Report of the Subcommittee of the Faculty Advisory Committee on Collaborative Activities*

This subcommittee was charged with 1) exploring the research and teaching collaborations already in existence at Rice University that involve the Baylor College of Medicine, 2) suggesting ways in which these collaborative activities might be enhanced, and 3) exploring new or potential collaborations that could emerge as a result of a merger between the two institutions. To achieve these goals, we solicited information from the entire faculty via email, consulted broadly with the various schools and departments, and met with interested colleagues.

Our primary responsibility, as we see it, is to describe the conditions under which a merger of the two institutions would result in maximum potential academic benefits to Rice University. Many of the most important challenges facing society today are interdisciplinary in nature. Fostering collaborations across schools at Rice/BCM to address multidisciplinary issues such as global health, medical technology, and health policy and management can enhance Rice's impact in the academic community as well as the world at large. A carefully designed and implemented merger can expand both research opportunities (in current and new areas) and research impact at Rice; can lead to joint graduate and postdoctoral training programs; can enrich and expand undergraduate courses of study and provide students in a variety of majors with additional research opportunities, internships, exposure to lecturers from BCM, and clinical experiences in certain courses; and can broaden and enrich the training of medical students by giving them more opportunities to take courses in such fields as the sociology of medicine, medical anthropology, religion and healing, philosophical bioethics, the history of medicine, the economics of health care delivery, health policy studies, and healthcare management.

While there are risks to a merger, such as a perceived reduction in the value of basic and non-biomedical research and undergraduate teaching as well as a shift of the center of research activity from the main campus to the medical center, and a fear among a substantial number of faculty that a merger might tilt Rice even more toward a narrow science/engineering institute, these are risks that can be actively addressed and minimized by being identified now. Most Rice faculty want Rice to remain a university balanced across the disciplines and with a continued commitment to excellence in undergraduate and graduate education. Most Rice faculty also want the university to become a stronger research institution with a higher national and international profile. Toward that end we will report on the variety of existing collaborative programs, focus on several major concentrations of collaborative activities and how they could be enhanced, and provide ideas to advance the pre-existing interdisciplinary and collaborative emphases at Rice. Because many of the current collaborations are the results of individual initiative, bureaucratic savvy, and/or serendipitous contacts between faculty, the potential of a Rice/BCM merger presents the opportunity to provide

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infrastructure to foster lasting interdisciplinary relationships that will yield major contributions to science and knowledge. The proposed merger is obviously a very significant undertaking, with the potential to position Rice in the very top echelon of American universities, but significant new funding is necessary if this potential is to be fully realized.

We are aware that different cultures exist at Rice and BCM, and it will take patience and goodwill to effectively implement a merger. We also are sure that collaborations would likely evolve should a merger took place that we cannot imagine at present, and we are fully aware that not all collaborations would originate from the Rice side—we anticipate that Baylor faculty will eagerly explore and develop collaborations that involve Rice faculty and students. By no means, then, will the examples described here exhaust the possibilities. And to insure maximum development of collaborations that mutually benefit academic programs, we recommend the consideration of a senior administrative position (with staff support) for facilitating collaborative and interdisciplinary programs across both campuses and all departments and indeed across all the institutions of the Texas Medical Center. This position should be created even if no merger occurs.

The subcommittee takes for granted that the essential rationale for considering a merger between the two institutions is that very real academic benefits—both in research and teaching—would accrue to Rice. For this to happen at a non-trivial level, Rice will have to make, phased in over the next few years, substantial additional financial commitments of approximately $7.65 million annually to provide up to sixteen new full-time faculty lines (or their equivalent in part-time appointment of BCM faculty), seed money to develop new programs, money for workshops and conferences, additional graduate student stipends, money to establish approximately ten post-residency and postdoctoral fellow positions, money for released time for faculty to develop collaborative programs, and administrative funds for these new initiatives. These and other ideas will be outlined in greater detail below. Rice and BCM's existing structure of institutes, centers, workshops, and the like should be the model for new programs, although the potential combined institutions need to develop explicit guidelines for creating/administering/funding such centers and institutes.

It is essential that all aspects of the university have the potential to evolve new programs, respond to new opportunities, and grow in quality. While new initiatives are being explored that link Rice and BCM, it is necessary to continue to strongly support individual research agendas, programs, and departments at Rice that have no relationship to biomedical issues. At the same time, humanistic and social science disciplines should be augmented in such fashion as to bring greater balance to medical education and research. There is a very real sentiment among many faculty members that if the proposed merger does not address the issue of disciplinary balance, a merger could, over time, distort the traditional mission and ethos of the university. While Rice began "at the science end," its ultimate mission has always been to develop into a full university. That vision has been very substantially realized. But in order that the expenditures called for here do not starve existing programs and constrict the broad range of the university's offerings, the subcommittee recommends that new philanthropic funding (approximately $150 million) will be needed to completely underwrite the new initiatives necessary to make the most of the potential benefits of a merger with BCM.

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To take advantage of the possible benefits, the subcommittee recommends that the administration consider the following items initially, all of which will require a financial

contribution to ongoing and newly developed programs at Rice. (None of these proposals should be given automatic priority over on-going programs or commitments. Faculty lines that were frozen for the 2009-2010 academic year should in most cases be filled before new lines are filled.)

1) The creation of a senior administrative position, with sufficient staff support, to identify, encourage, and facilitate collaborative and interdisciplinary programs at Rice and BCM (and other Texas Medical Center institutions) that reach across all departments and programs. This senior administrator should have access to two small groups of faculty, one from Rice and the other from BCM, who have a broad understanding of the personnel and programs of each institution.
2) The development, over several years, of interdisciplinary centers or institutes of varying size and complexity, and involving many departments at Rice, that promote collaborative research and teaching with departments and centers at BCM (and other TMC institutions). These centers would be responsible for developing collaborative and interdisciplinary research proposals and courses, sponsoring workshops, providing seed grants, coordinating released time to develop new proposals, etc. These centers would require funds for their administrative costs and for their programs. Additional faculty hires would be housed in departments and often associated with one or more centers/institutes. We anticipate that many new programs and centers will emerge over the next few years, but for the moment, representative centers and institutes include the following:
    a. A Medical Humanities Research Center, with funds for a series of workshops and seed money for creating new courses, programs, and possibly new minors or majors in the curriculum. Within one to three years a full-time faculty member in the field of twentieth-century US medical history should be hired. Ongoing faculty interests in ethics, art history, English, religious studies, history, and music that are related to biomedical issues must be supported and strengthened.
    b. There are a number of collaborative initiatives at Rice and BCM that could be strengthened with the addition of three full-time faculty lines in development economics (focusing on global health issues), neuroeconomics, and the political science of health policy. There should also be funds for related workshops and symposia. Two additional full-time lines, perhaps used to purchase teaching time from BCM faculty, would also greatly enhance the program in neuroscience at Rice and perhaps lead to the development of an undergraduate major in that field.
    c. A strengthened Health Policy Forum housed in the Baker Institute, with the addition of two full-time faculty lines with tenure-track appointments at BCM and appointments as scholars in the Baker Institute. The combination of these two institutions would provide a propitious opportunity to establish a nationally prominent center to study a major set of issues facing the nation in the coming decades. We also recommend the development of an undergraduate minor in Health Policy Studies based in the Baker Institute.
    d. A range of centers and institutes in the schools of natural science and engineering, in such thematic areas as: bioenergy; bioinformatics/medical informatics; biophysics; biostatistics; cell & gene therapy; computational and mathematical biology; developmental biology; ecology and evolution of human diseases and pathogens; genetics; genomics; global health and global health technologies;

infectious diseases; information technology; medicinal chemistry/pharmacology; molecular imaging, imagining instrumentation, and image analysis; model organism biology; molecular medicine/ personalized medicine; nanotechnology; neuroscience; regenerative medicine and stem cell engineering; and synthetic biology. Several of these areas—for example, global health and global health technologies—are already well developed yet could be significantly expanded through increased collaborations with BCM. Approximately six full-time faculty lines are needed, some of which will be used to purchase part-time teaching from BCM faculty, or hire faculty with joint appointments at Rice and BCM.

e. A Healthcare Management Center offered as a joint program between BCM and Rice's Jones Graduate School of Management. There is demonstrated regional and national need and interest in a set of programs aimed at providing management education both to newly trained MDs and medical professionals already at work in hospitals, etc. To start the program off, perhaps as many as fifteen fellowships (at $45,000 each) need to be offered for the initial year only, and two full-time faculty lines provided. Some or all of these faculty lines would be subdivided to purchase released time from BCM faculty and to hire one or more joint appointments between Rice and BCM. This program should be self-sufficient within three to five years and could be coordinated with the enhanced programs in social sciences and the Health Policy Forum in the Baker Institute.

3) Many of these interdisciplinary and collaborative activities would be strengthened by strategically locating them in the BioScience Research Center.
4) We propose seeking a grant (or philanthropic gift) that will fund ten 2-year post-residency and post-MD/Ph.D. fellows (staggered terms) in academic fields housed primarily at Rice University; these fellows will be placed in medical humanities, health policy studies, and basic science and engineering programs. These fellow positions would be established after the various programs at Rice had reached a level of maturity sufficient to bring significant benefit to the fellows, and hence some areas would be able to support fellows before others.

Calculations for annual additional costs after several years:

•16 faculty with benefits ($150,000 each)	total	$2.4 million
•10–15 centers/institutes, administrative costs and funds for workshops, released time, etc. ($150,000 each)		$3 million
•1 senior administrative position (with staff) for collaborative and inter-disciplinary initiatives		$.5 million
•administrative and academic support for new undergraduate minors and major		$.5 million
•25 additional graduate stipends for MD/Ph.D. students and students in other enhanced graduate programs (@ $20,000 each)		$.5 million
•10 postgraduate/post-residency fellows ($50,000 +$25,000 benefits)		$.75 million
	ADDITIONAL ANNUAL COSTS	$7.65 million

One-time costs at beginning:

- 15 fellowships to jumpstart the Healthcare Management Center @ $45,000 each; total $675,000
- start-up funds for labs for six faculty in sciences, approximately $1 million each; total $6 million
- renovation of office space in BRC and other buildings, cost to be determined.