finance working group to consider additional internal resources and/or reorganization of existing resources.

Furthermore, this spring, the Provost and President, in consultation with the Executive Committee of the Academic Council, should engage with the issues laid out above to determine a timetable for funding and implementation of the recommendations contained in this report.

Appendix A: President Price's Initial Charge to Strategy Team 2030

Charge President's Strategy Team 2030 April 10, 2020

Purpose: The President's Strategy Team 2030 is charged with identifying and recommending key strategic opportunities for Duke as we recover from the severe disruptions of COVID-19. The University faces unprecedented financial challenges that must be navigated thoughtfully and with firm resolve, both to secure for the future the resources needed to carry out our core academic missions and to capitalize on Duke's historic agility and innovative spirit to secure a true leadership role in defining higher education for the 21st century.

Charge: To this end, the President's Strategy Team 2030 will seek to develop informed responses to the following questions:

What are the most central areas of activity for Duke, across our schools and programs, that warrant high priority for financial and other resources?

What areas of activity for Duke, across our schools and programs, presently consume resources that might more profitably be directed to other, more compelling activities?

What are the novel areas of activity for Duke that stand to bring highest distinction in line with our missions, and which consequently warrant high priority for financial and other resources?

In developing its responses, the Strategy Team should be guided by the following assumptions and general principles:

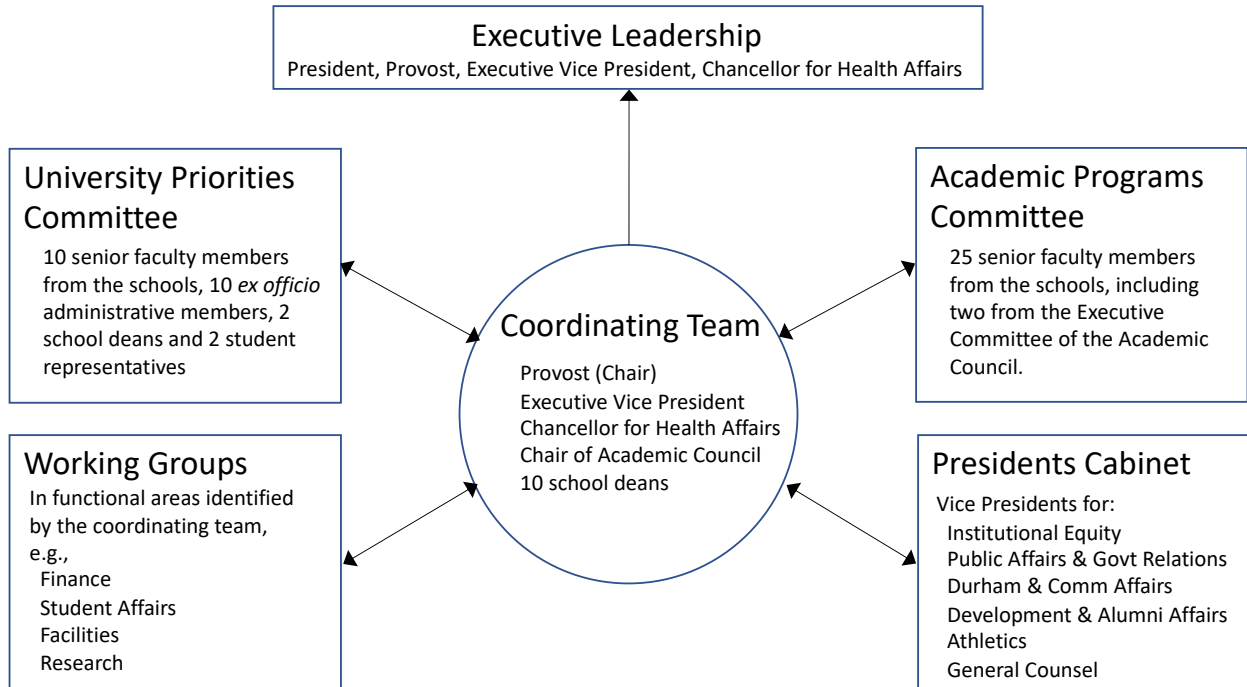
- Considerations and recommendations should be closely aligned with Duke's overarching strategic framework, [Toward our Second Century](#).
- Recommendations should assume that the university's financial resources will be severely restricted, and that school and unit operating budgets will be reduced by up to 25%, with approximately half of that reduction coming from central administrative functions.
- Recommendations should be grounded in a recognition of the centrality of Duke's regular-rank faculty to the academic mission, and our ongoing commitments to diversity and inclusion.

Membership: The Strategy Coordinating Team will be appointed by the President and include the Provost, Executive Vice President, Chancellor for Health Affairs, Deans of the Schools, and Chair of the Academic Council, and will constitute any working groups as necessary and consult with a broad range of university stakeholders, including critically members of the President's Cabinet, University Priorities Committee, and Academic Programs Committee, in conducting its work.

Schedule: A preliminary report is due to the President on or before September 1, 2020 with a final report due by December 31, 2020.

Appendix B: Strategy Team 2030

Duke Strategy Team 2030



Appendix C: 2030 Working Groups

Steering Committee

Sally Kornbluth
Noah Pickus
Ed Balleisen
Gary Bennett
Daniel Ennis
Peter Feaver
Don Taylor
Anne West

New Modes of Research & Collaboration

Ed Balleisen
Anne West
Lori Bennear
Chris Freel
Jeff Glass
Dave Hansen
Mary Klotman
Fan Li
Tim McGeary
Deondra Rose
Josh Sosin
Toddi Steelman

Renewing a Duke Education

Noah Pickus
Kerry Abrams
Valerie Ashby
Gary Bennett
Tyson Brown
Tom Ferraro
Judith Kelley
David Malone
Mohamed Noor
Shrey Majmudar (student)





Reimagining Shared Governance

Don Taylor
Steffen Bass
Abbas Benmamoun
Sara Galletti
Kerry Haynie
William Johnson
Paula McClain
Josh Socolar
Beth Sullivan
Victoria Szabo
Erika Weinthal
Joseph Winters
Larry Zelenak

Refreshing Financial Structures

Daniel Ennis
Bill Boulding
Peter Feaver
Jennifer Francis
Scott Gibson
Debu Purohit
Emma Rasiel
Jim Roberts

Appendix D: Project Management Offices at Other Institutions

University	 Oregon State University	 ARIZONA STATE UNIVERSITY	 Carnegie Mellon University	 UNIVERSITY OF BATH
Unit	Office of Research at the College of Engineering	Knowledge Enterprise Research Administration Project Management Office	Engineering Research Accelerator	Research Project Management Service
Organizational Model	Decentralized	Centralized	Decentralized	Centralized
Research Project Management Staff Funding Model	Hard-funded for <1 year, soft-funded after via grant money	Mostly soft-funded, academic departments sometimes allocate general funds	Soft-funded via grant money	Junior staff fully soft-funded, senior staff 80% soft-funded
Service Prioritization Approach	Staff initially hired to support PIs who request support (demand-based approach)	Prioritized to large, complex projects (e.g., large value, demanding sponsor)	Prioritized to large, institution-wide projects (e.g., large federal grant with multiple PIs)	Prioritized to high-risk, transformative projects (difficult sponsor; science/eng.)
Current Team Size (not including unit head)	4 Research Program Coordinators	8 Project Managers and several Project Coordinators	2 Project Coordinators	2 Research Project Managers and 8 Research Project Administrators / Assistants
Minimum FTE Per Project	20%	10%	Unspecified	20%
Key Interview Takeaway	Implemented at the school level because Oregon State is highly decentralized; Started with one person but grew quickly to meet demand	Most sponsors with difficult administrative requirements (i.e., NASA, DARPA, NIH); Central office allows for a career path and staff development	Technical / functional expertise not critical; main objective is to lower the administrative burden on PIs	Managing fixed-term contract staff is stressful, some central funding enables a sustainable working model

Appendix E: Sample Project Manager Job Descriptions from Other Institutions

Oregon State University and the University of Bath kindly shared project manager job descriptions with us to further inform our sense of how these positions are structured within their institutions. These sample job descriptions can be accessed by any Duke user via Box:

<https://duke.box.com/s/pj21zfy2cg4o2fq537bkrzqx5kzo0x79>

Appendix F: Recommended Approaches to Implementing a Project Management Office at Duke

Based on our initial benchmarking of project management functions at other universities, and conversations with faculty and staff at Duke who currently have someone playing a project management role on research projects, we recommend the following initial ideas for how we might create a project management function at Duke:

- This office should start small, with two to three project managers, to build proof of concept, and then expand to meet demand. As the office grows, there is a potential to create sub-teams with project managers aligned to broad disciplinary areas (social sciences; engineering and health sciences; natural sciences; humanities).
- Project managers should be hired as full-time staff (not soft money positions), though we may consider creating a term limited position during the pilot phase.
- These positions will primarily be paid for by budgeting for their time in grants.
- In fields where external funding will be difficult to secure, project management support may be included as cost-sharing for applicable grants. If no external funds are available, faculty may be granted institutional project management support in the following circumstances:
 - There is a project manager available (has time unsupported by funded projects)
 - The project meets a complexity threshold (while this needs further definition, complexity might include: the number of stakeholders, the inclusion of external partners/community-engaged research, complex data management needs, interdisciplinarity, high regulatory barriers, complex tracking and reporting requirements)
- Project management support may also be funded using institutional funding when warranted and approved. Examples may include large, interdisciplinary internal seed grants or community-engaged research initiatives.
- The project management office will also be integrated with pre-award functions and available to help faculty plan and write large, complex grants. This time would not be fundable and would need institutional support, but would provide a flexible model for using unallocated staff time that also furthers the research mission in productive directions.
- In general, we expect that a project manager will provide 25%-75% effort to projects, resulting in an average load of 2-4 projects being managed at a time. We should create a floor of 25% to ensure that project managers can be sufficiently integrated into the project.
- In creating this office, thought should be given to creating a job family that includes opportunities for career progression.
- Duke units that require highly specialized project management (e.g., clinical research) may continue to maintain independent project management offices. Faculty who can afford a full-time project manager may also continue to hire such individuals. This model is intended to close the gap for the majority of faculty who do not have such resources at their disposal.
- The project management office should set clear expectations for what tasks project managers undertake. Common tasks envisioned include managing timelines, budgets, and resources; facilitating the development of a common set of methodological understandings among

collaborators from different disciplines; hiring and onboarding staff and students; compiling reports; helping disseminate research findings; overseeing financial processing and contracting; communicating with project stakeholders; managing regulatory requirements such as IRB, data management, and animal care.

- Project managers do not need to have technical expertise but should be trained in research administration and applying project management fundamentals in an academic environment and have excellent interpersonal and communication skills.

Appendix G: Current Internal Seed Grants

We identified 55 seed grant opportunities that have been regularly offered over the past three years. For the 51 programs on which we have sufficient financial data, total seed grant spending is \$31,139,237, with an average award of \$52,263 (excluding two outliers with >\$250,000 value). We believe this inventory encompasses a representative overview of seed grants at Duke, though it excludes one-off opportunities and may not be comprehensive. Of the 55 identified seed grants, the majority are offered by the School of Medicine, followed by centers, initiatives, institutes or other central administrative offices. While a select number require that projects be led by faculty of different disciplines (interdisciplinary), the vast majority (45/55) do not require an interdisciplinary approach. A spreadsheet with this list, and additional detail, can be accessed by Duke users on Box: <https://duke.box.com/s/pcbcd6disq7a18jpi1rw8djptby138cy>.

Grant Name	Sponsoring Unit	Average Amount Per Award	Average Awards per Round	Estimated Total Spending
1. Translating Duke Health (TDH) Pilot Awards	School of Medicine	\$248,611	72	\$17,900,000
2. Core Facility Voucher Program	School of Medicine	\$7,345	27	\$198,315
3. Duke/Duke-NUS Research Collaborations Pilot Projects	School of Medicine / Duke-NUS	\$173,740	14	\$2,432,360
4. Several grants offered in the past 3 years (not named specifically)	School of Medicine	\$100,000	11	\$1,100,000
5. Genomic Technologies Pilot Grant	School of Medicine	\$20,000	7-8	\$150,000
6. Population Health Improvement Grants Program	School of Medicine	\$2,000	6	\$12,000
7. DCRI Innovation Campfire	School of Medicine	\$150,000	5	\$750,000
8. Duke Physician-Scientist Strong Start Award	School of Medicine	\$75,000	5	\$375,000
9. Hammond Research Fund	School of Medicine	\$8,696	5	\$44,000
10. Children's Health & Discovery Initiative (CHDI) Pilot Research Grants	School of Medicine	\$110,000	4	\$440,000
11. Duke Mobile App Gateway Funding Opportunity	School of Medicine	\$5,000	4	\$20,000

Grant Name	Sponsoring Unit	Average Amount Per Award	Average Awards per Round	Estimated Total Spending
12. Departmental Small Grants Program for Research & Scholarship	School of Medicine	\$4,000	4	\$16,000
13. The Duke Pepper Older Americans Independence Center (OAIC) Pilot Studies Program in Aging Research	School of Medicine	\$35,000	3	\$105,000
14. Duke Pepper Center Research Career Development Award	School of Medicine	\$60,000	3	\$180,000
15. DREAM Innovation Grant	School of Medicine	\$30,000	3	\$90,000
16. Duke/NCCU Collaborative Translational Research Awards	School of Medicine	\$50,000	3	\$150,000
17. Duke CTSI Translational Accelerator Research Funding Agreement	School of Medicine	\$125,000	3	\$375,000
18. Carolinas Collaborative (CTSI Accelerator)	School of Medicine	\$25,000	3	\$75,000
19. Department of Medicine Chair Award	School of Medicine	\$95,000	3	\$285,000
20. Clinical Trainee Pilot Research Grants	School of Medicine	\$15,000	3	\$45,000
21. DMPI Borden Scholar Awards	School of Medicine	\$50,000	2-3	\$125,000
22. CTSI Community Engaged Research Initiative Population Health Improvement Awards	School of Medicine	\$25,000	2	\$50,000
23. Duke Microbiome Center Development Grants	School of Medicine	\$60,000	2	\$120,000
24. ADRC Developmental Project award	School of Medicine	\$87,500	1-2	\$131,250

Grant Name	Sponsoring Unit	Average Amount Per Award	Average Awards per Round	Estimated Total Spending
25. ADRC Research Scholar award	School of Medicine	\$10,000	1	\$10,000
26. Duke/RTI Collaborative Translational Research Grants	School of Medicine	\$50,000	1	\$50,000
27. Duke/UNC CTSA Consortium Collaborative Pilot Project Award	School of Medicine	\$50,000	1	\$50,000
28. Duke/NC State Translational Research Agreement	School of Medicine	\$50,000	1	\$50,000
29. Duke CTSI Special Populations Pilot	School of Medicine	\$30,000	1	\$30,000
30. Duke CTSI Transformative Funding Agreements	School of Medicine	\$500,000	1	\$500,000
31. CTSI Population Health Improvement Collaboration Seed Awards	School of Medicine	\$1,500	1	\$1,500
32. Children's Health & Discovery Initiative (CHDI)/MEDx Pilot Research Grant	School of Medicine	\$50,000	1	\$50,000
33. Therapeutic Area Investment Funds	School of Medicine	\$1,750,000	<i>Unspecified</i>	<i>Unspecified</i>
34. Faculty Research Grants	Trinity College of Arts and Sciences	\$5,000	20	\$100,000
35. Catalyst Program	Nicholas School of the Environment	\$25,000	6	\$150,000
36. DGHI-NSOE joint climate call	Nicholas School of the Environment (NSOE) / The Duke Global Health Institute (DGHI)	\$50,000	2	\$100,000
37. Dean's Research Venture Initiative	Nicholas School of the Environment	\$100,000	2	\$200,000
38. Pilot Funding Program	Sanford School of Public Policy	\$20,000	<i>Unspecified</i>	<i>Unspecified</i>
39. Bass Connections	Office of the Provost	\$20,724	66	\$1,367,784
40. Intellectual Community Planning Grants	Office of the Provost	\$4,500	10	\$45,000

Grant Name	Sponsoring Unit	Average Amount Per Award	Average Awards per Round	Estimated Total Spending
41. Faculty Advancement Seed Grants	Office of the Provost	\$10,000	10	\$100,000
42. Research Collaboratories	Office of the Provost	\$115,000	4	\$460,000
43. Microgrants	Duke Center for Genomic and Computational Biology	\$5,000	15	\$75,000
44. Innovation Projects	Duke Institute for Health Innovation (DIHI)	\$45,000	10	\$450,000
45. Duke Incubation Fund	Duke Innovation & Entrepreneurship	\$35,714	7	\$250,000
46. Energy Research Seed Fund	Duke Energy Initiative	\$41,598	6	\$249,590
47. Duke Africa Initiative Faculty Opportunities	Center for International and Global Studies	\$4,000	6	\$24,000
48. Duke-Coulter Translational Partnership Grants	MEDx	\$175,000	4	\$700,000
49. MEDx High-risk high-impact Seed funding challenge	MEDx	\$37,500	3	\$112,500
50. DIBS Research Incubator Awards	Duke Institute for Brain Sciences	\$100,000	4	\$400,000
51. DIBS Research Germinator Awards	Duke Institute for Brain Sciences	\$25,000	4	\$100,000
52. Humanities Laboratories	The John Hope Franklin Humanities Institute (FHI)	\$112,500	3	\$337,500
53. Faculty Working Groups	The John Hope Franklin Humanities Institute (FHI)	\$5,000	<i>Unspecified</i>	<i>Unspecified</i>
54. Travel grants	The Duke Global Health Institute (DGHI)	\$5,000	2	\$10,000
55. Pilot grants	The Duke Global Health Institute (DGHI)	\$25,000	<i>Unspecified</i>	<i>Unspecified</i>
				\$31,139,237