2006 Boston University School of Medicine

2020 Vision

1. Executive Summary

Over the past 20 years, BUSM has evolved from a school providing medical education to students from Massachusetts and New England, to a medical school with substantially increased research funding drawing medical student applications from a national geographic base. Although growth has strained administrative infrastructure and facilities, the American Association of Medical Colleges is calling on all medical schools to increase their classes by 30% over the next decade. Medical education has evolved as well, with an explosion in biomedical and psychosocial knowledge, and unprecedented access to information.

Over the next five to ten years:

- **Medical education** will require curriculum revision; curriculum research will be a major priority. In addition to a strong integrated medical curriculum, we will be known for our strengths in ethics, humanism and global health.
- Clinical affiliations must be nurtured and expanded. We will need additional instructional space.
- Given the cost of living in Boston, to compete for the best students, we need to provide affordable housing options for medical and graduate students, as well as post docs and perhaps junior faculty.
- We will develop a program for faculty development (and perhaps a Masters Degree in Medical Education).
- We will focus **research investments** in emerging infectious diseases, cancer, cardiovascular disease and neurosciences.
- To increase faculty productivity, core facilities need to be organized, structured and reviewed annually.
- We will diversify our funding sources by increasing collaborations with foundations and industry. Increasing visibility will attract philanthropy.
- Structures need to reward interdisciplinary research and teaching, and productive use of space and central funding.
- More transparent departmental funding should reward teaching and research.
- IT systems need to be restructured to facilitate data based decision-making, research, teaching and care.
- Classrooms, the library, student lounges and study space and other support **facilities** need careful review for renovation. We need to judiciously track space utilization and plan for incremental laboratory, research and instructional space. Current facilities need maintenance.

Over the next few years, this plan will evolve as we develop each of these priorities with continuing input from faculty, administration and students.

2. Background

2.1 Mission

Boston University School of Medicine's mission is to educate and train students, physicians and scientists who will bring superior qualities to the practice of medicine, biomedical research and public health and who will be prepared for changes in the social, legal, and economic climate that will affect the practice of medicine.
The core elements of this mission statement have evolved in statements of the mission and purpose prepared as part of the School's accreditation process.

A corollary mission is to make the Boston University Medical Campus the best place to learn, teach and discover.

### 2.2 Description

#### 2.21 A brief history of BUSM

The School, established in 1848 as the first women’s medical college, celebrated its Sesquicentennial in 1998. New England Female College graduated 98 physicians many of whom practiced frontier medicine all across the United States and into the Territories. The first black woman MD in the US graduated in 1864. The school merged with Boston University in 1873 and from the beginning was open to men and women of all races and religions. BUSM adopted a four-year curriculum in 1890, two decades before the Flexner Report called for such reform. The advanced state of the School's scientific enterprise won gold medals at the St. Louis World Fair in 1904. The first graduate students were admitted in 1912, with the first PhD award in 1916.

A decade ago, the School engaged in a re-engineering process entitled BUSM 2000. Specific outcomes of this process included expanding graduate programs at School of Public Health (SPH) and the Division of Graduate Medical Sciences (GMS), enhancing the information technology (IT) functions, strengthening clinical research, streamlining research administration, and re-organizing the basic science departments. New departaments since 1990 include Emergency Medicine (1996), Family Medicine, (1997), and Genetics and Genomics, (2001). In 2001, the School of Public Health faculty became separate from the medical school and Biophysics and Physiology merged.

#### 2.22 Faculty, Staff, & Resources

Boston University School of Medicine comprises the following:

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<thead>
<tr>
<th>BUSM Faculty, Staff &amp; Students: 1/1/2006</th>
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<tbody>
<tr>
<td>Faculty, full-time</td>
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<td>Faculty, volunteer</td>
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<tr>
<td>Staff</td>
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<td>Medical students</td>
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<td>Residents and fellows,</td>
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<td>Graduate students</td>
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**Space:**

BUMC space comprises 1.8 million square feet in 25 buildings, including 50 classrooms and 641 laboratories. Of this space, 21% is rented. A new building, the National Emerging Infectious Disease Lab (NEIDL) is currently under construction.

#### 2.23 Faculty Evolution over last decade

The composition of the faculty has evolved to meet new teaching requirements. BUSM has recruited increasing numbers of both clinical and research faculty to cover clinical, teaching and research responsibilities.

Significantly, about 70 of the full-time faculty in the clinical departments are PhD's who collaborate with clinicians on translational and clinical research.
In addition, over 1,000 additional volunteer faculty serve a variety of vital functions including facilitating problem-based learning and teaching history and physical exam skills for first and second year students, precepting students across the four years in clinical settings, and teaching residents. A distinguishing characteristic of U.S. medical education is the constant tension balancing the urgency of clinical care with the demands of research and formal education.

The Dental School (SDM) and School of Public Health (SPH) provide significant collaborations. The SPH remained financially intertwined with BUSM until 2005. Many important evolving research programs involve collaborations of faculty from two or three of the schools.

2.24 Five Peers/Competitors

A list of five peer schools of medicine varies with the type of measures of intellectual strength, strategic mission, and available resources. BUSM ranks 38th of 125 Medical Schools in NIH research funding. Five peer institutions (large, urban with similar NIH funding) are USC, Cornell, NYU, University of Chicago and Northwestern NIH rankings correlate closely with research faculty size. Productivity of individual faculty is better measured by ranking by grant dollar per faculty member, found in the U.S. News & World Report.

Despite agreement that USN&WR ranking methodologies are flawed, colleagues, prospective students and parents use them. In the most recent USN&WR rankings, BUSM ranked 28th, ahead of USC, NYU, Dartmouth, Tufts and Brown.

2.25 Trends in Financial Resources over decade

Medical schools in the US typically have 6 sources of significant income: tuition, grants, endowments, gifts, clinical revenue and state funding (more than half of all medical schools are state funded). Boston University has typically relied more extensively than other medical schools on tuition and grants. The School has historically ranked above the 95 percentile among medical schools in the fraction of income from federal funding.

Research: Sponsored programs represent the largest single source of revenue at about 37%. During the last decade the School of Medicine and the medical campus benefited from the doubling of the NIH budget. The School now faces a leveling off and some shrinkage of federal funding. In sponsored research, funding increased from $84 million in 1996 to $138 million in 2005 - not including the one-time $128 million in 2003-2004 for the National Emerging Infectious Diseases Laboratories. Indirect cost recovery has increased from $20 million in 1995 to $38.5 million in 2006. Research space has more than doubled. New programs in translational research and several new centers facilitate the cross talk of laboratory discovery and clinical application. About half of the active research contracts and grants focus on clinical research.

Figure 1: Trends in grant funding

Clinical Activity: The year 2006 marks the tenth anniversary of the merger between the old Boston City Hospital (established 1864) and Boston University Medical Center Hospital to create Boston Medical Center. This merger of public and private hospitals was greatly facilitated by Mayor Thomas Menino, and has dramatically unified the medical campus and the clinical teaching program. The merger also included formation of HealthNet, a network of community health centers and private doctor's offices throughout the greater Boston area.

Other major clinical affiliates include the Boston VA Healthcare System, Quincy Medical Center, and Roger Williams Medical Center in Providence Rhode Island. Clinical training also occurs in another 20 or so community hospitals throughout New England. Maintaining this network of clinical affiliates remains a challenge.

The Faculty Practice Plans, inaugurated in 1996, return about $132 million, or 33% to support clinical salaries at the Medical School. Tuition income represents about 10% of the total budget. Over the past
decade increased tuition income from expanded graduate programs has helped to slow the rate of increase in medical school tuition.

**Medical Campus Endowments** BUSM currently has 13 fully funded chairs and 14 more are partially funded.

### 2.3 Educational Programs:

#### 2.31 Vitality & Relevance of Educational Programs

**Education:** The structure of the educational program is guided by the Liaison Committee on Medical Education (LCME), which is the accrediting authority for US medical schools. The School has been modifying the curriculum to keep pace with rapidly developing trends in science and medical education, including fewer lecture hours, more small-group discussions, and greater use of simulations and standardized patients. In addition, a new Clinical Skills Assessment Facility evaluates students in a realistic clinical setting. After the March 2003 LCME site visit the school re-structured the governance of the curriculum devolving decision making from departments to the Medical Education Committee.

**Students:** Over the past decade, the medical student population has increased modestly (mostly with the addition of combined MD-PhD students) from 135 to the 160 students expected to matriculate in fall 2006. Admissions has focused recently on non-cognitive factors resulting in a higher fraction of more non-traditional students (older, with more life experience). Because of increasing medical and graduate student numbers (graduate students and public health students outnumber medical students on campus), student amenities, lounge areas, library comforts, and study space are stressed.

**Traditional 4 year MD pathway:** BUSM adopted a four-year curriculum in 1890, more than 20 years before the profession-altering 1910 Flexner Report calling for such a link between medical education and academia. Medical education in the United States varies considerably across the 125 schools. Traditionally, the first two years consist of basic science courses in anatomy, biochemistry, physiology, pharmacology, genetics, pathology, and microbiology. Increasingly science and clinical courses are integrated and taught concurrently with courses that focus on mechanisms of normal and abnormal function, team building skills and patient interview and examination techniques. Third year students almost universally rotate through clinical departments. BUSM3s take 11 weeks each of Medicine and Surgery, and 6 weeks each of Pediatrics, Psychiatry, Obstetrics/Gynecology, and Family Medicine; and BUSM4s take 4 weeks each of Radiology, Neurology, Geriatrics, a sub-internship, and five electives. More than half of the senior class take outside electives at other Academic Health Centers, rural clinics and military installations, often at locations they are considering for residency training. About 20% each participate in research and international electives.

Important adjuncts to the traditional 4 year pathway at BU are **combined degree programs**.

- In 1960 the School began an accelerated program offering a combined **BA-MD** in six years (changed in 1997 to a seven-year program), which endures as an incubator for exceptionally bright and motivated students.

- Another innovation, introduced in 1977 was the Modular Medical Integrated Curriculum (MMedIC), designed to decompress the continuum of medical education. Students are provisionally accepted to medical school as college sophomores. During the final two years of undergraduate education they take specially designed modular courses that satisfy both undergraduate science requirements and those of pre-clinical medical education. They enter BUSM having completed several first year BUSM basic science requirements and therefore have more free time for research, work, and study.
The MMEDIC program was later expanded to include a special track for under-represented minority students called the Early Medical School Selection program (EMSSP), and for engineering students (EngMedIC).

At any given time about 70 students are enrolled in the MD/PhD program. Generally, after taking the USMLE Part I at the end of the second year, these students will spend 3-5 years in the laboratory completing the PhD portion of their education before returning to the clinics.

In the MD, MPH program, students take SPH courses either before matriculation to MED or in the year between basic science and clinical training.

These multiple pathways impact both positively and negatively. During a recent decline in the national applicant pool, the BU pathways allow the admissions staff to reach deeper into the pool by selecting motivated and qualified students earlier in the continuum. Identification of strong candidates early not only reduces the vicissitudes of the current applicant pool, it also allows the school to cultivate a diverse class. The BU Pathway students enter and leave with exceptional loyalty to the school and university.

However, students from these alternative BU pathways represent 25-35% of the entering class of 155. When accepted students from the BUSM MA in Medical Sciences program are included, the number of slots available to outside candidates are even fewer. Because early pathway students are guaranteed admission to BUSM if they remain in acceptable academic standing, they tend to be less motivated to excel on MCAT tests, decreasing the school's MCAT average. Students entering via the traditional pathways must take full course loads while BU Pathway students with advanced standing have lighter course loads and are already familiar with resources, professors, etc. In response to this reality, a pass-fail grading system for BUSM was adopted which has contributed to building collegial teams rather than encouraging competition among the first year students. Taking a long view however, the multiple entry pathways enhance the diversity of the student body in age, ethnicity, life experience and educational background. This diversity continues as one of the school's remarkable strengths and distinguishing characteristics.

**Graduate Medical Sciences:** While MED enrollment has remained steady at around 625 students for the past ten years, the GMS enrollment has increased dramatically since BUSM 2000, now enrolling approximately 330 master’s students and 300 PhD students in ~20 graduate programs. MA candidates increased by 130% from 145 in 1995 to 334 in 2005, while PhD candidates increased by 35% from 224 in 1995 to 303 in 2005.

The newest Master’s programs developed quickly in response to popular interest in Mental Health and Behavioral Medicine, Clinical Investigation, Molecular Medicine, and Nutrition Science. The recent national increase in medical school applications has been accompanied by an increase in applications to the MA in Medical Sciences program, which prepares applicants for medical school.

**2.32 Outcomes for students**

The Liaison Committee on Medical Education (LCME), which accredits US medical schools, expects an organized method for collection and review of outcome data, including data on the performance of graduates who have entered residency training.

Our Office of Medical Education (OME) has sent a questionnaire to residency program directors for the past 2 years after BUSM graduates complete about half of post graduate year (PGY)-1. Program directors evaluate the performance of each graduate for a variety of indices. The response rate is approximately 66%. Responses are reviewed by the Associate Dean for Academic Affairs and the MEC and will be compared to the Dean's Letter assessment. As for other external measures, scores of BUSM students on the USMLE PartI (medical licensing exam) improved after the examination became a requirement in 1995, and for the last five years, BUSM student scores have been near the national average. Part II is not yet required but is likely to become required. BUSM students generally perform at the national average. BUSM graduates obtain
residency positions in excellent programs nationally. The USMLE test scores and the continued recruitment of BUSM graduates to excellent residency programs are evidence of having achieved the desired outcomes.

From GMS, our PhD and MA graduates enter the workforce in a variety of ways--as postdoctoral research fellows in academia; as research scientists in industry (pharmaceutical and biotech companies); and as teaching faculty in a variety of small liberal arts colleges. Although the majority of our Master of Arts in Medical Science students enter medical school, a number of graduates from our other degree programs also elect to enter medical school. Some of the master's graduates choose to continue their studies and enroll in a PhD program in the basic sciences. Our specialized master's programs prepare our graduates for meaningful career paths upon completion of their program of studies. For instance, graduates of our Master of Arts in Mental Health and Behavioral Medicine are prepared to become accredited mental health counselors; students completing a Master of Arts in Clinical Investigation become clinical trials coordinators at a medical center or at a pharmaceutical company; and our new Master of Science in Genetic Counseling will prepare graduates to work in a medical setting as genetics counselors.

2.4 Research and Scholarship

Basic Research:

Boston University School of Medicine earned gold medals for laboratory exhibits at the 1904 St. Louis World’s Fair, and also were praised from Abraham Flexner in the 1910 Flexner Report. One hundred years later basic research continues to be a major strength, with several departments ranked in the top 10 in their fields in terms of funding. In the past two years interdisciplinary basic research has expanded in response to new funding initiatives, such as the NIH Blueprint. Medical school basic scientists increasingly collaborate with clinicians and colleagues in other disciplines at BU and around the world.

Clinical and Translational Research:

Clinical research has been a vigorous enterprise at the medical school since the Robert Dawson Evans Memorial Department of Clinical Research and Preventive Medicine was established by his widow in 1912. Today many projects have a translational focus designed to rapidly bring research results into practical application or clinical practice.

Whitaker Cardiovascular Institute: A Specialized Center of Research (SCOR) on hypertension, is the longest-funded Hypertension SCOR in the country. The current focus of the research has moved to studies on the genetic basis of hypertension and the interaction of genes and environment in the development of hypertension and its clinical complications. Programs in the Cardiovascular Institute focus on the interplay of race and cardiovascular disease and include a program project grant studying congestive heart failure in African-Americans.

Framingham Heart Study: The Framingham Heart Study (FHS), which was initiated in 1948 and which has been led since its inception by BUSM faculty has entered a new phase that emphasizes the study of genetic determinants of cardiovascular and other chronic diseases. Ongoing research continues the follow-up of the original cohort of 5,209 participants and their 5,124 children, and has begun the assessment of approximately 3,500 grandchildren of the original group. Knowledge obtained from the FHS on the risk factors for heart disease and stroke has played an important role in the decline of cardiovascular disease in the US over the past three decades. After 55 years, the FHS continues to hold great promise for major medical discoveries.

The Pulmonary Center: The Pulmonary Research Center is divided into six major groups examining developmental biology of the lung, pulmonary immunology, and inflammation. A Research Enhancement Award Program (REAP) award from the Veterans Administration focuses on connective tissue synthesis and repair in the lung. The Epidemiology and Genetics research group examines the pathobiology of the pulmonary vasculature, the genetics of lung cancer and COPD. In addition, the Pulmonary Center sponsors a number of clinical trials and manages inpatient and outpatient pulmonary services provided to Boston
Medical Center (BMC), Veterans Administration Boston Healthcare Systems (VABHCS), and affiliated neighborhood health centers.

**Clinical Addiction Research and Education (CARE) Unit**, addresses the clinical, educational, and research aspects of alcohol and other drug use. Studies underway address hazardous drinking in college freshmen via a web intervention; unhealthy alcohol use in hospitalized medical patients; the role of alcohol in hepatitis C and HIV outcomes; an intervention to improve medication adherence among HIV-infected drinkers; post-traumatic stress disorder and substance use in primary care; drinking and health across the lifespan (in collaboration with the Framingham Heart Study); HIV prevention in alcohol users (in Russia); and quality of care for people with addictions. A vigorous educational program trains medical students and physicians.

**Arthritis Center**: The NIH-funded Multipurpose Arthritis and Musculoskeletal Research and Treatment Center has expanded its activities to include epidemiological studies involving the Framingham Study population and a community-based group in Beijing, China. Other research examines outcome measures in vasculitis and scleroderma. BUSM has achieved international distinction for its investigations into another uncommon and once fatal disease, amyloidosis.

**Comprehensive Sickle Cell Center**: This NIH-funded Center was originally established three decades ago by our alumnus Louis Sullivan, M.D., (class of 1958) who later became Dean of Morehouse School of Medicine and Secretary of Health and Human Services. Research on hemoglobinopathies and thalassemia has included studies of mechanisms underlying abnormal endothelial cell function in the sickle syndromes, studies on genetic modifiers of sickle cell disease severity, as well as studies of butyrate compounds, which induce fetal hemoglobin, as candidate therapeutic agents for these diseases.

**Neurosciences focus on Behavioral and Degenerative Disease**

**Alzheimer’s Disease Clinical Center** – Research on the molecular neuropathology of the human brain is complemented by studies on the genetics of Alzheimer’s disease and biochemical studies on the degradation of brain amyloid. In addition, a number of NIH-funded clinical trials deal with the prevention of Alzheimer’s disease in high-risk individuals, including one that studies the influence of non-steroidal anti-inflammatory drugs.

**Behavioral Neuroscience** programs that investigate changes in brain structure and function and their relation to behavioral abnormalities provide new insights into problems associated with aging, autism, pre- and post-natal malnutrition, and substance abuse. Our investigations on the neurobiology of aging continue to be funded by the first program project ever awarded by the NIA and our autism group is recognized and funded as a national center of excellence. Several research programs at BUSM have demonstrated that chemically dissimilar substances such as cocaine, heroin, alcohol and nicotine share common activities in the brain that subserve their rewarding and addictive actions. There is also a large research program on the neurotoxicity of amphetamine and other addicting drugs. Other studies employ fMRI to identify specific sites in the brain that are affected by addicting drugs and by newly-developed medications for treating substance abusers.

Other Behavioral Neuroscience programs examine the neurochemistry of language disorders, perception, and cognitive capacities; develop methods to assess and diagnose PTSD and characterize the psychological, behavioral, and physiological consequences of exposure to traumatic events; and investigate the genetic basis and treatment of movement abnormalities. One group recently identified several gene loci which show strong associations with the presence of Parkinson’s Disease, indicating an important genetic contribution to its etiology.

Mark Klempner, M.D., Associate Provost for Research, has expedited the assembly of electronic research resources to improve communication among researchers, and heads the National Emerging Infectious Diseases Laboratories.
The office of Clinical Research developed as part of the BUSM 2000 initiative, and now under the leadership of Thomas Moore, M.D., Associate Provost for Clinical Research, has brought a much sharper focus to the management and conduct of the more than 1,000 clinical trials underway at BUMC.

2.41 Rankings

The Association of American Medical Colleges ranks all 125 medical schools on the basis of external awards to departments, and for FY 2004 (the last year available), the highest ranking BUSM departments were: Neurology, 7th; Biochemistry 11th, Anatomy 13th. Other departments ranking in the top third nationally were Medicine, 32nd; and Physiology, 33rd.

2.42 Evolution

Research funding increased substantially over the last decade reflecting construction of new laboratory space and the doubling of the NIH budget. The NIH budget is now decreasing and competition for funding is substantial.

Current open leadership positions include chairs of Medicine and Pathology. The Arthritis Center is now under interim leadership because of the recent untimely death of Joseph Korn, MD. Leadership of the Whitaker Cardiovascular Institute is open since the departure of Dr. Loacalzo as chair of medicine in 2005.

2.5 Diversity of department faculty, staff and student body.

2.51 Intellectual, Racial and Gender Diversity

Faculty: Since 1995, the full-time faculty has grown by 45%, from 828 to 1201, and much of this growth has paralleled the expansion in sponsored research programs. In terms of intellectual diversity, 70 PhD scientists have primary faculty appointments in clinical departments. Thus bench scientists and epidemiologists work closely with clinicians. The several multidisciplinary centers on campus have proven particularly successful in competing for funding.

In its last report to the Association of American Medical Colleges, BUSM reported that representation within the 1,200 full-time faculty was:

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<th>Ethnic group</th>
<th>%</th>
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<tbody>
<tr>
<td>Asian-American</td>
<td>10.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.4</td>
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<tr>
<td>African-American</td>
<td>3.8</td>
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There are no African-Americans in the basic science departments. The Faculty is about 37% female.

Staff: The non-faculty workforce totaled 1,452 as of January, 2006 including 80 administrative, 786 professional, 312 technical, 87 protective service, 91 clerical, 16 skilled crafts, and 80 service/maintenance workers. The protective services workers serve the entire campus. Skilled craftsmen and service/maintenance workers also handle SPH. The workforce is about 39% male. About 12% of the non-faculty workforce come from under-represented minority populations.

Student body: The entering medical school class, with 18% under-represented minority enrollment testifies to the effectiveness of the Early Medical School Selection Program. This class, too, was 59% female, a proportion not seen since the 19th century. This class reflects a national trend with more non-traditional students, that is, students with significant and varied life experience. They come from 42 states, with the largest single bloc from California (This has shifted in the past ten years: earlier the largest bloc of students came from New York/New Jersey). Class size has remained stable for the past decade at around 625 medical students over four years. As noted elsewhere, the graduate school student body has increased more dramatically.
The Hospital: The close physical and intellectual connection to Boston Medical Center constitutes an essential facet of BUMC's diverse character. The hospital mission is "Exceptional Care without Exception," and as BMC celebrates its first decade in 2006, the School's students and faculty continue to provide health care to the city's underserved in fulfillment of this mission. This mission, clearly articulated, permeates the intellectual fabric of the school and has assured the unification of the medical campus over the past decade.

2.52 Unit Strategy for Enhancing Diversity

In November, 2005, Dean Kenneth C. Edelin, M.D., Associate Dean for Student and Minority Affairs since 1989, announced his plan to retire June 30, 2006. At the campus wide strategic planning meeting on December 9th, 2005, the BU Medical Campus deans and provosts agreed to coordinate recruitment and faculty development at the provost level to focus on diversity among basic science faculty, residents, and junior faculty across the three schools in collaboration.

3. Long-term (5-10 year-) goals and strategies

3.1 Educational excellence

- Reduce the cost to the student of the medical education at Boston University (modest tuition increases, increase scholarship endowment, provide affordable housing)
- Initiate and be serious about bold curriculum reform including increasing the integration of basic and clinical instruction.
- Increase the support for the MD/PhD programs

3.2 Research and scholarly excellence

- Focus research in themes that support the School's strategy, leveraging across units and departments and building on the excellence already in place. New areas of research should especially focus on those areas where there is a "competitive advantage" and which is consistent with the culture and heritage. We anticipate increased investment in emerging infectious diseases, cancer, cardiovascular disease and neurosciences.
- Improve visibility and access to shared core facilities on campus
- Sponsor and obtain more interdisciplinary training grants; support Centers & Institutes with resources.
- Diversify research portfolios to include more foundation and industry funding.

3.3 Increased diversity of faculty and students

- Begin coordinating across the three schools on the medical campus to recruit and develop a diverse faculty though an assistant provost’s office.
- Focus on our goal of “Creating a different type of doctor. One that can deliver exceptional service no matter the economic or social status”

3.4 Increased effectiveness of campus infrastructure

- Mid-Term-We need a mission based budgeting system in place to drive our focus and work. This will probably take a year or two given the nature of the budget cycles but it is absolutely necessary in order to implement our strategy of focus and excellence.
- Long-Term-A longer-term objective is to develop systems that are transparent and will help us get our work done. They need to be integrated, mission based, include financial control systems, and provide the information that allows the allocation of rewards and ability to determine space allocation. The senior
leadership of the medical school realize this is a longer-term objective but are unanimous in supporting its accomplishment. At a retreat in October they summarized their analysis by saying, “Right now we fight the systems to get our work done. They need to be transparent, like riding a bicycle when you are trying to get somewhere. You don’t think about how to ride, you think about where you are going.”

- Full implementation of mission driven financial systems
- Develop information systems that support and enhance the educational programs
- Integrated information systems that provide the necessary data for strategic thinking and management
- Communication systems that facilitate the flow of information across BUMC, CRC, and BMC
- Development of mission oriented human resource management systems
- Development of integrated systems that support the research and compliance agendas

4. Short-term (1-5 year) priorities.

- Recruit important leaders: Assistant or Associate Provost for Diversity, Associate Dean for Academic Affairs, and Chairs of Medicine, Pathology.
- Improve Information Technology across the medical campus, with BMC, and across the University
- Introduce units to mission driven financial systems
- Stabilize the Laboratory Animal Facility and make better use of shared core facilities
- Develop appropriate sources of philanthropy for scholarships, affordable housing, endowed assistant professors, and endowed honorific awards for teachers.