

**Recommendations of the Research Advisory Committee on  
Organization, Administration and Governance of Research  
at the James H. Quillen College of Medicine**

**I. INTRODUCTION**

The Quillen College of Medicine (COM) is committed to excellence in biomedical research with the goal of improving human health. While excellence in teaching the fundamentals of medicine is the primary mission of our College, innovative research expands our knowledge of disease processes and therapeutics. The pursuit of excellence in research is a hallmark of outstanding colleges of medicine and assures the delivery of cutting-edge medical knowledge to medical students.

The COM has many notable achievements in research in its relatively short history. Several of these fall into specific areas of research that are disease-based. In order for the COM to continue to grow in research, Dr. Philip Bagnell, Dean of the COM has recognized that it is a unique time point in the history of our college to reexamine and reevaluate the organization of our research programs at the COM, with the long-term goal of improving our research environment. In the fall of 2010, Dr. Bagnell organized the Research Advisory Committee (RAC) on the Organization, Administration and Governance of Research at the COM. This committee was charged with providing recommendations to the Dean on the reorganization of the COM's research enterprise, including commentaries on positive and negative effects of reorganization on the research, educational, and service missions of the COM.

In developing its recommendations, the RAC considered the unique environment of the COM at ETSU, including its close proximity to other colleges within the Academic and Health Sciences Divisions. The RAC recognized that organizational change can be an extremely powerful tool to enhance our research productivity, but that it may be wise to change incrementally over time so that appropriate adjustments to unanticipated difficulties can be made without disrupting the trajectory of the COM for an expanded research mission. A brief timeline for implementing the proposal is provided. The RAC recommends that an advisory committee, which could be the current RAC, continue to operate in its advisory capacity through the process of change in organizational structure as proposed. In addition, the RAC emphasizes the need for continued updating of priorities and for developing comprehensive strategic plans for research at the COM in the future.

The summary recommendation of the RAC, based on the Dean's initial charges, is that the administration of research transition from the current department/disciplinary organization to a center/disease based organization. This restructuring would involve merging disciplinary departments and creating research centers focused on specific diseases and/or therapies. It is noteworthy here that this recommendation is divided into three sections, i.e. creation of the Office of the Associate Dean for Research and the position of Associate Dean of Research, creation of research centers and positions of Center Director for each center, and merging of the present basic science departments to a single Department of Biomedical Sciences. Suggestions for how

these three entities should interact are included below. Theoretically, each one of these three recommendations could stand on its own, without implementation of the other two, although modifications to the individual plans would be required. For example, centers could be created without merging the basic science departments, or an associate dean of research could be hired without the merger of departments and/or without the creation of centers. However, the RAC highly recommends implementation of all three parts of the plan in order to place the COM in the strongest position for growth in research.

## **II. CREATION OF THE OFFICE OF THE ASSOCIATE DEAN FOR RESEARCH (ADR) IN THE COM**

A commitment to significantly enhance the sustainability and future growth of the research enterprise at the COM requires an investment in research administration. The RAC recommends the establishment of an Office of the Associate Dean for Research (ADR). The ADR would serve as a catalyst and guiding force as the College of Medicine (COM) embarks on the development of a stronger and more focused research initiative. A primary role for the ADR would be to support and sustain programs and activities to increase faculty participation in research with an emphasis on collaborative, interdisciplinary and translational efforts. The ADR should serve as a resource for COM faculty seeking to develop strategic research initiatives and respond to emerging opportunities. The following narrative points are meant to provide recommendations for the specific roles that the ADR would play in the furthering the research mission of the COM.

**II.A. The ADR would be committed to developing a strategic plan for recruitment and retention of faculty to centers of research.** The Associate Dean for Research (ADR) would work with the Dean, center directors (CDs) and chair of the biomedical sciences (CBS) in strategic planning for the following areas related to recruitment and retention of faculty.

**1. Research growth.** The ADR would be primarily responsible for identifying areas of growth that would benefit the research enterprise within the COM, and advocate faculty recruitment into these growth areas.

**2. Focused research.** The ADR would be committed to recruitment of outstanding new faculty with research expertise that complements the anticipated areas of growth within the COM.

**3. Research mentorship.** The ADR would work collaboratively with CDs and the CBS to promote the development and advancement of faculty through a program targeted to and tailored to the specific needs of junior faculty.

**4. Research environment.** The ADR would develop a plan that would nurture and cultivate junior faculty to become the next generation of academic leaders.

**5. Retention of productive researchers.** The ADR's plan should increase the retention of current faculty talent through development of opportunities specific to active research faculty, *i.e.* incentive programs, sabbaticals, etc.

**II.B. The ADR would play a key role in developing a mentoring plan for faculty researchers.**

The ADR, through collaboration with the CBS and the Dean of Academic Affairs, would establish a faculty mentoring program to assist newly appointed COM faculty. This

program would be expected to cover the range of activities of a faculty researcher and tailored to suit the individual faculty member. Areas of mentorship would include teaching, research, service, clinical practice, and administration depending on the individual. The ADR would be expected to contribute primarily to the development of the research portion of this mentoring program, including development of research proposals and a research program. As part of the process, it is expected that the ADR would actively assist in pairing established researchers as mentors for newly appointed faculty members. The mentors would acclimate new faculty members to issues related to research such as internal support mechanisms, core facilities, intellectual property policies, networking, potential collaborative research opportunities available through the various Centers, and balancing these endeavors with other academic responsibilities such as teaching. The early preparation and submission of a joint mentor-mentee extramural proposal could be considered as a voluntary first year goal of a research mentoring program. UC San Diego has an excellent general [mentoring program](#) and the Division of Research at Florida Atlantic University has [a pilot research-mentoring program](#) detailing very specific guidelines for promoting joint mentee-mentor research proposals. These existing programs could serve as excellent guides in the development of such a program at the COM.

**II.C. The ADR would be committed to increasing collaborations with ETSU researchers outside of the COM, and with researchers at the VA and other area teaching hospitals.**

The ADR would act as a liaison to the University Vice Provost for Research and represent the COM in University-wide activities relating to the research mission. The ADR would be expected to cultivate research partnerships with other University units and with academic and non-academic research entities outside the University. These partnerships would include collaborative efforts between the COM and the College of Pharmacy, the College of Nursing, the College of Public Health, Arts and Sciences (e.g., Biological Sciences and Chemistry), and the VA. This would entail bringing investigators with common interests together as well as identifying research opportunities that draw upon the expertise of investigators from the COM and various other components of the University. This would be an important step in expanding clinical trial research, particularly Phase I trials where input from the College of Pharmacy and Clinical Research Nurses would be critical.

The ADR would play an active role in communication, interaction and cooperation between our clinical partners/hospitals, e.g. the VA and MSHA, in order to expand collaborative clinical/translational research and enhance funding opportunities. The ADR would work closely with the Office of the Vice Provost for Research and Sponsored Programs since this office oversees many activities that critically impact the COM research efforts. ETSU is also a member of the [Oak Ridge Associated Universities](#) (ORAU), which could provide unique collaborative opportunities with national laboratories, federal agencies, other educational and governmental entities, as well as the private sector. [The Wake Forest University Translational Science Institute](#) could also be a valuable resource in COM efforts to promote translational research within regional academic institutions (also see below).

**II.D. The ADR would facilitate translational research at the COM.**

Increasing barriers between clinical and basic research, along with the ever the increasing complexities involved in conducting clinical research, are making it more difficult to translate new knowledge to clinical practice. Clinical and Translational Science Awards (CTSA) were created by the National Institutes of Health to assist institutions to create transformative, novel, and integrative academic homes for clinical and translational science that have the resources to: 1) advance, and nurture well-trained multi- and inter-disciplinary investigators and research teams; 2) create an incubator for innovative research tools and information technologies; and 3) synergize multi-disciplinary and inter-disciplinary clinical and translational research and researchers to catalyze the application of new knowledge and techniques to clinical practice at the front lines of patient care.

The RAC recommends that the ADR be charged with facilitating translational research within the College. However, the *de novo* development of a translational research program in the College is not deemed prudent because of the enormous resources required. Nevertheless, the ADR has a unique opportunity to facilitate translational research within the College. Specifically, ETSU is a member of the Wake Forest Translational Science Institute (TSI) that provides ETSU faculty eligibility for all TSI pilot funding opportunities, a study coordinator pool of the participant and clinical interaction resource (PCIR) and educational opportunities in the areas of clinical research design, implementation, and compliance for ETSU investigators and study staff. The Vice Provost for Research and Sponsored Programs at ETSU is a member of the TSI's Internal Advisory Committee, and a subcontract to the COM is in a current CTSA application to NIH from Wake Forest. If the ETSU-Wake partnership matures as expected, it is anticipated that key ETSU research faculty will receive adjunct faculty appointments at WFU through the TSI.

**II.E. The ADR would work collaboratively with clinical chairs, the CBS and CDs.**

The CBS and CDs would meet on a regular basis with the ADR to assure maximum cooperation and synergy. Recommendations to the Dean of the COM for the distribution of resources, indirect costs and research space to faculty would be a responsibility of the ADR, and these recommendations would result from a collaborative leadership process involving input from clinical chairs, the CBS and CDs. The ADR would provide input to the Dean of the COM regarding suitable candidates for center leadership.

**II.F. The ADR would be responsible for research infrastructure management, including insuring the effectiveness of centers and core facilities.**

The ADR would work with the Dean and CDs to develop a strategic plan to support the growth of basic, translational and clinical research within the COM. Included within the strategic plan would be:

- establishment and development of research centers within the COM (see Section III below),
- establishment and implementation of policies and procedures for fiscal and leadership responsibilities within the research centers, and other resources developed to promote and enhance the COM research enterprise,
- a comprehensive plan to maximize effective utilization of research space,

- a comprehensive plan for the effective management and utilization of existing core equipment and facilities, and
- development of evaluation mechanisms to identify what works, and to correct or discontinue what doesn't work.

As a result of this strategic plan, the RAC anticipates that recommendations to the Dean of the COM for the distribution of research resources, indirect costs and research space to centers would be a major responsibility of the ADR. This would place the ADR in a pivotal and accountable position for management of the COM research enterprise. Additionally, scientific core facilities should fall under the management of the ADR. At present, there is one staffed core facility and several pieces of major equipment, e.g. flow cytometer, electron microscope, that are currently identified as core facilities. While the Molecular Biology Core Facility is well run and staffed, most of the other facilities do not have full time staff and there is no coherent plan for full-time operation and/or maintenance of the equipment encompassed by these individual facilities. A key aspect of this plan should be the continued maintenance, i.e. service contracts and staffing, of essential equipment/facilities. The ADR should consider whether the COM research mission is best served by maintaining multiple core facilities or whether all core equipment should be under the supervision of a single core facility.

#### **II.G. The ADR would annually evaluate COM research activity.**

The RAC recommends that the ADR make an annual evaluation of the research environment within the COM. This would include an evaluation of the yearly, as well as overall, performance of research centers and their respective directors. This could be accomplished using something similar to the FAP/FAR/FAE process or the new evaluation rubric that provides a detailed and quantitative mechanism for the evaluation of faculty research activity. The ADR would present the findings to the Dean and would meet with the CDs to discuss current and future progress. Details of the evaluation process are found in Section III.D below.

Likewise the leadership performance of the ADR should be evaluated. Hence, the RAC recommends administrative review of the ADR, using the same process that is currently applied to other leadership positions at the COM.

#### **II.H. The Office of the ADR would manage research information for the COM and effectively communicate this information to the COM, its collaborators and the public.**

The ADR would establish a database of ongoing COM research efforts and activities, and technical and knowledge capabilities of COM researchers. This should also include descriptions of unique and/or costly equipment and core laboratories. The ADR would develop and implement standards and practices of clinical and basic research that are consistent with current NIH OSRI guidelines. The ADR would also develop/maintain a data collection infrastructure that is consistent with current FDA regulatory process standards.

Communication skills are essential for success in the biomedical sciences. The ADR would promote research communications by helping to promote the development of CME approved research seminars/journal clubs that are sponsored and organized by the individual research centers. A COM research news website would also help in highlighting the COM research accomplishments and act as a focal point for print and

broadcast reporters. In this same vein, the ADR should actively promote the accomplishments of ETSU researchers to the media both locally and nationally. Obviously, the ADR would work through the ETSU Office of Media Relations for communications with the community.

**II.I. The role of the ADR in facilitating research at the COM would be complemented by the establishment of a research advisory committee.**

The RAC recommends that the ADR would benefit from regular interactions with an advisory committee. This committee could be the RAC as currently seated but advising the ADR rather than the Dean, or a similar committee as appointed by the Dean in consultation with the ADR. It is expected that the advisory committee would have membership that would adequately represent the various centers and academic disciplines, although it is recognized that representation from all academic disciplines at the COM would create an unwieldy committee size. There are a number of potential advantages to providing the ADR with such a committee, including but not limited to providing unique insights into the thought process behind the development of recommendations for role and responsibilities of the ADR position, as well as direct knowledge of the current state of research within the College. We recommend that the ADR's research advisory committee serve constructive advisement to the ADR for whatever period is deemed necessary and/or prudent.

**II.J. The position of the ADR would be filled by an experienced researcher and research administrator.**

The position of the ADR is extremely important to future of research at the COM. The individual in this position must have the skills and experience necessary to move the COM forward in research, and to do this even during the existing difficult period of time for obtaining funding from national and private funding agencies. The qualities of an ideal ADR candidate should include:

- a background commensurate with an appointment at the rank of Professor in a medical school,
- high level administrative experience in research within a biomedical environment,
- history of successful grant funding, particularly NIH funding,
- a record of service on national and/or international grant review committees,
- strong publication record,
- history of mentoring research faculty, and
- a commitment to growth of basic, clinical, interdisciplinary and translational research at the COM.

**II.K. The Office of the ADR would require financial and human resources to fulfill its mission.**

Given the current financial constraints, it is unlikely that new resources, *i.e.* financial or personnel, would be available for the ADR, at least in the short term. However, it may be possible to effectively re-distribute existing resources to the ADR and the Research Centers.

With regard to financial support for the ADR, there are two potential sources. First, a portion of the indirect costs from research grants and contracts should be made available to the ADR. The percent of indirects that would be dedicated to the ADR should be negotiated with the Dean. It must also be kept in mind that some of the indirect costs must remain with the centers if this new infrastructure is to work. Second, a portion of the MEAC dollars that have previously gone to the basic science departments should be made available to the ADR. These funds should be used to run the ADR's office and, more importantly, to advance the research agenda within the COM. With regard to personnel, the ADR would require a clerical and administrative staff to effectively perform the job. The simplest and most cost effective approach is to re-assign administrative and clerical staff that are currently working within the basic science departments. Specifically, if the basic science departments are dissolved there would be administrative and clerical staff from those departments who can be re-assigned to the ADR, with the remainder being re-assigned to the CBS of the merged basic science department and to the Research Centers. Using this approach the ADR and the centers would have staff that are familiar with ETSU, the COM and the research enterprise. It would also have the added benefit of not causing job losses among the staff.

### **III. THE CREATION OF RESEARCH CENTERS AT THE COM**

The RAC recommends the formation of centers focused on specific areas of research, whether upon a disease or common group of diseases, or on therapeutics for a disease or group of diseases. Centers differ from departments in that they are multidisciplinary in nature and provide an infrastructure for cross-disciplinary fertilization of ideas. It is anticipated that creation of centers at the COM would increase the quality of the research environment, foster translational science, foster career advancement of COM faculty, permit a more rapid expansion of the COM research enterprise, and increase faculty productivity in research. In general, a research center should promote:

- a multidisciplinary approach to research
- collaborative work in an area of mutual research interest (i.e. the central research theme)
- sharing of ideas, research, and core resources (i.e. equipment, labs/facilities, administrative services, etc)
- leadership by CDs with experience and capability in research and program direction/administration
- regular meetings of participating researchers to share ideas and findings
- interrelatedness of projects within a center that collectively advance knowledge in research area and progress in meeting center objectives
- a synergistic research environment, i.e. research achievement that would not be obtainable if individual research projects were completed separately without the formal interaction that a center provides
- faculty and staff development related to central research theme

- communication of findings and progress in advancing knowledge and objectives around the central research theme (i.e. presentations, publications)
- successful funding of grant applications

These qualities of centers are consistent with the recommendation for the development of the Office of the ADR and would form an initial infrastructure to facilitate the mission of the Office.

The RAC makes the following recommendations with regard to the development of research centers at the COM. The assumption made by these recommendations is that there would be an Office of the ADR and a single BMS department. However, it is noteworthy that the development of research centers does not require that these other two entities be created.

### **III.A. Identification of focused centers based on research activity and extramural support.**

The process for identification of research focus areas should be a multi-step process based heavily upon current COM research strengths, with emphasis on extramurally funded research programs and their potential for sustained success. In addition, the research interests of COM faculty and projected areas of interest for federal funding agencies, particularly NIH, should be given consideration. After an initial review of current COM faculty funding, the following areas of research are those that should be considered for future establishment of centers:

- Cardiovascular Biology
- Neuroscience
- Infectious Disease
- Cancer
- Inflammatory Disease

It is recommended that initial centers be identified by a committee composed of externally funded COM research faculty and chaired by the Associate Dean for Research (ADR), which would make recommendations to the Dean of the COM. To facilitate this process, it is recommended that the committee identify all externally funded COM research projects over the last three to five years using data from Research and Sponsored Programs. It is essential to build funding history over the last 3 years into the analysis so that the committee and ADR can predict the sustainability of each center. Since faculty outside of the COM are likely to participate and make valuable contributions to centers, research activity and funding at ETSU but outside of the COM should be taken into consideration. The committee should also consider current funding initiatives at NIH, CDC and NSF to determine which funded research areas/projects at the COM have potential for long-term viability. A web-based questionnaire to ALL COM faculty would be helpful to identify grant funding and active research that may have funding sources not known to the ETSU Office of Research and Sponsored Programs, or missing from their database.

**III.A.1. *Minimum criteria for initially establishing centers.*** The RAC recommends that specific funding criteria be used to define initial centers. Formation of a center would require participation of greater than four funded COM PIs with greater than four discrete externally-funded grants and a combined total of >\$500,000 direct

costs of external funding/fiscal year. It is also important that, if possible, centers be relatively balanced with regard to grant funds currently held by participants.

Note that division of available resources between a large number of centers may lead to the failure of all. The RAC recommends that the COM is unlikely to be able to support more than three viable centers based on current external research funding. However, it is critical that the COM maintain at least two different active centers, so that a major change in research focus at NIH (or other federal agencies) does not jeopardize research funding throughout the COM.

**II.A.2. Center mission and goals.** It is essential that the detailed mission and goals of each center be established when it is created. The director of each Center should be responsible for establishing the mission and goals. In general, the primary mission of each center should be to establish, maintain, and foster biomedical research at the College of Medicine and the Division of Health Sciences. This should be accomplished by facilitating the research career development of clinical and basic science faculty through individual and group mentorship, by promoting research that cuts across traditional disciplinary boundaries in the COM and extends to other colleges of the Health Sciences, by increasing individual and programmatic grant funding, and by fostering research education. The RAC recommends that an important five-year goal of the ADR and CDs should be to establish centers as Centers of Excellence as recognized by the Tennessee Board of Regents.

**III.A.3. Center membership.** Membership of centers by all research-oriented COM faculty, whether based in a clinical department or in the basic science (BMS) department, is expected to be voluntary but strongly encouraged. After specific centers are defined, the Office of the ADR and its advisory committee could administer a Web-based questionnaire to ALL ETSU faculty to determine faculty that wish to participate in each center. Dual membership in centers is likely because many faculty members have research activities that are broad. The RAC recommends consideration for the award of membership status for individuals who become members of a center. For example, if a Center for Cardiovascular Biology is formed, members of this center could be considered "Scientists". Academic rank could be added to this label, with Assistant Scientist, Associate Scientist, and Senior Scientist representing the academic ranks of professorship. Alternatively, voting rights for major expenditures in a Center might be guided by funding status, since funded members would be expected to be contributing more dollars to Center budgets (through indirect cost returns) than unfunded members. These Center appointments would be in addition to traditional academic appointments in the basic or clinical departments.

*Potential problem:* Some RAC members felt that there may be some faculty members who choose to "opt out" of joining centers. In this case, there was an opinion that there should be research funds set aside to be administered by the CBS to support researchers not belonging to a center. Some researchers with heavy teaching loads might also "opt out" of joining a center because of conflicting expectations of the CBS and the ADR and CDs. In this scenario, the CBS would retain a research improvement/support component within the departmental budget that can be used to support these faculty who decline to participate in the centers. Other RAC members felt strongly that this "opt out" scenario would disrupt the ultimate goal of developing research strength in centers and contribute to fragmentation of missions and goals of

individual centers. The RAC anticipates that the CDs and ADR would be acutely cognizant and supportive of the teaching mission of the COM and very supportive of center faculty members who contribute significantly, and perhaps disproportionately, to that cause. Also, it should be the ADR's responsibility to assure that all faculty with active and funded research programs are supported, even in cases where those programs do not fall neatly into the research focus of any one of the existing centers.

### **III.B. Centers should engage ETSU faculty outside of the COM that compliment center research activities.**

Since this is a COM-focused program, we must first identify areas of strength within the COM to determine the initial center research foci. Once centers are identified, the rationale for identification and inclusion of interested ETSU faculty from outside the COM would be done as for those within the COM (see III.A.3 above).

Faculty external to the COM who wish to belong to a center would be required to submit a short description to the center director (CD) every year describing their anticipated contribution(s) to the center (active collaborations, seminars, etc.) during the next year.

If external faculty use COM resources, it is essential that they contribute funds to maintain and support COM equipment and facilities they are using. Details are discussed in Section III.I.a below. External faculty should be allowed to participate in a center without contributing funds to that center only if they are not using COM equipment and or other resources that require funding.

The most fertile ground for collaboration outside the COM would likely be found in:

- Allied Health Sciences
- Audiology & Speech Language Pathology
- Biologic Sciences
- Biostatistics & Epidemiology
- Center for Early Childhood and Development - Community Health
- Chemistry
- Exercise Sciences
- Health Sciences
- Human Development and Learning
- Kinesiology, Leisure and Sport Sciences
- Environmental Health
- Nursing
- Pharmacy Practice
- Pharmaceutical Sciences
- Physical Therapy
- Psychology
- Environmental Health
- Community Health
- Health Services Administration

### **III.C. Centers require experienced leadership by established researchers.**

The RAC recommends that each center is directed by an established research faculty scientist. Initial CDs would be expected to be chosen from a pool of qualified internal candidates. In the future, CDs of existing or new centers may be recruited externally. In either case, CDs should have the same qualifications/characteristics that would be expected from a PI on a federal program project or center grant. This is important because it is anticipated that each CD would have a long-term goal of developing a competitive program project or center grant application to the NIH, NSF or other external funding agency. Criteria important for consideration of an individual for center leadership are:

- holding a current R01 (or equivalent) funding in the research focus area that should be maintained during their directorship
- a >10 year history of consistent R01 (or equivalent) funding
- a high publication productivity in the research focus area
- service on federal grant review panels and journal editorial boards in the research focus area
- evidence of leadership in their research field
- although research accomplishments are paramount, these individuals should also have excellent interpersonal skills, be team-players, and be focused on career development of center faculty

The RAC recommends that an advisory committee chaired by the ADR and composed of faculty representatives from the center identify potential CDs from a pool of interested applicants. This committee would make recommendations that would then require approval of the COM Dean.

### **III.D. Center directors would report directly to the ADR with respect to their administrative efforts in the centers.**

The RAC recommends that CDs report directly to the ADR in terms of Center-related activities. Each CD should submit a yearly report to the ADR. This report should contain at least the following information:

- i) total direct and indirect extramural income for the previous year (both total and funding for each PI);
- ii) type and number of grants funded
- iii) collaborations with other divisions/institutions that resulted in extramural funding;
- iv) number of peer reviewed publications generated by center members; notation of high impact factor publications
- v) distribution of productivity among members of the Center, i.e. is there relatively uniform productivity or does the bulk of the productivity come from a subset of the members

- vi) scientific discoveries made by center members, including patents or patent applications
- vii) outreach to the community, including education, research and/or service
- viii) new collaborations and efforts and successes in building translational research
- ix) a plan for following year; and
- x) any requests for additional funding to meet needs in the following year (ie. recruitment packages for new faculty in a specific focus area).

Each CD should be evaluated yearly by the ADR. The ADR's evaluation should be focused on the CD's administrative performance and the CD's individual research performance. These reports would be forwarded to the CBS for inclusion into the CDs annual evaluation. The RAC recommends that the chair does not alter the research evaluation from the ADR, i.e. that the ADR evaluation of the CD becomes a permanent part of the annual evaluation. However, it would be acceptable that the CBS gives his/her opinion on the evaluation submitted by the ADR. The CD would also undergo an administrative review, but every three years rather than every five years as traditionally performed at ETSU. After the three year administrative review, CDs would be considered for reappointment by the Dean, with advice from the ADR and CBS.

Potential problem: Some RAC members felt that the research programs of CDs may fail because of increased efforts to administrative duties related to the centers. They proposed that center directorship should rotate between faculty of each center every three years on a mandatory basis. The majority of RAC members felt that the initial selection of directors should be a careful one, and this process would hedge against placing unmotivated or administratively inexperienced individuals in these important leadership positions. Also, the three year administrative review of center directors would allow the Dean the opportunity to replace a director that is not performing. Finally, it was felt by the majority of members of the RAC that mandatory rotation of directorship would contribute to mediocrity in those positions through disincentive, i.e. a high level of commitment to a growing program would inevitably lead to loss of the leadership position.

### **III.E. Relationship of CDs to the CBS.**

The RAC recommends that CDs play a major role in guiding the research efforts of basic science faculty participating in each center. Each CD should provide annual evaluation of the research of each basic science faculty member of their respective center. This evaluation should be endorsed by the ADR before transmission to the CBS. The CBS would not alter the research evaluations of each faculty member from the CDs. However, it would be acceptable that the chair gives his/her opinion on the research evaluation submitted by the CD.

CDs should also collaborate with the CBS and the ADR in the recruitment of new basic science faculty to assure that new faculty fit the mission of the basic science department as well as the missions of the various centers involved, with a keen eye on sustaining excellence in educational and research programs.

### **III.F. Relationship of CDs to clinical chairs.**

**Common abbreviations:** ADR, Associate Dean for Research; CBS, Chair of the Biomedical Sciences; CD, Center Director; RAC, Research Advisory Committee; COM, College of Medicine

It is envisioned by the RAC that the CDs and clinical chairs would collaborate closely in guiding the research efforts of clinical faculty participating in each center. This includes clinical faculty actively engaged in research and dedicated researchers in clinical departments (including Ph.D., M.D./Ph.D., M.D. or other doctorate faculty). The CDs/ADR should provide research evaluations of each participating clinical faculty member to the clinical department chairs just as they would do for the CBS. This research evaluation should be included unaltered in the annual evaluation of research faculty in clinical departments. However, the clinical chairs would still be able to add their own separate evaluation of research in these reports.

The benefits to clinical departments of participation of clinical department-based faculty in research centers are facilitation of recruitment of clinical and research faculty, increased clinical faculty competitiveness for external funding, increased collaborative opportunities with basic science and other clinical faculty, increased research mentorship available for clinicians and research faculty, and assistance with accreditation by increasing faculty scholarly activity. Center directors would be expected to cooperate with clinical post-graduate training directors as to provide the ACGME mandated research environment and faculty for each of the clinical post-graduate training programs.

If the biomedical science department contributes both indirect costs from basic science faculty external grants as well as a portion of the current basic science departmental funds to the ARD/CDs to provide operating expenses for these centers, clinical departments should be expected to make a corresponding financial commitment to the centers.

Finally, the RAC recommends that CDs work with clinical chairs when the latter are recruiting faculty to assure that new faculty fit the missions of the departments as well as that of the particular center related to the recruits' scholarly interests.

### **III.G. Relationship with the Biomedical Sciences graduate program.**

The RAC recommends that all graduate concentrations, course work and composition of the graduate committee would remain unchanged initially, i.e. during reorganization and establishment of centers. It is anticipated, however, that over time there would be an evolution of new concentrations for graduate degrees representing center research focuses. It is recommended that after no longer than two years following center establishment, the graduate program be evaluated by a committee selected by the COM Dean. This committee would include faculty representatives from each center as well as the CBS, the ADR, and the Associate Dean for Graduate Studies at the COM.

### **III.H. Centers should be evaluated annually and a process for forming new centers and handling failing centers should be carefully delineated.**

There was a consensus feeling by the RAC that creating a center with the anticipation that it would remain in existence in perpetuity would be counterproductive to a strategy to improve the research environment at the COM. Unanticipated pressures from within the COM and external to the COM and ETSU (e.g. NIH) could result in poor performance and ultimately failure of a center. With these considerations, the RAC recommends a rigorous process for review and re-certification of centers, including a process for remediation if center performance and productivity falls below minimum expectations.

As stated above (Section III.D.) the RAC recommends that center performance be evaluated annually by the ADR. This process would be used by the ADR to help CDs identify strengths and weaknesses, and to help define new directions and goals. If a center shows signs of weakness in productivity and grant activity, the RAC recommends specific criteria for placing the center on probation. If a center has funding drop to less than three funded grants by three independent externally funded PIs or a total external funding of less than \$500,000/year in direct costs for a period of greater than 1 year, that center should be placed on "probation" for three years. If the productivity in that center has not improved to at least that required for initial center establishment (see Section III.A above), it could be dissolved by the ADR with approval from the COM Dean.

It is important to note that the maximum number of centers the COM could currently support is likely to be only two or three. Thus, the process for starting a new center should be arduous and require significant documentation and effort on the part of the individual(s) proposing its creation. The reason for having more stringent criteria for new centers, in comparison to criteria to establish the first two or three centers, is to prevent generation of "spurious" center proposals and misallocation of scarce resources to centers that may not be viable in the long run.

The RAC recommends that the ADR develop procedures for considering establishment of new centers beyond those that are initially established during this reorganization. It is suggested that proposals for new centers be accepted no more than once annually. Such a proposal would be expected to contain information important to determining initial recognition and long-term sustainability. For example, the following information would be useful for determining potential long-term viability of a center:

- center interests and goals for a period of at least five years
- research that will be conducted by the proposed center
- a demonstration that the center is cross-disciplinary (necessary), includes clinical or translational aspects (preferred), engages ETSU or VA faculty outside the COM (advantageous)
- identification of potential members, including a letter of interest and research description from each
- identification of at least four currently externally funded collaborators at ETSU, including a letter of interest and research description from each
- how the new center will increase external funding in the COM: this includes documentation from at least two different external funding sources indicating programmatic interest in the research conducted by this center
- costs for center operation including, personnel and equipment resources required to start the new center
- how the new center will improve graduate education at the COM
- impact of creating the new center upon the existing centers, including addressing the impact of diverting funds from an existing center to a new one, equipment and technical resources, faculty time

- to start, the new center must contain at least four externally funded PIs from the COM with combined total of greater than \$900,000 direct costs/year of external funding in the last three successive years

The RAC recommends that the ADR engage the research advisory committee for the review of any new center proposal. It may be also important to include one representative from each existing research center. Ultimately, the ADR would determine if new center creation will impact the viability of a current center, and recommendations for new centers would go to the Dean through the ADR.

*Potential problem:* Some RAC members felt that current CDs should be excluded from the review of new centers. Others felt that to leave current CDs out of the discussion would be short-sighted as these individuals, more than anyone, would know best what the impact of an additional center would have on their own center's survival.

### **III.I. Financial and human resources for operating the centers.**

The source and precise allocation of resources (human, monetary, equipment and space) is a one of the most contentious aspects of reorganization of the research enterprise at the COM. The RAC recognizes that there is no new funding available for launching a reorganization and that available funds include those that currently support the five basic science departments, including MEAC, indirect and salary cost returns, and basic science department annual budget costs. The RAC understands that regardless of the funding formula that is ultimately adopted, there will be faculty members who disagree with the formula and will feel that they will receive less of the "pie" because of the change. These feelings are likely to be unavoidable. However, the RAC adamantly believes that ultimately all basic science faculty, and clinical faculty, would benefit enormously over the years ahead as the new organization would greatly improve the academic environment for the COM.

**III.I.1. Financial resources.** The RAC discussed multiple funding scenarios for providing the ADR, CDs and CBS with adequate financial and human resources to maximize their collective success. The recommendation that follows is deliberately general in that it does not provide an exact formula. The reason for this is that the RAC anticipates that any such formula would need to have considerable flexibility as the reorganization progresses. It is likely that a relatively fixed formula could be reached within three years of the establishment of research centers. At that point, it is anticipated that most research resources currently existing in the five basic sciences departments would be diverted to the ADR/CDs for use in the centers. For example, the portion of indirect costs and salary returns generated by basic sciences faculty that are now currently returned to departments would be returned instead to the Office of the ADR and the centers. The distribution of MEAC funds currently directed to the five basic science departments is dependent upon the MEAC contract and should be, if possible, distributed according to the needs of the merged biomedical science department, the Office of the ADR, and the centers. The total amount of MEAC support to be distributed to the reorganized basic science department, ADR, and CDs should by no means be adjusted downward from what the five basic science departments currently and collectively receive. Current departmental annual costs would be pooled and used to operate the merged basic science department. This would include budgets for specific laboratory and course teaching costs.

Faculty from departments (either inside or outside the COM) that decline to contribute indirect costs to these centers could still participate in center activities. However, they should be required to pay user fees if they use equipment, services or space assigned to the centers. Refer to Section III.F. above for consideration of clinical department contributions to center operations.

The RAC strongly endorses a proviso that some fixed portion of the indirect and/or salary cost returns be returned to the PI that generated them, and further, that this percentage be consistent across the centers. In addition, the RAC endorses the current salary incentive program recently adopted by the COM and recommends that this program remain as currently established.

**III.I.2. Human resources.** The COM Dean, ADR and CBS are expected to collaboratively determine where each basic science departmental staff member would be best employed. The salary line of each staff member would be moved to the appropriate administrative organization (ADR's office, center or department).

*Potential problem:* Some RAC members felt that CDs and the ADR may be unlikely to commit scarce funds to PIs that do not participate in and advance the centers. Hence, assignment of all basic sciences research resources to the ADR/CDs could force basic science faculty participation in the centers. Basic sciences faculty who perform large amounts of teaching (or service) and also carry out externally-funded research programs might feel "caught" between the sometimes-conflicting requests of ADR and the CBS (i.e. research or teaching). Currently, a departmental chair who has responsibility for balancing teaching, service and research missions can (and sometimes does) choose to support such individuals by providing technical or graduate student stipend support to help them achieve their research goals. However, any administrator (ADR, CD or CBS) who has primarily one mission in mind may view such assistance as being an unwise expenditure of scarce research resources. Other RAC members emphasized that the selection of leadership for the ADR, CD and CBS positions is extremely important and collaborative administration (as discussed in Section IV below) is required for the reorganization to succeed. Leaders of research must remain cognizant of the primary mission of medical education.

### **III.J. Research equipment and space and for operating centers.**

**III.J.1. Equipment.** It is essential that shared equipment be available for use by all basic sciences faculty, and be protected to the greatest degree possible from misuse and neglect. Also, funds for equipment purchase, upgrades and service contracts must be distributed to those administrator(s) (ADR, CD or CBS), who are ultimately responsible for that equipment (see alternative below in "Potential problem"). The RAC recommends that all maintenance contracts receiving partial funding by the Dean be managed through the Office of the ADR. It is envisioned that basic sciences shared equipment would remain where currently located, unless moving would benefit the users of the equipment and the function of the centers or any core facility. Equipment usage should continue to be monitored and training would be expected to be administered by various center faculty or staff, as appropriate.

*Potential problem:* One problem that COM researchers currently have, and that is likely to continue through reorganization, is management of major pieces of equipment. Equipment maintenance contracts often expire unknowingly, equipment is sometimes

poorly maintained, and is sometimes abused. Some of the RAC members recommend that one or more shared equipment core facilities be formed and that these be administered through the Office of the ADR. It is conceivable that this might also include expanding some highly efficient and effective core facilities currently in existence. One RAC member suggested that a new Division of Basic Sciences Research Support be created that takes the responsibility of maintaining all shared equipment now housed in the five basic sciences departments. It is noteworthy that an imaging core facility is already slated to be completed with the renovation of Bldg. 119.

**III.J.2. Space.** Another important resource for consideration is research space and its allocation to centers according to current needs, recruitment, and future anticipated needs. Assuming that research reorganization will occur sometime in the near future, it will be overlapping the period in which Building 119 will be vacated for renovations. This is a unique moment in time for the COM wherein reallocation of research space and relocation of faculty researchers can be undertaken with relative physical (not necessarily emotional) ease to maximize the productivity of centers. Since space, like money, is a hotly contentious issue, the RAC declines to make specific recommendations other than to advise the Dean that whatever changes in research space are to be considered, the ultimate goal should be to maximize the quality and effectiveness of our research mission, as managed through the new centers.

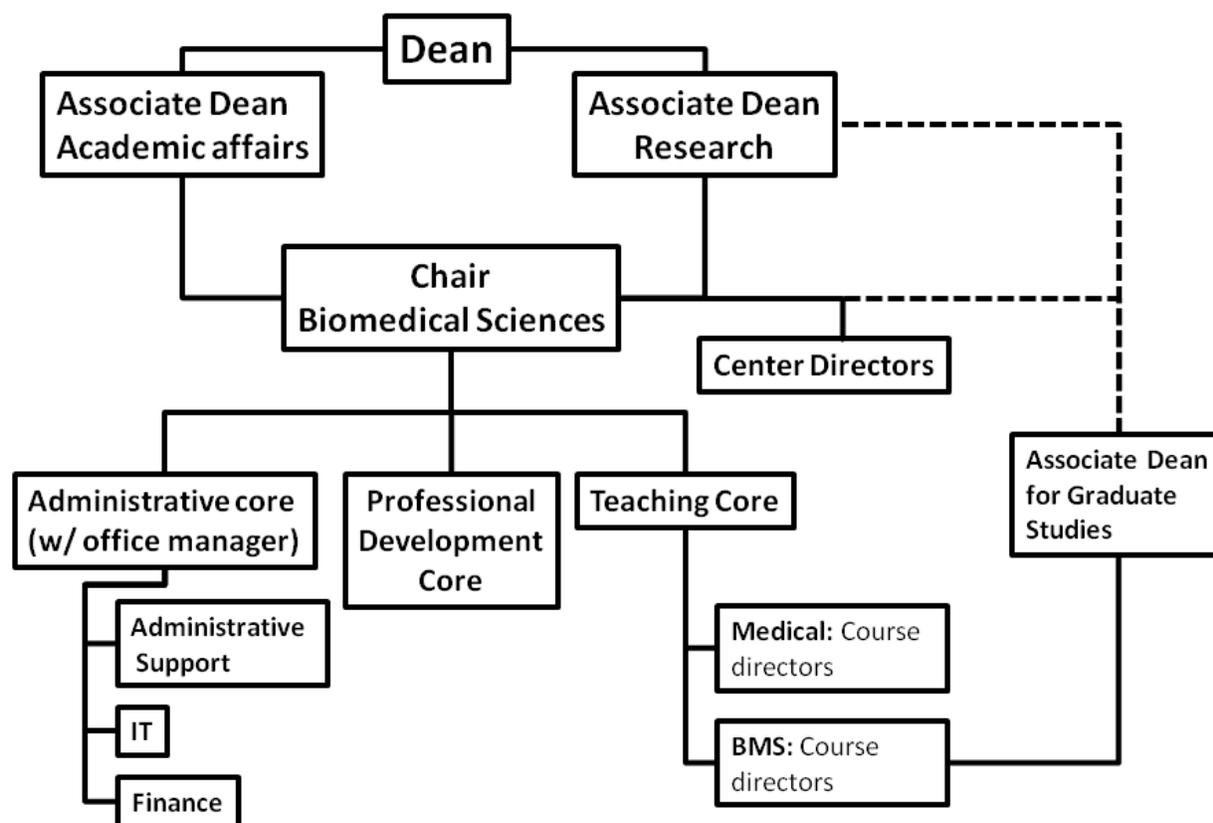
#### **IV. MERGER OF BASIC SCIENCE DEPARTMENTS AT THE COM.**

The development of research centers at the COM, each with strong center leadership, reduces the need for five basic science departments, each with their respective administrations. The RAC recommends that the current five basic science departments, Anatomy and Cell Biology, Physiology, Biochemistry and Molecular Biology, Microbiology, and Pharmacology merge into a single biomedical science department. There are many potential benefits to this merger not the least of which would be the streamlining of administration for the teaching and service missions of the basic sciences. Other benefits include optimization and centralization of numerous functions of Departments, including travel, purchasing, budget, and web management. The retention of the individual department disciplines as concentrations for graduate study in the Ph.D. program, as recommended below, would assure that the current disciplinary approach to M.D. and Ph.D. education would sustain, at least until it may be concluded in the future that another approach would be advantageous to students.

Figure 1 below summarizes the proposed organization for the combined Biomedical Sciences department at the Quillen College of Medicine. This organizational plan also incorporates the Office of the ADR as proposed in Section II above. Centers, as proposed in Section III above, are not shown, but overlap onto the merged department. The plan is organized into functional administrative units, or cores. In this plan, the CBS would have primary oversight of the administrative core, the medical student teaching core (in collaboration with the Associate Dean of Academic Affairs), professional development including mentoring and P/T recommendations, and the single entry BMS graduate program in collaboration with the Associate Dean for Research and the Associate Dean for Graduate Studies. The RAC anticipates that the combined departments would be titled the Department of Biomedical Sciences (BMS), to match the graduate program. However, this matching is not necessary and an alternative title for the department could be considered through basic science faculty consensus.

**Common abbreviations:** ADR, Associate Dean for Research; CBS, Chair of the Biomedical Sciences; CD, Center Director; RAC, Research Advisory Committee; COM, College of Medicine

Figure 1. Organizational diagram



The CBS would be a key leadership position at the COM. As noted in Sections II and III above, the chair would collaborate with the ADR and CDs to maintain, improve, and grow the research and teaching missions of the COM.

#### IV.A. The RAC recommends a structure of individual functional cores to facilitate administration of the merged basic science department.

The following is a brief description of specific cores to aid in management of academic activities of the BMS department.

**A.1. Administrative core.** This core would be supervised by an office manager with the primary responsibility to supervise three separate subunits of the administrative core, i.e. information technology, finance, and office support staff. Support staff recommendations are made and these do not represent new employees, but existing employees that currently staff the five basic science departments.

*a. Information Technology (IT).* Departmental IT would be primarily responsible for support of online activities for the teaching cores for both Medical and Biomedical graduate programs. This includes course-related web management, syllabus and media presentations and exam processing. Departmental IT would also be responsible for web management (2 staff positions recommended).

*b. Finance.* Departmental Finance would be primarily responsible for funds management to support basic departmental operations. Monies to support these operations would be provided by the consolidated state funds now provided individually to each of the five basic science departments, including those provided for education and laboratory operations. Two shortcomings exist to such a plan however. First, state funds have the tendency to shrink over time, and at the very least do not keep up with inflation. Second, some existing departments do not have sufficient state budgets to pay expenses through the year, and the deficit is usually paid by other means, such as MEAC funds or indirect and salary cost returns to the department. Hence, the Dean of the COM will need to be aware that basing the department budget on a fixed sum from the state could be unhealthy to the department over time. Department funds could also be supplemented by a portion of MEAC allocations, but as suggested above MEAC funds may be assigned to the Associate Dean for Research to help support the research mission of the Quillen COM (see discussion of this in related Sections II.K and III.I). The RAC recommends that finance operations specific to supporting the research centers be maintained within the Office of the ADR and/or each of the centers with the oversight of the ADR and CDs. (1 staff position recommended)

*c. Administrative support staff.* Departmental support staff would provide assistance to the teaching core (M.D. and Ph.D. programs), process travel, coordinate educational laboratories, manage the willed body program, maintain scheduling for educational laboratory activities, and provide general secretarial functions for the department. (3 staff positions recommended)

**IV.A.2. Professional/Career Development Core.** The RAC recommends that professional/career development of department faculty be a major mission of the BMS department. As mentioned in Sections II and III, the ADR and CDs would collaborate with the CBS to provide comprehensive mentoring of faculty members in all aspects of the academic spectrum, i.e. teaching, research, service, administration. However, promotion and tenure would be administered through the department and therefore, management of professional development remains an important function of the CBS.

*a. Mentoring.* One of the primary responsibilities of the COM is to foster the professional development of faculty members at all ranks. To develop teaching skills in faculty and thereby advance the teaching mission, all teaching faculty should be evaluated annually by their respective course directors. In addition, on a rotating basis once every three years each of the teaching faculty should be evaluated by an external reviewer with documented expertise in effective medical education. Remediation of teaching skills should be considered for faculty who perform poorly in the classroom. All faculty should be encouraged to engage in activities to improve their teaching skills. Other aspects of the mentoring of faculty are described in II.B. above. As discussed there, the overall mentoring of faculty would be a joint leadership responsibility of the ADR and CBS.

*b. Annual evaluation.* As currently occurs in existing basic science departments, the academic performance of all faculty would be evaluated annually by the CBS. As described in Section III.E above, the CBS would receive research performance evaluations from the CDs which have been endorsed by the ADR,

evaluation of teaching performance from course directors, and student evaluations of teaching from the Dean of Academic Affairs. The research evaluations from the CDs would become part of the permanent record for faculty members. However, the final evaluation of research, teaching and service would be made by the CBS. Course directors and CDs would be focused on the delivery of excellence in teaching and research, respectively, in their evaluations of faculty members. The CBS would serve to examine overall academic performance, particularly as it pertains to tenure and promotion. The new evaluation rubric at ETSU, which is expected to be engaged in the very near future, is essentially a performance management system. Hence, it is anticipated that the assignment of percentage effort commitments to various academic activities would require the CBS to work closely with the CDs, course directors, the ADR and the individual faculty member to distribute individual faculty effort effectively to optimize faculty performance.

*c. Promotion and Tenure.* The RAC recommends that the current P/T system remain in operation, with the exception that a single basic science chair (the CBS) would administer P/T. The CBS should have the primary responsibility in the yearly P/T considerations for all faculty in the BMS department. Each candidate requesting promotion shall create a promotion packet in keeping with current P/T guidelines and submit it to the CBS. Evaluations of teaching performance should include consideration of documentation from course directors for the teaching cores (Medical and Biomedical). Evaluations of research performance should include internal review (ADR and CDs) and external letters of recommendation. The P/T packet shall then be presented for appropriate faculty review by senior (tenured) members of the BMS department including associate professors and above for consideration of assistant to associate professor promotions, and professors for consideration of the promotion from associate professor to professor. The BMS faculty in turn shall vote on the committee's recommendation and that recommendation would be forwarded to the CBS in writing. From this information, the CBS shall make the final recommendations to the COM Promotion and Tenure Committee. (See current guidelines for Promotion and Tenure <http://www.etsu.edu/com/acadaffairs/facultyaffairs/forms/default.aspx>). This current system allows faculty to be in one of several tracts for P/T considerations, including a i) research focus: tenure tract, ii) a research focus: secure (non-tenure) tract, iii) an education focus: tenure tract, and iv) an education focus: secure (non-tenure) tract.

**IV.A.3. Teaching Core.** The RAC recommends that educational activities of basic science faculty members that currently reside in the five disciplinary departments remain in the single BMS department with no initial changes required. That is, those individuals that currently serve as course directors would continue to serve in that role at the behest of the CBS.

*a. Medical student education.* The RAC anticipates that as medical student courses are taught presently, the lectures and course directors would be continue to be largely uni-disciplinary (biochemistry, pharmacology, etc.) in nature. If the curriculum is revised in the future to a non-disciplinary model (e.g.

disease based), then the constitution and directorship of these courses are likely to change. Course directors would have the following responsibilities, all with the approval of the chair:

- i) Overall administration of course, including identification of instructors, setting of curriculum, administration of exams and revamping the course based upon evolving conditions,
- ii) Acting as intermediary between students and faculty regarding course administration,
- iii) Interacting with COM administration, primarily through the Office of Academic Affairs,
- iv) Ensuring that courses are conducted in accordance with LCME standards and that the course meets its objectives as defined by performance on Board Step 1,
- v) On a yearly basis, providing critical feedback to individual instructors regarding teaching performance and suggested changes for the coming year, including relevant information compiled by the Office of Academic Affairs, and
- vi) Providing a teaching assessment of faculty involved in the course to the CBS for use in annual evaluations and P/T considerations.

*b. Biomedical graduate program education.* The RAC recommends that courses currently organized for graduate students in the Ph.D. program for BMS initially remain as they are, including BMS core series, and other courses that are specific to the disciplinary concentrations that are currently offered. The BMS core would remain under the direct supervision of the Associate Dean for Graduate Studies, including designation of BMS core course directors. The Associate Dean of Graduate Studies is expected to consult the CBS on course directorship assignments, since such an assignment could interfere with the management of performance of the individual faculty member. The RAC recognizes that BMS curriculum and concentrations may require reevaluation once research centers are established, as discussed in Section III.G above. Course directors for the BMS program would have the following responsibilities

- i) Overall administration of course, including identification of instructors, setting of curriculum, administration of exams and revamping the course based upon evolving conditions,
- ii) Acting as intermediary between students and faculty regarding course administration,
- iii) Interacting with graduate office and oversight committees of the ETSU COM graduate program,
- iv) On a yearly basis, providing critical feedback to individual instructors as to their teaching performance and suggested changes for the coming year, and

- v) Providing a teaching assessment of faculty involved in the course to the Associate Dean for Graduate Studies and the CBS for use in yearly evaluations and P/T considerations.

Currently, chairs of the basic science (discipline-based) departments are ultimately responsible for assuring that courses and other requirements for a concentration (discipline) in the Ph.D. program are met by students. The RAC recommends that this does not change with the merger of the basic science departments, but recognizes that it would be very helpful to the CBS if there were expert help with this task. Hence, the RAC recommends that committees be formed by the CBS for each disciplinary concentration to help the CBS assure that student requirements are met. The constitution of these committees would be preferably but not necessarily individuals who have doctorates in a given discipline. As the program is administered presently, students would be required to select a disciplinary concentration at the end of the first year of graduate school. All other aspects of the program would also remain as is currently. It is recognized that at a future time there may be a transition in this graduate committee structure in line with the shift to the research centers of excellence.

*c. Evaluation of courses and course directors.* The RAC recommends that at the completion of each medical student course in each academic year, the CBS should meet with the course director and teaching faculty for that course, evaluate overall performance of the students and identify areas for improvement (faculty and curriculum). The CBS should provide a summary of that meeting to the Associate Dean for Academic affairs, to the course director, and to the teaching faculty. The CBS should similarly meet with directors of elective courses that are part of each disciplinary concentration for Ph.D. students. A summary of these latter meetings should be forwarded to the Associate Dean for Graduate Studies. Course director evaluations should be used as part of the annual evaluation for teaching performance for individual faculty that are course directors. In order for this evaluation to be comprehensive, the Associate Dean for Graduate Studies should forward to the CBS evaluations of faculty members that direct the BMS series for the Ph.D. program.

#### **IV.B. The CBS would play a pivotal role in the management of the academic missions of the BMS department**

The management of the academic missions of the BMS department would require administrative collaboration with CDs, the ADR, the Associate Dean for Academic Affairs, and the Associate Dean for Graduate Studies, as follows.

**1. Recruitment of faculty.** The RAC proposes that the CBS plays a major role in the recruitment of faculty members to the BMS department. The CBS has a primary responsibility to sustain and grow the teaching mission for basic biomedical sciences. If the CBS identifies a critical need to sustain that teaching mission, the CBS should inform the Associate Dean for Academic affairs and the Dean. On approval for position, the CBS should constitute a search committee within the BMS department. The committee would be charged with conducting an appropriate national search and providing final recommendations for hire. At the time of hire, P/T criteria would be specified for that individual as detailed above (see Section IV.A.2.c above). It is understood that the hiring of an individual who will commit 100% effort to teaching and

service with no effort to research would not be common. In most cases, new faculty to the basic sciences would be expected to commit effort to research, teaching and service. Hence, RAC recommends that the CBS be mandated to work closely with CDs and the ADR to recruit outstanding new faculty to simultaneously grow the teaching and research missions of the COM.

**2. Collaborative leadership.** The collaborative administration of the basic sciences at the COM includes the important relationships between the CBS and 1) the ADR (Section II.E.), 2) the CDs (Section III.E.), 3) the Associate Dean of Academic Affairs (Section IV.A.3.a.v.), and 4) the Associate Dean for Graduate Studies (Section IV.A.3.b). It is noteworthy that if a CD has a primary appointment in the BMS department, then the CBS would evaluate the overall academic performance of that CD. It has been noted elsewhere that the research/research administrative and teaching assessments of performance would be initially performed by the ADR and course directors, respectively.

#### **IV.C. The RAC recommends that the CBS receive critical review of performance as a leader of the COM.**

The CBS would be evaluated annually by the Dean of the COM, with input from the ADR and the Associate Dean of Academic Affairs. The CBS would also receive an administrative review as is currently performed for all chairs of the COM.

#### **V. Timeline**

The RAC recommends that reorganization of the research enterprise at the COM should occur stepwise. An incremental process should help to avoid disarray, disunity and unanticipated organizational issues. The order of implementation is debatable, but it seems at the very least that merger of the basic science departments should precede creation of centers. The alternative to this, creating centers before merger, could easily result in existing disciplinary departments organizing centers around a discipline, which would undermine the intention to have centers focused on human disease and/or therapy. Creation of centers will require unprecedented and close communication and interaction between faculty members that now reside in different departments. Removal of departmental barriers would be expected to facilitate this important process.

The establishment of the Office of the ADR would be expected to follow merger of departments, and preferably prior to creation of centers so that the ADR could play a major role in this activity. However, it is the faculty members and their research that will constitute these centers and creation of the Office of the ADR may not be a necessity for initial center establishment.

The length of time required for implementation of the reorganization would be expected to be over the course of 1 to 2 years. Two years should be sufficient time for recruitment of individuals to new positions. If reorganization is to commence in 2011, then overlaying this will be the renovation of Building 119. Since nearly every researcher in this building will move during this 1-2 year renovation beginning in the fall of 2011, it is an ideal time to reconsider location of groups of researchers and research resources with regard to the new research center structure.