

The background image shows a large, multi-story brick building with many windows, likely a university or medical school building. In the foreground, there is a lush garden with green bushes and several large, vibrant pink azalea flowers. A large tree with white blossoms is on the left side of the image. People are walking on a path in front of the building.

# STRATEGIC PLAN

Frontline Medicine:  
2020 Vision and Beyond



School of Medicine





## MISSION

Boston University School of Medicine is dedicated to the educational, intellectual, professional and personal development of a diverse group of exceptional students, trainees and faculty who are deeply committed to the study and practice of medicine, to biomedical research and to the health of our communities.

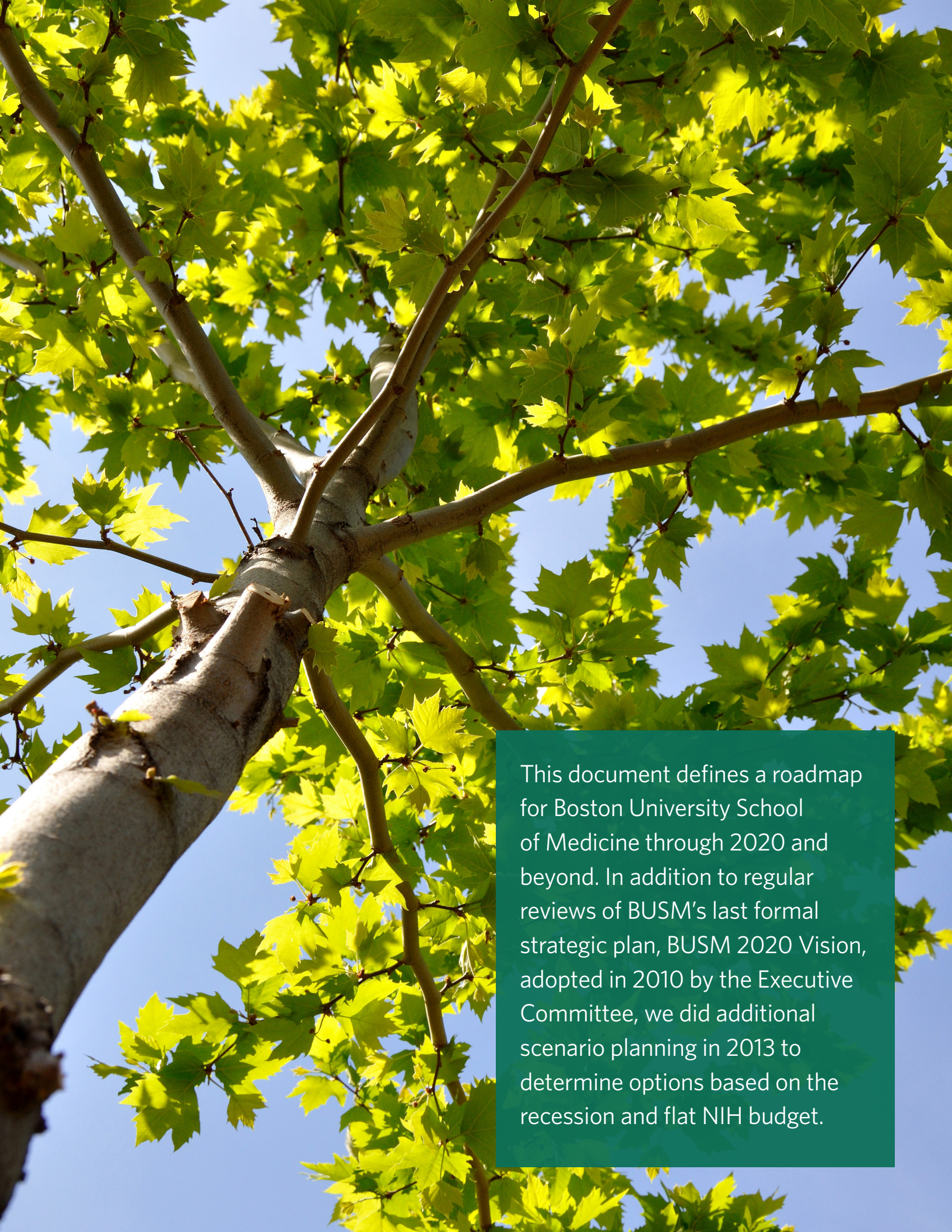
## VISION

BUSM will provide International leadership in biomedical education, research and patient care.

## VALUES

Excellence, integrity, service, social justice, collegiality, equality of opportunity and interdisciplinary collaboration.





This document defines a roadmap for Boston University School of Medicine through 2020 and beyond. In addition to regular reviews of BUSM's last formal strategic plan, BUSM 2020 Vision, adopted in 2010 by the Executive Committee, we did additional scenario planning in 2013 to determine options based on the recession and flat NIH budget.





## SUMMARY OF ACCOMPLISHMENTS

### of our 2010 BUSM 2020 Vision

Despite the financial constraints of the recession, we invested in our new student residence and renovated laboratories, classrooms and additional student lounge space, as per the plan. We provided newly recruited department chairs resources to implement their visions for their departments and recruited faculty with competitive recruitment packages.

Our Executive Committee defined educator tracks in 2007 for both PhD and medical teaching faculty. We have further consolidated our educational efforts around a smaller subset of faculty whose scholarship and careers are in education research and implementation. We will work nationally to foster a cadre of senior faculty in educational scholarship who can attest to the national and international reputations of our faculty to facilitate their promotion to senior faculty ranks.

In 2010, we appointed Directors of Diversity for the three schools on the Medical Campus (BUSM, SDM, SPH) who formed the Medical Campus Diversity Advisory Group. We developed websites linking diversity initiatives, and enforced BU guidelines on

faculty searches. The BUSM Office of Diversity and Multicultural Affairs has expanded its role beyond addressing ethnic minority underrepresentation in medicine to encompass all facets of diversity, including disabilities, religious backgrounds and sexual orientation. The Office is active in the medical school applicant interview process, multicultural events, faculty recognition, networking, hosting Conversations and panel discussions on varied topics and in education on the importance of diversity. Chairs annual reviews include recruitment and promotion of URM faculty.

In 2015, Boston University Medical Campus deans established an Assistant Provost for Faculty Development who works with department directors of faculty development and with the Director of Faculty Development for BUSM, Dr. Gail March, in the Office of Medical Education (OAA).

We integrated our second and then first year of our MD curriculum, increasingly incorporating active learning. We built a philanthropy funded video studio to facilitate faculty authored educational materials.





We added Global Health and Advocacy Tracks to our medical education curriculum, established new master's degree programs (including a MS in Health Sciences Education and a Physician Assistant Program) and designed inter professional education initiatives with BU's other health science schools (dental, public health, social work and allied health). We developed the Center for Regenerative Medicine, opened the National Emerging Infectious Diseases Laboratories to biosafety levels 2 and 3 research, launched a new cancer initiative including the Dahod Breast Cancer Research Center and the Shipley Prostate Cancer Center, and many other new research initiatives.

BUSM has made great strides in technology. Hiring an Executive Director of BUMC IT centralized projects in technology to drive down cost and improve service (e.g. centralizing desktop and educational technology support). Systems and infrastructure improvements have improved storage, network reliability, and created HIPAA zones for restricted data. Research computing was centralized at the University level vastly increasing resources for high-end computing and storage options.

We have raised more than \$200 million to date in our ongoing capital campaign with a goal of \$240 million. Thus despite resources limited by the recession and based on the management mantra, "Think big; Start small," we have significantly invested over the last decade, one faculty recruit, one renovated floor at a time, but in aggregate, successfully addressing our prior strategic goals.

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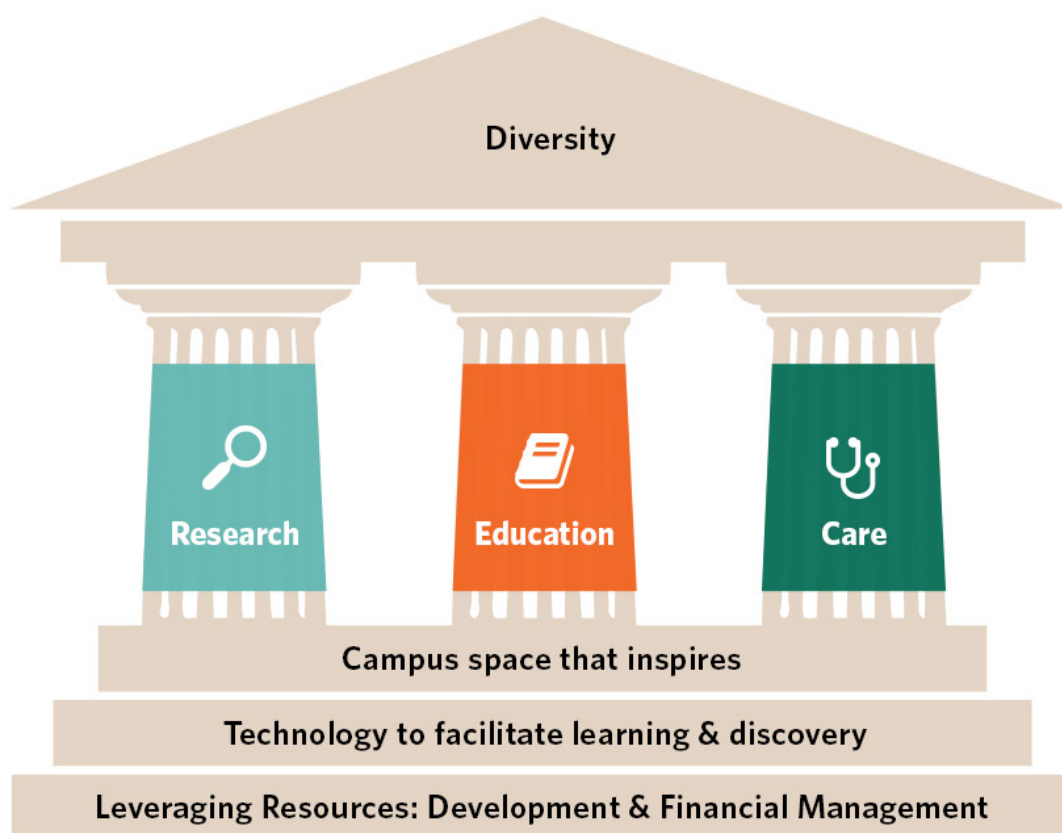
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# PROCESS FOR 2020 Vision and Beyond

Starting in the fall of 2015, the Dean convened a series of nine separate focus groups including assistant, associate and full professors around our three missions of education, research and patient care, the latter in collaboration with Boston Medical Center (BMC). In spring 2016, the three focus groups (assistant, associate and full professors) for each of the three missions met in an afternoon mini retreat to consolidate their priorities. The reports of these three mini retreats (education, research and care) were conveyed to the Executive Committee, which developed committees to focus our priorities.

1. Providing a high-value education at the frontlines of medicine with options for urban, rural and global experiences.
2. Investing in a portfolio of world-class research particularly strengthening our basic science departments, our physician-scientist faculty and our population health research, and collaborating even more with faculty from other Boston University schools and commercial partners.
3. Providing a model for high-value care for our diverse Boston safety net population at Boston Medical Center as well as at our VA and community affiliates.
4. Reaffirming our commitment to diversity among our faculty and learners to better serve our patients and facilitate discovery. We will become the institution of choice for the outstanding faculty, students and staff by nurturing their careers and leading our peers in diversity and inclusion.
5. Continuing to wisely invest in technology to facilitate learning, teaching and discovery.
6. Providing campus space that inspires innovative teaching, effective learning and brilliant research.
7. Expanding and leveraging our resources wisely to achieve financial security now and for the future.





# 2016 STRATEGIC PLAN

## Frontline Medicine: 2020 Vision and Beyond



1

### **Provide a high value education at the frontlines of medicine with options for urban, rural and global experiences.**

Education is the *raison d'être* of a university and a school of medicine. We will:

- ✓ Provide transformative medical and graduate education and career development. Provide the expected competency-based medical education (aka Core Entrustable Professional Activities for Entering Residency) but also leadership skills, life-long learning skills and the capacity for adapting to a rapidly changing health care environment. Continue to evaluate the current and future role of simulation.
- ✓ Create a culture where education and educational scholarship are valued, supported and rewarded and support education innovation and continue to study and reevaluate current methods of instruction and to innovative in undergraduate and graduate health professions education.
- ✓ Train healthcare providers in wellness, disease prevention and population health (e.g. addiction, pandemics and crises management, whether natural or man made).
- ✓ Dramatically increase inter professional education, research and practice. Foster inter-professional education and teamwork in our clinics and other settings where our students train.
- ✓ Invigorate support services for MD & GMS students, post docs, residents and fellows, including career planning services, additional student study and lounge space, and enlarging the scholarship pool.



# 2016 STRATEGIC PLAN

## Frontline Medicine: 2020 Vision and Beyond



2

**Invest in a portfolio of world-class research, strengthening our basic science departments, our physician-scientist faculty and our population health research, and collaborating even more with faculty from other Boston University schools and commercial partners.**

A strong research enterprise that emphasizes high levels of faculty scholarship is a key characteristic of a top tier school of medicine and an essential core of our school of medicine.

**Top-Tier Faculty Recruitment:** To achieve this goal, top-tier faculty must be continuously recruited and developed in key strategic areas. This long-term strategy requires a combination of junior- and mid-level faculty recruitment with competitive start-up packages and follow-up with active mentoring to help ensure their academic success. We should also leverage joint recruitments to strengthen our basic science departments with the expectation that our departments will rank in the top 35 nationally in NIH funding.

**Faculty Enhancements & Retention:** Although chairs and directors have been regularly sent to specific leadership development courses, mentoring for faculty is important at all levels, particularly for junior faculty and clinical faculty engaged in research. Examples include K to R and R to R transition mentoring, and enhancing our MD to PhD programs.

**Grant Writing:** In the highly competitive environment to obtain funding, professional writers with demonstrated success in aiding investigators to configure top-tier grant applications could have a huge impact on the success rate of our faculty and students in obtaining research and training grant support. Workshops are helpful but are only part of developing a more robust approach to the objective.

**Advanced technology Cores:** The focused acquisition of state-of-the-art instrumentation and cutting edge technologies provide a platform for the reinvention and retooling of faculty.



**Bridge Funding:** Highly talented and successful faculty often lose grant support before successfully regaining their funding. Increasing the overall support (including bridge funding) for excellent existing faculty to refresh and retool would provide a strategic advantage given the cost of hiring new faculty. Mentoring and guidance from successful faculty facilitators could also develop a culture of teamwork among colleagues and facilitate novel collaborations.

**Reinvention & Retooling:** Essential to faculty development and retention is the need to support travel to workshops or to developing new techniques and new cutting edge technologies. In the highly competitive grant funding climate employing advanced technologies improve the chances of a positive study sections review.

**Pilot Grants & Sabbaticals:** Faculty at all levels should be encouraged to take mini or full sabbaticals to reinvigorate research directions of the faculty. Pilot grants can also serve as transition grants for senior as well as junior faculty seeking to advance their research platforms to include new technological directions.

**Enhance Faculty Collaborative and Team Science:** A key path to enhance visibility and fund raising is to promote interdisciplinary collaborative research that leverages existing resources. (e.g. the Affinity Research Collaboratives or ARCs or trans campus collaboration with the CRC).

Doctoral programs should be strengthened to increase the number of NIH T32 training programs and retain NIH funding for existing funded programs or programs in gap years of funding. Top-tier doctoral students bring vitality, energy and academic recognition to BUSM.

BUSM's industrial funding via sponsored research agreements is low for an upper tier school of medicine. We should broaden our research base with umbrella agreements with small, mid-sized and multinational pharmaceutical and device companies.

### **Enhance Infrastructure to Enable Breakthrough**

**Science:** Regional Centers of Excellence: Given the highly competitive biomedical research landscape, gaining leadership in any established areas of basic and clinical research is difficult for any university. We should focus on select emerging opportunities where BUSM could establish a regional center of excellence, e.g. leveraging Framingham Heart Study data as a node in multiple Centers of Excellence would catalyze basic and clinical research studies.

Leveraging BUSM's diverse patient populations and resources such as in the Framingham Study, in ways that integrate patient population data and materials with the use of advanced technologies. This would be a logical area to begin mutually beneficial research development efforts targeting new opportunities for BUSM & BMC collaborations.

Standardizing research administration across BMC and BUSM to facilitate translational research and attract industry partners to BUSM and BMC as the go-to-place for their sponsored research. Effective collaboration between the basic and clinical sciences is important to the combined research enterprises.

Invest futuristically. Identify emerging opportunities, ideally before others (the gold rush). Long-range vision will be less reliable as is usual for high-risk, high-impact research. Innovation in select thematic areas, such as data science, will bring BUSM into a new era of becoming the 'go-to place' for foundations, donors and industrial partners.

**Cores:** Identify value-added cores to enable these objectives. Staff them to be highly effective. Some cores can be self-supporting. Others strategic cores could receive 3-5 year start-up funding with 5-year milestone-based renewable commitments.



# 2016 STRATEGIC PLAN

## Frontline Medicine: 2020 Vision and Beyond



3

### **Provide a model for high-value care for our diverse Boston safety net population at Boston Medical Center (BMC) as well as at our VA and other affiliates.**

BUSM will discover and deliver tomorrow's health care today. We will be internationally recognized for innovative, high impact curricular approaches and content in health system transformation. Health services research initiatives will improve our systems of care, developing expertise and new tools for the clinician workforce and health systems. Outstanding achievement in health system redesign and reformation will be valued in the academic promotion process by BUSM.

BUSM will identify learning needs and enhance specific competencies of outstanding clinicians with a broad range of core competencies as determined by regulatory agencies (e.g., LCME, ACGME, Certifying bodies, state licensing boards), payers, patients and health systems.

We will collaborate with affiliates to provide a learning environment that is professional, collegial, supportive of all personnel, and conducive to providing the best possible patient care, teaching, and research. We value generosity, integrity, constructive interactions, mentoring and respect for diversity and differences among members of our community, as well as responsibility, empathy, service excellence, problem solving and continuous improvement, efficiency, cultural competency and teamwork.

BUSM will actively partner with affiliates, particularly BMC, FPF and other BU health science schools to create curricula for medical and PA students, residents, fellows and faculty to develop the 21st century clinical workforce to lead health system reformation and build healthy communities. Curricula will establish competencies in health system design responsive to the needs of a diverse society with a particular focus on underserved and vulnerable patient populations.

We will also continue to enhance our many global research and education collaborations to improve health.



## **Reaffirm our commitment to diversity among our faculty and learners to better serve our patients and facilitate discovery. We will become the institution of choice for outstanding faculty, students and staff by nurturing their careers and with a reputation for diversity and inclusion.**

The AAMC published an updated strategic planning guide to assist medical schools in enhancing diversity and inclusion in academic medicine in 2016. We have adopted the recommendations found in this document, including:

- Soliciting commitment from key stakeholders
- Building a strong foundation by assessing the existing landscape
- Identifying leverage points and challenges
- Setting diversity goals that align with organization mission, vision and values
- Setting clear and realistic objectives, tasks and steps required to achieve goals
- Developing metrics to measure achievement of each objective
- Establishing roles, responsibilities and decision-making channels
- Developing a realistic timeline for executing all action steps.

The 2016 BU Task Force on Diversity and Inclusion has reinforced our commitment by recommending the establishment of a diverse community of scholarship, the appointment of diversity officers in every school and college at BU, and the enhancement of URM faculty recruitment and retention, among other important directives. (BUSM's Office of Minority Affairs, now the Office of Diversity and Multicultural Affairs, has existed for decades.) Based on these principles, we have reaffirmed our continued commitment to a culture of inclusion and equity and our goal of being a recognized leader in diversity and inclusion.

We will create and share best practices, expand our presence in health disparities research and educational interventions in cultural competence and bias in academic medicine, and monitor and reward success in diversity of leadership, faculty, learners and senior staff.

Recognizing the need to nurture careers and for faculty and staff development, we will continue to evolve our faculty development and leadership programs to enhance education, research and clinical careers, provide staff development opportunities to strengthen our workforce and retain the best individuals, invest in start-up, bridge and retention support.

We will increase the number of endowed professorships, pilot grant funding available for exploration of new areas and enhance faculty understanding of metrics for success.

Develop a culture of professionalism, self-awareness and support with mentorship of young physicians and scientists an expected priority for promotion.



# 2016 STRATEGIC PLAN

## Frontline Medicine: 2020 Vision and Beyond

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### Continue to wisely invest in technology to facilitate learning, teaching and discovery.

Current trends in technology will affect how services are provided across the medical campus:

**Mobility:** Access to everything, all the time, from anywhere. BUSM must ensure that medical education, administrative services, and research are all delivered in a fully mobile enabled world.

**Internet of Things (IoT):** Everything will produce data from a research instrument to the thermostat in a classroom to students' social media posts. BUSM must harness the Big Data flow to drive efficiency and increase engagement.

**Contextualized Data:** Knowing not only what but where, when and why. The Big Data explosion can be harnessed to understand behavior, drive intervention or open new research directions.

**CapEx to OpEx:** Technology services are evolving from a capital expense to a subscription based operational expense. With cloud-based technologies and software services growing logarithmically, the switch will soon be almost total. Except for networks, almost every technology service can be delivered via the cloud. This change in expense needs to be addressed in future budgets.

Given these technology trends, strategic technology initiatives over the next 3-5 years include:

Formation of a Technology Governance Committee of faculty, researchers, staff and students to:

- Serve as clearing house for technology suggestions
- Prioritize technology investments and effort
- Develop educational technology and data management priorities
- Facilitate distance learning, simulation, classroom technologies, big data, business intelligence, analytics data governance

Eliminate Legacy Systems

Implement new Registrar/Student

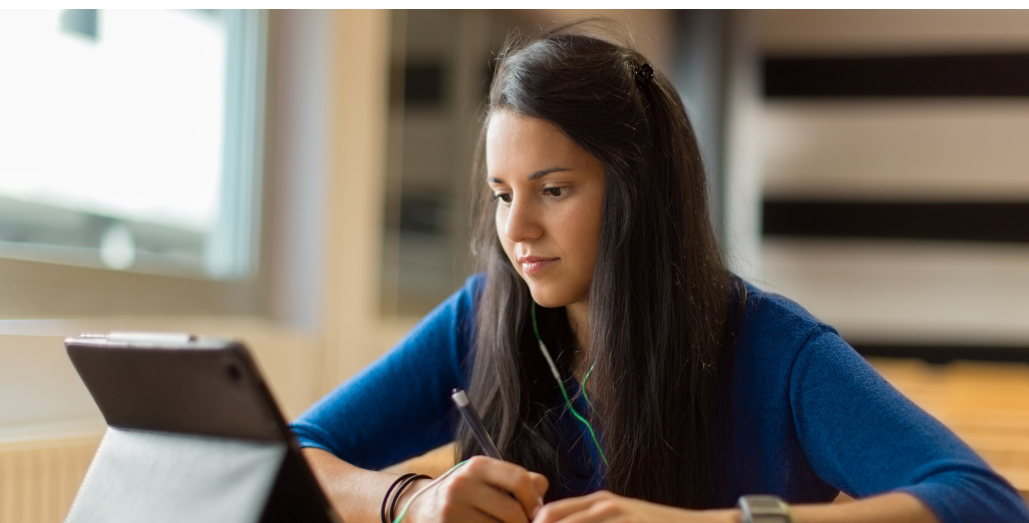
Information System and Core Management Software

Increase overall technology proficiency at BUSM through faculty, staff and student education.

Optimize Information security and compliance

Increase collaboration technology:

- Facilitate faculty-student, student-student, student-campus interactions
- Outside, inside, remote conferencing, secure data sharing
- Begin to transition IT Budget from capital to operating (i.e. facilitate move to cloud, future funding models).







6

## Provide campus space that inspires innovative teaching, effective learning and exceptional research.

Classroom space should not constrain curricula pedagogical innovation or program growth. Evolving teaching needs vary not only the number of classrooms but also the room location, size and set up. Smith Group consultants provided a space plan in 2014, which has largely been implemented, save for an additional 220-seat auditorium.

We have shifted classrooms from peripheral buildings to core space in the A, L & R complex with no need to travel outside between buildings. We have modified smaller flexible classroom space to respond to planned teaching and learning scenarios and to accommodate small group instruction and self-directed learning. Administration closely monitors room requests a year in advance and plans classroom renovations accordingly.

We will continue to:

- ✓ Enhance student relaxation and study space.
- ✓ Renovate office and laboratory space in current buildings. (We have two additional laboratory footprints for construction if warranted by substantial NIH budget increases.) Remove old equipment to expand usable laboratory space.
- ✓ Begin plan for an educational building that may also contain dry lab research space and possibly student housing.



# 2016 STRATEGIC PLAN

## Frontline Medicine: 2020 Vision and Beyond



### **Expand and leverage our resources wisely to achieve financial security now and for the future.**

We will construct financial models that reward collaborations of institutes/centers and departments, foster team science, centralize/regionalize functions where appropriate, streamline compliance where feasible and standardize best administrative practices.

Following our 2010 strategic plan, our Development Office expanded from 6 to 9 personnel. Donations have almost doubled since our last strategic plan. Both individual and corporate and foundation relations giving has increased.

We will further expand our development initiatives to:



Increase endowments to support BUSM indefinitely (particularly scholarship support), by building on reunion years to generate significant gifts, developing a focused parent program, generating awareness and commitment for planned gifts and identifying and cultivating potential donors among alumni, friends, residents, patients, corporations and foundations.



Explore mini-campaigns for specific initiatives (e.g. renovating the gross anatomy lab) to generate enthusiasm on a case-by-case basis. We will identify volunteer leaders to provide leadership gifts and peer support.



Develop a stronger culture of philanthropy with a philosophy that a rising tide raises all boats.









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