

# 10<sup>x</sup> 2020

A Vision for  
Johns Hopkins University  
Through the Year 2020



## We are Johns Hopkins

Johns Hopkins is an extraordinary institution.

### We are a university of firsts.

We were America's first research university, a model emulated throughout the United States, and, more recently, around the world.

Ours is the university that gave birth to modern medical education, with its synthesis of research, education and patient care.

We founded the first research-based school of public health.

We were a pioneer in the serious investigation of the humanities and social sciences, from the conception of the first modern classics department to Arthur Lovejoy's founding of the history of ideas to our elite writing seminars, among the first such programs in the country.

We are home to the oldest music conservatory in the United States.

We forged groundbreaking interdisciplinary programs in areas such as biomedical engineering, the brain sciences, cell engineering and bioethics.

We have been at the fore in bringing a systems perspective to grand challenges in areas such as health care, infrastructure, energy and the cosmos.

The restless spirit that is the hallmark of Johns Hopkins is reflected in the distinctions that have been earned by its faculty and graduates.

Our current faculty alone includes four winners of the Nobel Prize, six winners of the Lasker Medical Research Award, six winners of MacArthur “Genius” winners, two recipients of the Presidential Medal of Freedom, 31 members of the National Academy of Engineering and the National Academy of Sciences, 47 fellows of the American Academy of Arts and Sciences, and 57 members of the Institute of Medicine. Our faculty have received Kennedy Center Honors, won the inaugural Breakthrough Prize in the Life Sciences, and been recognized as the National Physician of the Year. For more than three straight decades, our faculty has ranked first in the nation in the merit-based competition for federal research grants. After leaving Hopkins, our graduates have received 15 Nobel Prizes, 32 Lasker Awards, six Pulitzer Prizes, multiple Grammy and Oscar Awards, and countless other honors.

And yet the true measure of our institution is shown by the breadth and depth of the intellectual achievements that have commanded these various forms of recognition. Hopkins faculty measured the age, shape and composition of the universe. They led path-breaking developments in pediatric cardiology, cardiopulmonary resuscitation and renal dialysis. They authenticated the Dead Sea Scrolls, established the philosophical movement of pragmatism, and conducted the first large scale study of inequality in American schools. They created the first fully integrated prosthetic arm, designed the proximity fuse that helped to defeat the Axis powers in World War II, and developed the system of water purification through chlorination adopted by every major municipal water supply system across the United States.

So too, our alumni are among the most inspired global leaders, taking important roles in industry and finance, education and engineering, government and foreign service, music and the arts, literature and journalism, the health sciences and medicine. They are extensions of the values of the university and carry its mission into the world. Our graduates have gone on to become the president and chief executive officer of IBM, performed the first successful artificial heart transplant, and developed the Apgar score that assesses the health of newborns. They have founded the International Campaign to Ban Landmines, served as the first Chief Technology Officer of the United States, and become the mayor of New York and one of the most successful entrepreneurs and impactful philanthropists in U.S. history. They have inspired the modern environmental movement, earned recognition as the most quoted living person in *The Penguin Dictionary of Modern Humorous Quotations*, and been elected President of the United States.

Our excellence is also exemplified by the humanist ethos of Hopkins, the ways in which we are deeply engaged in improving the human condition. No academic institution has demonstrated more of a commitment to the developing world, or played more of a role in seeking to remedy the impact of the gaping disparities in wealth, health and education around the globe. From our efforts to combat the spread of HIV in Uganda, to our work demonstrating the power of Vitamin A to prevent child blindness and mortality in developing nations, to our discovery of the effects of zinc in treating and preventing millions of childhood deaths from intestinal disease, to our initiatives delivering cost-effective medical device prototypes and transforming the provision of electricity services throughout Asia and Africa, we have marshaled energetic responses to narrow this divide.

Ours is a proud legacy. We are a fearless society of scholars engaged in the uncompromising pursuit of truth. We explore fundamental questions of meaning, pursue creative achievement, advance research basic and applied, joined together in common service to the world of knowledge and the betterment of humanity. We translate bracing discoveries into practices that can transform the world. These traditions reflect, more than anything, a culture that gives pride of place to freedom of thought, to collegiality and discovery, and to the relentless pursuit of excellence. In his inaugural address, our first President Daniel Coit Gilman made a passionate case for these values, calling on members of the Hopkins community to strive for the “encouragement of research and the advancement of individual scholars, who by their excellence will advance the sciences they pursue, and the society where they dwell.” Across the decades, our community has honored and reaffirmed these principles.

But as much as our culture has been shaped by a deep commitment to the values of exploration and intellectual freedom, it has been equally defined by the notion of “selective excellence,” the belief that no university is capable of achieving excellence in every field of intellectual endeavor, and that schools must make choices as to which areas to prioritize and disciplines and programs to mount. Such strategic thinking is essential for any institution but particularly important for ours: Although our university has been blessed over the years by truly extraordinary acts of philanthropy, our endowment is considerably smaller than many of our institutional peers. An endowment provides a university with financial stability in uncertain times and the capacity to invest in strategic priorities into the future. And yet, Johns Hopkins ranks below more than 90 other private four-year research universities and liberal arts colleges in the United States in the size of its endowment per student.

Despite these daunting resource constraints, the university has not merely survived but excelled.

Johns Hopkins is a resilient, mission-driven place that refuses to wait for the ideal conditions, but instead seizes upon all opportunity for brave innovation. This is a core feature of our institutional DNA.

We need to build on our exceptional foundation to preserve and strengthen our great enterprise . . . for our students, for our faculty and staff, and for those we serve around the world.

## Our Challenges

A number of serious challenges approach higher education in the coming years. None is unique to Johns Hopkins, but each could carry profound consequences for the future of our institution.

- *The imperative of collaboration.* We no longer, if we ever did, live in a world where solutions to our most compelling challenges can be achieved entirely within one academic discipline, or even one division. Great universities will never lose the discipline of the disciplines. And yet the urgent questions of the day – healthcare delivery, global climate change, the future of our urban centers and economic destabilization, to name only a few – are not confined to intellectual silos, and neither will be the solutions we devise. What is more, the search for knowledge will often require a commitment of expertise and resources so great that a collaboration that spans institutions may be the only option. These trends only will be reinforced by the growing insistence on interdisciplinary cooperation expressed by external funders.
- *The transformative capacity of technology.* Over six million college students in the United States now take at least one class online each semester, and the rate of growth for online education far exceeds that for more traditional higher education courses. Technology provides universities an unparalleled opportunity to spread knowledge and ideas to students and populations around the world. At the same time, new technologies offer the capability to enrich the traditional residential experience, reimagine pedagogy, expand research collaborations, drive institutional sustainability and forge ever stronger connections between alumni and the university. In these ways and more, technology holds the potential to transform radically the educational experience and recast the reach and mission of the modern university.
- *Preserving access to a college education.* Our nation is facing declines in household wealth and widening disparities in income while the cost of a university education only continues to rise. College tuition and fees have risen more than 400 percent over the last three decades, and student loan debt across the country recently exceeded \$1 trillion. The median list price to attend a single year of a four year private university is now roughly the same as the amount of income that a median household in the United States earns in a single year. Our university has made inroads in recent years in reducing the average net cost of attendance for Home-wood undergraduate students on financial aid, but the surging cost of higher education raises important questions about how universities will continue to provide access to the best and brightest students irrespective of their family's financial state.

- *Meeting student expectations in an ever-changing world.* Students are arriving at universities with heightened expectations for their educational experience. Coming of age at a time when a keystroke can instantly connect them to the world, our students are demanding a university education that extends well beyond the campus walls, one that offers a greater understanding of the communities of which they are part and that marries a rigorous academic experience with rich opportunities for learning through real world application. And in an era defined by the creation and sharing of information in a knowledge-based society, our students more than ever recognize the need for building and honing their capacity for integrative thinking and creativity, for critical judgment and reasoning skills, and for effective, persuasive communication.
- *The globalization of higher education.* Unprecedented economic expansion in the developing world is fueling a global market for higher education. This trend is a double-edged sword. There has been massive growth in the demand for tertiary education, with the percentage of students in higher education more than doubling in India and tripling in China in the last decade alone. Increasingly, these students are committed to securing an education of the highest international quality, opening the door for U.S. universities to become truly global universities, beacons of knowledge to the world. At the same time, countries such as China, Singapore and Saudi Arabia recognize the foundational importance of the research university in realizing a host of developmental goals, and are investing heavily in national universities of their own that are aimed at challenging America's dominance in higher education.
- *A decline in government investment in research and clinical funding.* Despite the many compelling reasons for public support for the research enterprise, fiscal pressures are jeopardizing these investments. In the last decade, the purchasing power of National Institutes of Health grant funding has declined roughly 20 percent. The federal budget sequestration and related fiscal pressures threaten billions of dollars in federal research funding. And over 40 states have cut their support on a per student basis for public research universities over the past decade, many by 30 percent or more. This retrenchment is occurring at a moment when academic medical centers can expect to see reductions in reimbursements for patient care from federal, state and private payers. The potential consequences of these trends for the academic mission are grave: declines in research, delays in career development, a decrease in students and research faculty, and ultimately, fewer discoveries to advance knowledge and heal the world.
- *Wrenching needs at home and abroad.* Universities cannot be islands of privilege in a sea of pressing needs. Many American cities are working to emerge from post-industrial decline – none more so than Baltimore. The nation seeks to recover from the worst economic downturn since the Great Depression. The world faces heart-rending disparities in health, education, civil and political liberties. Colleges and universities hold the capacity to contribute so much for the betterment of the communities of which they are a part. There is a dawning recognition that our institutions of higher education must harness their collective intellectual and moral strengths to heed this call as never before.

## The Path Forward

Few of the enumerated challenges are entirely new to Johns Hopkins.

Indeed, several have received close and searching inspection in reports and analyses developed over the years by university task forces, symposia, trustee reports, and external reviews of schools and divisions. Through these reports – most recently, the *Report of the Committee for the 21st Century* (1994), the *Report of the Commission on Undergraduate Education* (2003) and the *Framework for the Future* (2009) – our community has grappled with issues ranging from the challenges of interdisciplinary research and education in a highly decentralized environment, to the rejuvenation of undergraduate education, to the effort to expand access for students through a need-blind admissions process. In considering our response to the many challenges ahead, we are fortunate to be able to draw on a rich and thoughtful set of insights that have been developed through collegial debate and reflection.

Based on these reports and many conversations over the years with the university community, I have prepared these ten priorities for the university through the remainder of the decade.

The goals seek to chart a course for the university that meets the looming challenges and captures the boundless opportunities ahead, while building on our strengths and honoring our history and traditions. Then professor and director of radiology and eventual Hopkins president Bill Brody put it well in the *Report of the Committee for the 21st Century*: “The vision that we have for Johns Hopkins University in the 21st century is thus not so much that of a university whose mission has changed as it is that of a university whose traditional mission is realized in new ways.” The ten goals are not watertight compartments, but are overlapping and complementary, interwoven threads that will help to shape the direction and the identity of our university, into the future.

The priorities are arrayed under the three over-arching themes articulated in my inaugural address: One University, Individual Excellence, and Commitment to Our Communities. In addition, there is now a fourth thematic heading: Institution Building. The inclusion of this theme reflects the importance of marshaling the required resources, policies and institutional arrangements to support the realization of our academic mission. One such undertaking that will sit at the heart of our institution building in the coming years, and serve the priorities in the Ten by Twenty, is the \$4.5 billion *Rising to the Challenge* campaign launched in May of this year, the largest fundraising effort in our history.

The reader will see that among the touchstones of the Ten by Twenty are principles such as accountability, dialogue and transparency, and this document itself was forged with these principles in mind. These priorities took shape through conversations across our university, including more than thirty meetings over the last several months with over a thousand members of the university community. A broad range of faculty, students, staff, deans, trustees and alumni lent their ideas, their aspirations, their voice to this document. And our conversation is only beginning. Starting next year, an annual report will be provided to the Hopkins community on our progress and achievements as a university along each of these goals. The reports will be posted on the Ten by Twenty website, and set out qualitative and quantitative measures of our progress as well as benchmarks and targets where appropriate. I will hold myself accountable through these reports to the goals, to the trustees, and to each of you. There will also be opportunities on this site for members of the university community to participate in the creation of ideas and projects to advance each of these goals in the coming years.

**Our list of firsts is not yet complete.**

If there is one thing that marks Johns Hopkins it is our restless spirit in the pursuit of excellence, our unwillingness to coast. History shows that we are constitutionally incapable of resting on our laurels.

I look forward to working with you on all that lies ahead.

A handwritten signature in black ink that reads "Ronald Daniels". The signature is written in a cursive, flowing style.

# One University

1. Selectively invest in those programs and activities that will advance significantly our core academic mission.
2. Strengthen our capacity for faculty-led interdisciplinary collaboration and launch a set of innovative cross-cutting initiatives that will contribute substantially to the world of ideas and action.
3. Enhance the impact of Johns Hopkins Medicine, the Bloomberg School of Public Health and the School of Nursing, as the world's preeminent academic health sciences enterprise by deepening collaboration among these entities and with disciplines in other parts of the university and across the globe.

## 1. Selectively invest in those programs and activities that will advance significantly our core academic mission.

We are one of the leading research and educational institutions in the world, with elite programs in medicine and music, nursing and international affairs, biomedical engineering and public health, writing seminars and bioethics, and astrophysics and cosmology, to name a few. Our tradition of excellence can be traced to the founding of the university, when luminaries such as Basil Gildersleeve in classics, James Sylvester in mathematics, Ira Remsen in chemistry, Henry Rowland in physics and Henry Newell Martin in physiology taught the first generation of Johns Hopkins students, and surgeon William Halsted, pathologist William Henry Welch, internist William Osler and gynecologist Howard Atwood Kelly helped to found a world-class medical school and hospital. These scholars laid the groundwork for the manifold strengths of the university we know today. Our schools, divisions and programs are now the envy of the world.

Our areas of distinction were built on a concept of “selective excellence,” an approach that connotes purposefulness, choice and discipline. We will need to remain true to these principles as our schools and divisions set our academic priorities in the coming years. To support the highest degree of rigor in our pursuit of these ideals, our decisions must be informed in the first instance by objective data and sound analysis. Over the last several years, we have taken several steps towards this goal. We have strengthened the quality of academic decision-making by developing systems to track the composition of our faculty, the profile and performance of our doctoral students and trends in our funded research. Our schools are now subject to external review, as is each of our school’s departments on a periodic basis.

We will need to remain true to principles of purposefulness, choice and discipline as our schools and divisions set our academic priorities in the coming years.

The information we obtain from these analyses should then inform our academic priority setting within departments and schools. And the priorities that emerge from this process should determine budgetary and organizational decisions, not the reverse. Of course, by definition, a commitment to selective excellence means that certain academic priorities will be advanced while others will be de-emphasized or not pursued at all. Predictably, there will be tension between protecting excellence in our existing programs and investing in the innovative programs of tomorrow.

These decisions are never easy, nor are they self-evident. Even so, we can draw guidance from certain core principles. Our lodestar at all times should be the values that rest at the heart of our enterprise: excellence, integrity, intellectual rigor, freedom of inquiry. Our mission must allow space for the many facets of the quest for knowledge, with fundamental research occurring alongside applied science, the search for meaning married to the search for solutions. And finally, we will ensure that our investments are aligned with our core academic mission if, in the best traditions of the academy, they emerge from discussions that are premised on transparent, participatory processes that allow for informed and respectful debate and deliberation. In so doing, we will honor our tradition of selective excellence and our remarkable multiplicity of strengths, while building an even stronger university that meets the challenges of the future.

**2.** Strengthen our capacity for faculty-led interdisciplinary collaboration and launch a set of innovative cross-cutting initiatives that will contribute substantially to the world of ideas and action.

Johns Hopkins has long been home to profound acts of collaboration. We have championed the role of interdisciplinary cooperation as a means of solving the world's most complex problems and fundamental questions. From Gordon "Reds" Wolman's creation of the pioneering Department of Geography and Environmental Engineering, to contemporary initiatives such as our Berman Institute of Bioethics, the Institute for Cell Engineering and the Brain Science Institute, we have, time and again, achieved distinction through interdisciplinary collaboration. Many of our highly regarded graduate programs draw students and faculty from more than one school or department, while undergraduate interdisciplinary majors such as international studies, public health, biomedical engineering and neuroscience consistently stand among the most popular choices for our students.

However, it is also true that our organizational and budgetary arrangements can impair faculty and student success in mounting interdisciplinary ventures. Our structures too often inadvertently impede the enterprising impulses of our faculty, staff and students to connect. The report of the Framework for the Future underscored this point, observing that "different sources of support, attendant responsibilities and policies have created logistical barriers to collaboration" across the university. These hurdles are only compounded by the geographic dispersion of our university across multiple campuses. To be sure, robust collaboration must be built on strong and vibrant disciplines, which are marked by shared norms and methodologies and fuel rigorous inquiry. We will never lose the "discipline of the disciplines". And yet, if we are to honor our tradition of entrepreneurship, we need to ensure that those disciplines can be easily permeated, that it is as easy to work across the disciplines as it is within them.

Accordingly, we will systematically identify and redress the barriers that stand in the way of academic collaboration. The responsibility for creating such an institutional environment rests with the collective academic leadership of the schools and divisions. There is ample precedent for how to make collaboration work across Johns Hopkins, and our School of Education and Carey Business School will provide the capabilities and the platforms for a more diverse array of possible connections across the university than ever before. The university's relatively thin annual operating surplus places a premium on careful cash management to protect our liquidity and weather sudden downturns in funding. The task will be to imprint our record of collaboration in every corner of our policies and practices, from faculty appointments to tenure and promotions processes, from joint degrees to doctoral education, from research costs to teaching and laboratory spaces, from schedules and the academic calendar to the harnessing of technology to bridge our campuses and create connections among scholars that might otherwise never have formed.

We will also invest strategically in new and existing collaborative ventures. We are involved in one such enterprise that has the potential to transform powerfully the scope for, and support of, multi-disciplinary enterprise in our university. Over the last several years, deans, directors and faculty thought-leaders have identified multi-disciplinary projects that they believe will benefit from investment, in areas as diverse as individualized health, the science of learning, big data, the fate of our urban centers, the challenges of water scarcity, space and cosmology, and global health. At the core of these endeavors will be a cadre of jointly appointed faculty who can act as human bridges between and among the disciplines. Mayor Michael Bloomberg has already made a stirring investment in this vision with his gift of \$250 million to endow fifty professorships that will anchor cross-disciplinary work across the university. All said, in the *Rising to the Challenge* comprehensive campaign, nearly a quarter of the funds raised will be directed to collaborative initiatives that will knit together the university's disciplines and divisions and build from the core academic objectives of our schools.

If we are to honor our tradition of innovation and entrepreneurship, we need to ensure that it is as easy to work across the disciplines as it is within them.

Through commitments such as these, we will come together as a university as never before, advancing the visionary work of our scholars, heeding the extraordinary possibilities at the crossroads of ideas, and cementing our status as one of the world's leading interdisciplinary universities.

**3.** Enhance the impact of Johns Hopkins Medicine, the Bloomberg School of Public Health and the School of Nursing, as the world's preeminent academic health sciences enterprise by deepening collaboration among these entities and with disciplines in other parts of the university and across the globe.

Johns Hopkins Medicine, the Bloomberg School of Public Health and the School of Nursing together comprise nothing less than the preeminent academic health science enterprise in the world, the home to groundbreaking innovations that have advanced human knowledge and healed millions, birthed the model for medical and public health and nursing education we know today, and yielded dramatic and far-reaching improvements to patient care. Our East Baltimore campus is one of the few in the world where elite schools of nursing, medicine and public health are adjacent to one another and within steps of a premier hospital and where faculty collaboration within and among schools is a widely recognized element of the culture. Without doubt, one of our priorities in the coming years will be to fortify and strengthen these commanding institutions so they continue to stand as models for education, research and clinical care to the nation and the world.

Nearly twenty years ago, the *Report of the Committee for the 21st Century* observed that the entities in East Baltimore possessed “overlapping and sometimes competing roles and functions” and called for a greater integration of programs across that campus. One important step towards this goal was the creation of the virtual entity of Johns Hopkins Health System in 1997 to enable the Johns Hopkins Health System and the School of Medicine to work together more easily under a single leadership team. Uniting our expertise in research, patient care, and education, we created an integrated academic medical center that led to the biggest hospital expansion of its kind in United States history, and we launched a comprehensive revision of our medical school curriculum for the 21st century called Genes to Society. These efforts were complemented and enriched by connections to the Bloomberg School of Public Health and the School of Nursing, each of which is recognized as the leading school in the nation in their field.

The terrain of medicine and health care continues to shift. The move away from fee-for-service to population health models and the need to address fundamental questions of cost and access to health care will demand an emphasis on collaboration as never before. Our deans and senior leaders in East Baltimore are building ever stronger linkages to each other's divisions. The deans of the three schools now serve on each other's advisory boards, the schools work closely together on specialized research, educational and clinical projects, and the Whiting School of Engineering, the Krieger School of Arts and Sciences, the School of Education, the Carey Business School, the Applied Physics Laboratory and the Berman Institute for Bioethics are increasingly integrated into these activities as well.

Through the remainder of the decade, we will continue to place a premium on collaborative discovery, in areas such as genomics, pathobiology, clinical research methods, patient safety, patient self-management of chronic illness, individualized health and ethics. We will forge even deeper ties among the three schools in research support, facility development, inter-professional education, innovative clinical program delivery, and faculty recruitment to advance the mission of an integrated academic health center. Finally, we will continue to explore partnerships with other entities across the nation and the world when doing so would advance our core academic, research and clinical priorities.

# Individual Excellence

4. Build Johns Hopkins' undergraduate experience so it stands among the top ten in the nation.
5. Build on our legacy as America's first research university by ensuring that at least two-thirds of our Ph.D. programs stand among the top twenty in their fields.
6. Attract the very best faculty and staff in the world through a welcoming and inclusive environment that values performance and celebrates professional achievement.

## 4. Build Johns Hopkins' undergraduate experience so it stands among the top ten in the nation.

From our university's founding, President Daniel Coit Gilman regarded undergraduate education as crucial to Johns Hopkins. He declared, "A university cannot thrive unless it is based upon a good collegiate system," and he built an undergraduate program to reflect that belief. Today, it is hard to imagine a great university without a strong undergraduate program. Known for their independent spirit and enterprising intellect, our students use their time at Johns Hopkins not only to learn but to challenge, to experiment, and to push past boundaries in a range of fields and endeavors. They renew the traditions of the university and carry the ideas of the university into the world. A strong undergraduate program casts a broad halo over our entire university.

Over the last decade, the university made great strides in strengthening the undergraduate experience. Our students have benefited from investments in undergraduate research and strengthened student services and support, the rising quality and diversity of our undergraduate classes, the creation of new undergraduate majors and expanded opportunities for local and international internships, and the increased availability of financial aid (including the bold and innovative Baltimore Scholars Program). These enhancements have been accompanied by transformational investments in the campus environment, student spaces (Charles Commons, Brody Learning Commons, the Undergraduate Teaching Labs), and academic buildings (Gilman, Hodson, Hackerman, and Malone Halls).

And yet, we can do far more to cultivate and support our next generation of scholars. Our students' independence is a virtue to be nurtured, and we must continue to enrich and expand student opportunities for entrepreneurial exploration. At the same time, we must help to create bridges for our students beyond their own ideas, so they have a chance to be full participants in a thriving intellectual community, one that will foster connections among these roving independent minds.

Our students use their time at Johns Hopkins not only to learn but to challenge, to experiment, to push past boundaries in a range of fields and endeavors.

We will start by drawing to our university the most talented and original students from a diversity of backgrounds, who will bring different perspectives and experiences inside and outside the classroom. At the core of this aspiration must be continued strengthening of our financial aid program, so that our university's undergraduate admissions will be made on a need-blind basis. Over the last three years, and fueled by the endorsement of the university's trustees, we have taken important steps towards realization of this goal: Our net cost of attendance for Homewood undergraduate students who have received financial aid has decreased by 12 percent. However, there is still a marked gap in financial aid between Johns Hopkins and our peer institutions that we must redress.

Once we have recruited the strongest possible class irrespective of financial means, we will build the strongest possible connections between our students and our faculty and staff in order to provide a peerless educational experience. We will strengthen our academic advising to create a supportive environment for academic success. We will foster more programs and provide additional incentives for innovation in teaching and the adoption of evidence-based teaching strategies, improve the execution of our gateway science courses, and harness technology to transform the classroom experience. And we will fortify existing connections, and build new connections, among our undergraduates and our graduate and professional schools in education, research and service.

Next, we will create welcoming and inspiring spaces for students to meet, collaborate and socialize that are uniquely their own and connected to the larger community, including social spaces to foster student interaction, outdoor spaces that encourage engagement with the natural beauty of our historic campus, and multi-purpose event space for a range of activities and programming. We will provide resources and support for our diverse array of student organizations and athletic programs. And we will forge ever more enduring connections to our alumni, from whom our university derives so much strength, building bridges between our current and former students for mentoring, internships and other opportunities.

Finally, our students are expecting an undergraduate experience that does not end at our campus borders, and so we will strengthen connections between our students and the communities outside of campus. We will continue to enhance the number and range of innovative fellowships, community-based learning courses, and civic engagement and service opportunities in Baltimore and around the world. And we will invest in the development of vibrant communities and gathering places in the areas surrounding our undergraduate campuses, with particular attention to the continued revitalization of Charles Village.

**5.** Build on our legacy as America's first research university by ensuring that at least two-thirds of our Ph.D. programs stand among the top twenty in their fields.

Johns Hopkins was founded on the belief that America needed and deserved an institution devoted to promoting and advancing graduate education for our nation's most talented young scholars. Reimagining the European university on American soil, Johns Hopkins became the model upon which all other American research universities were built. Graduate education has been at the core of the university's mission to ignite discovery through the intersection of transformative research and teaching. Time and again, our graduate students have worked at the frontiers of scholarship, forging new inquiries and discoveries, serving as bridges across teams of faculty in different schools, and driving the quest for knowledge into uncharted terrain. Doctoral education is a defining feature of our legacy and, as such, must command the attention of our schools and our entire community.

Outside bodies have attempted comparisons and rankings of graduate programs in recent years. The methodologies behind these reports are far from perfect, and it will be vital that we develop and hone our own measures for assessment and comparison of these programs in the coming years, ones that are aligned with the priorities of our institution and our own vision of excellence. Even so, the external metrics point to real challenges facing our doctoral programs. These challenges – none of which is unique to our university – are manifest in a number of areas: from stipend competitiveness and graduate scholarships to the time-to-degree completion; from high attrition rates to ensuring the appropriate fit between the doctoral students we prepare and the academic, industrial and non-profit sectors in which they may seek employment; from the impact of new technologies on pedagogy to concerns of diversity; and the need to balance the depth and integrity of the disciplines with the interdisciplinary collaboration required to address the next generation of urgent social and scientific questions.

Over the last several years, we have taken critical steps to reshape the landscape of our doctoral programs. We established a university-wide Doctor of Philosophy Board as an advocate for and monitor of the university's Ph.D. programs. We increased the level of graduate stipends at the Krieger School of Arts and Sciences, where the disadvantage relative to our peers was the greatest. We convened leading experts for a symposium on the future of Ph.D. education, published a statement of rights and responsibilities for Ph.D. students and, most recently, launched an innovation fund to seed bold projects that will help to address the challenges identified above. Building on all of these developments, we will chart a strategy that not only aspires to best practices, but defines those practices. This commanding task will be led by the Doctor of Philosophy Board in close collaboration with deans, departmental chairs and directors and faculty thought-leaders. With the quality of the graduate experience as our polestar, we will confront forthrightly the imperative for focused, courageous and innovative reforms that will allow us to reclaim our birthright as the wellspring for modern graduate education.

**6.** Attract the very best faculty and staff in the world through a welcoming and inclusive environment that values performance and celebrates professional achievement.

The university's faculty and staff are the bedrock of our institution. They ground our research, teaching and service, and our tradition of excellence would not be possible without them. We must ensure that through our practices, programs and ethos we are able to recruit faculty and staff who honor the standards of our best. And we must ensure that once here, they are able to flourish: that we give them the support and opportunities for advancement such that they do not merely want to start their careers at Hopkins, but finish them here. More than any other factor, our ability to attract, invest in, and retain our faculty and staff will determine the future of the university for decades to come.

Over the next ten years, retirements and philanthropy will allow us to recruit a generation of new faculty who will define our university for decades to come. Through the *Rising to the Challenge* campaign, we will undertake an unprecedented mission to invest in these men and women: Our goal is to nearly double the number of endowed chairs at the university over the course of the campaign. Once here, we must continue to take steps to support our faculty throughout their time at Johns Hopkins, early in their careers through mentorship and transparency of process, and later through recognition of their accomplishments. While we often ask a great deal of our faculty, they thrive and excel in an intellectual environment that is without peer, a place suffused with bold innovation and a warm generous and collegial spirit that we must nurture and protect in order to continue to attract the best and brightest minds to our community.

We must also be deliberate in our efforts to attract, develop, and retain a talented and diverse workforce of engaged employees. Our objective is to cultivate a working environment with a culture of intellectual curiosity, innovation and teamwork, a place where everyone can develop professionally and make a difference. To achieve those ends, we will provide our employees those services and support necessary to ensure that a Hopkins position is conducive in every respect to growth and performance at the highest levels. As one example, we will continue to offer a structured professional development process where employees can receive constructive feedback, are recognized for their contributions, and are coached in areas of concern. This development process will be complemented with rigorous training programs that help our employees develop the skills they need to respond to feedback they receive and advance their careers.

Finally, we affirm our uncompromising commitment to the values of diversity, respect and work-life balance, each of which is indispensable to the achievement of excellence on the part of our faculty and staff. Johns Hopkins is dedicated to guaranteeing equal opportunity for every person in our community, and the recruitment and retention of women and underrepresented minorities, including into positions of leadership. Our ongoing work in this area includes the Mosaic Initiative, our economic inclusion initiative, and our diversity innovation grants. We will create a welcome, inclusive, respectful environment that inspires our faculty and staff to achieve their personal best. And, we will continue to provide a range of programs and services that reflect the importance of achieving a healthy mix between work, personal and academic pursuits, including steps to increase the availability of high quality child care options. Each of these values is a pillar of a successful university, making it possible for all of us to perform and contribute at the level of excellence that is the hallmark of Johns Hopkins.

# Commitment To Our Communities

7. Enhance and enrich our ties to Baltimore, the nation and the world, so that Johns Hopkins becomes the exemplar of a globally engaged, urban university.

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Johns Hopkins is nested in local, national and international communities. As Baltimore's largest anchor institution, firmly rooted in the history and development of the city, we feel the constant pull of urban issues. The reach of our university also extends well beyond Baltimore to the nation and the world, through our partnerships, our projects and our campuses. Our work in these areas will strengthen both our communities and our university: Our ideas, passion and resources can contribute so much to the communities of which we are part. At the same time, our relationships with community partners provide a richer educational experience for our students, strengthen scholarship and research across our university, and advance the founding mission of our university to provide an education for scholars who will advance the societies where they dwell.

As an institution that is not only in, but truly of this city, our success remains inseparable from that of Baltimore. Our connections to the lives of local residents only continues to grow, whether through the groundbreaking work of the School of Education in designing and opening Elmer

Our ideas, our energies, our passion and optimism can contribute so much to the communities of which we are part. We must continue to galvanize our intellectual and moral strengths for the betterment of our communities, and the betterment of ourselves.

A. Henderson: A Johns Hopkins Partnership School, the first new public school in East Baltimore in 25 years; our investments through East Baltimore Development Incorporated and the Homewood Community Partners Initiative; our students' extensive volunteer projects and summer internships; our full-tuition Johns Hopkins scholarships to the graduates of Baltimore public high schools; our initiative to leverage our investments in hiring, construction and purchasing to promote the growth of local businesses; or our divisions' commitments

in areas as diverse as public health, medicine, wealth creation and the arts. We are also, more than ever, connected to the nation, shaping the national conversation on far-ranging issues of policy in areas as diverse as international affairs, gun violence, and health care policy; strengthening our nation's security through science and technology partnerships; and providing care and services to patients across the country.

Finally, Hopkins is among the most international of universities, with an unparalleled network of research and service projects throughout the world. Our work touches every corner of the globe, ranging from our HIV research in Zambia, to our MBA students partnering with local companies in India, Peru and Rwanda, to our geological research in Antarctica, to our trailblazing campuses in China and Italy, to the Center for Talented Youth's presence in countries such as Ireland, Thailand and Egypt, to the Peabody Institute's musical partnership with Singapore's Yong Siew Toh Conservatory. We are home to a school of public health with a unmatched presence in the developing world, an elite school of international studies whose graduates work in approximately 140 countries, and a non-profit health organization that puts evidence-based health innovations into every day practice for the world's most vulnerable populations across the globe. All said, we operate programs and projects in more than 130 countries, with over \$230 million a year in foreign expenditures around the globe, more than any other private college or university in the nation.

As we continue to expand our work in the communities around us, we will hold ourselves to certain bedrock principles. First, we will conduct our work in a manner that is mission-driven, grounded in scholarship, research and service, and pursued with robust faculty and student involvement. This includes drawing on our research footprint to place students in internships, fellowships and educational opportunities, and working with our network of alumni to develop new partnerships for our university around the world. Second, we will commit to ensuring that we develop sustainable and meaningful partnerships, ones that include our community allies in the design and operation of the projects. Third, we will reaffirm and renew our mandate to spread knowledge to the world. Our inaugural president Daniel Coit Gilman described it as "one of the noblest duties of a university to advance knowledge, and to diffuse it not merely among those who can attend the daily lectures—but far and wide." One of our missions in the coming years will be to harness technology to expand our reach, open our classrooms and our journals, distribute our wisdom and teaching, farther and wider than Gilman could ever have imagined in his time.

The goal, simply put, is to make Hopkins more engaged than ever in the city, nation and world around us. We must galvanize our intellectual and moral strengths the betterment of our communities, and for the betterment of ourselves.

# Institution Building

8. Strengthen the institutional, budgetary, technological and policy frameworks necessary to set priorities, allocate resources, and realize the highest standards of academic excellence.
9. Reinforce our position as the leading university recipient of competitively funded federal research support, while increasing the amount of annual research investment from other sources with appropriate cost recovery.
10. Develop the resource base necessary to support investments in key academic priorities.

**8.** Strengthen the institutional, budgetary, technological and policy frameworks necessary to set priorities, allocate resources, and realize the highest standards of academic excellence.

As an elite research university, we are pioneers in rigorous, empirically-based analysis. We must be prepared to turn that same searching eye on ourselves. As stewards of the university's resources, we must ensure that we have the structures and processes in place to make considered decisions about its future, informed by healthy expectations, strategic planning, rigorous data and expert analysis. To meet the challenges before us and strengthen our position as one of the world's premier academic institutions, we must adhere to best practices, prioritize self-evaluation and informed decision-making, and constantly safeguard our commitments to innovation and excellence.

The university has taken a number of steps toward this goal in recent years. For instance, we have begun external reviews of our schools and programs and launched a program of external departmental reviews. And following a period of comprehensive study, the Board of Trustees also recently adopted several far-reaching and bold changes in its structure and governance in order to enhance accountability, improve its performance, and better position itself to respond to the evolving challenges facing the university. One of the reforms reduced the maximum size of the Board of Trustees from 65 to 35 members; another instituted term limits for the Board members.

A priority for the university and its schools and divisions in the coming years will be to create and enhance processes and mechanisms that will allow us to make informed and considered judgments about our future in uncertain times. This means, first and foremost, putting into place the capacity for data generation, aggregation and analysis that will allow us to understand our strengths and limitations and make sound strategic decisions about the future. This capacity will need to include the development of internal measures and evidence-based assessments of our education, research and service activities. In light of looming funding pressures and restraints on capital, the university is also developing an integrated decision-making process for how best to deploy its scarce capital resources across divisions in support of its core academic mission.

Next, we will place a premium on open and participatory frameworks for decision-making, looking to draw broadly where possible on the perspectives and expertise of the university community. Finally, we will make certain that our decision-making and allocation of resources is aligned with the values and commitments at the heart of our university. For instance, we will continue to make the investments needed to ensure that the digital delivery of educational content is a core competency of the university that will advance our academic mission. As another example, we will ensure that we are acting as responsible stewards of our natural resources, and incorporate principles of sustainability in planning and programs across the university in areas such as energy, building design, food choice and resource conservation.

**9.** Reinforce our position as the leading university recipient of competitively funded federal research support, while increasing the amount of annual research investment from other sources with appropriate cost recovery.

Federal funding fuels our institution. It drives our research enterprise, is a magnet for graduate and post-doctoral students, supports investments in scientific infrastructure, and spurs extraordinary discovery in areas as far-ranging as the origin and fundamental laws of the universe, the workings of the brain, the design of stealth aircraft, how genes fail in cancer, and how vaccines control infection outbreaks. Johns Hopkins has ranked first in the nation in the merit-driven competition for federal research dollars for 31 years. In fiscal year 2012, we earned \$2.6 billion in research and contracts funded primarily by the National Institutes of Health, the Department of Defense, the National Aeronautics and Space Administration, and the National Science Foundation. All said, more than half of our total revenue is derived from federal research funding sources.

However, we are operating in a time of considerable uncertainty. Over the past decade, there has been a steady decrease in federal investment in research as measured in real dollars. Our reliance on federal funding leaves us highly vulnerable to likely further reductions in federal support for research and development. Accordingly, we will need to develop forward looking strategies that will preserve and enhance our competitiveness for federal funding streams. The Best Environment for Research and Scholarship project is an integrated cross-university initiative that seeks to lessen the administrative burden on researchers, make it easier for Johns Hopkins faculty to carry out research activities, and generate more support for this important work. We will also create innovate cross-disciplinary initiatives to compete more successfully for these scarce research dollars. One example is the Military and Veterans Health Institute, a cross-university initiative to integrate science, engineering and clinical care to improve health and wellness for our military service members, veterans and their families in partnership with the Department of Defense and the Department of Veterans Affairs.

Even so, we cannot stop there. In the coming years, we will need to pursue all potential funding opportunities for our research, and strengthen our voice in conveying to funders the academic world's critical contributions to solving the world's most pressing problems. This will include integrated efforts across the university to attract non-federal resources for research support, including through innovative research-based collaborations with foundations, corporations, technology accelerators and venture funds. Our network of alumni will provide an indispensable reservoir of wisdom and guidance as we seek to forge these new partnerships and relationships. We will continue to strengthen the capacity of the university to harness the potential of our intellectual property, including through licensing, commercialization and technology development. These initiatives are vital to the mission of the university: They will bring the benefits of our discoveries to the world, while allowing us to re-invest the resulting resources into core academic priorities and the groundbreaking research of tomorrow.

## 10. Develop the resource base necessary to support investments in key academic priorities.

Since the merchant Johns Hopkins' original investment in our university, we have been the recipients of dazzling and deeply moving acts of philanthropy. These donations have launched life-saving innovations, catalyzed fundamental discoveries and touched the lives of countless students. Nonetheless, in key respects, Johns Hopkins faces serious resource challenges. Relative to its peers, Johns Hopkins has smaller pools of funding available at the central or divisional level with which to make strategic investments in the longer-term development of its core missions of education, research and professional practice. Our endowment is just over \$2.5 billion, less than one-tenth that of Harvard University, and the numbers are even more arresting when considered on a per-student basis. Neither our tightly restricted government funding nor our tuition income bears the full weight of our operating costs. Our current structure is a fragile foundation on which to stand an elite university.

At the same time, our costs are only continuing to increase in every component of our university. We feel the pinch as we increase our student services, augment safety measures around campus, contribute to community initiatives or bolster our student aid. The costs of attracting and retaining our world-class faculty and staff continue to increase as well. Adding to this challenge, we expect pressures on resources to escalate in the years ahead as the federal government tackles its own financial constraints, as clinical reimbursements encounter downward pressure, and as tuition remains constrained by affordability concerns.

In this difficult funding environment, we must recalibrate our approach to the financial framework of our university, coupling new lines of revenue with targeted initiatives for cost control. We will explore new sources of income, including online education, technology development and global teaching and research partnerships. We will remain focused on philanthropy, strengthening relationships with existing donors and creating new partnerships in order to continue to fund cutting edge innovation and institutional priorities. *Rising to the Challenge*, the comprehensive campaign launched this year, reflects a singular opportunity to build our endowment and align investments with key strategic and academic priorities.

We must recalibrate our approach to the financial framework of our university, coupling new lines of revenue with targeted initiatives for cost control.

Finally, every part of the university will need to do more with existing resources and consider how to reprogram funds for the highest priority needs. We must fortify ourselves to make tough choices when necessary. In one recent example involving administrative costs, we made a decision to take \$5 million in savings from our university administrative budget and invest it in financial aid, to provide a new annual funding stream for this important priority and create a matching program for endowment fundraising. The university's relatively thin annual operating surplus places a premium on careful cash management to protect our liquidity and weather sudden downturns in funding. These sorts of strategic decisions will be essential if we hope to provide a firmer financial foundation while still maintaining our culture of excellence in the years ahead.

## Conclusion

The priorities in this document are only guideposts, a compass for our university. They are not a strategic plan or a detailed blueprint, but a prelude. The true work will take place in the years that follow, as these priorities inform the projects that we will all pursue across every corner of the university.

A final aspiration for the university emerges from each of the others: That as we advance together, we not only pursue this common vision for the university, but develop a greater understanding of who we are as a university. Through collaborations among stakeholders and new connections across our community, as the remarkable distributed strengths of the university advance together in discovery and research and service, what can emerge is an even stronger common identity, a unified voice, a sense of affiliation with the university that is as powerful as the affiliations in the divisions and programs.

The hope in short is that the work that follows will bring us together as Hopkins as never before. Building our collective future, and writing our collective story. As One University.



JOHNS HOPKINS  
UNIVERSITY