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University of South Carolina

BOARD OF TRUSTEES

Health Affairs Committee

March 17, 2005

The Health Affairs Committee of the University of South Carolina Board of Trustees met on Thursday, March 17, 2005, at 2:25 p.m. in the Capstone House Campus Room.

Members present were: Mr. Toney J. Lister, Chairman; Mr. Arthur S. Bahnmuller; Mr. William W. Jones, Jr.; Ms. Rita M. McKinney; Mr. M. Wayne Staton; Mr. John C. von Lehe, Jr.; Mr. Eugene P. Warr, Jr.; Mr. Herbert C. Adams, Board Chairman; and Mr. Miles Loadholt, Board Vice Chairman. Dr. C. Edward Floyd was absent. Mr. William C. Hubbard was also present.

Others present were: President Andrew A. Sorensen; Secretary Thomas L. Stepp; Executive Vice President for Academic Affairs and Provost Mark P. Becker; Vice President for Research and Health Affairs Harris Pastides; Vice President for Human Resources Jane M. Jameson; Vice Provost and Executive Dean for Regional Campuses and Continuing Education Chris P. Plyler; Chancellor of USC Upstate John C. Stockwell; Vice President for Medical Affairs and Dean of the School of Medicine Larry R. Faulkner; Dean of the Arnold School of Public Health Donna L. Richter; Associate Dean for Clinical Research and Special Projects, School of Medicine, Stan D. Fowler; Interim Associate Dean for Research, College of Nursing, Kathleen Scharer; Associate Professor in the Department of Pharmacology, Physiology, and Neuroscience, School of Medicine, and Chair of the Faculty Senate James R. Augustine; Public Information Officer, Office of Media Relations, Karen Petit; and Director of University Communications, Division of University Advancement, Russ McKinney, Jr.

Chairman Lister called the meeting to order, welcomed those present, and asked everyone to introduce themselves. Mr. McKinney indicated that no members of the media were in attendance.

Chairman Lister stated that the agenda had been posted and the press had been notified as required by the Freedom of Information Act; the agenda had been circulated to the Committee members; and a quorum was present to conduct business.

Chairman Lister directed the attention of the Committee to the agenda and called on Dr. Pastides.

I. Reinvigorating Clinical Research at USC: Expensive To Do, More Expensive Not To!: Before proceeding with the presentation, Dr.

Pastides expressed to everyone that it was a personal privilege for him to "reintroduce" Dr. Donna Richter as the newly appointed Dean of the Arnold School of Public Health. He indicated that she was selected following an extensive national search and will bring to this position a lifetime record of leadership especially in the areas of HIV and public health. Dr. Pastides commented that the future of the Arnold School of Public Health was "extraordinarily bright"; it was already being recognized as one of the leading schools in the country.

Before introducing Dean Faulkner, Dr. Pastides made the following introductory comments:

I think what you are about to see is nothing short of a transformation -- a transformation before our eyes. There is a culture change within our School of Medicine that gives me great joy. For many years the School of Medicine's research performance was viewed as secondary to the outstanding job it has traditionally been doing in educating medical students and especially those primary care practitioners who are so badly needed in our state as we all know.

Recently, however, there has been and is a major investment being made in two areas. The first is in raising up the standards in the basic biomedical research that is done at the School of Medicine. In other words, the basic science departments fundamentally conduct laboratory based research. We have had extraordinary basic science teachers in our School of Medicine for quite awhile. But with respect to targeting growth from the National Institutes of Health, that again had been a secondary goal.

But, building on the wonderful faculty that we already have and the recruitment of new academic leaders in this area, I think you are about to see that our goals with respect to NIH research are increasing dramatically.

The second area that Dean Faulkner will focus on is in the area of Clinical Research. This is the kind of research that requires the recruitment of doctors who are also research interested and research ready. And, one of the difficulties in being what we call ourselves a 'community based School of Medicine' is that the University of South Carolina does not own a hospital. Therefore, fundamentally, when we compare ourselves to, for example, The Johns Hopkins University, a member of the clinical department at Johns Hopkins, will not be promoted, will not be tenured, and will not be monetarily rewarded without being deeply involved in research; it is simply not enough to be an academic based clinician at Johns Hopkins if all you do is see patients.

Because we have not been the driving force behind the compensation scheme of the fine clinical faculty that we have at the School of Medicine, we have needed to rely on our major teaching partner at Palmetto Health to be our partner.

What Dean Faulkner is about to present to you is a new partnership, and really a turnaround in the relationship between USC and Palmetto Health, to begin recruiting the kinds of clinical faculty who not only will be outstanding at patient care, but will also be outstanding at research. Dean Faulkner, I welcome you for what I know will be a very interesting presentation.

Dean Faulkner initially remarked that he would discuss the School of Medicine's efforts to expand into the area of research.

Originally, the School of Medicine at the University was established as a primary care community based medical school with a major goal of preparing primary care doctors for rural and underserved areas in South Carolina. No hospital was

associated with the medical school and, more importantly, there were no clinical research facilities which were often imbedded into an academic medical institution.

In spite of these handicaps, the Medical School had developed a series of productive research enterprises; last year, for example, there were more than 40 major grant-funded projects raising a total of \$22 million in a variety of different research activities. Dean Faulkner displayed a chart documenting the growth of this activity since the mid 90s.

The various principles which were guiding the process of promoting research in the School of Medicine were reviewed. Dean Faulkner indicated that since the school was a relatively small institution, it had been decided to concentrate research activities in selected areas to develop a critical mass of quality programs. Methods to promote translational research which would foster basic science/clinical science collaborations were considered as well as opportunities to develop clinical subspecialty programs in areas which were competitive for research productivity. The School of Medicine also recognized that a successful research enterprise would require collaboration with the main campus and particularly the College of Engineering and the Life Sciences areas.

Similarly, the University was part of a network of institutions throughout the state seeking collaborative opportunities; it was important that the School of Medicine foster research activities with MUSC, the Greenville Hospital System, and other interested institutions.

In order to collaborate, it was necessary to determine how to communicate in "real time" so that "we can break down these 100 mile barriers that exist between Columbia and Greenville and Columbia and Charleston." Dean Faulkner referenced the "I-26 Video Communications Corridor" which the School of Medicine had developed and which will facilitate the communication of researchers in multiple locations so that they will be able to see and to talk with one another in real time.

Dean Faulkner noted that all great research enterprises supported quality research; therefore, the School of Medicine will continually review ways to enhance the biomedical research education programs which were considered very significant recruitment tools. And, quality research required state-of-the-art core facilities and infrastructure which the school looked toward developing as well.

Dean Faulkner stressed that the recruitment of new research teams was not only a key element but also very expensive; therefore, the School of Medicine recognized that it was important to nurture current faculty through state-of-the-art faculty development programs to reinforce research. And, finally, concomitant with this principle, was the importance of offering faculty incentives to secure extramural funding of research.

Dean Faulkner referenced several fortuitous recent events which had facilitated the School of Medicine's interest and abilities to expand research activities. They included: (1) the Board of Trustees' decision for this institution to become a major research university which had fostered the beginning of a major cultural change; (2) the creation of a USC Division of Health Sciences which had facilitated the establishment of multi-disciplinary interactions; (3) the selection of biomedical research as a Cathedral of Excellence; (4) special funding opportunities provided by the Vice President for Research and Health Sciences and the Provost (i.e., Centenary Fund and Faculty Enhancement Initiative) which had encouraged administrators and faculty to seek ways of developing new research opportunities; (5) pending retirement of numerous senior faculty at the School of Medicine which will provide unique opportunities to recruit "bright, young, energetic, productive, academically inclined faculty members who can take us to the next level"; (6) new statewide initiatives (SC Centers of Economic Excellence through the lottery program and the SC Health Sciences Collaborative); (7) renewed willingness of affiliated hospitals (primarily Palmetto Richland Hospital and Dorn Veterans Administration Hospital) to partner with the University in order to support research; and, (8) a new era of collaboration in research with the University's "sister" institutions (Greenville Hospital System and the Medical University of South Carolina).

Dean Faulkner explained that three years ago the SDI (Strategic Directions and Initiatives) Committee had recommended that the school reorganize the structure and function of the basic science area and consolidate the program offerings into three major departments; the reorganization aligned the school's major focused areas of research (Developmental Biology/Cardiology; Cancer Biology; Neuroscience) to correlate with the new basic science departments (Cell and Developmental Biology and Anatomy; Pathology and Microbiology; Pharmacology, Physiology and Neuroscience). This consolidation had enabled the School of Medicine to bring together and to create a critical mass of basic science researchers who were more effective and efficient in their abilities to produce research activities.

Dean Faulkner emphasized that currently the School of Medicine was experiencing the most spectacular recruitment season. In the area of cancer biology, Prakash and Mitzi Nagarkatti had been recruited from the Medical College of Virginia to lead major new initiatives; they will bring with them 5 NIH grants (\$1 million of direct research revenue) and will hire 8-10 new basic science faculty members during the next several years. Dr. Prakash Nagarkatti will become the new Associate Dean for Basic Science in the School of Medicine; Dr. Mitzi Nagarkatti will become the Chair of the Department of Pathology and Microbiology.

In the area of developmental biology and cardiology, Dr. Joseph Janicki had been recruited from Auburn University; he will become the Chair of the Department of Cell and Developmental Biology and Anatomy. Dr. Janicki and his team will bring with them two NIH grants, an EPA grant, and one from the American Heart Association; their direct research funding totaled approximately \$1 million per year. He will also begin the process of recruiting several new faculty members to conduct research in this area.

In addition, the School of Medicine was helping the VA (Veterans Administration) recruit Dr. Marshall Elam, also experienced in the area of developmental biology and cardiology, to become its Associate Chief of Staff for Research; he will bring a well funded research team with him.

Perhaps the most exciting endeavor was the USC-Palmetto Health Richland Comprehensive Clinical Neuroscience Center. Dean Faulkner explained that the School of Medicine was developing it in collaboration with the hospital; at the completion of the developmental phase in 5-7 years, 5 neurosurgeons, 5 neurologists, 2 neuropsychiatrists, 2 physiatrists (physical medicine and rehabilitation physicians), 8 Ph.D. researchers, 6 physician assistants, a team of research nurses and ancillary staff will be recruited; anticipated was a total of 22 new faculty members conducting clinical neuroscience research at the University of South Carolina. The 5 year budget for this program was in excess of \$30 million; for 7 years it totaled approximately \$48 million with several sources providing the funding.

Dean Faulkner summarized the projected recruitment costs which the University will expend for the various teams during the next 5 years (Nagarkatti Group - \$9 million; Janicki Group - \$4 million; Elam Group - \$8.3 million; Comprehensive Neuroscience Center - \$30 million). A conservative estimate of the 5 year total projected grant funding from these groups was also reviewed: Nagarkatti Group - \$12,875,000; Janicki Group - \$5,000,000; Elam Group - \$12,375,000; Comprehensive Neuroscience Center - \$14,675,000 for a total of \$44,925,000.

Dean Faulkner indicated that these groups most importantly would "set the stage" to develop sizable grant applications or program projects. Within a short period of time it was anticipated that at least one program project initiative would be underway at the School of Medicine. "Our expectation is that we will have major program project initiatives in each of these areas in the coming years."

The School of Medicine was also participating in the SC Endowed Chair Proposal which the lottery was funding. Currently School of Medicine faculty were collaborating on six different proposals; funding had been secured for the regenerative medicine proposal, a collaborative effort with MUSC. It was hoped that several will be funded.

Dean Faulkner cited proposed partnerships between the School of Medicine and Palmetto Health Richland to create subspecialty clinical groups. Discussions were being held to develop comprehensive research education and service centers in the areas of clinical neuroscience, vascular surgery, head and neck surgery, and diabetes. In addition, Dean Faulkner had initiated a series of conversations with hospital administration about rheumatology, infectious disease, and endocrinology. Anticipated was an increase of subspecialty research education and service programs as a result of this particular collaborative effort. Dean Faulkner emphasized that these multi-million dollar projects were multi-focused and included major research and educational components.

The I-26 Video Communications Corridor was also discussed. "If you are going to get researchers to collaborate and cooperate across the distance you need to figure out some way of breaking that barrier down." Through this system, Dean Faulkner noted, the School of Medicine had available the ability to communicate in real time, along I-26 in the state; i.e., classes in anatomy had been jointly taught between MUSC and USC. Currently, desktop equipment was being installed to allow faculty members to communicate face-to-face.

Dean Faulkner projected that a laboratory space problem would soon arise. Currently, two facilities were being remodeled at the VA (Buildings 1 and 3) which will provide 20,000 square feet of additional space for the short term. "We will quickly run out of laboratory space if we become more successful in recruiting the type of faculty that we want."

Dean Faulkner briefly outlined research objectives for the School of Medicine. This past year the dollar amount had totaled approximately \$22 million; for the current year the research productivity goal had increased by 10 percent. And, for 2005-2006 that number was expected to increase by 20 percent.

In summary, Dean Faulkner again iterated that several fortuitous recent events had occurred to create new research opportunities for the School of Medicine. Considerable progress had been made toward implementing research goals; Dean Faulkner expressed excitement about the future of these endeavors and their impact on the School of Medicine. Several keys to consider in order to ensure success included: (1) reinforce focused areas of research; (2) foster collaborations for cross-discipline projects; (3) expand partnership with affiliated hospitals; (4) expand partnerships with MUSC and Greenville Hospital System; and, (5) add new basic science and clinical research faculty to promote and to expand the research enterprise at the University.

Mr. Jones asked whether a conflict of interest existed between the two institutions as they participated in the various collaborative research efforts. Dean Faulkner responded that the two universities functioning independently would

always create competition between each other. However, as he pointed out, "it's only when we work collaboratively that we will be able to compete with the large institutions such as Duke University and The Johns Hopkins University."

Independently, neither institution would ever be in a position to compete for research dollars at that level.

Mr. von Lehe asked the status of the USC Research Foundation/MUSC Research Foundation proposed merger which had been discussed in earnest two years ago. President Sorensen indicated that "it was in a state of quiescence." He hoped to reactivate discussions in the near future. Mr. Lister commented that he and several individuals from the University were scheduled to visit MUSC on March 29 to explore the possibility of revitalizing the momentum of the earlier effort.

President Sorensen praised Dean Faulkner and Dr. Fowler for the vision which they had set forth for the School of Medicine. He further explained that Palmetto Richland Hospital had essentially asked the medical school to operate, govern and staff its neuropsychiatry/neurosurgery programs. "This vision that they have put together in collaboration with Vice President Pastides is exciting and just extraordinary with Palmetto Richland feeding into it to the tune of millions of dollars a year. It is the most exciting development in the School of Medicine in my three years as president and I salute you for that."

Mr. Hubbard urged the administration to follow closely any development for land usage of the former Department of Mental Health property on Bull Street as the need for additional research space was explored; he noted that this acreage was contiguous to the Palmetto Richland complex of buildings. Dean Faulkner stressed that the hospital had very limited space on the existing property for new buildings; he believed that the campus could become landlocked if this option was not pursued. Dr. Pastides will follow up on Mr. Hubbard's suggestion.

II. Report on Health Sciences South Carolina: Chairman Lister called on Dr. Pastides who stated that he would briefly update the Committee regarding the collaborative known as Health Sciences South Carolina. The Executive Board of the 501c3 organization consisted of the presidents of the University of South Carolina and the Medical University of South Carolina as well as the CEO of the Greenville Hospital System and Palmetto Health. It was formed as a result of the lottery funded Centers of Economic Excellence Program. During the first year, three outstanding proposals had been generated (cancer, degenerative neural disease, and medical education and patient simulation research). Dr. Pastides remarked that the three proposals will be reviewed within a month; he anticipated "good news in that area."

In addition, the scientific steering committee, composed of the research leaders of the four institutions, had been working very hard. The assets and

aspirations of four areas of health science research were considered: basic science, translational, clinical, community; it had been determined that the unifying factor for the four institutions was in the area of clinical research. Dr. Pastides explained that basic science research occurred in a laboratory setting and fundamentally explored basic molecular or cellular structure (i.e., Dr. Joseph Kosh, College of Pharmacy, was looking for new chemicals to determine if they contained any pharmaceutical potential). Dr. Tom Borg, Department of Cell and Developmental Biology and Anatomy, was conducting a translational research project; he was studying ways to construct new vessels to be used, for example, in the transplantation of tissue "so that when people need new bypass surgery we would have the next generation of arterial vessels." Clinical research occurred "at the bedside" (i.e. Professor James A. Baer, School of Public Health, who was currently conducting research to determine if specific diets would reduce PSA (prostate-specific antigen) levels in men with elevated amounts). In the area of community research, Dr. Ken Phillips, College of Nursing, was looking at the reasons why HIV positive people in the Midlands of South Carolina were not provided access to the appropriate medical care and the appropriate drug studies as were their counterparts in urban locations in other states.

Dr. Pastides noted that USC and MUSC will continue to be active in the four areas; the hospitals, however, were less interested in basic, translational, and community research. In preparation for the next round of lottery-funded endowed chairs, Health Sciences South Carolina was developing a vision to create a center of clinical research excellence in South Carolina with hubs in the low country, the Midlands, and the Upstate. "We think that by combining our assets, developing our infrastructure (i.e., in the area of cancer research, creating a statewide tissue bank) we can apply for and hopefully be funded for NIH research that heretofore any single institution would not have had." Anticipated was the submission of 3-4 linked proposals for endowed chairs; together these proposals will comprise the Center of Clinical Research Excellence.

Dr. Pastides advised that Spartanburg Regional Medical Center and Clemson University had been formally invited to become part of Health Sciences South Carolina. Earlier today he had spoken with his counterpart at Clemson University; no commitment had been made at this time. Spartanburg Regional Medical Center was expected to join the collaborative. Dr. Pastides explained that a universal cost for entry was required of each member (a commitment of \$2 million per year for a total of 10 years).

There were no other matters to come before the Committee, and Chairman Lister declared the meeting adjourned at 3:15 p.m.

Respectfully submitted,

Thomas L. Stepp
Secretary