MINUTES

Meeting of the Board of Trustees
Of the Medical University of South Carolina

May 15, 2008

It is understood that the Minutes herein recorded have not as yet been approved and cannot be considered as Official Action of the Board until such approval has been given.

101 Colcock Hall
Medical University of South Carolina
Charleston, South Carolina
MINUTES
MEDICAL UNIVERSITY OF SOUTH CAROLINA
BOARD OF TRUSTEES MEETING
May 15, 2008

The Board of Trustees of the Medical University of South Carolina convened Thursday, May 15, 2008, with the following members present: Dr. Charles B. Thomas, Jr., Chairman; Thomas L. Stephenson, Esquire, Vice Chairman; Dr. Stanley C. Baker, Jr.; Mr. Melvyn Berlinsky; Mr. William H. Bingham, Sr.; Dr. Cotesworth P. Fishburne, Jr.; Dr. Donald R. Johnson II; Dr. E. Conyers O’Bryan, Jr.; Dr. Paula E. Orr; Dr. Thomas C. Rowland, Jr.; Mr. Charles W. Schulze; The Honorable Robin Tallon; Dr. James E. Wiseman, Jr.; Absent: Mr. William B. Hewitt.

The following administrative officials were present: Dr. Raymond S. Greenberg, President; Dr. John Raymond, Vice President for Academic Affairs and Provost; Mr. Stuart Smith, Vice President for Clinical Operations and Executive Director, MUHA; Ms. Lisa Montgomery, Vice President for Finance and Administration and Dr. Frank Clark, Vice President for Information Technology and CIO; Mr. Jim Fisher, Vice President for Development.

The following deans were present: Dr. John Sanders, College of Dental Medicine; Dr. Mark Sothmann, College of Health Professions; Dr. Gail Stuart, College of Nursing; Dr. Perry Halushka, College of Graduate Studies; Dr. Arnold Karig, College of Pharmacy and Dr. Joseph DiPiro, South Carolina College of Pharmacy.

Item 1. **Call to Order-Roll Call.**

There being a quorum present, Chairman Thomas called the meeting to order. Ms. Celeste Jordan called the roll.

Item 2. **Secretary to Report Date of Next Meeting.**

The date of the next regularly scheduled meeting is Friday, August 8, 2008. Committee Meetings will be held Thursday, August 7, 2008.

A Retreat will be held June 19 and 20, 2008 in Charleston, SC.

Item 3. **Approval of Minutes of the Regular Meeting of the Medical University of South Carolina of April 11, 2008.**

Board Action: It was moved that the Minutes be approved. The motion was seconded, voted on and unanimously carried.

RECOMMENDATIONS AND INFORMATIONAL REPORTS OF THE PRESIDENT.

OLD BUSINESS: None.

NEW BUSINESS:

Item 4. **General Informational Report of the President.**

Dr. Greenberg stated that the leadership of Dr. Sunil Patel, Clinical Chair in the Department of Neurosciences, has been extraordinary and thanked him for his work in that area. He asked Dr. Patel to introduce Dr. Marc Chimowitz. Dr. Chimowitz is a world-renown stroke expert who completed his neurology residency at Tufts
University; a cerebrovascular fellowship at the Cleveland Clinic and a research fellowship at Massachusetts General Hospital. Prior to his coming to MUSC, he was at Emory University and the University of Michigan. He has been able to conduct a huge amount of NIH funded multi-institutional clinical trials; the most recent being a $25 million clinical trial for stroke prevention.

Dr. Chimowitz reviewed his background and the research highlights of his career. His passion is to mentor junior clinical investigators and build clinical research. The institution is well positioned to do this with the Center of Excellence program. MUSC arguably has the best department of biometry and epidemiology in the country which has a wonderful set-up to do major clinical trials. His hope is to help junior investigators not only in neurosciences but also in other departments initiate, design and lead multi-center trials to be run out of MUSC.

Dr. Greenberg welcomed Dr. Chimowitz to the University and stated he was thrilled he decided to come to MUSC. He informed the Board the grant Dr. Chimowitz will be conducting is the largest NIH grant ever received in the State of South Carolina and represents almost a quarter of the University's total annual NIH funding. He looks forward to the impact Dr. Chimowitz will have across the institution on clinical investigators.

Dr. Greenberg distributed a list of his activities since the last meeting stating it was a busy time for development activities and meetings with outside constituents. Secretary Peake, the new Secretary of Veterans Affairs, came to campus with Congressmen Brown and Buyer. It was important for the new Secretary to see the proximity of the new hospital to the VA facility. In addition, the meeting was held in the Strom Thurmond Building where the VA leases space, which has been a very successful venture. Secretary Peake was positive about opportunities for near term collaboration on shared medical equipment like the tomotherapy equipment. Advanced discussions continue about the enclosed connector between the new hospital and the VA. It was a very successful visit. Two site visits were made and agreements have been signed recently; one with the University of the Virgin Islands and one with the Nanjing Drum Tower Hospital in Nanjing China. The COEE National Review Board made their annual site visit of the research campuses and Dr. Greenberg was pleased with the quality of the presentations made to the Review Board with several standing a good chance of being funded. This funding this year would be especially important to the University since the funding for the program from the State will probably be dramatically reduced next year. Dr. Greenberg believes that the legislature does not fully appreciate the impact the endowed chairs program has on the State. Without it, it is doubtful the University would have been able to recently recruit two outstanding stroke experts. There have now been eleven endowed chairs recruited as a result of this program and offers for two more have possibly been accepted. Dr. Greenberg encouraged Board members to speak with legislators about the value of the program.

Recommendations of Administration: That these reports be received as information.

Board Action: The reports were received as information.

Item 5. Other Business. None.
RESEARCH AND INSTITUTIONAL ADVANCEMENT COMMITTEE. CHAIRMAN: DR. COTESWORTH P. FISHBURNE, JR.

OLD BUSINESS: None.

NEW BUSINESS:


Statement: Dr. Steve Lanier reported receipt of $22 million in extramural funding during April. NIH funding continues to be slightly ahead of last year. He thought it important to note that one of the projects awarded during this period was a continuation of a long standing NIH grant to Dr. Raymond in addition to his VA funded program. In addition to all the other important things Dr. Raymond does, he maintains operation of his lab. We are working hard to leverage the University's investment in the Drug Discovery Building and the Bio-engineering Building by looking at possible corporate partners to help us go to the next level. We have been working with SCRA and the City of Charleston on development of new company space to identify 26,000 square feet of space on Meeting Street.

Recommendation of Administration: That the report be received as information.

Board Action: Received as information.


Statement: Mr. Jim Fisher shared that through the end of April we have received a little over $48 million in new gifts and pledges which is about 20% ahead of where we were last year. A few key recent gifts include: a $2 million commitment from the Jerry and Anita Zucker Family Foundation; $100,000 from Dr. Chitty, a member of the Foundation Board; an anonymous donor from the MUSC Foundation Board committed $100,000; the Food Lion Foundation donated $100,000 for the Lean Teen Project - the obesity program being piloted by MUSC and the Charleston County schools; a grateful patient’s family who partnered with Norfolk Southern Railway gave $100,000 to endow a visiting professorship in the Department of Psychiatry; Dr. Preston Miller, a new faculty member in the CODM, has bequeathed $50,000 to the College for an endowed lectureship in periodontics.

Dr. Charles Garret, a 1966 graduate of the COM, will begin his service as President of the Joint Alumni Association and will be addressing the Golden Grads today. He reminded all Board members they were invited to the luncheon with the Golden Grads.

The Capital Campaign continues to progress very well and about $207 million has been received toward the goal of $300 million. The kick-off was held in the Horseshoe on May 1st and several Board members attended. Mr. Bob Sywolski, a member of the campaign cabinet and a member of the Foundation Board was the Master of Ceremonies for the event. Ms. Bev Seinsheimer, a Heart and Vascular Center Advisory Board member closed the celebration. Mr. Fisher shared a video shown at the Campaign kickoff of the pediatric patient, JoJo Greenwood.
Mr. Fisher said currently, Dr. Rowland, Mr. Stephenson and Mrs. Peeples are serving on the MUSC Foundation Board. Mr. Stephenson has had to rotate off from the MUSC Foundation Board and has asked that Dr. Fishburne nominate someone to replace him. Dr. Fishburne asked anyone who is interested or would like to nominate someone to serve, please let him know.

Recommendation of Administration: That this report be received as information.

Board Action: Received as information.

Item 8. Other Committee Business. None

EDUCATION, FACULTY AND STUDENT AFFAIRS COMMITTEE. CHAIRMAN: MR. MELVYN BERLINSKY. (Detailed committee minutes are attached to these minutes).

OLD BUSINESS: None.

NEW BUSINESS:


Statement: Dr. Raymond stated that a report had been provided in Committee by Dr. Betsy Davis on her proposal for center designation for the Center for Functional Outcomes and Reconstructive Biotechnology. Drs. Sothmann, Halushka and Stuart provided the Committee information on their respective college's admissions process.

Recommendation of Administration: That the report be received as information.

Recommendation of Committee: That the report be received as information.

Board Action: Report received as information.

Item 10. Other Committee Business.

Statement: Dr. Raymond and Dr. Lanier presented revisions to the Intellectual Property Policy. It was noted by the Board that any major substantive changes to policy should be sent to the Board in advance of the vote.

Recommendation of Administration: That the revisions to the Intellectual Property Policy be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the revisions to the Intellectual Property Policy.

Statement: Mr. Berlinsky presented tuition and fee increases for the South Carolina College of Pharmacy.

Recommendation of Administration: That the tuition and fee increases for the South Carolina College of Pharmacy be approved.
Recommendation of Committee: That the tuition and fee increases for the South Carolina College of Pharmacy be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the tuition and fee increases for the South Carolina College of Pharmacy.

Item 11. Conferring of Degrees.

Statement: Mr. Berlinsky stated the Committee had considered the request to confer degrees upon those candidates who, pending successful completion of all requirements for their degrees by the conclusion of the spring semester, have the recommendation of their college dean and faculty. He recommended approval as requested (attached.)

Recommendation of Administration: That the conferring of degrees be approved.

Recommendation of Committee: That the conferring of degrees be approved.

Board Action: A motion was made, seconded and unanimously voted that the request to confer degrees be approved.

Item 12. Faculty Promotions.

Statement: At the request of the Deans of the Colleges of Medicine and the South Carolina College of Pharmacy, and their respective AP&T Committees, administration presented for approval the following faculty promotions, effective July 1, 2008:

College of Medicine
From Associate Professor to Professor, on the Academic Investigator Track
Kumar Sambamurti, Ph.D., Department of Neurosciences

South Carolina College of Pharmacy and College of Medicine
From Assistant Professor to Associate Professor (tenure track)
Andrea M. Wessell, Pharm.D., joint faculty promotion in the Department of Clinical Pharmacy and Outcome Sciences, South Carolina College of Pharmacy, and in the Department of Family Medicine, College of Medicine.

Recommendation of Administration: That these faculty promotions be approved.

Recommendation of Committee: That the faculty promotions be approved.

Board Action: A motion was made, seconded and unanimously voted that the faculty promotions be approved.

Item 13. Faculty Appointments

Statement: At the request of the Dean of the College of Medicine and its Appointments, Promotions and Tenure Committee, administration presented for approval the following faculty appointments:
College of Medicine

Lynn M. Manfred, M.D., Ed.D., (dual appointment) as Associate Professor in the Department of Pediatrics, Division of General Pediatrics, effective March 31, 2008.

Dr. Manfred's primary appointment rests in the Department of Medicine, Division of General Internal Medicine and Geriatrics.

Paul S. Morgan, Ph.D., as Associate Professor in the Department of Radiology and Radiological Science, effective October 1, 2008.

Dr. Morgan will hold the South Carolina Centers of Economic Excellence Endowed Chair in Brain Imaging. He also will serve as the Director of Translational Magnetic Resonance Imaging Research in the Department of Radiology and Radiological Science, and as Director of the MUSC Center for Advanced Imaging Research.

Timothy G. Givens, M.D., as Associate Professor, on the Clinician Educator track, in the Department of Pediatrics, Division of Pediatric Emergency Medicine, effective July 1, 2008.

Recommendation of Administration: That the faculty appointments be approved.

Recommendation of Committee: That the faculty appointments be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the faculty appointments.

Item 14. Changes in Faculty Status.

Statement: At the request of the Dean of the College of Medicine and its Appointments, Promotions and Tenure Committee, administration presented for approval the following changes in faculty status.

College of Medicine

Thomas Walle, Ph.D., from Professor to Professor Emeritus, in the Department of Cell and Molecular Pharmacology and Experimental Therapeutics, effective July 1, 2008.

David T. Vroman, M.D., from Associate Professor to Clinical Associate Professor, in the Department of Ophthalmology, effective April 1, 2008.

Recommendation of Administration: That the changes in faculty status be approved.

Recommendation of Committee: That the changes in faculty status be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the changes in faculty status.

Item 15. Center for Functional Outcomes and Reconstructive Biotechnology.
Statement: At the request of the Dean of the College of Medicine, administration presented for approval university center designation for the **Center for Functional Outcomes and Reconstructive Biotechnology**, effective May 15, 2008.

**Recommendation of Administration:** That this recommendation for university center designation be approved.

**Recommendation of Committee:** That this recommendation for university center designation be approved.

**Board Action:** A motion was made, seconded and unanimously voted to approve the university center designation for the **Center for Functional Outcomes and Reconstructive Biotechnology**.

**Item 16. Program Planning Summary for PhD in Health and Rehabilitation Science.**

Statement: At the request of the Dean of the College of Health Professions, administration presented for approval the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal, effective May 15, 2008. This proposal will be submitted to the South Carolina Commission on Higher Education.

**Recommendation of Administration:** That the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal be approved.

**Recommendation of Committee:** That the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal be approved.

**Board Action:** A motion was made, seconded and unanimously voted to approve the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal.

**Item 17. Trustee Leadership Academy Nominations.**

Statement: Administration presented the following nominations for the MUSC Trustees Leadership Academy, to be effective May 15, 2008:

**Jeannette Andrews, Ph.D.,** Associate Professor of Nursing and Director, Center for Community Health Partnerships, College of Nursing

**Denise Ciccarelli, B.A.,** Director of Development, College of Nursing

**Jennifer K. Clark, M. D.,** Clinical Instructor, Department of Pediatrics, Medical Director, MUSC Children’s Hospital Pediatric Palliative Care Services

**Lisa L. Cunningham, Ph.D.,** Assistant Professor, Department of Pathology and Laboratory Medicine

**Leonard E. Egede, M.D.,** Associate Professor of Medicine, Division of General Internal Medicine, and Director, MUSC Center for Health Disparities Research

**Vandy T. Gaffney, III,** College of Medicine (rising 3rd year)

**Wanda C. Gonsalves, M.D.,** Assistant Professor of Family Medicine, Medical Director of East Cooper Community Outreach for ECO

**Robert M. Hendry,** College of Medicine (rising 3rd year)
Kristin B. Highland, M.D., Assistant Professor of Medicine, Division of Pulmonary, Critical Care Allergy and Sleep Medicine, and Director, Pulmonary Hypertension Program
Keith Lough Kirkwood, D.D.S., Ph.D., Associate Professor of Stomatology, Associate Dean for Research, College of Dental Medicine
Casey T. Liddy, M.H.A., Manager of Business Development, Medical University Hospital Authority
Patrick D. Mauldin, Ph.D., Associate Professor, Department of Clinical Pharmacy and Outcomes Sciences
J. Michael McGinnis, M.B.A., Director of Finance and Administration, Department of Pediatrics
David C. Morrisette, Ph.D., Associate Professor, Department of Rehabilitation Sciences and Interim Program Director, Physical Therapy Education Program
Eric R. Powers, M.D., Professor of Medicine, Division of Cardiology, and Director, Heart and Vascular Service Line
Randall Rowen, Pharm.D., Dean and Clinical Associate Professor of Clinical Pharmacy and Outcomes Sciences, USC Campus, South Carolina College of Pharmacy
Megan Baker Ruppel, M.D., Assistant Professor of Surgery, Division of General Surgery, Section of Surgical Oncology, Medical Director of Comprehensive Breast Care, Hollings Cancer Center
Lisa K. Saladin, Ph.D., Associate Professor and Interim Chair, Department of Rehabilitation Sciences
Ronald E. See, Ph.D., Professor, Department of Neurosciences
Alison C. Smith, D.V.M., Professor of Comparative Medicine, and Director of Surgery and Post-Operative Care, DLAR
Velma G. Stamp, B.S., Director, Grants and Contracts Accounting, Division of Finance and Administration
Rachel L. Sturdivant, M.D., Assistant Professor, Department of Medicine, Division of Nephrology

Recommendation of Administration: That these nominations be approved.

Recommendation of Committee: That these nominations be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the nominations for the Trustees Leadership Academy.

Item 18. Nominations for Master Teacher Designation.

Statement: At the request of the Deans of the Colleges of Health Professions and the South Carolina College of Pharmacy, administration presented the following recommendations for Master Teacher designation, effective May 15, 2008:

Lisa K. Saladin, Ph.D., Associate Professor, Department of Rehabilitation Sciences, College of Health Professions

C. Wayne Weart, Pharm.D., Professor, Department of Clinical Pharmacy and Outcome Sciences
Recommendation of Administration: That these recommendations for Master Teacher designations be approved.

Recommendation of Committee: That these recommendations for Master Teacher designations be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the recommendation for Master Teacher designation.

Item 19. Post Tenure Review.

Statement: Administration presented as information, Post-Tenure Review approvals for the following faculty members in the College of Medicine:

Prabhakar K. Baliga, M.D., Professor, Department of Surgery
Deepak Bastia, Ph.D., Professor, Department of Biochemistry and Molecular Biology
Thomas E. Brothers, M.D., Professor, Department of Surgery
Alexander W. Chessman, M.D., Professor, Department of Family Medicine
David A. Griesemer, M.D., Professor, Department of Neurosciences
Arch G. Mainous, Ph.D., III, Professor, Department of Family Medicine
Jacob E. Mintzer, M.D., Professor, Department of Neurosciences
E. Douglas Norcross, M.D., Associate Professor, Department of Surgery
Terrence X. O’Brien, M.D., Professor, Department of Surgery
John K. Orak, M.D., Associate Professor, Department of Pediatrics
Renan P. Uflacker, M.D., Professor, Department of Radiology and Radiological Science
John J. Woodward, Ph.D., Professor, Department of Neurosciences

Recommendation of Administration: That these Post-Tenure Review approvals be received as information.

Board Action: Received as information.

FINANCE AND ADMINISTRATION COMMITTEE. CHAIRMAN: MR. CHARLES W. SCHULZE.

OLD BUSINESS: None.

NEW BUSINESS:

Item 20. Financial Status Report of the Medical University of South Carolina.

Statement: Mr. Patrick Wamsley reported as of March 31, 2008, University operating cash remains constant with 46 days of operating cash. Statement of Revenues, Expenses and Changes in Net Assets shows a bottom line of almost $30 million of which $20.4 million is committed for capital appropriations, grants and gifts; $4.8 million committed to additions to permanent endowment. From a budgetary perspective, the University is reporting $5.9 million of favorable variance of that amount through March.
Recommendation of Administration: That this report be received as information.

Board Action: Received as information.


Statement: In Mr. Keels absence, Mr. Schulze stated the financial statements are in the agenda and he has reviewed them. There are no significant items to report on.

Recommendation of Administration: That this report be received as information.

Board Action: Received as information.


Statement: In Ms. Scarborough’s absence, Mr. Schulze stated the financial statements are in the agenda he has reviewed them. There are no significant items to report on.

Recommendation of Administration: That this report be received as information.

Board Action: Received as information.

Item 23. Other Committee Business. None

UNIVERSITY PHYSICAL FACILITIES COMMITTEE. CHAIRMAN: MR. WILLIAM H. BINGHAM, SR.

OLD BUSINESS: None.

NEW BUSINESS:

Item 24. Update on Projects.

Statement: Mr. John Malmrose reported on hazardous weather upgrades. Three new generators have been ordered to help with any hazardous weather response and will be delivered no later than July 21st. The Strom Thurmond Flood proofing work which is also part of the first phase of the Hazardous Weather Upgrade Project will be complete in July or August. The CODM building is nearing 50% completion and is on schedule for a June substantial completion in 2009, which would allow occupancy by August 2009. The Drug Discovery Building design should be completed the end of May with the target of August to have the contract awarded for construction. This is on track for a Fall 2010 completion. The Bio-Engineering building is nearing schematic design completion. The plan for the first floor and the cost estimate remain to be completed. The University will be using a construction manager at risk on this project. The state does not have a standard contract for use for this so one is being developed. We anticipate a contract being awarded to our construction manager as early as July. If we can get the construction manager on board in July, we will be able to go the Budget and Control Board in September for full budget approval.
Mr. Bingham stated questions had come up about the contract on the construction management at risk. Since it is a contractual matter, he asked that it be discussed in executive session. Dr. Thomas stated it would be discussed at the end of the meeting.

Recommendation of Administration: That this be received as information.

Board Action: The report was received as information.

**Item 25. Other Committee Business.**

**Statement:** Mr. John Malmrose presented the following items for approval:

- Establish Project: 3T MRI Installation at 30 Bee Street for the Department of Neurosciences. Total estimated budget: $260,000.
- Budget Increase/Scope change for the CHP building “C” HVAC Replacement. Total revised Budget: $600,000.

Recommendation of Administration: That these projects be approved.

Board Action: A motion was made, seconded and unanimously voted to approve the projects as presented.

**Item 26. Facilities Contracts Awarded (consent item).**

**Statement:** The facilities contracts awarded since the last meeting were presented for information.

Recommendation of Administration: That the report be received as information.

Board Action: Received as information.

**OTHER BUSINESS FOR THE BOARD OF TRUSTEES:**

**Item 27. Approval of Consent Agenda.**

**Statement:** Approval of the University Consent Agenda was requested.

Recommendation of Administration: That the consent agenda be approved.

Board Action: It was moved, seconded and unanimously voted that the consent agenda be approved.

**Item 28. New Business for the Board of Trustees.**

A motion was made and seconded for an executive session to discuss a contractual matter. Dr. Thomas declared the Board in Executive Session.

Board Action: At the conclusion of the Executive Session, the Board returned to open session with no action being taken.
Item 29. **Report from the Chairman.**

Dr. Thomas reminded the Board that the Retreat will be held June 19 and 20 in Charleston in the Colcock Hall Boardroom. It will begin at noon on June 19th. The focus will be the clinical enterprise and facilities strategy.

He also reminded everyone about lunch with the Golden Grads at noon today at the Country Club of Charleston. The bus will leave at 11:45 from Jonathan Lucas Street. In the event of rain tomorrow, the Board will still meet at the Boardroom tomorrow morning at 8 a.m. to be robed and transported to the Citadel Field House. Dr. Slaughter gave a brief update on the plan in the event of rain.

Dr. Thomas asked if anyone had any comments and Dr. Johnson responded that he thought it would be worthwhile if someone would look into the concern of Dr. Gross that crippled children in braces and wheelchairs be asked to get on an elevator to a relocated orthopedic clinic. With two orthopedists on the Board, he said he would ask that the idea be reconsidered.

There being no further business, the meeting of the University Board of Trustees was adjourned.

Respectfully submitted,

Hugh B. Faulkner III
Secretary

/wcj
Attachments
EDUCATION, FACULTY AND STUDENT AFFAIRS COMMITTEE. CHAIRMAN: MR. MELVYN BERLINSKY
May 15, 2008
Minutes

Members Present: Mr. Melvyn Berlinsky; Dr. Stanley Baker; Mr. William Bingham; Dr. Cotesworth Fishburne; Dr. Don Johnson; Dr. Conyers O'Brien; The Honorable Robin Tallon; Dr. Thomas Rowland; Mr. Charles Schulze; Dr. Charles Thomas; Dr. James E. Wiseman, Jr.

Other Participants: Dr. Herman Blake; Dr. Frank Clark; Dr. Betsy Davis; Dr. Joe DiPiro; Dr. Jack Feussner; Dr. David Garr; Mr. Joe Good; Dr. Ray Greenberg; Dr. Perry Halushka; Ms. Diane Knich; Dr. Steve Lanier; Dr. Walter Limehouse; Dr. John Raymond; Dr. Jerry Reves; Dr. Jack Sanders; Dr. Mark Sothmann; Dr. Gail Stuart; Dr. Valerie West

REGULAR AGENDA

Item 9. General Report of the Vice President for Academic Affairs

Statement:

Dr. Betsy K. Davis, Associate Professor in Otolaryngology – Head and Neck Surgery, provided an informative presentation of her proposal for center designation for the Center for Functional Outcomes and Reconstructive Biotechnology, facilitated by a power point presentation. Her presentation received numerous positive comments and supportive feedback.

Dr. Mark Sothmann, Dean of Health Professions; Dr. Perry Halushka, Dean of Graduate Studies; and Dr. Gail Stuart, Dean of Nursing, provided the Board with slide presentations of their respective College’s admissions process.

Recommendation of Administration: That this report be received as information.

Recommendation of Committee: That this report be received as information.

Board Action:

Item 10. Other Committee Business.

A. Tuition and Fees for South Carolina College of Pharmacy.

Statement: Dr. John Raymond presented tuition and fee increases for the South Carolina College of Pharmacy for approval.

Recommendation of Administration: That the SCCP tuition and fees be approved.

Recommendation of Committee: That the SCCP tuition and fees be approved.

Board Action

B. Item 17. MUSC Trustees Leadership Academy Fellowship Nominations

Statement: Administration presented for approval, nominations for the MUSC
Trustees Leadership Academy Fellowship, to be effective May 15, 2008.

**Jeannette Andrews, Ph.D.**, Associate Professor of Nursing and Director, Center for Community Health Partnerships, College of Nursing

**Denise Ciccarelli, B.A.**, Director of Development, College of Nursing

**Jennifer K. Clark, M. D.**, Clinical Instructor, Department of Pediatrics, Medical Director, MUSC Children’s Hospital Pediatric Palliative Care Services

**Lisa L. Cunningham, Ph.D.**, Assistant Professor, Department of Pathology and Laboratory Medicine

**Leonard E. Egele, M.D.**, Associate Professor of Medicine, Division of General Internal Medicine, and Director, MUSC Center for Health Disparities Research

**Vandy T. Gaffney, III**, College of Medicine (rising 3rd year)

**Wanda C. Gonsalves, M.D.**, Assistant Professor of Family Medicine, Medical Director of East Cooper Community Outreach for ECO

**Robert M. Hendry**, College of Medicine (rising 3rd year)

**Kristin B. Highland, M.D.**, Assistant Professor of Medicine, Division of Pulmonary, Critical Care Allergy and Sleep Medicine, and Director, Pulmonary Hypertension Program

**Keith Lough Kirkwood, D.D.S., Ph.D.**, Associate Professor of Stomatology, Associate Dean for Research, College of Dental Medicine

**Casey T. Liddy, M.H.A.**, Manager of Business Development, Medical University Hospital Authority

**Patrick D. Mauldin, Ph.D.**, Associate Professor, Department of Clinical Pharmacy and Outcomes Sciences

**J. Michael McGinnis, M.B.A.**, Director of Finance and Administration, Department of Pediatrics

**David C. Morriseatte, Ph.D.**, Associate Professor, Department of Rehabilitation Sciences and Interim Program Director, Physical Therapy Education Program

**Eric R. Powers, M.D.**, Professor of Medicine, Division of Cardiology, and Director, Heart and Vascular Service Line

**Randall Rowen, Pharm.D.**, Dean and Clinical Associate Professor of Clinical Pharmacy and Outcomes Sciences, USC Campus, South Carolina College of Pharmacy

**Megan Baker Ruppel, M.D.**, Assistant Professor of Surgery, Division of General Surgery, Section of Surgical Oncology, Medical Director of Comprehensive Breast Care, Hollings Cancer Center

**Lisa K. Saladin, Ph.D.**, Associate Professor and Interim Chair, Department of Rehabilitation Sciences

**Ronald E. See, Ph.D.**, Professor, Department of Neurosciences

**Alison C. Smith, D.V.M.**, Professor of Comparative Medicine, and Director of Surgery and Post-Operative Care, DLAR

**Velma G. Stamp, B.S.**, Director, Grants and Contracts Accounting, Division of Finance and Administration

**Rachel L. Sturdivant, M.D.**, Assistant Professor, Department of Medicine, Division of Nephrology

**Recommendation of Administration:** That these nominations be approved.

**Recommendation of Committee:** That these nominations be approved.

**Board Action:**

C. Item 19. Post-Tenure Review (Informational Items)
Statement: Administration presented as information, Post-Tenure Review approvals for the following faculty members in the College of Medicine:

Raymond S. Greenberg, M.D., Ph.D., Department of Biostatistics, Bioinformatics and Epidemiology

Joseph G. Reves, M.D., Departments of Anesthesia and Perioperative Medicine and Cell and Molecular Pharmacology and Experimental Therapeutics
CONSENT AGENDA

Item 11.  Conferring of Degrees:

Statement: Approval was requested to confer degrees upon those candidates who, pending successful completion of all requirements for their degrees by the conclusion of the spring semester, have the recommendation of their college dean and faculty.

Recommendation of Administration: That the conferring of degrees be approved.

Recommendation of Committee: That the conferring of degrees be approved.

Board Action:

Item 12.  Faculty Promotions.

Statement: At the request of the Deans of the Colleges of Medicine and the South Carolina College of Pharmacy, and their respective AP&T Committees, administration presented for approval the following faculty promotions, effective July 1, 2008:

College of Medicine  
*From Associate Professor to Professor, on the Academic Investigator Track*  
Kumar Sambamurti, Ph.D., Department of Neurosciences

South Carolina College of Pharmacy and College of Medicine  
*From Assistant Professor to Associate Professor (tenure track)*  
Andrea M. Wessell, Pharm.D., joint faculty promotion in the Department of Clinical Pharmacy and Outcome Sciences, South Carolina College of Pharmacy, and in the Department of Family Medicine, College of Medicine.

Recommendation of Administration: That these faculty promotions be approved.

Recommendation of Committee: That these faculty promotions be approved.

Board Action

Item 13.  Faculty Appointments.

Statement: At the request of the Dean of the College of Medicine and its Appointments, Promotions and Tenure Committee, administration presented for approval the following faculty appointments:

*College of Medicine*  
Lynn M. Manfred, M.D., Ed.D., (dual appointment) as Associate Professor in the Department of Pediatrics, Division of General Pediatrics, effective March 31, 2008.
Dr. Manfred’s primary appointment rests in the Department of Medicine, Division of General Internal Medicine and Geriatrics.

**Paul S. Morgan, Ph.D.,** as Associate Professor in the Department of Radiology and Radiological Science, effective October 1, 2008.

Dr. Morgan will hold the South Carolina Centers of Economic Excellence Endowed Chair in Brain Imaging. He also will serve as the Director of Translational Magnetic Resonance Imaging Research in the Department of Radiology and Radiological Science, and as Director of the MUSC Center for Advanced Imaging Research.

**Timothy G. Givens, M.D.,** as Associate Professor, on the Clinician Educator track, in the Department of Pediatrics, Division of Pediatric Emergency Medicine, effective July 1, 2008.

**Recommendation of Administration:** That these faculty appointments be approved.

**Recommendation of Committee:** That these faculty appointments be approved.

**Board Action:**

**Item 14. Changes in Faculty Status**

**Statement:** At the request of the Dean of the College of Medicine and its Appointments, Promotions and Tenure Committee, administration presented for approval the following changes in faculty status.

**College of Medicine**

**Thomas Walle, Ph.D.,** from Professor to Professor Emeritus, in the Department of Cell and Molecular Pharmacology and Experimental Therapeutics, effective July 1, 2008.

**David T. Vroman, M.D.,** from Associate Professor to Clinical Associate Professor, in the Department of Ophthalmology, effective April 1, 2008.

**Recommendation of Administration:** That these recommendations for changes in faculty status be approved.

**Recommendation of Committee:** That these recommendations for changes in faculty status be approved.

**Board Action:**

**Item 15. MUSC Center Designation**

**Statement:** At the request of the Dean of the College of Medicine, administration presented for approval university center designation for the **Center for Functional Outcomes and Reconstructive Biotechnology**, effective May 15, 2008.

**Recommendation of Administration:** That this recommendation for university center designation be approved.

**Recommendation of Committee:** That this recommendation for university center designation be approved.
Board Action:

Item 16. Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal

Statement: At the request of the Dean of the College of Health Professions, administration presented for approval the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal, effective May 15, 2008. This proposal will be submitted to the South Carolina Commission on Higher Education.

Recommendation of Administration: That the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal be approved.

Recommendation of Committee: That the Doctor of Philosophy in Health and Rehabilitation Degree Program Proposal be approved.

Board Action:

Item 17. MUSC Trustees Leadership Academy Fellowship Nominations

Statement: Administration presented for approval, nominations for the MUSC Trustees Leadership Academy Fellowship, to be effective May 15, 2008.

Recommendation of Administration: That these nominees for the Trustees Leadership Academy be approved.

Recommendation of Committee: That these nominees for the Trustees Leadership Academy be approved.

Board Action:

Item 18. Recommendations for Master Teacher Designations

Statement: At the request of the Deans of the Colleges of Health Professions and the South Carolina College of Pharmacy, administration presented the following recommendations for Master Teacher designation, effective May 15, 2008.

Lisa K. Saladin, Ph.D., Associate Professor, Department of Rehabilitation Sciences, College of Health Professions

C. Wayne Weart, Pharm.D., Professor, Department of Clinical Pharmacy and Outcome Sciences

Recommendation of Administration: That these recommendations for Master Teacher designations be approved.

Recommendation of Committee: That these recommendations for Master Teacher designations be approved.

Board Action: (INFORMATION ITEMS)
Statement: Administration presented as information, Post-Tenure Review approvals for the following faculty members in the College of Medicine:

Prabhakar K. Baliga, M.D., Professor, Department of Surgery
Deepak Bastia, Ph.D., Professor, Department of Biochemistry and Molecular Biology
Thomas E. Brothers, M.D., Professor, Department of Surgery
Alexander W. Chessman, M.D., Professor, Department of Family Medicine
David A. Griesemer, M.D., Professor, Department of Neurosciences
Arch G. Mainous, Ph.D., III, Professor, Department of Family Medicine
Jacob E. Mintzer, M.D., Professor, Department of Neurosciences
E. Douglas Norcross, M.D., Associate Professor, Department of Surgery
Terrence X. O'Brien, M.D., Professor, Department of Surgery
John K. Orak, M.D., Associate Professor, Department of Pediatrics
Renan P. Uflacker, M.D., Professor, Department of Radiology and Radiological Science
John J. Woodward, Ph.D., Professor, Department of Neurosciences

Recommendation of Administration: That these Post-Tenure Review approvals be received as information.

Recommendation of Committee: That these Post-Tenure Review approvals be received as information.

Board Action:
SUMMARY OF KEY CHANGES TO INTELLECTUAL PROPERTY POLICY
(CHANGES IN RED TEXT)

1) Wording, definitions updated

2) Cap on FRD

CURRENT POLICY

FRD/TTO
Expenses + 15% off the top up to $200,000.
Capped at $30,000 per deal per year.

Expenses + 15% of annual revenue/deal

3) Royalty Distribution

CURRENT POLICY IN BLACK (CHANGE IN RED)

Patent Proceeds
Net Proceeds University of Inventor’s Royalty

<table>
<thead>
<tr>
<th>Royalty ($)</th>
<th>Inventor</th>
<th>Lab</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>First $50,000</td>
<td>35 (40)</td>
<td>35(30)</td>
<td>15(10)</td>
</tr>
<tr>
<td>$50,000 - $100,000</td>
<td>30 (30)</td>
<td>30(30)</td>
<td>15(10)</td>
</tr>
<tr>
<td>Over $100,000</td>
<td>25(25)</td>
<td>30(30)</td>
<td>15(10)</td>
</tr>
</tbody>
</table>

University | College
----------|--------
15(15) | 0
25(20) | 5
30(25) | 5

5% at each range designated for Angel Fund

Copyright Proceeds
Net Proceeds University of Inventor’s Royalty

<table>
<thead>
<tr>
<th>Royalty ($)</th>
<th>Author</th>
<th>Lab</th>
<th>Department</th>
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</thead>
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<tr>
<td>Over $100,000</td>
<td>35(40)</td>
<td>30(15)</td>
<td>0(10)</td>
</tr>
</tbody>
</table>

University | College
----------|--------
15(15) | 0
25(20) | 5
35(30) | 5

4) Distribution of lab shares

CURRENT POLICY
Lab shares follow inventor

CHANGE

Lab shares remain and split 50% into Angel Fund and 50% allocated upon redefined allocation as above
INTELLECTUAL PROPERTY: POLICIES AND PROCEDURES

This revised intellectual property policy will become effective following approval by the MUSC Board of Trustees and posted for faculty and employees with this date of posting serving as the official policy activation date. Invention disclosures made through standard procedure with the MUSC Foundation for Research Development prior to this date shall be administered under the former policy.

1.0 Purpose

The purpose of this document is to delineate the policy and procedures pertaining to intellectual property created by employees, students, and visitors of the Medical University of South Carolina ("MUSC").

2.0 Objective

The objective of this policy is to further MUSC’s mission by (i) providing for the necessary protections, incentives, and vehicles to encourage the discovery and development of new knowledge for the public good; (ii) fostering of research links and collaboration with industry and other academic institutions; and (iii) enabling advancement of economic development in South Carolina and beyond.

3.0 Applicability

3.1 Employees (including faculty and staff) and Students (including trainees): This Policy applies as a condition of appointment or employment by MUSC to every employee, and as a condition of enrollment by every student, who during the period of their appointment, employment, or enrollment by MUSC shall:

(a) Conceive or first reduce to practice, actually or constructively, any invention or trade secret;
(b) Prepare a copyrightable work;
(c) Contribute substantially to the existence of any tangible result of research; or
(d) Otherwise create an item of intellectual property.
3.2 Visitors: This Policy applies as a condition of use of University Resources (as defined below) to all persons who are not covered under Section 3.1 above, who through their use of University Resources shall:

(a) Conceive or first reduce to practice, actually or constructively, any invention or trade secret;
(b) Prepare a copyrightable work;
(c) Contribute substantially to the existence of any tangible result of research; or
(d) Otherwise create an item of intellectual property.

Such persons are called “Visitors” herein. MUSC personnel allowing Visitor access to University Resources shall ensure that the Visitor has been notified of this Policy and obtained written consent from the Visitor, using approved forms (VISITORS consent on IP Policy - http://frd.musc.edu/forms.html), to be bound by this Policy.

4.0 Definitions

4.1 “Intellectual Property” as used herein is broadly defined to include inventions, discoveries, know-how, show-how, processes, unique materials, tangible results of research, copyrightable works, original data, and other creative or artistic works which have potential commercial value. Intellectual property includes that which is protectable by statute or legislation, such as patents, copyrights, trademarks, service marks, trade secrets, mask works, and plant variety protection certificates. It also includes the physical embodiments of intellectual effort including, for example, models, machines, devices, designs, apparatus, instrumentation, circuits, computer programs and visualizations, biological materials, chemicals, other compositions of matter, plants, and records of research.

4.1.1 “Copyright” shall mean copyrightable works as defined under the laws of the United States of America, including 17 U.S.C. 101 et seq. A computer program (defined in 17 U.S.C. 101 as: “...a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result”) when licensed solely as a copyrightable work shall have the resulting Net Proceeds distributed as a “Copyright”.

4.1.2 “Patent and Other Intellectual Property (excluding Copyright)” shall mean (a) a patentable invention as defined under the laws of the United States of America including 35 U.S.C. 101 and (b) all other forms of Intellectual Property, excepting for Copyrights.
This definition (of 4.1.2) includes patentable processes which can be implemented in a computer (often called “business method patents”) and methods and algorithms capable of being implemented using a computer and protectable as a trade secret. In instances where patentable processes and/or trade secrets, and copyrightable works which fix in a tangible medium a specific instance of the patentable process and/or trade secret (i.e. a computer program) are licensed out together, the resulting total Net Proceeds shall be distributed as “Patent and Other Intellectual Property (excluding Copyright)” and not distributed as a “Copyright”

4.2 “Traditional Academic Copyrightable Works” are a subset of copyrightable works created independently and at the creator’s initiative for traditional academic purposes. Examples include manuscripts for scholarly journals, class notes, books, theses and dissertations, educational software (also known as courseware or lessonware), videos, digital video disks (dvds) containing audio, video, and/or interactive simulations as well as non-interactive demonstrations, compact disks containing audio, video and/or interactive simulations, as well as non-interactive demonstrations, articles, non-fiction, fiction, poems, musical works, dramatic works including any accompanying music, pantomimes and choreographic works, pictorial, graphic and sculptural works, or other works of artistic imagination that are not created as a) an institutional initiative or b) with University Resources. Specifically excluded from this definition are software works.

4.3 "Creator" means an individual or group of individuals who create, conceive, reduce to practice, author, or otherwise make a substantive intellectual contribution to the creation of, Intellectual Property. "Creator" includes the definition of "inventor" used in U.S. patent law and the definition of "author" used in the U.S. Copyright Act. Creators may be faculty, staff, and other persons employed by MUSC whether full- or part-time; visiting faculty and researchers; and any other persons, including students, who create or discover applicable intellectual property using University resources.

4.4 “University Resources” means the material use of facilities, supplies, materials, or other resources of MUSC, with the exception of its Library collections.
4.5 "Net Proceeds" means the net amount received by MUSC or its designee in each fiscal year from the sale, licensing or other disposition of any Intellectual Property, initially owned, pursuant to this policy, in whole or in part by MUSC, after deduction of all costs reasonably attributable to the protection and distribution of such Intellectual Property, including a fifteen (15) percent 15% deduction from gross income for administration expenses of the technology transfer office (TTO), which shall be used to further the objectives and purpose of this Policy, and any reasonable expense of patent or copyright prosecution, maintenance, interference proceedings, litigation, marketing or other dissemination and licensing.

4.6 "Employees" means full-time and part-time faculty (of all ranks and status as outlined in the MUSC faculty handbook) and all levels of full-time and part-time staff.

4.7 "Students" means full-time and part-time students of all levels including those in training, such as post doctoral fellows and residents.

4.8 "Visitors" means all persons other than those covered in 4.6 and 4.7 including visiting professors, adjunct professors, teachers, researchers and volunteers.

5.0 Disclosure Requirements

5.1 Intellectual Property is required to be disclosed, pursuant to this Policy, by the Creator to the MUSC Office of the Associate Provost for Research or its Designee, using approved forms (http://frd.musc.edu/forms.html). All disclosures are confidential. Ownership of such disclosure shall be determined pursuant to the applicable provisions of this policy.

5.2 Disclosure should be made in a timely manner upon the Creator's recognition that Intellectual Property may have been created. Disclosure should be made prior to public presentations or publications, or other dissemination of the Intellectual Property to third parties whether public or confidential.
6.0 Ownership

6.1 Employees (including faculty) and Staff: MUSC shall be entitled to claim ownership of Intellectual Property which is made in the field in which the employee or staff Creator is engaged by MUSC or made with the use of University Resources. The employee or staff Creator shall share in any proceeds derived there from in accordance with this policy and subject to any preexisting commitments to outside sponsoring agencies.

6.2 Students (including trainees): Intellectual Property created by student Creators shall be owned by the student Creator unless the Intellectual Property is created, conceived or reduced to practice (a) during the course of research conducted at MUSC; (b) through the use of University Resources; (c) in conjunction with one or more persons who are otherwise obligated to assign their rights in such Intellectual Property to MUSC under this policy; or (d) under terms of an MUSC contract with a third party which provide for other disposition of the Intellectual Property. For Intellectual Property of categories (a) through (d), MUSC shall be entitled to claim ownership, and the student Creator shall share in any proceeds derived there from in accordance with this policy and subject to any preexisting commitments to outside sponsoring agencies.

6.3 Visitors: MUSC shall be entitled to claim ownership of Intellectual Property created by Visitors through the use of University Resources. The Visitor shall share in any proceeds derived there from in accordance with this policy and subject to any preexisting commitments to outside sponsoring agencies.
6.4 Copyright:

6.4.1 Copyrightable works that MUSC is entitled to claim ownership to under this policy shall be treated as works for hire.

6.4.2 Unless subject to any of the exceptions specified in Section 6.4.3, Creators shall retain all rights to Traditional Academic Copyrightable Works and are free to submit such for publication and execute assignment documents in their own name.

6.4.3 MUSC shall own Traditional Academic Copyrightable Works as follows:

(a) Works created pursuant to the terms of an MUSC agreement with an external party;
(b) Works created as a specific requirement of employment or as an assigned university duty that may be specified, for example, in a written job description or an employment agreement;
(c) Works specifically commissioned by MUSC; and
(d) Works that are also patentable

Nothing contained herein shall be interpreted to grant ownership to MUSC of Traditional Academic Works that are manuscripts for submission to scholarly journals, including electronic submissions which contain multimedia interactive components.

6.5 Agreements Impacting University Ownership

6.5.1 Sponsored Research Agreements: Ownership and disposition of Intellectual Property may be governed in whole or in part by sponsored research agreements, which may supersede certain provisions of this Policy. Prior to the execution of any sponsored research agreement which would conflict with this Policy, the Associate Provost for Research or its designee must approve the agreement in question.

6.5.2 Consulting: Employees engaged in external consulting work or business are responsible for ensuring that agreements emanating from such work are not in conflict with university policy or with MUSC's contractual commitments. Such employees should make their university obligations known to others with whom they make such agreements and should provide the parties to such agreements a statement of applicable university policies regarding ownership of intellectual property and related rights.
7.0 Commercialization of Intellectual Property

7.1 Commercialization

7.1.1 In making commercialization decisions for its Intellectual Property, MUSC, or its designee, shall have full discretion, subject to the purpose, objectives, and requirements of this policy. MUSC shall designate an internal office, or a retained third party entity such as a not-for-profit foundation, whose sole purpose is to solely benefit MUSC, hereafter referred to as the Technology Transfer Office ("TTO") for the administration and commercialization of Intellectual Property.

7.1.2 The TTO shall keep the Creator reasonably informed of its commercialization efforts; provided, however, if the Creator has an interest in an entity which desires to license or otherwise make commercial use of the Intellectual Property, the Creator shall not be privy to financial or other confidential information concerning the offers of competing parties. In this event, the supervisor of the conflicted Creator shall be informed of the commercialization efforts in lieu of the conflicted Creator.

7.2 Timetable

7.2.1 Complete Submission: Upon submission of an Intellectual Property Disclosure, the TTO shall notify the Creator within thirty (30) days if the Intellectual Property Disclosure is deemed complete. If it is not deemed complete, the Intellectual Property Disclosure shall be returned to the Creator with a request for the additional information needed.

7.2.2 Ownership: Within nine (9) months of a Complete Submission, the TTO shall inform the Creators if MUSC is exercising its right to claim ownership of the intellectual property.

7.2.3 The TTO shall be reasonably diligent in making efforts to commercialize the Intellectual Property to which it has claimed ownership.
7.3 Disposition of Intellectual Property

7.3.1 After evaluation of the Intellectual Property and review of applicable contractual commitments, the TTO may (a) commercialize the Intellectual Property through licensing or other transfer of rights, (b) release it to the sponsor of the research under which it was made (if contractually obligated to do so), (c) release it to the Creator if permitted by law, or (d) take such other actions as are determined to be in the interest of MUSC and the public. Licensing or other transfer of Intellectual Property rights to entities which the Creator has an interest in is not prohibited by any provisions of this policy. Commercialization by the TTO or its designee may or may not involve statutory protection of the intellectual property rights, such as filing for patent protection, registering a copyright or securing plant variety certification.

7.3.2 The TTO may create a policy, with the approval of the Associate Provost for Research, to allow for the rapid and streamlined disposition of certain copyrightable works under “open source”, “creative commons” or “copy left” agreements.

7.3.3 Should the TTO abandon commercialization of university-owned Intellectual Property, ownership may be assigned to the Creator as allowed by law subject to the rights of sponsors and to the retention of a license to practice the Intellectual Property rights for the internal purposes of MUSC, its affiliated entities, and not-for-profit research collaborators. The minimum terms of such license shall grant MUSC, its affiliated entities, and its not-for-profit research collaborators, the right to use the Intellectual Property in their internally administered programs of teaching, research, and public service on a perpetual, royalty-free, non-exclusive basis. In such event MUSC may require the repayment of its out of pocket patent prosecution and maintenance expenses from any profits made due to commercialization by the Creator. In such an event the Creator may if they desire avail themselves of Section 9.4.
7.4 Distribution of Net Proceeds: Net Proceeds shall be distributed quarterly unless the recovery of costs reasonably attributable to the protection and distribution of such Intellectual Property necessitates a delay of up to six (6) months in order to receive and process third party invoices for such protection (i.e. patent prosecution invoices). Net Proceeds shall be distributed pursuant to the following schedule:

**Patent and Other Intellectual Property (excluding Copyright)**
Net Proceeds University or Inventor’s Royalty

<table>
<thead>
<tr>
<th>Royalty ($)</th>
<th>Inventor(s)</th>
<th>Lab(s)</th>
<th>Department(s)</th>
<th>University</th>
<th>College(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First $50,000</td>
<td>40</td>
<td>30</td>
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<tr>
<td>&gt; $100,000</td>
<td>25</td>
<td>30</td>
<td>10</td>
<td>25</td>
<td>5</td>
</tr>
</tbody>
</table>

5% at each range is designated as the Angel Fund.

**Copyright**
Net Proceeds University or Inventor’s Royalty

<table>
<thead>
<tr>
<th>Royalty ($)</th>
<th>Author(s)</th>
<th>Lab(s)</th>
<th>Department(s)</th>
<th>University</th>
<th>College(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First $50,000</td>
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<tr>
<td>&gt; $100,000</td>
<td>40</td>
<td>15</td>
<td>10</td>
<td>30</td>
<td>5</td>
</tr>
</tbody>
</table>

If there is no laboratory or laboratories, then the lab share shall be distributed proportionally among the Department(s), University and School(s)/College(s).

7.4.1 If Net Proceeds are attributable to more than one item of Intellectual Property (e.g. more than one patent), the Net Proceeds shall be first apportioned equally amongst each item prior to application of the distribution schedule, unless otherwise agreed to by the pertinent Creators or if no agreement, as directed by the Associate Provost for Research, who shall be under no obligation to attempt to discern an apportionment other than equal.

7.4.2 If Net Proceeds are attributable to more than one Creator, distribution of Net Proceeds (the apportioned share if more than one item of Intellectual Property) pursuant to the schedule shall be made using an equal distribution for each Creator absent a written agreement to the contrary signed by all the Creators.
7.4.3

Payment of the Creator’s Share shall not end due to the Creator’s death, disability, or termination of employment or other association with MUSC. In the event of death, payment of the Creator’s share shall be made to the Creator’s estate.

7.4.5

In the event that a Creator changes departments within MUSC, future distribution of the department share and funds previously earned by the former department shall remain in the originating department. If a department ceases to exist, their shares shall accrue to the University Royalty Income Account until and unless the inventor, author, or contributor joins a new University department.

7.4.6

In the event that a Creator, or in the case of a student-Creator, when their mentor, leaves the employment of MUSC or terminates research operations then 50% of any remaining balance of laboratory shares and future laboratory shares from net proceeds resulting from patents, licensing or copyrightable works shall be redistributed to the Angel Fund and the remaining 50% will be distributed proportionally among the Department, University and School/College according to the table in 7.4 with the stipulation that these funds be solely used to support further growth of intellectual property and technology transfer initiatives at MUSC.

7.4.7

Students and Visitors: For Student or Visitor Creators, the lab, department, and school/college shares shall be payable to the Laboratory, Department, and School/College of the Student’s mentor or the Laboratory, Department, and School/College of the Visitor’s sponsor.

7.4.8

In the event that equity is received from the commercialization of Intellectual Property, equity shall not be considered Net Proceeds until the equity can be freely tradable or liquidated. MUSC and/or its TTO shall not be responsible or liable for any valuation fluctuations of equity.

7.4.9

Creators are responsible for any tax consequences associated with their receipt of Net Proceeds.

7.4.10

In the event the TTO is a third party not-for-profit entity, MUSC can cause the TTO to make payments on MUSC’s behalf pursuant to the schedule.

7.4.11

Angel Fund: The proceeds designated for the Angel Fund shall be paid to the MUSC TTO with its own budget line and be used to further the development of emerging MUSC owned Intellectual Property as approved by the TTO Board of Directors and the Associate Provost for Research. The Intellectual Property Committee shall be periodically informed by the TTO regarding the use of these funds.
8.0 Faculty Cooperation
The Creator is obligated to cooperate and assist, at no expense to the Creator, in the commercialization efforts of the TTO. The Creator shall execute appropriate documentation for the protection of the Intellectual Property and assignment of ownership documents as required to effectuate this policy.

Potential conflicts of interest that a Creator has with respect to Intellectual Property and its disposition under this policy shall be disclosed by the Creator pursuant to appropriate MUSC policy.

9.0 Intellectual Property Committee

9.1 Membership: The Intellectual Property Committee ("IPC") shall be a standing committee and consist of seven (7) to eleven (11) members appointed by the Associate Provost for Research. Members shall be chosen from the various colleges and departments of MUSC which generate disclosures of Intellectual Property. One member shall be designated by the Associate Provost for Research as the Chair. A student shall also be appointed to the committee by the Associate Provost for Research.

9.2 Duties: The IPC shall:
(a) Provide advice to the Associate Provost for Research and the TTO regarding implementation of this policy, and undertake a periodic review of the policy making recommendations for any revisions, if needed;
(b) Encourage compliance with this policy through education of potential Creators of Intellectual Property, and through periodic meetings with those persons and entities responsible for implementation of this policy.

9.3 Meetings: The IPC shall meet at least quarterly and at such other times as requested by the Associate Provost for Research, the TTO, the Chair, or by at least 1/3 of the committee members.

9.4 Dispute Resolution Procedures
9.4.1 A Creator or MUSC administration can request the IPC mediate a dispute arising under this policy.
9.4.2 If a mediated resolution amongst the parties is not obtained, the Committee can make a recommendation to the Associate Provost for Research for a resolution of the dispute.
9.4.3 Mediation of a dispute under this policy shall not be required and shall not be considered to be part of any required administrative remedies available to an employee of MUSC.
South Carolina College of Pharmacy
Proposed (FY09) Schedule of Academic Charges
MUSC Campus College of Pharmacy

The SCCP will bill IN STATE student tuition at a per year cost of $17,647.00 which will include $6,868.00 for tuition and $811.00 program fee per semester, and $2,289.00 for part time summer. The SCCP IN STATE per hour rate would be $640.

The SCCP will bill OUT of STATE student tuition at a per year cost of $35,294.00 which will include $14,547.00 for tuition $811.00 program fee per semester, and $4,578.00 for part time summer. The SCCP OUT OF STATE per hour rate would be $1,280.

The SCCP will bill OUT of STATE student tuition (with Scholarship) at a per year cost of $21,368.00 which will include $8,499.00 for tuition $811.00 for program fee per semester, and $2,748.00 for part time summer. The SCCP OUT OF STATE (with Scholarship) per hour rate would be $845.

Medical University of South Carolina (only)

<table>
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<tr>
<th></th>
<th>Current charge</th>
<th>Proposed Charge at 8%</th>
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<tr>
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<td>In-State</td>
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<tr>
<td>Semester</td>
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<tr>
<td>Summer</td>
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</tr>
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Fee of $625.00 per semester to remain the same.
Medical University of South Carolina
May 2008 Graduates

Bachelor of Health Sciences

Maggie Vernita Carter
Constance Connor Maharry
Charlene Elizabeth Crawford
William Brian Huskey
Janice McCaskill Jameson
Paul A. Jones
Adam L. Komegay
Tracy Leshon Miller

Kenneth J. Mitchell
Ivy Jones Moore
Pamela Lord Moyer
Erica Elizabeth Parks
Elizabeth Carol Reel
April Lynn Sloan
Traci Susanne Smith
Ganaris Lynn Snead

Bachelor of Science in Cardiovascular Perfusion

Jennifer Lynn Bowens
Tyler Stinnett Coffey
Susanna Lee Downing
Daniel Chad Lingerfelt

Nakia Antoinette Mister
Andrea Elizabeth Roebuck
Thu’y Thi Sisoukrath
Philip Clark Strole
James L. Whitlow Jr.

Bachelor of Science in Nursing

Pamela Erin Bennett
Anne Boggs
Jennifer Jo Brown
Wendy Renae Buck
Sarah Burden
Olivia Christine Burgess
Kimberly Ann Burnes
Carli Anne Dauer
Alexis Katherine Deman
Jane Abole Dobbins
Elsbeth Dyal
Jason Farrell
Jenny Rebecca Freeman
David Miller Fulmer
Hayden McIntosh Geer
Erica Lynn Grove-Anders
Brooke Elizabeth Holman
Kelly Hager Holmes
James Michael Ihnen
Megan Kenyon
Jessica Ann Leinbach
Ali Jean Linnemann
Alan Louis Lopez

Elizabeth Anne Lucey Boyle
Melissa J. McDaniel
Vanessa Eleonora Moser
Rebecca Mullins
Cathy Bilas Mulloy
Kyle Mark O’Bryan
Melissa Ryan Palmer
Julia Anne Perry
Jennifer L. Pisano
Kristie Shanta Quarles
Karen Marie Quinn
Elisabeth Claire Rice
Weston Rice
Nicole Arnette Shelley
Mary Harriet Shuler
Michael Eland Sollie
Michael Scott Spillman
Nicole Baker Staubes
Kiften Bickford Stephens
Jessica Lynne Tyson
Amanda Marie Vaughan
Natalie Claire Vernon
Tracy Elizabeth Woodward
Master in Health Administration

Patrick Michael Bosse
Thomas Hile Breakey
Emmanuel Brown Jr.
Carolyn D. Cassidy
Kathleen Elizabeth Clyde
Ralph Jennings Bryan Cox IV
April Nicole DeReamer
Monique Shanell Frazier
Brian Scott Friedenberg
Luis Javier Garcia
Anna Elizabeth Hicklin
Kimberly Lee Hubbard
Michael Gary Johnson, Jr.
Allison Nicole Livingston
Carlos Lopez
Marshall Braddock Martin
Leigh-Ann McElhaney
Kristan Mariel Murray
Ruchir Atul Patel
John P. Potter III
Amanda Leigh Price
Holly Ginger Ready
Dennis Barton Reeves
Lindsey Kate Robinette
Atyia Felise Sapp
Linda S. Sherriff
Ryan Arthur St. John
Nina K. Stephens
Michael L. Tedrow
Vanessa Lynn Tremble
Carl Simon Williamson
Lindsay Michelle Favreau Wiltshire
Kathleen Ruth Wood

Master in Health Sciences

Christine Marie Cole

Master of Science in Cytology and Biosciences

Katherine Lee Benjamin
Cicely Lillian Blair
Audrey M. Davis
Stefanie C. Gadson
Alexandra Ruth McJunkin
Kristen Amber Nalani Metcalfe
Angela Denise Robertson
Jessica Leigh Shrout
Shamicka Loretta Wheeler
Xiao Yun Yang
Matthew James Yousefzadeh

Master of Science in Physician Assistant Studies

Ellen Jill Greene
Mary Louise Halbritter
Hiatt Germa Taylor
Martha Rawlings Green

Master of Science in Rehabilitation Science – Speech Language Pathology

Danielle Nicole Andrews
Kristin Alison Angrisani
Christie Ann Dillard
Sarah Everton Studley
Laura McKenzie Haskell
Miriam Elizabeth Henderson
Megan Elizabeth Huey
Maggie Sanders Lewis
William J. Bryan Lewis
Lydia Mae Malloy
Courtney A. Marino
Iris Anne Marlowe
Kimberly Kennedy Martin
Lindsey Anne McWilliams
Abby Elizabeth Milner
Emily Ann Patterson
Jessi Ann Playdon
Laurie Frances Pollinger
Rachel Nora Prevost
Sarah Richrath Sheldon
Adrian Leigh Taylor  Joanna K. Wolff
Cara Robbins Traub  Amanda Lauren Wyse
Abby Kate Williamson

Master of Science in Nursing

Racheal Ahring  Amanda T. Haltiwalner
Meredith O'Neal Atkinson  Elizabeth W. Hamilton
Heidi Lynn Benavides  Laurie Dee Hipwell
Ashley L. Burleson  Barbara Ellen Knab
Erica Lynn Case  Bridget M. McLemon Sykes
Rebecca Emily Cummings  Ashley Noelle Miller
Meredith Nettles D'Agostino  Kathleen B. Price
Joanne K. Davidson  Susan Adkins Stabene
Patricia Lee Fisher  Erin Leigh Wilson
Terri Olivia Fowler  Meredith Blakeslee Wilson
Jennifer Marie Fox  Michael Siu-Zoen Wong

Master of Science in Biomedical Sciences

Emily Dawahare Denehy  Cameron Cole McIlwain
Christopher J. Giguere  Jill Mallin Nonemaker
Wesley Clinton Jackson, Jr.  Sandra Lynn Tye

Master of Science in Clinical Research

Olusola Alade Ajilore  Margaret Cooley Garin
Robert Neal Axon, MD  Monika Gupta
Andrea Denise Boan  John Parrott Whittle, Jr.

Doctor of Health Administration

James Wallace Coon, Jr.  David Paul Gehant
Tejas Rajendra Gandhi  George Mikitarian, Jr.

Doctor of Physical Therapy

Sarah E. Abel  Debora Drane Brown
Maggie Juanita Askins  Robyn Lindsey Caldwell
Ashley Caroline Baggett  Leslie Galutera Calub
Victoria Wood Baldwin  Caroline Elizabeth Carson
Michael Jeffrey Barr  Jessica Ashley Chambers
Erin M. Beasley  Vicki Wing Yan Cheng
Rachel Marie Beckler  Jennifer Leary Clark
Michelle Lee Benham  Shelley Lea Clayton
Kenneth Lester Biggs, Jr.  Christopher James Cobb
Heather Nicole Blackwell  Lindsay Beth Cobb
Valarie Blanton Huskey  Chris Allen Connor
Heather Lee Blum  Jessica Dawn Cook
Katherine Elspeth Browder  Kristin Courtney
Nicholas Erich Crosby
Susanna Rice Crosson
Ross Livingston Curnett
Cristian Iean Dailey
Frances Elizabeth Davis
Kelly Lynn Davis
Emily R. Devine
Jonathan Elgarico Dolutan
Harry B. Douglas III
Tauna Nicole Eaddy
Joanna Leigh Edeker
Jennie Elizabeth Ellis
Aaron Eugene Embry
George Wesley Floyd
Louise Martin Freeman
Marybeth Margaret Frick
Jessica Blair Frishberg
Wanda Lynn McGuirt Garris
Angel Dametrea Geddis
Eisa Williford Gemeinhardt
Jessica Leigh Grigg
Susan Marie Guthrie
Beth M. Hardin
Rebecca Ann Hayes
Teresa M. Hibbs
Mary Susan Hilliard
Katie Marie Hogue
Elizabeth Ashley Holzbach
Gena Darby Howlett
Heather Nicole Huff
Lindsey Mercer Hull
Melissa Anne Hutson
Laura Allison Johnson
Kristi Duke Jordan
Julie Kelly Robertson
Crystal Phillips Keown
Mary Ann Kettermann
Allison O'Neal King
Mindy Nicole Knight
Lisa Knott Walker
Sara Virella Kraft
Karlton Lamar Lawrence
Lesley Ann Lawrimore

DeAnna Nicole Lewis
John Christopher Lukowski
Cortnie Anne Mayfield
Quindolyn LaFawn McInnis
Corey Lynn Mize
Nathaniel Elliott Moore
Heather Marie Mote
Ryan Leigh Nash
Emily Elizabeth Olson
Lauren Rae Olson
Jennifer Johnson Patterson
Tina Kathleen Paysinger
Deborah Howard Pitts
David R. Poole
Christen Lauren Quinters
Wendy Rude Rampey
Sara Ivy Romansky
Marie Danielle Ross
Cheryl Elizabeth Sechriest
Sara Shields Selander
Jennifer Loren Self
Smruti Patel Shah
Leslie Allison Shields
Latosha Elizabeth Sinkler
Jessica Jeanette Skorzewski
Anna Lee Hays Smolen
Timothy Harold Stone, Jr.
Nekita J. Sullivan
Julie Siman Teiken
Kacie Taylor Terrell
Matthew Scott Thomason
Stephanie Allyn Thompson
Kristin Carlene Timm
Kelly Mackenzie Voets
Graham Clarkson Wade
Anthony Quay Walker
Laurie Jean Wallace
Matthew Michael Whitaker
Veronica McCraw Whitman
Brian N. Whittington
Allison Leigh Wood
Jessica Lee Wooten
Christine Marie Zohnen

Doctor of Pharmacy

Ryan Carroll Alexander
Christina Blanche Altman
Jonathan Thomas Babb
Kristina Maria Barone
Tiffany Ryan Bell

Emily Ann Bellebaum
Travis John Bemiss
Brooke D. Bivens
Brigid Mary Boehm
Shelly Jean Bratcher
Alyson Marie Browning
Lauren Elizabeth Burch
Teresa Monique Burks
Angela Turner Campbell
Leslie Jo Carriker
Joshua D. S. Coonce
Rachel Leigh Cromer
Timi Wardlaw Davie
Colette Lynn DePriest
Emily Allyson Dill
Jennifer Marie Dinwiddie
Carrie Lee Dowling
Brianne Lea Dunn
Karen M. Dupuis
Kristin Sandra Esber
Kristie Lynn Fleming
Matthew Kevin Floyd
Roger E. Foster II
Gary Thomas Fowler
Kimberly Sue Fraze
Leah Nicole Gonzalez
Lindy Driscoll Hall
Jennifer Erin Hardin
Emlyn Lee Harris
Matthew Lee Hatchell
Mark Ibrahim Kaldas
Jayme Bridges Kaye
Shae Matthew Keller
Kimberly A. Kelly
Joel Carlton Key
Jennifer Clare Kornblut
Sarah Marie Krish
Jonathan Ray Kulchuk
Heather N. Lees

DuSung Lim
Melissa Kay Maher
Amy Elisa Martinez
Malcolm Duncan Matheson
Kasey Lee McCray
Bethany Ann McKittrick
Brian Thomas Moore
James Paul New
Vu Hong Nguyen
Lindsey Alyson Palmer
Robin Elizabeth Parks
Yashika Suresh Patel
Jeb Stuart Perkins
Dana Kristanne Pompeo
Whitney Danae Raper
Laura Ridgway
Lisa Diana Robinson
Vanessa Ann Rogers
Jeffrey A. Sample
Adrienne Lucretia Sanders
Kristy A. Sarver
Brittainy Sentell
Bhumi Prakash Shah
Brandy Nichole Shetley
Mary Kathryn Stahl
Emily Louise Stegman
Benjamin Gerald Steifle
Sarah Elizabeth Stouffer
Ashley Correll Teusink
Amy Elizabeth Thames
Martha Elizabeth Benson Toussaint
Sabrina C. Valentine
Jennifer Eileen Watkin
Seth Ian Zeigler

Doctor of Dental Medicine

William Forrest Adair, Jr.
Margaret Elizabeth Alderman
Franklin Dean Allen Jr.
Anna DuPre Anderson
Michael David Barno
Jennifer Denise Britt
Joseph Eugene Brown, III
James Arthur Bruce
Kirkland Woodruff Clark III
Alison Sanders Cole
Alexis Pickens Collins
Erin Nicole Conard
Devang Harshad Desai
James W. Dickert, Jr.

Jamie Yates Driggers
Erin Elizabeth Edwards
Joseph Randall Esterley
Juan E. Faja-Fernandez
Norman Bradley Syrett Fine
Mary Elizabeth Forrest
Robert Marcus Fowler
Caroline Goldston Hartley
Antuan Latrell Herriott
Shelley Diane Irving
Andrew Toikka Johnson
Jin A. Kang
Blake Carson Kingsbury
Christopher L. LaTorre
Katherine Evangelia Renne/
Walter George Renne/
Brian Edward Rodgers
Margaret Rebecca Sanders
Barry Brandon Sello
Erin Rebecca Strong
Judson Lee Suber
Shea Mathew Tolbert
Doan-Trang Ngoc Vo
Neil Thomas Wrenn
Holly Wygul Wright

Doctor of Medicine

Tara Lynn Ahlberg
Michael Robert Aho
Sarah Ada Leatherman Allen
Fozail Imran Alvi
Kristie Elizabeth Appelgren
Ana Isabel Arias-Pandey
Erin McSwain Bailey
Sharmin Bashar
Emma Charlotte Batchelor
Luke D. Baxley, Jr.
Antionette Akia Bennett
Caroline Craig Billingsley
Brian N. Boland
William Peter Brehmer
Richard Brent Bridwell
Anthony James Broering
William Worthington Bulkeley III
Brantley Dantzler Busbee
Jaime Albert Campbell
Sarah Margaret Carter
Gregory Brian Caudill
Brian J. Chilelli
Lauren Leah Clanton
Joseph Capt Clarke
Khalilah Qadi/Clarke
Jack Wilson Cleland
Jonathan David Cohen
Portia Nate/cohens
Jason Bryan Coker
Woodrow Jenkins Coker III
Thomas Hamrick Coleman
Angela Sue Collier
Samuel Lewis Cooper
Christopher Michael Cutshall
Virginia Culyer Daughtery
Denny Sean Densmore
Margaret Elaine Dorlon

Carreen Elizabeth Drake
Michael Thomas Drake
Karl Leonard Ehrens
John Matthew Ferguson
Jennifer Marie Fernandez
Rebecca Hope Floyd
Parrish Danen Fry
Elisabeth Bowden Gabor
Matthew Thomas Garin
Irina Ellen Gault
Dan-Victor Giurgiutiu
James Aaron Grubbs
James Alan Henderson
Ebony Jade Hilton
Gina Iacobellia-Alderson
Patrick John Jebaily
Manasi Sinha Joshi
Bradley Scott Kalinsky
Ryan Adam Kalinsky
Erin Kimberlee Kastenschmidt
Amy Shannon Ketcham
Sherief N. Khalil
Monica Bo-Un Kim
Casey Harvey King
Peter Jennings King
McNeill Palmer Kirkpatrick
Jejo David Koola
Dean Bernard Kubacz
Dianna Flyer Kubacz
Laura Mesa LaBoone
Carlotta Jenkins Lalich
Christy Lee
Anthony Joseph Leoncavallo
Andrew Roper Lewis
Margaret Ruffin Lewis
Timothy Allan MacFall
Jonathan Walton Marsh
Katherine Sarah Mastriani
Jenna Kathleen Neil McCall
Guy Elton McClary, Jr.
Theodore Richardson McRackan
Ross McGuire Michels
Richard W. Monk
Lara Wear Moody
John Christopher Lee Morris
Melissa Maria Mueller
Denny Richard Myers
Ryan Harrison Nobles
Meredith Cates Northam
Jonathan Iva/n Osorio-McKenna
Naval Girish Parikh
Ashwin Viren Patel
Rakesh Patel
Chrystal Marjenhoff Pauley
Walter Hamilton Peters IV
Adam William Powell
Katie Grubbs Price
Brittany Nicole Ray
Catherine Ridings
Rachel Beth Rosansky
Haley Cody Rowland
Sara Christina Sadreameli
Larissa Marie Saldana
Sarah Anne Sandberg
Jack Friedman Scheuer III
Mark Lindeman Schwepe

Katherine Michelle Seawright
Todd Nathanial Senn
Robert Lauren Shapiro
Sachin Sheth
Jacqueline Marie Smith
Jonathan Michael Snipes
Eugen Stancut
Joni LaChon Strom
Zachary Blaine Stroud
Laura Lee Stuart
Brigid Eileen Sullivan
Julie Miller Swick
Bryan Kendall Thomas
Amanda Marie Turbeville
Ronald Coleman Turner, Jr.
Zeke Jonathan Walton
Thomas Justin Way
John Rouse Weathers
Sean Patrick Whelan
Kellese Cheron Williams
Nolan Williams
Charla Jean Wofford
Caroline Felder Wooten
Justin J. Wright
Amit Ramesh Yajnik
Genevieve Yancey
Mary/Shell Brosche Zaffino
Alexei Michailovich Zhdekevich

Doctor of Philosophy

William J. Berglind
Sarah Gail Bradshaw
Rebecca Suzanne Bullard
Kristen Sarah Johnson Foster
Brian David Hoel
Virginia Jackson Howard
Michelle Hui-Ming Hsia

Miran A. Jaffa
Christine Leigh Keogh
Ryan Robert Monfeli
William Kennemur Mountford
Andrew Robert Sas
Alicia Jean Saylor
Adam Lee VanWert
Shai White-Gilbertson

Doctor of Medicine and Master in Health Administration

Mikki Amber Gist

Doctor of Dental Medicine and Doctor of Philosophy

Megan Marie Kibbey
Jonathan Mark Mitchell
Doctor of Medicine and Doctor of Philosophy

David Darrell Arrington
Mary Lee Gregory
Gregor Krings

John M. Shea
Laura Simmons Spruill
Brice Jason Williams
Center for Functional Outcomes and Reconstructive Biotechnology

The Center for Functional Outcomes and Reconstructive Biotechnology is a multidisciplinary center dedicated to the evaluation of the functional recovery of patients treated for head and neck cancer, trauma, and craniofacial defects. The Center's mission is to improve the quality of life and function of patients afflicted with head and neck cancer, trauma, or craniofacial defects through discovery, application, clinical efficacy, and outcomes research. The Center structure bridges basic scientists with clinical scientists to facilitate the development of innovative technologies in the focus areas of oral function assessment, 3D imaging, biomechanics, tissue surface interfaces, tissue engineering, and gene therapy. Future goals include the evaluation of functional recovery of patients treated with complex dental treatments.

The MUSC Center of Functional Outcomes and Reconstructive Biotechnology is closely tied with Clemson University's Institute for Biological Interfaces of Engineering (IBIOE). The IBIOE is a state-approved, multi-institutional research institute dedicated to the development of clinically relevant biomaterials technology and products for disease management and the transfer of this technology for patient care through leading biomaterials-related education, research, and training. Technical focus areas of the Institute are advanced biomaterials, human centered electronic collaborations, engineered tissues and tissue diagnostics.

The focus of the Center for Functional Outcomes and Reconstructive Biotechnology is to develop an evidence based center on the functional outcomes of patients treated for head and neck cancer, trauma, and craniofacial patients. Currently there exists insufficient evidence to support the functional significance of routinely applied rehabilitative treatments. Anecdotal and small cohort studies speak to the potential for improved patient function and quality of life, however the empirical data are lacking. This lack of data is in large part related to the difficulty in structuring multidisciplinary testing, treatment, and research efforts.

Treatments for head and neck cancer currently include surgery, radiation, and/or chemotherapy. However, there has not been extensive investigation into treatment options and functional outcomes. Head and neck cancer is one of the most devastating forms of cancer with high functional morbidity. Bodily functions such as speaking, swallowing, and chewing, taken for granted by the general population, are often dramatically impaired in head and neck cancer survivors. For many years, these patients were known as the "forgotten" patients. With the advent of free tissue transfer, the use of dental implants, new speech and swallowing treatments, the rehabilitation efforts have significantly increased and improved. Rehabilitation treatment, however, is usually dictated by "clinical experience" rather than evidence based studies. Similarly, treatments for head and neck trauma and craniofacial defects are dictated by the experience of the clinician versus evidence based studies. Our goal is to develop a mechanism to collect and analyze outcome data in order to measure the functional recovery of patients treated for head and neck cancer, trauma, and craniofacial defects. Tested, existing methods will be used to obtain the functional data and the outcome
results will lead to discoveries regarding necessary modifications to current testing methods, medical therapies, rehabilitation approaches, and to the development of innovative rehabilitation technologies and treatments.

The Center will bridge the known strengths of the clinical and research programs of the Head and Neck Cancer Center in Hollings Cancer Center, the MUSC Evelyn Trammell Institute for Voice & Swallowing in the Department of Otolaryngology and College of Health Professions, and the College of Dental Medicine. The center will house multi-specialists including head and neck surgeons, facial plastic and reconstructive surgeons, radiation oncologists, chemotherapists, speech pathologists, oral and maxillofacial surgeons, dentists, and maxillofacial prosthodontists. The anticipated benefit to patients’ function and quality of life will be significant. The results of this research will primarily benefit the overall quality of life of our patients and their families. They will be able to make informed treatment decisions based on evidence regarding their potential for functional recovery. In addition, the collaboration between specialists and the data that will be gathered will help identify those key factors that will be critical in determining the functional outcomes of patients related to the type of head and neck cancer treatment.

**Resources Required:** Initial startup costs will be from grants and private donations. $50,000 from the U24 Grant from the College of Dental Medicine has been obtained. Clemson University matched the $50,000 to purchase the Mimas software. Over $45,000 has been raised in private funds. Key industrial partners have been identified and we are currently working with the College of Medicine Development department (Dr. Terry Stanley) for solicitation of industrial partners and private donations. We have worked with the College of Dental Medicine Development department for a $1 million proposal for the Craniofacial Osseointegration portion from Nobel Biocare (As of today, it has not been funded). Future plans include working with Clemson University’s Dr. Karen Burg and their development department. Space for the Center has been submitted to Dr. Richard Swaja for the Bioengineering building. A letter of support for the Center has been submitted by Dr. Richard Swaja. Letters of support have been obtained from Dr. Karen Burg, Dr. Paul Lambert, Dean John J. Sanders, Dr. Terry Day, and Dr. Bonnie Martin-Harris.

Sustainability beyond the two year period of the U24 should be accomplished through funding of additional studies. These studies will provide the necessary infrastructure to develop an evidence based functional outcomes center. The data and developments resulting from the initial two years of operation will lead to the funding of future research proposals including: continuing or new R21 and R01 awards by the researchers involved in the outcome center infrastructure. There will also be mentoring opportunities for residents, post-docs, fellows, and new investigators supported by career development awards.
PROGRAM PLANNING SUMMARY

Name of proposed program: PhD in Health and Rehabilitation Science

Academic Unit: Medical University of South Carolina, College of Health Professions, Department of Rehabilitation Sciences

Designation, type, level of degree: Doctor of Philosophy

Proposed Implementation Date: Fall 2009

CIP Code: 51.23, Rehabilitation and Therapeutic Professions

Program Identification: New

The College of Health Professions (CHP), Department of Rehabilitation Sciences at the Medical University of South Carolina (MUSC) proposes to offer a new post baccalaureate degree program, an interdisciplinary Doctor of Philosophy in Health and Rehabilitation Sciences. The Department of Rehabilitation Sciences currently offers two Master of Rehabilitation Sciences Degrees, one with an emphasis in Occupational Therapy and the other in Communication Sciences and Disorders. A Doctor of Physical Therapy degree is also offered. The three degrees are all professional entry level degrees as is required by each profession’s accrediting agency. The proposed PhD will be a minimum of 90 SH post baccalaureate research degree and will primarily draw students from rehabilitation professional programs currently offered and from other disciplines relevant to rehabilitation, such as, athletic training, sports medicine, bioengineering, and nutrition among others.

Proposed Date of Implementation: CHP and the Department are prepared to offer the program and enter students for the fall 2009 semester, pending approval by the Commission on Higher Education.

Justification of Need for Program: The purpose of this interdisciplinary PhD in Health and Rehabilitation Sciences is to develop research scientists and scholars who, through their leadership and research will contribute to the knowledge base of health and rehabilitation sciences and who can serve as future faculty in professions where there are documented faculty shortages. There is a critical need to develop such scholars so that South Carolina can be positioned as a national leader in the emerging field of rehabilitation sciences. South Carolina mirrors national trends with approximately 17% of the population having at least one disability or activity limitation. A corresponding trend in SC and the nation is the increasing prevalence of chronic medical conditions that lead to disability. This trend is expected to continue in the state and nationally as the aging population increases and the rates of obesity and diabetes continue to grow. South Carolina is expected to continue to be a retirement destination with a resultant growth in the number of persons over the age of 65. Thus, the disability issues related to chronic disorders will continue to be a major health concern. Recent landmark reports by the Institute of Medicine (IOM) state that there is a critical need to develop scholars and to build infrastructure in the health and rehabilitation sciences.
The World Health Organization defines health as “not merely the absence of disease and infirmity but a state of complete physical, mental, and social well-being”\(^1\). The IOM defines Rehabilitation as “the process by which physical, sensory, or mental capacities are restored or developed through both function change in the person and changes in the physical or social environments” (p.3)\(^2\); the IOM defines Rehabilitation Sciences as “a field of study that encompasses basic and applied aspects of the health sciences, social sciences, and engineering. It is the melding of knowledge from several disciplines to understand the fundamental nature of the enabling-disabling process”\(^3\). The IOM model factors in the person's functional needs as well as the environmental modifications needed to facilitate functional independence and improve quality of life.

**Anticipated Program Demand and Productivity:** Initially, 3-5 students will be accepted annually. The number is deliberately small to ensure that adequate resources are available to support the development of a quality program. Slow and incremental growth in student numbers will occur as the program is fully implemented and additional funding opportunities are secured. The anticipated start date will be fall semester 2009. After the first three years, the admission of 5-10 students each year would be expected, building to a total of 15-20 students.

CHP conducted an internal needs assessment, surveying 893 people (803 students, 61 faculty members, and 29 clinical staff members), with a response rate of 12%. Sixty-three people responded that they would consider enrolling in a PhD program in health and rehabilitation science, with 24 rating their interest as high and 34 rating their interest as somewhat high. Nationally, the IOM has called on universities with existing programs in disciplines related to rehabilitation science to develop doctoral and postdoctoral degree programs to meet expanding research needs.

Prospective students will have completed a bachelor’s or master’s degree that offers background and preparation in areas such as functional limitations, disability issues, pathology and impairment. Prospective students will be expected to have earned degrees in such areas relevant to rehabilitation as preparation for gaining expertise to engage in research, education and health delivery services in rehabilitation sciences.

**Assessment of extent to which program duplicates existing programs in state:** The Department of Rehabilitation Sciences is the only academic unit in the state that has a principal focus of educating graduate level rehabilitation sciences health professionals. The proposed program is consistent with the mission of the CHP, which “seeks to improve the health of South Carolina residents through research and by educating health professionals involved in all phases of the complex art of healing and restoring the human body.” Located within an Academic Health Center, the CHP is uniquely positioned to bring together resources in the health care


and research areas. The proposed program also is consistent with the mission of MUSC of “preserving and optimizing human life in SC and beyond by providing an environment for learning and discovery”.

**Relationship of the proposed program to existing programs at the proposing institution:** The proposed PhD Degree will be offered with the College of Graduate Studies. Students will have the opportunity to take courses with other students from research-based master and doctoral programs. The relationship with the College of Graduate Studies greatly increases the number of potential faculty mentors and advisors for students, and enhances the program’s ability to partner and collaborate with other disciplines critical to the study of rehabilitation sciences. The CHP has a Center for Health Economics and Policy (CHEP) and a Program for Movement, Exercise and Rehabilitation Research, which will provide critical components for the study of rehabilitation outcomes, effectiveness and efficiency.

**Relationship of proposed program to other institutions via inter-institutional cooperation:** MUSC and Clemson have partnered to create a bioengineering presence on the MUSC campus. An area of increasing importance is rehabilitation engineering that represents the interface of rehabilitation sciences and bioengineering. It is anticipated that a concentration area of the proposed program will incorporate Clemson bioengineering. Curricular and research partnerships will be developed and implemented with the School of Public Health at the University of South Carolina to integrate core elements essential to rehabilitation sciences, such as, exercise science, athletic training, and nutrition that are not currently strengths on the MUSC campus.

Currently there are approximately 12 research based doctoral programs in rehabilitation sciences in the United States. The closest programs geographically that are in existence are at University of Florida and University of Kentucky. Both of those programs are deliberately small in numbers and are not able to fulfill the demand for advanced study in rehabilitation sciences.

**Total new costs associated with implementing the proposed programs (general estimates):**

No new funds from the state are being requested for the proposed PhD program. The MUSC and CHP are prepared to invest resources initially to ensure the financial viability of the program. Research and training grants received by the CHP faculty should provide some support for curriculum development and research assistants. The CHP will apply for federal funds presently available for doctoral education in rehabilitation sciences.

Faculty will be drawn from within the Department of Rehabilitation Sciences, the CHP and university. The Department currently is searching for one research faculty member to add to a core of currently funded faculty with a research focus. One of our current faculty members will be named program director to bring the expertise and devote the necessary time to ensure the success of the program. Personnel costs for faculty will be the major expense for the proposed program. A program director will be named for 50% time initially devoted to program implementation and administration. Additionally, six rehabilitation sciences faculty members will be assigned to the program for a portion of their workload. Total faculty salary costs are expected to be approximately $221,000 for year one.

The dean will invest $1,000,000 to develop research and training laboratories in rehabilitation sciences. These laboratories will be essential for the department to build the research agenda and doctoral program.
FACILITIES

ACADEMIC/RESEARCH

ESTABLISH PROJECT

FOR APPROVAL

May 15, 2008

PROJECT TITLE: 3T MRI Installation at 30 Bee Street

PROJECT NUMBER: 51174

TOTAL ESTIMATED BUDGET: $260,000

SOURCE(S) OF FUNDS: Department of Neurosciences Research Indirect Cost Funds

JUSTIFICATION: The current project was initially established below the Board of Trustees approval threshold of $250,000 and involves the installation of a new Siemens 3T MRI on the first floor of 30 Bee Street. The project is close to completion and the opening created in the building to accommodate the equipment needs to be enlarged. This addition in scope of work results in a total project cost of $260,000.
FACILITIES

ACADEMIC/RESEARCH

BUDGET INCREASE/PROJECT SCOPE CHANGE

FOR APPROVAL

May 15, 2008

PROJECT TITLE: College of Health Professions Building “C” HVAC Replacement

PROJECT NUMBER: 9786

CURRENT APPROVED BUDGET: $ 500,000

TOTAL REVISED BUDGET: $ 600,000

SOURCE(S) OF FUNDS: Institutional Capital Project Fund (University Excess Debt); and University General Institution Funds

JUSTIFICATION: This project is for replacement of the College of Health Professions (CHP) Building HVAC system. The CHP Building is located at the corner of President and Bee Streets. The original scope of work included replacing the air handler, adding a boiler to provide hot water for new preheat coils, providing a new outside fresh air supply, installing VAV boxes on floors 1-3 with associated duct changes, and self-contained controls.

The project was approved by the Board as part of the FY07 Capital Budget. Five (5) bids were received in response to an initial advertisement for construction services. All of the bids were higher than the budget would allow, (ranging from $690,032 to $738,500). The scope of work was reduced, eliminating the VAV boxes and associated duct work, and re-advertised. A second round of bidding resulted in a total of three (3) bids. The low bid still requires the addition of $100,000 to the original budget to proceed with the work. The low bid is $454,898 and the balance of the $600,000 needed is for design fees, other soft costs and contingency. The project scope cannot be further simplified, and construction costs continue to escalate. Re-advertisement would only result in time delay and higher costs.