UMKC Committee on Institutional Effectiveness

Administrative/Support Functions & Costs Task Force 2016

Office of Research Services Task Force Final Report

5-4-2017

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REPORT AND RECOMMENDATION BY UMKC-ORS TASKFORCE

Charges of the Committee

The Faculty Senate with the support of Provost Bichelmeyer constituted a "Committee for Institutional Effectiveness" in January 2016. The logic behind setting up this committee was to promote transparency, accountability, improved communication between faculty and administration, and to ensure increased efficiency as well as better customer service in different units. The Office of Research Services Task Force (ORS-TF) is one of the 4 subcommittees that was constituted to review the functions of the UMKC ORS and submit their findings to the Provost. The ORS TF included Anil Kumar, Sarah Dallas, Mark Hecker, Tom Menees, Jeffrey Rydberg-Cox and emeritus faculty member Ken Schmitz on the faculty side, as well as Provost Bichelmeyer, VCR Dreyfus, VC Lindenbaum, VP Medeiros, Assistant VCR Caruso and Mr. Bob Crutsinger on the administration side. The role of administrative members on the ORS-TF was to ensure that faculty members were provided requested information in a timely manner. The charges of the ORS-TF included (i) development of survey questions, (ii) gather budgetary and other relevant information from ORS, (iii) administration of survey, (iv) interview UMKC faculty members as well as former faculty members who left within the last 3 years, (v) analysis of findings, and; (vi) development of a final report for submission to the provost.

Review Process

Information Gathering and Survey Process

The TF gathered documents from the ORS office relating to its organizational structure, finances, strategic plan, and IRB and IACUC turnaround times. A set of ten evaluation questions was sent to the VCR and he sent written responses to the questions. A follow-up set of questions was sent to which the VCR also sent a written response. The TF developed a survey questionnaire with feedback from the VCR and his leadership team during two meetings organized between the ORS-TF and administrative members. This survey was offered to all UMKC faculty members/researchers involved in scholarly activities via Redcap to maintain anonymity. The survey received responses from 365 faculty members. After the survey was developed, the administrative members were no longer active on the committee and only served the role of providing information as requested by the committee.

Interviews

The ORS-TF contacted faculty involved in research and scholarly activity and asked for volunteers to participate in a closed interview session with one member of the TF. Each interview lasted for 30 minutes to 1 hour and the proceedings of the interviews were documented by the interviewer without any identifiers. A total of 56 faculty from different schools volunteered for this process and all were interviewed by one TF member. Each TF member compiled summaries of their interviews removing any identifiers including gender specific pronouns and presented the summaries to the TF in a randomized order. In addition, the ORS-TF interviewed several former UMKC faculty via Webex/Polycom who left UMKC in the recent past with substantial research funding. The ORS-TF also interviewed VCR Dreyfus and a panel of 2-3 TF members interviewed Asst. VCR Caruso and 20 other ORS staff members. All interviews were conducted in person, except two, which were conducted via phone. The ORS staff interviews were summarized anonymously with no identifying information.

<u>Compiling of Report</u>

The faculty members of the ORS-TF met an additional 13 times in person with each meeting lasting 1.5 hours. The faculty members of the ORS-TF also extensively communicated electronically among themselves. The faculty TF members involved in compiling the report were: Anil Kumar, Sarah Dallas, Mark Hecker, Jeff Rydberg-Cox, and Tom Menees. In compiling the report these TF members reviewed all the information gathered and focused the report on information relevant to ORS, which was the charge of the TF. The faculty TF members wrote the report collaboratively in the following manner: 1) group discussions of each section of the report, 2) individual TF members assigned to draft specific sections of the report, 3) compilation of the draft sections into a single report, 4) discussion of the report and formulation of the TF's main findings and recommendations, 5) individual review and editing of the complete draft report by each faculty TF member, 6) final collective review and editing of the report by faculty TF members, and 7) sending of the report to the chair of the Faculty Senate by the chair of the TF.

Minimum Requirements for ORS

The mission of the University of Missouri System, as a land-grant university and Missouri's only public research and doctoral-level institution, is to discover, disseminate, preserve, and apply knowledge. UMKC seeks to achieve this mission in Kansas City and is, in fact, the only public research institution of higher learning in the city. The ORS-TF identified many specific actions that the ORS and the UMKC administration should undertake to improve the research environment on campus. However, the following seven actions are critical to sustain and advance the research mission.

1. Develop a revised ORS Strategic Plan with a clear vision and defined goals to support research at UMKC. UMKC's Strategic Plan includes the research-specific goals, "Lead in the Life and Health Sciences" and "Promote Research and Economic Development." An ORS Strategic Plan is a necessary complement to the UMKC Strategic Plan, organizing research related goals and strategies in one document to facilitate the creation of a coordinated, efficient, university-wide plan to strengthen research. The TF recommends:

   (i)   Develop a clear mission and vision for ORS that integrates with the UMKC Strategic Plan. Development of a revised ORS Strategic Plan will facilitate defining research areas for further development.
   (ii)   Define short and long term deliverable goals for the ORS with input from a reorganized and revitalized UMKC Research Advisory Council.
   (iii)   Communicate this mission and vision to the UMKC faculty and campus wide.
   (iv)   Clarify the role and responsibility of the Assistant VCR within the ORS.
   (v)   Periodically assess and renew the ORS Strategic Plan via faculty input.

2. The TF has found a lack of institutional support for the ORS. All other comparable institutions that were examined provide institutional support for their research support offices. The TF finds the current model, whereby the ORS at UMKC is supported by indirect funds alone, to be untenable. The institutional support for ORS is a critical factor for continued development of the UMKC research mission. Therefore, the TF recommends:

   (i)   Fund the ORS budget directly from the state funds general revenue allocation (GRA) to ensure sustainment and future development of research and scholarly activity.
   (ii)   GRA funds should at least cover the budgeted salaries of the ORS staff members ($1.5 million).
   (iii)   UMKC should directly support the Environmental Health and Safety Office and not fund it with ORS indirect dollars.

3. Communication between ORS and researchers needs to be improved. Therefore the TF recommends:

   (i)   Restructure the UMKC-Research Advisory Council by appointing or electing a Chair other than the VCR.
   (ii)   Redesign and simplify the UMKC-ORS website to make it more user friendly.
   (iii)   Develop a database with information on existing research expertise at UMKC.
   (iv)   Streamline the Listserv e-mails so that they provide only relevant funding opportunities to the investigators, suited to their specific area of research.

(v)   The VCR and ORS staff must respond to e-mails in timely manner.

4. UMKC needs more aggressive fundraising efforts to support its research mission. The TF recommends:

(i)   Include a research focus in the Capital Campaign drive to support core research facilities (for example neuroimaging, proteomics, confocal imaging, and metabolomics centers), matching funds for student researchers and endowed chair positions.

(ii)   Increase philanthropic support for research equipment, endowed chairs, research scholarships, etc.

5. Develop a faculty recruitment and retention plan. The TF recommends:

(i)   Develop of a pool of funds for faculty retention.

(ii)   Implement clustered recruitment across different academic units targeted to research themes in areas of existing excellence or areas where UMKC can be internationally recognized.

6. Improve internal administrative support for submission and administration of grants in academic units without dedicated grant support personnel, particularly the College of Arts and Sciences. Faculty in other units with internal grants support personnel have fewer problems with the ORS, as the applications tend to be better prepared before they go to ORS and grant spending is tracked better. The TF recommends:

(i)   Internal administrative support for grants should be instituted in all the academic units (e.g. College of Arts and Sciences).

(ii)   Enhance communication to faculty about available support services, deadlines, etc. and to ensure that optimal help is available to researchers for grant preparation.

7. The UMKC indirect cost return (also known as research incentive funds, RIF) is an important incentive to promote research efforts by faculty at UMKC. However, recent discussions of a possible change in this mechanism has concerned extramurally funded faculty who see this as a critical incentive. The TF has also noted a discrepancy across schools in how RIF funds are distributed. Therefore, the TF recommends:

(i)   50% of the indirects should continue to be returned to the School that generated the funding. The other 50% of indirects should continue to be allocated to ORS.

(ii)   For the 50% of total indirects returned to the School that generated the funding, 60% (30% of the total indirects) should be distributed to the principal investigator's RIF account and 40% (20% of the total indirects) should be distributed to the School/Department.

(iii)   RIF account expenses should be formally monitored by ORS to ensure that funds are spent on only research or related scholarly activities in accordance with federal requirements regarding indirect costs.

ORS Organizational Structure, Role, Expenditures and Revenue Streams

The University of Missouri-Kansas City Office of Research and Economic Development supports the University research mission by providing the necessary administrative support for scholarly activity and sponsored research programs. The leadership of UMKC ORS includes Dr. Lawrence A. Dreyfus, Vice Chancellor for Research and Economic Development, (VCR) and Dr. Anthony Caruso (Assistant VCR) (Appendix 1). The office oversees the Institute for Human Development, the Innovation Center, Office of Technology Commercialization, Laboratory Animal Research Core, Research Compliance, Conflict of Interest, and Pre-Award and Post-Award offices. There are 30 personnel responsible for these functions, including Director level positions heading individual offices. UMKC had between 207 and 232 total awards during the last 5 years averaging $32-$35 million dollars/year. Therefore, the university award funds have been more or less stable over the years, but there has been no significant growth as expected from any research institution. The UMKC-ORS staff strength is comparable, but on the higher side, to other institutions (data provided by UMKC-ORS). For example University of Missouri Columbia administers more than $37 million in federal funding but the personnel costs are proportionately lower. The University of Kansas Medical Center research office supports about $61 million in federal funding with approximately 75 personnel whereas UMKC ORS supports about $11 million federal funding with 32 personnel.

Total compensation and operational budget for the ORS has been ~$2.5 million/year (Appendix 2). In addition, the ORS spends approximately $500,000/year in research support activities. The ORS activities are funded entirely by F&A costs received from different agencies, as ORS receives 50% of the indirect costs allocated to UMKC. Note - 10% of the overall indirect dollars are allocated to the UMKC Environmental Health and Safety Office. Compared to other institutions, UMKC is the only one that does not receive direct institutional support. The TF notes that this is untenable as it leads to too much instability in the revenue stream and could potentially lead to deficits in the operating budget of the ORS. If UMKC is serious about the importance of the research mission of the University, this situation should be rectified and direct institutional support should be provided to ORS. Direct institutional support will create fiscal stability and allow ORS to develop and execute a more comprehensive strategic plan for supporting and enhancing research at UMKC. For recommendations see point # 2 in the main recommendations section.

The TF commends the University for returning 50% of the indirects back to the school unit. This is a great incentive to investigators and has been a big help in the recruitment and retention of faculty. The TF strongly recommends that this incentive be maintained. However, unit-specific discrepancies should be removed, and a University policy should be developed with distribution of 50% of indirects to the ORS, 20% to the School/Department and 30% to the principal investigator (see point #7 in the main recommendations section). There appears to be no formal mechanism for monitoring how indirects are spent within the Units. It is important that these funds be spent in accordance with federal guidelines and that there should be transparency in how these funds are used within the Units. The TF recommends that the ORS provide guidelines on what expenditures are allowable and institute periodic monitoring to ensure the funds are being used appropriately.

Strategic Plan/Vision for Enhancing Research and Funding Success at UMKC.

UMKC has 6 strategic goals of which goals 2 and 6 (http://www.umkc.edu/chancellor/mission-vision.cfm) touch on UMKC-ORS activities. The UMKC strategic plan 2013-2018 (http://www.umkc.edu/provost/strategic-plan/UMKC-UM-Strategic-Plan.asp) has 7 themes of which themes 2 and 3 discuss research development. The third theme also calls for an increase in research funding but there is no definite target, and there has been no increase in research funding between 2013 and 2016. This TF feels that the ORS should develop a detailed plan for each fiscal year towards fulfilment of goals 2 and 6 and it should be evaluated based on the detailed plan. This committee notes that Actions 2.1.1 and 2.1.2 have not been accomplished (http://www.umkc.edu/provost/downloads/UMKC_Strategic_Plan_2014.pdf), and Action under category 6 has been minimally implemented with no demonstrable success as evidenced by an increase in research funding. While the University strategic research goals should continue to be directed towards obtaining federal dollars, more effort also needs to be directed towards supporting research in the arts, social sciences, and humanities. The UMKC-ORS Strategic Plan describes promoting research environment by elevating the research experience of the faculty through collaboration, dedication and teamwork. However, the plan remains vague and no definite measurable outcomes have been included. The outcome measures fulfilled have not translated into increased research funding as extramural funding has not increased (Appendix 3)

The UMKC-ORS established a UMKC Research Advisory Council (RAC), which has an advisory role in strategic planning. This is a step in the right direction. However, the TF feels that the UMKC RAC has not achieved its full potential in its current structure. The TF notes that this council should be headed by a senior faculty member with an outstanding research track record and should report to the Provost. (See point #3 in the main recommendations section)

Mechanisms for Researcher Input into ORS Operations

Summary of Findings:

There seemed to be a disconnect between the VCR, who provided a long list of mechanisms by which researchers can provide input into the operations of the ORS, and the faculty, many of whom indicated in the survey or interviews that they are not aware of mechanisms for input. Therefore, communication needs to be improved.

Mechanisms listed by the VCR for faculty input include communication through the Associate Deans for Research, the Research Advisory Council representative, directly with members of the ORS staff, the Director of Sponsored Programs, VCR or assistant VCR for research and communication through the annual ORS open house. Some faculty were aware of these mechanisms, but many were not. The research symposium that has been initiated by ORS was particularly appreciated as a good opportunity for investigators to showcase their work and meet colleagues. A recurring theme from faculty comments and interviews was that the mechanisms for faculty input could be strengthened. Concerns were expressed regarding the role and effectiveness of the Research Advisory Council.

The UMKC RAC was formed in 2013 and charged with an advisory role to the Provost and the Chancellor on matters relating to research and scholarship at UMKC. Membership includes one elected faculty member from each academic unit and representation from sub-disciplines in the

College of Arts and Sciences. There is also one member from the UMKC Libraries, Faculty Senate, UMKC Staff Council and UMKC graduate student body. *Ex Officio* membership includes the Provost, VCR and Associate VCR, Associate VC of Finance and Administration, Dean of the School of Graduate Studies, Director of Research Compliance, Director of the Office of Technology Commercialization and Director of Sponsored Programs Administration. In addition, Research Deans and Directors from each academic unit are invited to participate in meetings. The committee's role is to develop the mission, vision and goals for research at UMKC, develop strategies for increasing research opportunities and funding at UMKC, review/develop policies and procedures that impact research at UMKC to improve administrative efficiencies, support graduate and undergraduate research activities and provide a reviewer pool for internal grants.

The RAC has the potential to be a very effective mechanism for faculty input and a means to provide recommendations to the Provost, Chancellor and VCR from the user perspective and from the perspective of individuals who are knowledgeable about state-of-the-art research in their fields. However, this committee is dysfunctional in its current format. Meetings are frequently cancelled (for example there were only 4 meetings in 2015 and 5 meetings in 2016) and members feel that the committee does not achieve much forward progress. The VCR chairs this council and sets the agenda for the meeting and there is no general solicitation before the meetings for agenda items to be added. The perception is that decisions have mostly already been made and are being presented to the council more as an informational exercise rather than seeking active input. Even when the UMKC RAC does provide advice, it is often ignored, causing many members of the UMKC RAC to question its utility. Because of this, attendance at meetings by UMKC RAC members is low. The UMKC RAC mostly focuses discussions on issues related to Life Sciences research and there is a need to be more inclusive of other research (e.g. Arts and Humanities).

Survey and interview responses indicated that a large number of research faculty at UMKC are unaware of the existence of the UMKC RAC and do not know who their representative is. Although it is stated that the committee includes elected members from each unit, many faculty members are not aware of these elections having taken place.

Recommendations:

1. The UMKC RAC should operate independently of the ORS so that it can serve effectively in an advisory role, without apparent conflict of interest. The Chair of this committee should be a research emphasis faculty member who is not the VCR and is not a member of the ORS.
2. Elections for Unit representatives should be held and this should be clearly communicated to faculty. After the election, the faculty of each unit should be informed who their representative is.
3. The list of membership for the UMKC RAC is very long and with such a large number of potential committee members, this could lead to an ineffective committee. We recommend that the membership of the UMKC RAC be limited to the elected Academic Unit representatives, a member from the UMKC Faculty Senate, a member from the UMKC Graduate Student Council, and a representative from the Institute for Human Development. A Research Dean/Director from each Academic Unit can participate in an *ex-officio* capacity.
4. Under the new chair, the committee should resume monthly meetings and before each meeting, a solicitation for agenda items should be sent out to UMKC faculty.
5. The ORS should improve communication to faculty and researchers about opportunities for them to provide input to the ORS. This could take the form of an e-mail distribution outlining

the available mechanisms and welcoming input. Alternatively it could be incorporated in an annual training session offered on both campuses.

Internal Research Funding Support

Summary of findings:

At present, the only UMKC internal research funding support is the Funding for Excellence (FFE) program, which has been well received and appreciated by UMKC Faculty. Faculty in the College of Arts and Sciences were particularly appreciative of the fact that some of this support had gone to their faculty, as the perception in the past has been that research in the Arts and Humanities was not valued by the research leadership at UMKC. Other sources of funding include UM system based opportunities such as the UM research board and Fast Track research programs.

The FFE program has a budget of $100K and funds projects of up to $15K that involve collaborative research between faculty in more than one Unit. Although the VCR was commended for instituting the FFE program, researchers in health sciences related fields pointed out that $15K grants are of limited use to investigators seeking NIH grants as this amount is not enough to generate preliminary data for an RO1. Grants of $50K or more are needed that can support salary for a research assistant, etc. The FFE grants are targeted for collaborative research efforts between units. Some faculty felt that there should not be a requirement for collaboration and that the best research should be funded regardless of collaboration. Some also felt that the review process for UMKC internal grants needs to be improved. The grants should have a more in depth review by someone in the field (e.g. basic science grants should not be reviewed by physicists, etc.).

As would be expected, most faculty felt that there is a need for more internal research support. This could be possible if the Institution can provide support to the ORS through the GRA allocation, which would free up other funds to support research projects. Many faculty expressed the urgent need for a mechanism of obtaining "bridge support" to maintain research progress if there is a gap in extramural funding, for example while waiting for a grant to be renewed, etc. Another key need is for funds to be made available for purchase of equipment, as it is becoming more difficult to support equipment purchases from NIH grants.

Another mechanism that supports research at UMKC and should not be overlooked is the RIF distribution that goes back to investigators from indirects. These funds have enabled investigators to purchase equipment, support salaries of research assistants and support travel to meetings and they provide an excellent incentive for faculty retention. There is some variability amongst Units regarding what proportion of the indirects goes back to the investigator and the TF feels that this needs to be more consistent across Units. The investigator RIF funds are a vital source of support that enhances their research programs and can be used for bridge support while waiting for grants to be renewed or funded.

There was a question as to whether crowd-funding projects can be administered through ORS. As more research and other projects are being funded by this type of mechanism, being liable for taxes on these types of funds will impact UMKC researchers. If funds were administered through UMKC this tax liability would not exist.

Recommendations:

1. Continue and expand the FFE program and make some grants available in the $50K range that could realistically support pilot studies to generate data for R01s.
2. Identify some funds to initiate an equipment grant program, in which the grant funds would be distributed based on a competitive application process.
3. In consultation with the Research Advisory Council, the ORS should generate a prioritized list of high end equipment that would enhance research capabilities at UMKC. This would then be immediately on hand if opportunities arise to work with a philanthropic donor, etc. to obtain funds for equipment purchase and/or if there are other opportunities such as white papers, etc.
4. Work to identify additional fundraising opportunities to generate funds to support research at UMKC.
5. Investigate opportunities for crowd funding of projects or equipment purchases and the feasibility of administering crowd funded projects through the ORS. Develop procedures for the administration of these types of funds, since this may be something that will increase in the future.

Leadership/Administration of ORS

The leadership team at the ORS consists of the Vice Chancellor for Research and Economic Development, Dr. Lawrence Dreyfus, the Assistant VCR, Dr. Anthony Caruso and the Directors of the various ORS offices. These include: Maureen Hannoun, Director of Sponsored Programs; Chris Winders, Director of Research Compliance; Eric Anderson, Director of Technology Commercialization; Maria Meyers, Director of the Innovation Center; F. Carl Calkins, Director of the Institute for Human Development. Most of the feedback from surveys and faculty interviews relates to the upper level of leadership (VCR and assistant VCR).

Several respondents commended the current leadership for improving outreach to non-STEM researchers and showing a better appreciation and understanding of the value of research in the Arts and Humanities. The ORS leadership was also commended for developing forums for celebrating research accomplishments in both STEM and non-STEM areas. However, there is still a need for more communication across campus and also in the local news media about research successes at UMKC. Better recognition of outstanding research might also help with faculty retention at UMKC.

The VCR and the Directors of Sponsored Programs and Compliance seem to have created an excellent work environment for ORS staff, who almost without exception felt that they worked as a collaborative team, and said that the work environment was positive and supportive. The VCR and Directors appear to work well with the staff they oversee and are well liked. They are open to conversations about improvement. For example, one staff member commented that "The Director of ORS is nice and well respected and sets a good tone for the office". Staff members feel that weekly ORS meetings work well so that everyone knows what is going on in ORS. Sometimes individual concerns or department level concerns can get lost in the larger staff meetings, so it might be beneficial to have smaller staff meetings more often.

Some respondents who work with ORS indicated that it is sometimes unclear who is the responsible person for certain assignments and it can take several attempts to be connected to the appropriate person. Therefore there is a need for a more clear definition from the Directors of who the responsible people are and a more efficient mechanism for connecting outside users with

the correct person. Some individuals at ORS show an exceptional level of customer service and are willing to go beyond the call of duty to help. However, for some employees, the level of service to faculty and attitudes towards faculty could be improved. There seems to be a lack of accountability, with some people taking advantage of a flexible work environment, which would not be acceptable in industry. There were also concerns over the organization of files and data as it is sometimes hard to obtain information about grants and projects when it is needed. It was also suggested that Maureen Hannoun could use an administrative assistant or assistant director to help cover duties when she is not there. A theme from several of the ORS interviews was that the location of the ORS offices within a single building would improve efficiency and collaboration across ORS Departments.

Although there are several positives, there were also a number of concerns with ORS operations. Many faculty comments focused on the lack of institutional support for the ORS and concerns regarding the upper leadership at ORS, with the most extreme opinions suggesting replacing the upper leadership team completely. The consensus view is that UMKC is not doing a good job in retaining our outstanding researchers who are well funded and that because of this, our extramural grant dollars have been declining. Without strong institutional support coupled with dynamic leadership at the ORS, UMKC's research operation may continue to decline to the point where we will no longer sustain a significant research operation. The ORS does not appear to have an effective strategy for enhancement and expansion of research at UMKC and for increasing funding that has been communicated clearly to investigators. There is a feeling amongst UMKC's research community that the institution does not value research highly enough and does not make it a priority for financial support. Although this has to some extent tied the hands of the VCR, many faculty felt that the VCR could do more with the resources currently available.

Some faculty were concerned at the delay times that can occur in obtaining required signatures from the institutional official. There were also concerns about slow response times of upper leadership to e-mails from investigators and comments that the VCR and assistant VCR are non-responsive. There was also a perception that ORS does not support non health science research effectively. Therefore, steps need to be taken to correct these concerns and/or change these perceptions.

Several faculty were concerned at the lack of transparency in the appointment process for the VCR and Assistant VCR and felt that a competitive recruitment process should have been used for these high level positions. This would ideally involve an external search, but even for an internal search there should be a competitive process.

The role of the VCR needs to be defined and communicated to faculty. Many faculty feel that the VCR needs to be more inspiring and dynamic and more proactive in enhancing research at UMKC by raising more seed money support for projects, advocacy with the legislature and providing more resources on a campus level that support growth of the UMKC research enterprise. The VCR needs a vision to promote research at UMKC and should be more active in fundraising as well as facilitating collaborations between UMKC faculty members and local companies.

During his interview and written responses with the TF, Dr. Dreyfus identified key target areas of research at UMKC including: the brain, health disparities & personalized medicine, and material science (Appendix 4). He sees an opportunity area in connecting the University with outside entities and collaborating. He would like to see a strategic plan built around this with faculty hired in this area. He indicated that STEM is technically where the money is, so this tends to dominate the focus of strategic efforts. He would like UMKC to hire at the highest level and have research

that makes people want to work here. He would like to use Explore publication to showcase to the community what we are doing and where we are going. The TF feels that if the ORS is provided with institutional support (through GRA allocation), this will free up more resources that the VCR can use for enhancing research growth at UMKC. The VCR indicated that he has been given the charge to advance research, but none of the authority to do so and his role is mainly in advocating for what he thinks is best for research.

Recommendations:

1. The ORS strategic plan should be reexamined by a reorganized and revitalized UMKC RAC, in conjunction with ORS leadership and an external scientific advisory board. The resulting modified ORS strategic plan should incorporate deliverable outcomes. This plan should be clearly communicated to the investigators and acted upon.
2. Ideally, non-STEM research and Arts emphasis research should be incorporated into the strategic plan. Alternatively, if the ORS is not going to embrace all research, UMKC should consider something like KU's Hall Center for the Humanities to take on responsibility for supporting grant-seeking and valuing work in the humanities and performing arts.
3. UMKC can't compete with big institutions like Harvard, etc. so we need to develop a strategy/vision for success that is realistic. To be world class we need to identify focus areas where we can excel and develop those by supporting them with resources, etc.
4. The leadership should find ways to engage in more fundraising activities to support and enhance research at UMKC.
5. The leadership should take steps to become more responsive to faculty.
6. The leadership needs to identify the reasons why funded investigators have left UMKC in the last few years so that strategic approaches can be developed to help retain our top researchers.
7. The leadership should work to define clearly who the responsible people are for various assignments within ORS and develop a more efficient mechanism for connecting outside users with the correct person.
8. One suggestion was that the ORS leadership should explore a "cradle to grave" option for grants rather than separating the pre and post award. The positive here would be that faculty members would have one person to contact for the grant who would know the history of the project and have all the files associates with it.

Pre-Award Services

Summary of Findings:

ORS describes the role of the Pre-Award office as follows: The Pre-Award Office supports the cultural and intellectual growth of the UMKC research community by helping UMKC faculty find and pursue viable research opportunities. In addition to crafting institutional policy to help promote and protect faculty research and creativity, we are also here to help faculty: find funding sources, develop research proposals and budgets, negotiate contracts, and stay current with campus and national policies that may affect their research.

In general, Pre-Award services seems to be working well. There was broad and effusive praise for Pre-Award staff. The praise for the Pre-Award staff focused on areas including their willingness to meet with faculty, the help they give novice investigators to get started, the work they do helping faculty meet deadlines and their help with the minutiae of getting a grant proposal submitted. To all appearances the team has strong leadership and works well together as a unit.

An online survey of research faculty within UMKC was performed (132 respondents for Pre-Award section) (Appendix 5). Numerical ratings were tabulated for: (1) Knowledge of staff (2) Availability of staff (3) Turnaround time for assignments (4) Overall service provided. The individual scores ranged from 3.88 to 4.02 out of a maximum of 5 with an overall average from all categories of 3.96 (see Appendix 6 for survey results). This falls within the "good/average" range and the numerical ratings were in line with the consensus from investigator feedback comments that the Pre-Award office functions fairly well. In addition, 38 RedCap survey respondents offered written comments (Appendix 7). In the 60 individual interviews conducted by the committee, Pre-Award services were also addressed several times, both positively and negatively.

The negative comments can be characterized as suggestions for ongoing improvement with a clear division between units that have dedicated grants staff and those that do not. The lack of unit-specific grant writing and grant proposal support was felt most acutely in the College of Arts and Sciences. Faculty and staff in units without dedicated grant support expressed a general desire for the availability of more Pre-Award services. The services that people would like to see are more help with completing PeopleSoft forms, some support for budget development, help with some of the more cumbersome but mechanical work of a grant proposal (i.e. properly formatting the bio-sketches based on the requirements of different funding agencies), more support for the actual grant writing process (from the brainstorming process to proofreading to mock evaluation panels). ORS staff also noted that lack of unit-level grant support made it more difficult for them to properly submit proposals and administer awards in units that lacked a dedicated grants staff person. In some cases, PIs in these units have their staff members work on grants, but since these staff members are not trained, they turn out to be the weakest link in the chain.

There was also some desire expressed for additional help identifying new funding sources. Faculty generally agreed that the listserv e-mails were not helpful because they aren't tailored to individual researcher's needs and they tend to pass along announcements from the major federal agencies that people already know about. In its place, faculty were looking for more help identifying on-campus collaborators and exploring funding opportunities beyond the obvious federal agencies. Faculty would like to see these efforts integrated into the existing MyVita system rather than having ORS roll out a different system that would require faculty to maintain two separate copies of their publication and research information.

There also appears to be a need for more communication about regulations and the ways that they impact both principal investigators and ORS. There are complaints about the lead time that ORS needs before a grant submission deadline. Some of this seems to come from principal investigators who would like to be editing a proposal until the very last second before the deadline and who don't seem to understand the steps that ORS needs to take to make sure a proposal can be submitted. Ongoing communication about the reason that this lead time is necessary along with some of the already described grant writing support might help people understand why the long lead time is necessary. There also seems to be a need for a more formal mechanism for ORS to inform PIs when agency regulations change or for principal investigators to inform ORS when they learn about regulation changes or reporting requirements directly from their funders.

Recommendations:

1. The Provost should look into the issue of internal grants support personnel to determine if this is something that should be instituted in Units, such as the College of Arts and Sciences,

which do not currently have such internal support. The TF feels that having these personnel would make the grants submission process run much more smoothly both for faculty submitting grants and ORS staff handling them and would result in better quality grants being submitted.
2. If Unit level support is not instituted, then a system needs to be implemented within the ORS to provide more pre-award support to faculty in Units that lack internal support personnel.
3. Pre-Award should assist faculty members in identifying on-campus collaborators and exploring funding opportunities beyond the usual federal agencies. The TF advises that this be done using existing databases, such as MyVita, rather than requiring faculty to enter duplicative information into a new database, which may lower the response rate.
4. There needs to be better communication from Pre-Award to faculty members about the reasons and importance of maintaining deadlines for grant submissions.
5. The retention and support of the experienced and competent Pre-Award staff is crucial to ensuring the continued operation and further improvement of Pre-Award services.

Post Award Services

Summary of Findings:

According to ORS, one function of the Post-Award Office is to work with principal investigators and their fiscal officers to manage and monitor awards received at UMKC. Another function of the Post-Award Office is to ensure that university and federal regulations are met and award funds are documented to ensure sound and appropriate financial management.
The responsibilities of the Post-Award Office include:
- Establishing accounts
- Monitoring expenditures
- Managing changes to research projects (including changes to personnel, budget, scope, timeline, or subcontracts)
- Invoicing and billing
- Reporting
- Closing out awards

Each school has a designated post-award administrator. Faculty and staff are expected to contact their school-level administrator when they have questions or need help with expenditure issues, rebudgeting, and agency rules and regulations. ORS doesn't have the staff to do cost reviews/accounting for all the grants so this is being done at the unit level, but to make this work properly these unit level people need to be trained.

An online survey of research faculty within UMKC was performed (107 respondents for Post-Award section). Numerical ratings were tabulated for: (1) Knowledge of staff (2) Availability of staff (3) Turnaround time for assignments (4) Overall service provided. The individual scores ranged from 3.35 to 3.58 out of a maximum of 5 with an overall average from all categories of 3.46 (see Appendix 6 for survey results). This falls within the "average/good" range and the numerical ratings were in line with the consensus from investigator feedback comments that the Post-Award office functions satisfactorily. In addition, 29 RedCap survey respondents offered

written comments (Appendix 7). In the 60 individual interviews conducted by the committee, Post-Award services were also addressed several times, both positively and negatively.

According to all the various feedback received, the Post-Award Office functions well most of the time. However, some issues were raised several times that indicate opportunities for improvement. These include:

- Post-Award grant accounting could be more detailed and clear. PeopleSoft is not a good system for making detailed reports to researchers or answering simple questions (e.g. "how much do I really have left to spend?"). Accounting reports to faculty could be more timely, which would reduce incidences of grants being overspent.
- Grant sub-contract renewals could be improved to make year–to-year transitions smoother.
- Sometimes communication with post-award staff has been difficult, requiring several attempts by PIs to accomplish things. One example given was a no-cost extension. Another example was a months-long delay for activating a grant.
- Information given by Post-Award staff is sometimes inaccurate or out of date and has caused problems for researchers (for example, with NIH subcontracts).

Recommendations:

1. Adopt a different grant accounting system that provides more detailed grant information and can be accessed more easily by grant awardees. If necessary, such a system could interface with PeopleSoft or at least generate reports that could be imported to PeopleSoft.
2. Improve proactivity and responsiveness of communication by post-award staff to grant awardees. One example of proactive communication would be to provide grant awardees with a list and timetable of required reports.
3. Improve the accuracy of information that post-award staff provides to grant awardees. This could be partially accomplished by more communication between staff members in the Post-Award Office.
4. ORS staff suggested that when someone is awarded a grant (particularly a new investigator) it would be useful if they had a meeting with ORS staff to go over the award and define everyone's roles and responsibilities.

Institutional Review Board (IRB)

Summary of Findings:

The UMKC Institutional Review Board (IRB) is mandated by federal law to review research activities that involve human subjects. The IRB is an independent committee of University faculty, employees of clinical affiliate institutions including Truman Medical Center, and non-affiliated members as required by federal regulations. The UMKC IRB is regulated by several federal agencies including the Department of Health and Human Services (DHHS). The University IRB has a Federalwide Assurance (FWA) as mandated by DHHS for universities or institutions that conduct federally funded clinical research. The IRB is administratively supported by ORS staff including several compliance officers and the Director of Research Compliance.

The University IRB meets twice monthly at the UMKC Hospital Hill campus on the second and last Tuesdays of the month. IRB committee members include UMKC faculty from the following departments: School of Education, School of Pharmacy, School of Dentistry, School of Medicine,

School of Nursing, Department of Psychology, Student Affairs, Information Services, and UMKC Libraries. IRB meeting information is posted on the UMKC ORS website. Previously, UMKC had a separate biomedical adult health sciences IRB and social sciences IRB. The two UMKC IRBs were recently combined and incorporated under one FWA. The current IRB chair is Cynthia Thompson, Ph.D. There are about 20 committee members which includes alternate reviewers. The IRB also serves as a Privacy Board for some research that involves identifiable personal health information.

Researchers that submit research protocols to the UMKC IRB for review are required to complete training as referenced in IRB policies. The training is a web-based program offered from the Collaborative Institutional Training Initiative (CITI). Over one thousand universities, hospitals, and veterans' administration programs require CITI training for researchers that use an IRB and other compliance committees to review research. The UMKC IRB uses an electronic submission process called eProtocol (from Key Solutions) for submissions to the committee by researchers and for project reviews by IRB members.

An online survey of research faculty within UMKC was performed (143 respondents for IRB section). Numerical ratings were tabulated for: (1) Protocol review process (2) Availability of staff to answer questions (3) Access to information on rules and regulations (4) Communication between IRB and investigators (5) Overall service provided. The individual scores ranged from 3.60 to 3.78 out of a maximum of 5 with an overall average from all categories of 3.64 (see Appendix 6 for survey results). This falls within the "good/average" range and the numerical ratings were in line with the consensus from investigator feedback comments that the IRB functions fairly well. In addition, 45 RedCap survey respondents offered written comments (Appendix 7). In the 60 individual interviews conducted by the committee, IRB was also addressed several times, both positively and negatively.

The TF received a lot of responses from the faculty survey and feedback during faculty interviews about the UMKC IRB. Many responses acknowledged the dedicated work of ORS Compliance staff that support the committee and mentioned strong improvements to the IRB submission process compared to five or six years ago. There were negative comments about the IRB electronic submission process and a few negative reviews on the committee's scope in reviewing research. Some of these strong negative comments seem to suggest particular issues a researcher or set of researchers had on a specific project(s). Other comments that appeared more frequently included the need for improvement to prevent delays in the IRB review process, especially with regard to undergraduate student proposals, frustrations of users using the complex eProtocol system, and dissatisfaction of some with the decision to combine the UMKC IRBs into one committee – in particular social science researchers. There was a concern shared by one individual regarding slow IRB review and errors made by the IRB committee. However the individual acknowledged the project was extremely complex and that the researcher also made errors during the IRB submission and reply process. This individual also mentioned other issues at the department level that were primary barriers to productive research activity.

IRB committee members at UMKC are involved in expedited review and full board review submissions to the IRB; the ORS Compliance staff review exempt research submissions. ORS Compliance staff also review research determination requests as the determination submissions are not forwarded to the IRB committee unless the determination indicates an activity meets the federal definition of research and involves human subjects. ORS Compliance provided average UMKC IRB committee protocol review turnaround time for calendar year 2015:

• Protocols submitted for expedited review turnaround = 65 days (30 days at ORS Compliance and 35 days with researchers).

• Protocols submitted for full board review turnaround = 75 days (39 days at ORS Compliance and 36 days with researchers).

ORS Compliance posts the UMKC IRB turnaround time information on the ORS Compliance website and provides reports to UMKC Faculty Senate upon request.

The TF interviewed the Director of Research Compliance and Compliance Officers. These University staff members mentioned that the strengths of the IRB process included well qualified and competent support staff that support the IRB, University support to purchase the eProtocol submission system, strong leadership in the Research Compliance Office, and that the IRB committee consists of dedicated members from many UMKC departments. These University staff also mentioned items that need improvement which include: further education on the IRB process for users/researchers and the need for audits of research projects (reviewed by the IRB) to ensure compliance with regulations. While the staff acknowledged the strength of using an electronic IRB submission system for reporting purposes, they also mentioned the eProtocol system does have some glitches and needs improvement.

Recommendations:

1. The TF suggests that all compliance committee electronic submission systems, e.g., eProtocol, be uniform if possible for the IRB, animal use committee, and biosafety review. One consistent compliance submission system allows users to learn one system and need fewer individual sign-ons. The University and ORS must remain committed to instituting and using compliance submission systems that are researcher user friendly, are technologically supported, assist the University in complying with federal regulations and that help respond to questions and queries from researchers.
2. Substantial improvements to the IRB and research review process have been made and cannot be reverted to the reality of five years ago at UMKC. The retention and support of competent Compliance staff by the University is crucial to ensuring consistent application of research regulations and interpretations of research projects.
3. To assist researchers to comply with University IRB requirements, federal regulations concerning subjects of human research, and IRB committee decisions, the UMKC Compliance Office must be afforded the opportunity to offer research educational programs and IRB information activities to all users. Users include researchers that submit many projects to the IRB and users such as students that submit only one project to the IRB. Researchers need more information on the reasons for compliance with IRB requirements, the decisions the IRB makes, and how to submit better research projects.
4. To educate participating Academic Units on the IRB process for students participating in Experiences in Undergraduate Research (EUReka) projects.

Institutional Animal Care and Use Committee (IACUC)

Summary of Findings:

The ORS provides administrative support for IACUC, and is responsible for record keeping for the committee but the committee is charged to function and make decisions independently from the University. The ORS mainly supports the position of the IACUC compliance specialist and provides a small annual stipend (approx. $5,000) to the chair of the committee to compensate for the workload. This ORS support for the IACUC coordinator and stipend for the IACUC chair appears necessary and appropriate.

The IACUC has the responsibilities to (i) review and grant approval for research and teaching protocols involving the use of live vertebrate animals (ii) ensure that animal research at UMKC remains compliant with federal guidelines, (iii) review on a bi-annual basis the institutional program for the care and welfare of live vertebrate animals used in research and its educational programs (iv) conduct required inspections and evaluations of the facilities in which animals are housed and maintained as well as laboratory research areas where animal experiments are performed. The committee meets once per month and also conducts extensive committee business, including reviewing protocols in between meetings

An online survey of research faculty within UMKC was performed (18 respondents for IACUC services). Numerical ratings were tabulated for: (1) Protocol review process, (2) Support for preparation of protocols (3) Access to information on rules and regulations (4) Communication between IACUC and investigators (5) overall service provided. The individual scores ranged from 3.78 to 3.89 out of a maximum of 5 with an overall average from all categories of 3.83 (see Appendix 6 for survey results). This falls within the "good/average" range and these numerical ratings were in line with the consensus from survey feedback comments (7 comments- Appendix 7) as well as comments from faculty interviews that the IACUC is one area of the ORS that functions well/satisfactorily. The IACUC coordinator was particularly commended for her work assisting IACUC users.

The revisions to the IACUC application forms that were implemented to reduce duplication, etc. were viewed as an improvement. A major concern raised by several investigators is that the IACUC review process can be slow and frustrating. This is because comments from multiple reviewers are not collated before sending the protocol to the PI for revisions, resulting in several rounds of responses to review comments before protocols are approved. Information from the VCR concerning the turnaround times for IACUC protocols is presented in Appendix 8.

New applications and 3 year renewals take an average of 61-64 days for approval (42-46 days with IACUC). Major amendments take about half as much time and the annual continuations and minor amendments are being approved within 8-16 days. Users appreciated that the approval process for annual continuations and minor amendments has speeded up significantly in the past few years, but some still feel that the review of new applications and 3 year renewals is too slow. Some of the stronger negative comments seemed to reflect particular experiences a researcher or set of researchers had on a specific project(s).

Concerns were also raised about the use of work study students and inexperienced staff for some IACUC work rather than experienced trained staff. A concern raised by more than one respondent is that there have not been any LARC/IACUC user meetings for over a year. These are important to enhance communication between the IACUC/LARC and the user community and to update users on changes in regulations/operation of the animal facility and allow users to ask questions.

ORS staff members with responsibility for IACUC operations felt supported by their supervisors and felt that the weekly meetings of the ORS help them keep up with what is going on in the ORS. They felt they had a good sense of their role within the ORS mission. They felt that the compliance office has improved considerably over the last few years and that they have enough staff to cover the workload. They felt they had a good relationship with faculty and that researchers are generally compliant. Leadership is responsive and supportive and the work environment is good. There was concern that the IACUC records are still mainly kept as paper (printed) hardcopies, which seems outdated and inefficient. An electronic protocol application system would be a considerable improvement. They are currently looking into a potential system that UM is developing.

Recommendations:

1. Streamline the IACUC review process and collate all review comments before sending protocols back to the investigator to minimize the number of times investigators have to respond to review comments.
2. Re-institute the annual or bi-annual user meetings to enhance communication between IACUC and investigators. This is very important and we may be at risk of being non-compliant if this is not done.
3. Since most IACUC protocols are linked to extramural funding it would enhance research productivity if an expedited review mechanism could be implemented when IACUC approvals are needed to secure grant funding.
4. Invest in and launch an electronic application system which should improve efficiency considerably over the current word-based protocol system. Ideally, the IACUC, IRB and IBC protocols should be done using a single platform so that investigators do not have to learn multiple online submission systems.
5. Move to a digital based system for archiving records, etc.

Institutional Biosafety Committee (IBC)

Summary of findings:

The UMKC Institutional Biosafety Committee (IBC) is another compliance committee administered by the ORS. The IBC is an independent committee of University faculty and non-affiliated members. The IBC has responsibility for review, approval and surveillance of all research and teaching involving the use of biohazard materials at UMKC.

The IBC meets quarterly and the committee's policy and procedures are posted on the ORS website. The IBC also serves as the IBC of record for affiliated clinical institutions and includes members from the clinical affiliates such as The Children's Mercy Hospital and Saint Luke's Hospital.

The current IBC chair is Jakob Waterborg, Ph.D., emeritus professor in the UMKC School of Biological Sciences. Dr. Waterborg has served in the chair capacity for several years. The IBC meets on a quarterly basis, typically on the 2nd Tuesday during the months of August, November, February, and May. The UMKC Biosafety Officer, Tim Sturgis, of UMKC Environmental Health and Safety is also an important member of the IBC. Biosafety officers from the affiliated hospitals also serve as committee members.

An online survey of research faculty within UMKC was performed (24 respondents for IBC section). Numerical ratings were tabulated for: (1) Protocol review process (2) Support for preparation of protocols (3) Access to information on rules and regulations (4) Communication between IBC and investigators (5) Overall service provided. The individual scores ranged from 3.83 to 4.13 out of a maximum of 5 with an overall average from all categories of 4.0 (see Appendix 6 for survey results). This falls within the "good" range and the numerical ratings were in line with the consensus from investigator feedback comments that the IBC functions fairly well. There were relatively few comments received from the ORS-TF faculty survey (Appendix 7) and interviews with faculty about the IBC. Faculty comments supported the important role of the IBC and also positively mentioned the ORS staff that support the IBC. The ORS-TF also met with the Director of Research Compliance and the IBC Compliance Specialist to obtain input.

The primary IBC concern shared by University faculty during interviews and survey results indicated that the University IBC does not meet often enough. Quarterly meetings, especially if a meeting is cancelled, could lead to lengthy delays in the initiation of a research protocol and could thereby delay research progress and productivity.

Recommendation:

1. The ORS TF recommends the IBC schedule monthly meetings during the calendar year to ensure research projects are reviewed in a timely manner.

Radiation Safety Committee (RSC)

Summary of Findings:

The RSC defines their functions as follows: responsible for establishing policy and guidelines to safeguard personnel, property and the community-at-large from exposure to hazardous radiations. The RSC establishes policies that ensure compliance with the applicable federal, state, and University regulations and provides overall guidance for the radiation safety program.

An online survey of research faculty within UMKC was performed (19 respondents for RSC section). Numerical ratings were tabulated for: (1) Application/permit review process (2) Support for preparation of application/permit (3) Access to information on rules and regulations (4) Communication between RSC and authorized users (5) Overall service provided. The individual scores ranged from 4.0 to 4.32 out of a maximum of 5 with an overall average from all categories of 4.17 (see Appendix 6 for survey results). This falls within the "good" range and the numerical ratings were in line with the consensus from investigator feedback comments that the RSC functions well.

The Radiation Safety Committee didn't get much attention in either the survey or in the individual interviews with investigators. There were only three comments in the survey (Appendix 7) and none of them pointed to any operational issues to speak of.

Recommendations:

The TF has no recommendations for this committee.

Laboratory and Animal Research Core (LARC)

Summary of Findings

The ORS oversees the operations of the LARC and provides support for running the animal facility and its equipment as well as supporting salary for the part time Veterinarian and the personnel who work in the facility. The LARC expenses and revenue history are summarized in Appendix 9. Total LARC expenses over the past 6 years have ranged between $832,302 to $609,575 (average $691,896). Approximately half of this figure is to cover salaries and benefits and half is for facility operation costs. The LARC billing to investigators (per diem fees, hourly technician fees and other billing) is generating revenues to offset a percentage of this cost. This percentage has risen steadily over the past 6 years from 35.33% in FY2012 to 64.28% in FY2015 with the result that revenue from LARC billings is now covering about two thirds of the LARC operating costs. The ORS portion of the costs (approximately one third) is generated through indirects from grants. The ORS support for the LARC facilities and staff seems necessary and appropriate, although several of the survey respondents suggested the need for a full time veterinarian (see below)

An online survey of research faculty within UMKC was performed (23 respondents for LARC section). Numerical ratings were tabulated for: (1) Quality of animal housing facilities and equipment (2) Animal Care (3) Access to Veterinary advice (4) Communication between LARC staff and investigators (5) overall service provided. The individual scores ranged from 3.83 to 4.30 out of a maximum of 5 with an overall average from all categories of 4.02 (see Appendix 6 for survey results). This falls within the "good" range and the numerical ratings were in line with the consensus from investigator feedback comments that the LARC functions fairly well and has improved significantly over the last few years. The new animal facility manager and the part-time veterinarian were commended for their work assisting investigators. Several investigators felt that the new animal facility manager is responsive and helpful, that the facility is improving and the animals are well taken care of.

 A major concern expressed by several investigators is that the University does not invest in a full time Veterinarian to oversee the UMKC animal facility. This is not a criticism of the current Veterinarian, but of the lack of institutional support for the facility. Having a full time Veterinarian would enhance the operations of the facility and the IACUC review process and the Veterinarian could be included as a co-Investigator on grants, which might enhance grant competitiveness.

The lack of a United States Department of Agriculture (USDA) approved surgical suite is viewed a major deficiency in our LARC that limits research and may have implications for hiring of top quality research faculty. If their research requires surgical procedures on USDA species and larger animals, they would have to find an alternative location for this research, which may discourage them from coming here. Several UMKC investigators expressed the need for an animal behavioral suite which would have the capability of altering light/dark cycles for behavioral studies and for studying circadian rhythms. There is unfinished shell space in the Health Sciences Building adjacent to the animal facility which could be used to add these resources. An animal imaging/phenotyping core would also be a great addition to the LARC and would help with UMKC recruiting efforts.   Because of University budget challenges there is concern that money earmarked for LARC space completion (including surgery suite) will be used for other ORS activities.

Communication in the LARC could be improved. This would include updating the website to make it more user friendly, adding information on animal care (diet, temperature, humidity, light dark

cycle, etc.), which is now required by many journals. It is also important to reinstate the annual animal users meetings to disseminate information to users and promote communication between users and LARC personnel. The names of technicians taking care of animals should be posted up in the room or in a central location so investigators can easily find out how to contact them for issues that occur in the room. The quarantine process in LARC can be slow and persons in charge of quarantine need to be more customer service oriented and communicate better. Delays in quarantine can lead to mice being too old to breed when they come out of quarantine, which can negatively affect research progress.

The VCR provided comparison data on the animal per diem charges at UMKC compared to other institutions. This showed that UMKC's per diem charges are lower than several other institutions. However, investigators felt that any increases should be kept to an absolute minimum as this is one of the few incentives to keep researchers at UMKC and is useful in recruiting investigators to an institution that has few other resources to offer, such as core facilities, support for equipment, internal grant support, etc. We also need to be aware that this comparison of fees is being made with institutions that employ one or more full time Veterinarians and have USDA approved surgical suites as well as facilities for housing large animals. Other institutions often have other core resources such as animal imaging and phenotyping equipment, so it is appropriate for the UMKC per diem charges to be low until such time as the services offered are enhanced. Per diem charges are currently supporting about 60% of the LARC operation expenses and it seems appropriate for the ORS to subsidize the remaining costs, since this is an appropriate use of indirect funds, many of which are generated by grants that include animal research.

Staff interviewed who are involved in LARC activities felt they knew their role within the ORS mission and felt that the ORS office was supportive. They feel that if expenses are well justified they are generally supported by the leadership. There needs to be better documentation/accounting of LARC expenses and it was felt that not all charges are being accurately accounted for. The L.A.M.B.S. software is one of the problems in relation to the accounting issues and doesn't work well. There were varying opinions among the interviewed staff regarding investigator compliance, ranging from the view that investigators were generally compliant to the view that there are concerns with investigator compliance and that these concerns were not adequately followed up by the leadership.

Recommendations:

1. The VCR and UMKC administrators should make it a priority to secure funding for remodeling of the unfinished shell space in the Health Sciences Building to convert it into specialized animal facility space to advance translational research. This would include a USDA approved surgical suite, an animal behavioral suite and additional animal housing rooms and procedure rooms. Ideally an animal imaging/phenotyping suite should also be supported.
2. The institution should make it a top priority to support a full time veterinarian to oversee the UMKC animal facility. This would underscore UMKC's commitment to a serious research program, enhance the operations and efficiency of the LARC and promote research productivity.
3. The LARC and its activities should continue to be a priority for institutional support in order to sustain UMKC as a research University as well as aiding with recruitment and retention of faculty. The institution should continue to subsidize the operations of the LARC, either through indirect grant funds or through institutional support to keep the costs to the investigators at a

minimum. This subsidy should ideally be about 50% of the operating costs but should not fall below one third of the costs.

4. The LARC component of the ORS website should be updated to include information about animal care and husbandry since many journals are now requesting this information as part of the research integrity initiative.

5. The annual users meetings should be reinitiated to enhance communication between LARC and investigators as well as providing updates on important changes in federal regulations and compliance issues.

Office of Technology Commercialization

Summary of findings:

According to the ORS website, the Office of Technology Transfer helps faculty and staff at UMKC turn their research ideas into commercially viable realities.

Surveys of faculty and staff across UMKC produced limited feedback on the Office of Technology Transfer, mainly because this office's services are not as highly used as other ORS services. However, these responses, plus issues that were raised in both the RedCap survey comments and in-person interviews with faculty and staff, identified positive and negative areas in the functioning of this office.

An online survey of research faculty within UMKC was performed (25 respondents for Tech Commercialization section). Numerical ratings were tabulated for: (1) Knowledge of staff (2) Availability of staff (3) Expert support and advice on patenting and licensing (4) Effectiveness of technology advisory committee (5) Disclosure submission process (6) Overall service provided. The individual scores ranged from 3.31 to 3.96 out of a maximum of 5 with an overall average from all categories of 3.59 (see Appendix 6 for survey results). This falls within the "average/good" range and the numerical ratings were in line with the consensus from investigator feedback comments that the Office of Tech Commercialization functions fairly well. In addition, 11 RedCap survey respondents offered written comments (Appendix 7).   In the 60 individual interviews conducted by the committee, Office of Tech Commercialization was also addressed several times, both positively and negatively.

Overall, users found the office staff very helpful. Users of this office's services were eager to see that past practices by the office that focused on facilitating commercialization continue at least as well as before. The Office of Technology Transfer staff felt the work environment created by VCR Dreyfus was positive and interactive. Some issues, however, were raised both in the RedCap survey comments and in-person interviews with both faculty and staff that indicate opportunities for improvement. These include:

- Lack of clarity and consistency in UMKC's technology transfer efforts. Faculty sometimes felt uncertain about how to proceed with potential technology transfer possibilities.
- Functioning of the Office of Technology Transfer was less efficient than it could be due to the reporting/accountability structure of the office. For example, the timing of information sharing between the Post-Award Office and the Office of Technology Transfer sometimes results in premature disclosures (publications or presentations) because researchers are not made aware of the possible commercial value of their work. Another issue affecting efficiency is the

difficulty in identifying office staff members responsible for particular tasks (such finding specific documents). Finally, the ORS TF determined that fragmented work schedules and workload distributions reported within the Office of Technology Transfer could exacerbate the inefficiencies described above.

Recommendations:

1. The Office of Technology Transfer should receive information from Post-Award as soon as a grant is awarded and then participate the initial discussion with awardees that Post-Award currently conducts. This will potentially forestall premature disclosures that interfere with protecting intellectual property.
2. The Office of Technology Transfer should also more seamlessly receive the final report for a grant after it is completed, also in order to potentially forestall premature disclosures that interfere with protecting intellectual property.
3. The Office of Technology Transfer should participate in grant writing workshops in order to get researchers thinking about protecting intellectual property early on.
4. The Office of Technology Transfer should clarify roles and responsibilities within the office to increase the office's effectiveness and efficiency in interactions with researchers and within the office itself.
5. Information on the Office of Technology Transfer on the ORS website should be enhanced so UMKC researchers have better information on the role and uses of this office

Institute for Human Development and Innovation Center

Summary of Findings:

The UMKC Institute for Human Development (IHD) is an applied research and training center for human services. IHD conducts and collaborates on a variety of projects to develop, implement, and promote interdisciplinary training, applied research, and community program development. IHD is located on two floors of the Pershing Building which is south of Union Station. The Vice Chancellor for Research provided a detailed overview of the active grant projects in which IHD is involved.

The UMKC Innovation Center partners with the community to encourage entrepreneurial efforts in the Kansas City area. The Innovation Center helps businesses refine their business basics and evaluate commercialization opportunities. The Innovation Center is located in the UMKC Troost Building. Both the Innovation Center and IHD have budgets that are separate from ORS as these are standalone centers.

The majority of faculty that were surveyed and interviewed (and some ORS-TF members!) were not aware of the existence of the IHD or Innovation Center, suggesting that more outreach is needed to make sure UMKC investigators are aware of these resources.

Recommendations:

1. The ORS TF suggests a representative from IHD be selected to serve on the UMKC Research Advisory Council. Because of the large number of grants that are processed through IHD, the department may have key suggestions for grant processing, invoicing, and other information that would be valuable to other members of the UMKC RAC.

2. Consideration should be given to separating IHD from ORS. IHD does not provide research compliance services or grant pre-award or post-award functions and is a separate functioning entity from ORS.
3. Outreach efforts should be initiated, either by ORS, and/or representatives from the IHD and Innovation Center to inform UMKC researchers about the services and opportunities available through these facilities.

Other TF Findings

In the additional comments section of the online survey an extensive list of 52 comments were submitted. The overall consensus from this and from faculty interviews was that the ORS has improved considerably over the past few years and the compliance staff were commended for helping facilitate this improvement. The research symposium that has been initiated by ORS was viewed as an excellent opportunity for investigators to showcase their work and meet colleagues.

There was a consensus that a deficiency at UMKC compared to other institutions is that there is not much support for research Cores (e.g. proteomics, imaging, gene profiling, transgenic/CRISPR). These have tended to be set up by individual investigators willing to invest the time and commitment rather than the Institution making them a priority. The VCR has been generally supportive when these opportunities have been initiated, but with the current financial constraints on the ORS, his ability to support these initiatives has been limited. UMKC has therefore fallen behind other institutions that can offer these core facilities and resources to their investigators. This puts us at a competitive disadvantage for recruitment and retention of faculty as well as competing for extramural grant funds. One of the few things UMKC has that may serve as an incentive for retention and recruitment of investigators is the RIF distribution but there has been talk at ORS of reducing the RIF distribution to investigators. The TF feels that this would be catastrophic and would likely lead to an additional exodus of funded investigators, as UMKC currently offers few advantages over other institutions without these RIF funds coming back to the investigator.

Several faculty commented that it is hard to get research going for new faculty and that better training and support for grant writing is needed. UM Columbia even provides a grant editing service to improve grants. If UMKC would invest in supporting an FTE person for this, the salary support would probably be paid back by more grants being funded. A mechanism should also be developed for mentoring of junior faculty where they can be associated with external or internal mentors.

A barrier to research growth at UMKC is that in many of the Units it is very difficult to internally promote "rising star" junior researchers, into faculty level positions (e.g. Research Assistant Professors) that make them eligible to apply for extramural funding. This means that these rising stars are forced into moving to other institutions if they want to advance their careers. One example was given of a very talented UMKC junior investigator who was unable to achieve faculty status at UMKC and moved to KU. This individual has now obtained several large NIH grants which could have been at UMKC. Therefore we are missing out on opportunities to "grow our own" researchers and expand research by not having adequate mechanisms in place for internal promotion. There was a perception that the Deans in certain units are not particularly interested in research, which also hinders research. Another barrier to research at UMKC is the lack of financial support for graduate students through the School of Graduate Studies. If more funds were available to support students, this would amplify the productivity on research grants and would likely have a knock on effect on increased grant funding for UMKC investigators. Although

neither of these issues fall under the purview of ORS per se, they should be considered by the UMKC administration in the wider context of efforts to enhance research at UMKC.

Some faculty suggested a need for centralized support infrastructure for research, such as centralized support for clinical translational research. This indicates a lack of awareness of the resources in the Center for Health Insights. Therefore, there is a need for better dissemination of information about available resources.
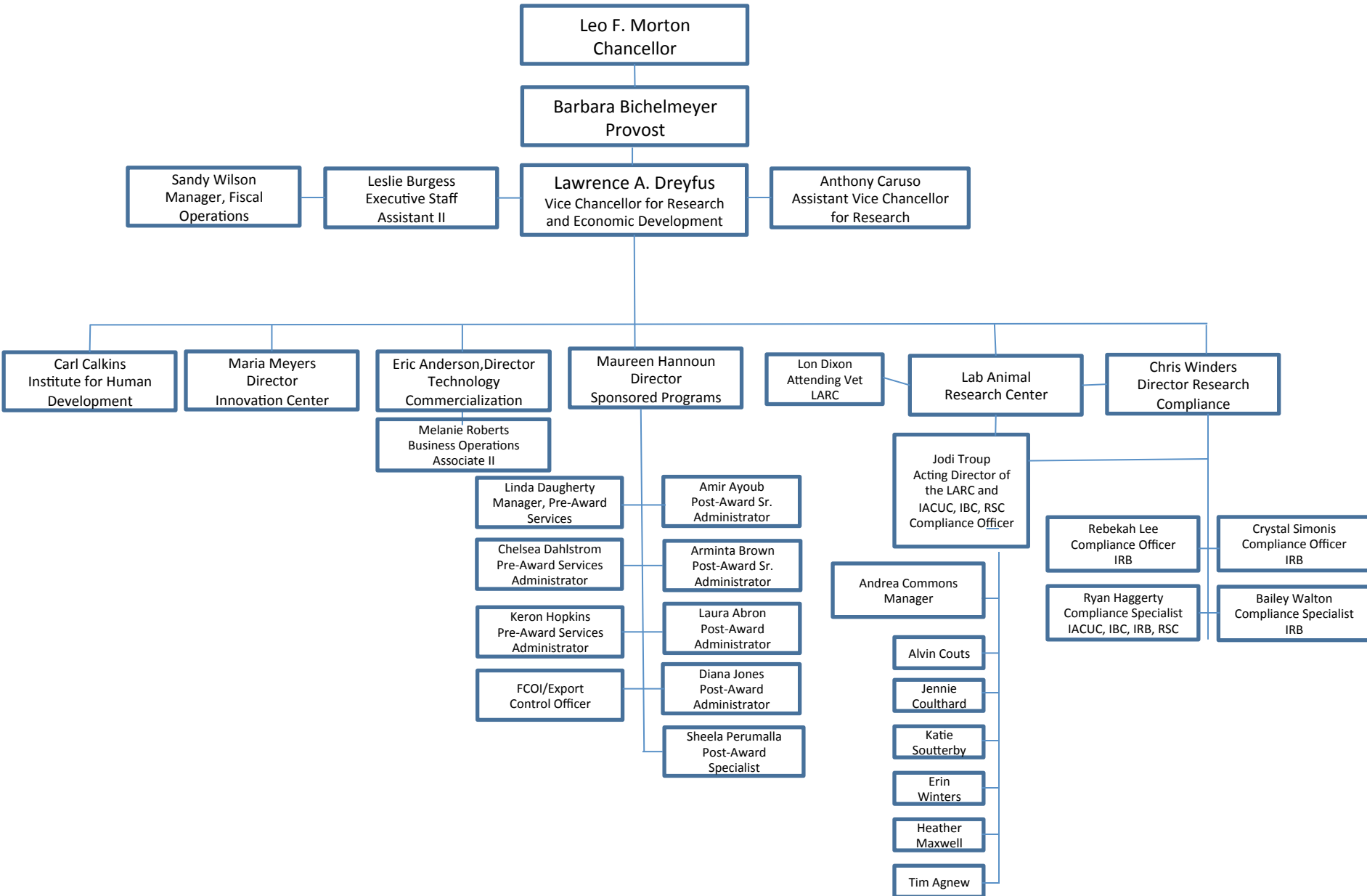
Recommendations:

1. The institution should prioritize support (in the form of dollars) for research and research infrastructure and make it a priority to provide funding support for graduate students.
2. The ORS together with the institution should develop initiatives and provide support for the establishment of core facilities comparable to those at other institutions (e.g. proteomics, imaging, gene profiling, transgenic, etc.).
3. The institution should hire one or more full time grant writing specialists who could liaise with grant applicants and help improve the quality of grant submissions. These individuals would likely "pay for themselves" if they are able to increase the success rate of grant applications.
4. Mechanisms need to be instituted campus wide to enable promotion of "rising stars" to faculty level positions, such as Research Assistant Professor, that make them eligible to be PIs on extramural grants. Some Universities have positions such as Instructor, Faculty Associate, that fulfill this. These generally do not cost the University as they are grant supported.
5. The Institution should better disseminate information to researchers about resources available in the Center for Health Insights.

<u>APPENDICES</u>

1   ORS Organizational Chart

2   ORS Budget

3   ORS Strategic Plan

4   Answers from VCR

    a.   Written answers

    b.   Summary of VCR interview

    c.   Post-interview questions

5   Survey Questions

6   Quantitative Survey Data

7   Summaries of Survey Comments

8   IACUC Turnaround Data

9   LARC Expenses

Appendix 1

Leo F. Morton
Chancellor

Barbara Bichelmeyer
Provost

Sandy Wilson
Manager, Fiscal
Operations

Leslie Burgess
Executive Staff
Assistant II

Lawrence A. Dreyfus
Vice Chancellor for Research
and Economic Development

Anthony Caruso
Assistant Vice Chancellor
for Research

Carl Calkins
Institute for Human
Development

Maria Meyers
Director
Innovation Center

Eric Anderson, Director
Technology
Commercialization

Maureen Hannoun
Director
Sponsored Programs

Lon Dixon
Attending Vet
LARC

Lab Animal
Research Center

Chris Winders
Director Research
Compliance

Melanie Roberts
Business Operations
Associate II

Linda Daugherty
Manager, Pre-Award
Services

Amir Ayoub
Post-Award Sr.
Administrator

Chelsea Dahlstrom
Pre-Award Services
Administrator

Arminta Brown
Post-Award Sr.
Administrator

Keron Hopkins
Pre-Award Services
Administrator

Laura Abron
Post-Award
Administrator

FCOI/Export
Control Officer

Diana Jones
Post-Award
Administrator

Sheela Perumalla
Post-Award
Specialist

Jodi Troup
Acting Director of
the LARC and
IACUC, IBC, RSC
Compliance Officer

Rebekah Lee
Compliance Officer
IRB

Crystal Simonis
Compliance Officer
IRB

Andrea Commons
Manager

Ryan Haggerty
Compliance Specialist
IACUC, IBC, IRB, RSC

Bailey Walton
Compliance Specialist
IRB

Alvin Couts

Jennie
Coulthard

Katie
Soutterby

Erin
Winters

Heather
Maxwell

Tim Agnew

Strategic Plan For Research

2015

Mission: ***Translating ideas into innovation by promoting excellence in research and scholarly activity***

Vision: ***The Office of Research and Economic Development elevates the research experience of our faculty through collaboration, dedication to mission, and teamwork.***

Theme 1: Focus for Success*.* Sharpening the focus on our areas of excellence while promoting cross-discipline connections that catalyze new research potential will broaden our funding opportunities.

Theme 2: Create the Climate for Research Excellence by Investing in People. Promoting best practices and creating new paradigms for success at extramural funding, developing new faculty incentive and reward structures, and investing in faculty development will drive research excellence while increasing faculty success and research expenditures.

Theme 3: Innovation with Information. Harnessing the power of "big data" to leverage our current research strengths while creating new opportunities across all disciplines to foster new discoveries and success.

Theme 4: Ideas to Innovation*.* Leverage the assets of our Innovation Center, the Office of Technology Commercialization and key academic unit activities to <u>match</u> the creative talents of our faculty with the entrepreneurial ecosystem of the Kansas City region.

Theme 1

Lever 1.1 Organization of UMKC research strengths by cross-disciplinary activities as matched with available opportunities.

- **Action 1.1.A** Organize research focus groups around areas of expertise as defined by campus expenditure and publication data (SciVal, PIVOT, "Harvard Profiles" and similar utilities)

- **Action 1.1.B** Create appropriate infrastructure to support and promote areas of strength (Targeted ListServe(s) for RFP dissemination; pre-award support (See **Lever 2.1**)

Lever 1.2 Cooperative cluster hiring across academic units

- **Action 1.2.A** Create administrative incentives for academic units to participate on cooperative hiring plans

- **Action 1.2.B** Create a competitive "Hiring for Excellence" plan with financial investment from Provost, Academic Units, and Research and Economic Development Offices, *and matched with UM System Strategic Investment Funding*

Lever 1.3 Develop administrative practices, policies, and structures to foster research collaborations

- **Action 1.3.A:** Develop the position of Assistant Vice Chancellor for Research to connect researchers from all units to collaborations around defense-, intelligence- and material science-related areas of research

- **Action 1.3.B:** Organize the *"Institute for Health Innovations"* to promote success across our health science-related Centers of Excellence

Lever 1.4 Develop practices to better promote industrial partnerships

- **Action 1.4.A:** Use F&A wavers, full-cost contracts, and IP ownership strategies to fullest in attracting research partnerships in the private sector

- **Action 1.4.B:** Appoint and develop industrial partner liaisons for 2-3 key sectors of marketplace

- **(i.**e. defense, intelligence, and security; medical informatics; engineering and medical devices)

Theme 2

Lever 2.1 Unify our campus investment in research.

- **Action 2.1.a** Create a Provost-level Research Incentive Fund of $1 Million (annually) exclusively for faculty start-up matching funds and infrastructure

- **Action 2.1.b** Create mandatory Academic Unit-based Research Incentive Funds for faculty start-ups and infrastructure

- **Action 2.1.c** Create Research line item in the UMKC Capital Campaign

- **Action 2.1d** Standardize academic unit F&A recovery policies to promote faculty participation and success

Lever 2.2 Eliminate administrative hurdles to grant submission

- **Action 2.2.a** Automate as many regulatory steps as possible (eIRB, eFCI, eIACUC, etc)

- **Action 2.2.b** Maintain updated NIH Biosketch files for key faculty; develop boilerplate documents for various agency budgets, institutional support services, etc. and post them on ORS Intranet site

Lever 2.3 Promote excellent grant writing; incentivize and reward application submissions and success

- **Action 2.3.a** Offer a high-level grant-writing workshop on a regular (biennial) basis

- **Action 2.3.b** Create policies and specific requirements/incentives/rewards for grant submissions

- **Action 2.3.c** Establish unit- and campus-based metrics for grant submissions

Lever 2.4 Develop a campus culture that values research excellence

- **Action 2.4.a** Hold and annual Research Recognition event showcasing the 50 top researchers

- **Action 2.4.b** Expand publication of *Explore* to include broader representation of research excellence.

- **Action 2.4.c** Create additional research excellence awards

Theme 3

Lever 3.1 Continue to develop and expand the *Center for Health Insights* to serve as our central focal point for informatics services, bio- and medical-informatics research and global outreach.

- **Action 3.1.a** Hire additional Medical Informatics researchers, system programmers and data analysts to interact with and support the mission of the CHI

Lever 3.2 Develop the infrastructure necessary to empower informatics research.

- **Action 3.2.a:** Launch RedCap to facilitate clinical research efforts. (Done)

- **Action 3.2.b:** Launch *Ingenuity Pathway Analysis* for advanced gene expression analysis, biomarker discovery, genomic, proteomic and metabolomics analyses, etc. (Done)

- **Action 3.2.c:** Invest in a dedicated and scale-able high performance server for medical informatics analyses (Done)

- Action3.2.d: Fully launch Cerner *HealthFacts* in collaboration with Cerner and Truman Medical Center (In Progress)

Lever 3.3 Establish critical partnerships for establishing a Kansas City Big Data consortium

- **Action 3.3.a:** Solidify the emerging partnership with the Cerner Corporation that will position UMKC to an academic research arm for developing, testing, and showcasing new products.

- **Action 3.3.b:** Become a necessary partner in the Kansas City Region for informatics-related initiatives in biomedicine, public health, and population research.

Lever 3.4 Create Medical Informatics degree programs at the baccalaureate, masters and Ph.D. level to support the demand for the 21st century informatics workforce.

- **Action 3.4.a** Create an I-PhD degree program in Medical Informatics with participation by the Schools of Medicine, Biological Sciences and Computing and Engineering.

- **Action 3.4.b** Create a Biomedical Informatics baccalaureate degree track housed in the School of Biological Sciences

Theme 4

Lever 4.1 Expand the Office of Technology Transfer

- **Action 4.1.a** Hire a licensing associate, and an intellectual property administrator to meet the growing demands associated

Lever 4.2 Develop practices that seamlessly connect research and researchers to intellectual property development

- **Action 4.2.a** Expand *"Whiteboard to Boardroom"* (W2B), connecting researchers' intellectual property with investors, across all 4 UM System campuses by "introducing" their IP to the Kansas City marketplace.

- **Action 4.2.b:** Focus activities and services offered by the Small Business Technology Development Center (SBTDC) inward on faculty entrepreneurs.

- **Action 4.2.c:** Hold regular classes/seminars on IP development, patenting, SBIR grant applications and venture capital development.

Lever 4.3 Promote campus activities that increase entrepreneurship and innovation

- **Action 4.3.a:** Connect students and their activities in the Institute for Entrepreneurship and Innovation with our Technology Transfer Office

- **Action 4.3.b:** Partner with the Bloch School of Management, the IEI, the School of Computing and Engineering to hold regular entrepreneurship

- **Action 4.3.c:** Start a faculty *Innovation Forum* aimed at fostering creative idea development among our faculty

The University of Missouri – Kansas City
Office of Research and Economic Development
Organizational Assessment

Introduction.

Evaluation Questions:
1. How does the Organizational Structure, role, expenditures, and revenue streams of the ORS compare to similar institutions (NSF Higher Education Research and Development rating and sister campuses) in meeting the UMKC Research Mission?

> **Organization.** The organizational chart of the Office of Research and Economic Development is shown in the **Appendix**. The overall structure of having an Office of Research Services (ORS) or Office of Research Administration (ORA) that includes pre-award, post-award, and research compliance personnel is standard across research institutions/universities. Many offices, like UMKC-ORS also have oversight of research compliance and the technology commercialization activities as well. In addition, universities - like UMKC - that have lab animal research facilities house these facilities under their ORS/ORA. It is also typical of many universities to have specific research core facilities administered through their ORS/ORA. This is presently not the case at UMKC, though an argument could be made that this is an organizational structure worth considering at some point. The UMKC ORS does include the Institute for Human Development and the UMKC Innovation Center. Descriptions of those entities are included below. These are freestanding and self-supported entities that have direct relationship to the research and economic development mission as UMKC.

> **Budget.** A 5-year view of the ORS Budget (Pre/Post Award, Compliance, Lab Animal Research Core (LARC) and Tech Commercialization) is shown in the **Appendix**. The Innovation Center and IHD were not included since these entities are self-supporting and do not draw revenue from the ORS.

> The sources of ORS revenue are indirect cost (or Finance and Administrative costs; F&A) from grants and contracts awarded to the University and LARC user fees (internal sales); see the answer to question 6 for greater context/detail. Of the total F&A received by UMKC, 40% is allocated to ORS, 50% to the academic units that initiated the awards, and 10% to Finance and Administration to fund Environmental Health and Safety). The ORS portion of the F&A accounts for 85-90% of the total ORS operating revenue. Revenue generated from LARC user fees represents about 50% of the LARC operating costs; the remainder, >$300k, is derived from the ORS (see ORS Budget in Appendix).

> The largest cost category of the ORS budget is personnel, with total compensation ranging from $2.0 - $2.1M over the last 5 years. This

compensation figure supports 29.5 FTE in Research Pre/Post award, Research Compliance, LARC, and Technology Commercialization. This amounts to an average total compensation (salary + benefits) of $70,707 (at Total Comp of $2.1M).

The next largest cost category is Departmental Operating averaging about $500,000/yr. Significant cost categories include computer and software needs, training and travel for staff professional development, consulting and research animal related costs.

In addition to these nondiscretionary items, the ORS also provides support back to the campus research operation (under the category of Research Services Support Initiatives), some of which are mandated by compliance regulation and agreements with Centers, Units, etc.; and other areas of support including Grant Writing seminars, Funding for Excellence, Frontiers CTSA matching funds, microscopy core facility support; and others. This discretionary support amounts to approximately $500,000/year.

UMKC is the only campus in the UM System that funds its Office of Research Services/Administration in this way (i.e. a fixed percentage of F&A). Each office on the other three UM System campuses receives a centrally funded GRA plus some portion of the F&A. The formulas are different on each campus and have grown out of historical funding mechanisms that evolved over time. The majority of non-UM System University ORS/ORA Offices are funded primarily from GRA with additional revenue coming from F&A, and some portion of technology licensing revenue. For each University, there is a different mix of revenue streams that fund ORS/ORA activities.

Challenges to the ORS Budget. In 2008 the ORS revenue stream was changed under Chancellor Guy Bailey, from a blend of GRA plus some F&A to the present 40% of total F&A. At that time, the 40% figure more than adequately covered ORS expenses and it was anticipated that, through increased grant productivity, total F&A would be increasing, thus providing support for inevitable cost increases. However, for the past 12 years, research expenditures and thus F&A dollars have been shrinking, while costs have been increasing. Rising costs include the opening of the new Lab Animal Research Core facility, the creation of the position of Vice Chancellor for Research and Economic Development, the implementation (a System-level decision) of the Interdisciplinary – Intercampus Award, the procurement of new software systems for IRB, IACUC, and FCOI management (in addition to purchase price, each has associated annual maintenance costs), HR mandated position upgrades, and a decade of personnel salary increases with no additional funds to offset, etc.

Moreover, the ORS operates with a year lead on F&A payout, thus, there is always a beginning balance representing F&A collected in one fiscal year, to

be paid out to the campus in the next fiscal year. Notice that the beginning balance figure on the 5-year budget has declined by over $500,000 between FY2013 and FY2016. Estimates for the 2017 beginning balance are even lower. At a point in the near future, there will be an insufficient reserve to fund the month-to-month operations of the ORS.   This has sparked conversation that the funding model for ORS is unsustainable. Short of dramatically cutting services we would agree that the current model needs reconsideration.

2. What is the turnaround time for Institutional Animal Care and Use Committee (IACUC), Institutional Review Board (IRB), and other compliance committees, as comparable to other similar organizations?

IACUC
In calendar year 2015 the turnaround time for new IACUC applications was 72 days from initial submission to approval. Annual continuations in 2015 took 56 days on average.

IRB
Of the 4 submission categories the IRB/IRB members are only involved in Expedited Review Submissions and Full Board Submissions. In calendar year 2015 the IRB turnaround time for initial submission to approval for Expedited Review was 65 days (30 days with Compliance Staff/IRB and 35 days with the research team) and for Full Board was 75 days (39 days with the Compliance Staff/IRB and 36 days with the research team).

Other institutions do not share their IRB turnaround data. This is available from private for profit IRB companies, but this would not be a fair comparison. Our IRB data is posted on our web site and Chris Winders, Director of Research Compliance has reported this information to the Faculty Senate for the past two years and will continue to do so each year moving forward.

3. What are the internal research funding support and evaluation mechanisms available to UMKC faculty and how do these compare to similar organizations?

At present, the only UMKC internal research funding support is the Funding for Excellence (FFE) Program, presently in its first year. Proposals for the second year of funding are due the beginning of Fall 2016 Semester. The FFE Program has a budget of $100,000 and funds projects up to $15,000.

For the first round of funding, a review panel of 12 faculty members composed of volunteers from the Research Advisory Council, and others chosen from specific academic units and departments to cover various areas of expertise reviewed proposals in their general areas of expertise. Projects were evaluated based on an evaluation matrix as outlined in the FFE

documentation. After a period of review, the panel met to discuss the proposals and the top proposals were awarded by a consensus of the Review Panel.

Some changes that were proposed for the next round include greater focus on deliverables, more reviewers per general topic areas and more time to discuss the proposals in the panel discussion.

Funding programs on other campuses vary widely depending upon the availability of resources. MU Columbia, for instance administers a Faculty Grants Program through their Research Council providing up to $10,000 in research support (total pool not specified); a cost-match program (PRIME) to support external grants matching funds (up to 25% of total costs) where match is required by sponsor; Arts and Humanities domestic travel awards; Faculty International Travel awards; and research leave awards. UMSL Provides a $10,000 faculty grants award similar to the MU Research Council Award and a similar award exists at MO S&T.

4. *What are the mechanisms for ongoing researcher input into the operations of ORS?*

Researcher input into ORS operations can be provided by a number of means. These include:
- Communication through Associate Deans for Research
- Communication through the Research Advisory Council representative
- Communication directly with members of the ORS Pre-Award or Post-Award staff members
- Communication directly with Director of Sponsored Programs
- Communication directly with Assistant Vice Chancellor for Research
- Communication directly with Vice Chancellor for Research and Economic Development
- Volunteering to serve on Research Compliance Committees/Board
- Contacting the Director of Research Compliance directly
- Contacting the Director of technology Commercialization directly
- Attending Research Compliance, Tech Commercialization or ORS-Sponsored Training sessions, seminars and programs offered throughout the year
- We host open house events for new faculty
- We regularly invite faculty and unit grant and fiscal operations personnel to attend our staff meetings to get to know the ORS staff on a first name basis
- The main research open house for all faculty, sponsored/operated by the ORS, provides a forum for sidebar communication with individual ORS staff members and other staff who support the research mission
- We welcome any and all means of communication

5. What is the role of the Research Advisory Council and what can they do to be more effective?

Prior to 2012 UMKC did not have a standing committee engaged with the research operation. There existed at the time a Life and Health Sciences Research Advisory Council composed of research deans and directors of the Life and Health Sciences academic units, but no standing committee of faculty representing the academic units. Given this obvious omission, the RAC was formed in the fall of 2012 to serve as the campus-wide committee charged with an advisory role to the Provost and the Chancellor on matters relating to research and scholarship at UMKC. Membership on the committee includes at least 1 elected faculty member from each academic unit and representation from each of the various sub-disciplines within the College of Arts and Sciences (i.e. Natural Sciences, Social Sciences, Humanities, and Arts), the UMKC Libraries, Faculty Senate, the UMKC Staff Council, and the UMKC graduate student body. *Ex Officio* membership includes the Provost, the Vice Chancellor for Research and Economic Development (Chair), the Assistant Vice Chancellor for Research, Associate Vice Chancellor for Administration, Dean of the School of Graduate Studies, Director of Research Compliance, Director of the Office of Technology Transfer, and Director of Sponsored Programs. In addition, the Research Deans and Directors from each academic unit are also invited to participate in the meetings. The Council meets monthly throughout the academic year. Specific functions of the Council include, but are not limited to:

- Serve as the primary committee engaged in developing the mission, vision and goals for research and scholarship at UMKC
- Develop and implement strategies aimed at increasing research opportunities and funding at UMKC.
- Review and develop policies and procedures that impact research operations (such as ORS activities and budget, research space, funding, investment, F&A distribution, etc.) in an attempt to improve administrative efficiencies, streamline grant submissions, and removal of administrative barriers to research at UMKC.
- Support undergraduate and graduate student research activities
- Provide a reviewer pool for internal competitive funding opportunities and research recognition awards.

Minutes of the Council meetings are taken and posted at:

http://ors.umkc.edu/office-of-research-services/research-advisory-council

The intent of the RAC is, in part to be a conduit of information between the academic units (i.e. faculty members, department chairs, division heads, deans, etc.) and the Office of the Vice Chancellor for Research and Economic Development. Given the breath of topics covered by the RAC and richness of information provided, it is imperative that RAC members communicate with

members of their own academic units. In some cases this seems to work very well, in other cases perhaps this is not as effective. The Office of Research Services can help in this by sending materials provided at meetings directly to Deans, Associate Deans for Research and Department Chairs for distribution among faculty, but again this is meant to be the responsibility of the RAC representative from each school. The RAC membership list is provided in the Appendix.

6. Is the ORS support of animal care facilities comparable with other similar institutions? How much of the support for LARC comes from indirect (cost recovery) versus user fees?

The Laboratory Animal Research Core supports the animal research needs of UMKC and affiliate researchers. (http://ors.umkc.edu/office-of-research-services/larc). The operation costs of the facility are shared between users fees (per diem costs and services) and the ORS operating budget. The total cost of operation of the LARC is approximately $600,000 - $700,000 (See LARC expense-revenue history Appendix). Investigator user fees accounts for approximately 50-60% of total costs with the remainder provided by the ORS operating budget.

LARC Operations at other institutions:
At the UM-Columbia Animal Research Center, the total revenue/expenses for FY15 were $2,958,204. Of this, $636,851 of revenue came from GRA, the remainder ($2,321,353) came from investigator funds in the form of user fees and per diem charges. Therefore, 21.5% of costs were covered by University resources and 78.5% from researcher's direct funding. The GRA funds were a mix of state appropriation, F&A and other sources. (Source of Information: Michele Kennett, Associate Vice Chancellor for Research, UM Columbia).

At the University of Kansas Lawrence Campus, the Animal Care facility is supported by a mix of *per diem* service charges paid by researchers: (39%), state funding (10%), and research center corporate funds (51%). Source of Information: William Allen Hill, DVM, Director Animal Care Unit and Attending Veterinarian, KU, Lawrence).

The Kansas University Medical Center (KUMC) Lab Animal Research Center has an annual budget of approximately $3,000,000. Of the total sources of funds, 59% of revenue comes from investigator user fees (per diem and other charges), the remaining revenue come from GRA and state support. (Source of Information: Douglas Brandt, Lab Animal Research Center Director, KUMC).

7. How does the ORS ensure and monitor investigator compliance with the appropriate regulations?

Compliance with research-related rules and regulations is ultimately the responsibility of the researcher. Oversight of compliance with those regulations is the responsibility of the Vice Chancellor for Research and Economic Development. Since research regulations cover a broad spectrum of activities and agencies that govern those rules, different offices within the ORS bear immediate responsibility for implementing the rules, educating the faculty (in some cases), providing mechanisms for necessary training, ensuring compliance to specific rules, and managing non-compliance by measures that are appropriate for each particular case and governing body that mandates the regulation. Responsibility for oversight thus follows the type of activity. For instance, rules and regulations for the use of radioactive materials is governed by the U.S. Nuclear Regulatory Commission. At the local level these are managed by the Office of Environmental Health and Safety as advised by the UMKC Radiation Safety Committee (RSC). Compliance is monitored regularly by EHS personnel and reported to faculty, their department chair, academic dean and the RSC.

The use of human subjects in research is governed by the U.S. Department of Health and Human Services (DHHS) Office of Human Research Protections. At the local level the review and approval of research protocols involving human subjects is the responsibility of the Institutional Review Board (IRB). The IRB is an independent body of faculty, administrators, and local community representatives that are trained in the rules that govern the use of human subjects in research. IRB proceedings oversee the proposals for research activity, but again, the responsibility is on the faculty member to comply with the rules that govern the limitations of the research protocol. Noncompliance to Office of Human Research Protections (OHRP) rules (as with all federally mandated rules) is a serious matter that can result in the requirement to return federal funds to the funding agency, loss of federal agency funding to the institution, dismissal of faulty or administrators (whomever is deemed responsible) and criminal prosecution in the case of gross negligence or conspiracy to cover noncompliance. Thus, strong incentives are in place to drive compliance.

Though mechanisms are in place to monitor compliance through review of protocols, amendments and continual review of application and protocols on an annual basis. Ensuring compliance is not directly the role of the ORS, this is the responsibility of the researcher acting in an informed and ethical manner. We do provide information and education on rules and their compliance, execute policies and procedures that are mandated by the state and federal government as well as those to help ensure compliance (i.e. develop paperwork and procedures to help drive compliance. A recent example of this is the new policy we have introduced to ensure adherence to

the Office of Laboratory Animal Welfare (OLAW) – mandated congruency between federally funded awards and IACUC protocols).

A full listing of regulatory procedures and practice are found on the ORS Web site.

Specifically, under the following tabs:

Research Compliance:
http://ors.umkc.edu/research-compliance-(iacuc-ibc-irb-rsc)

Office of Research Services tab:
- Export Control http://ors.umkc.edu/office-of-research-services/export-control
- Financial Conflict of Interest http://ors.umkc.edu/office-of-research-services/financial-conflict-of-interest
- NIH Public Access Policy http://ors.umkc.edu/office-of-research-services/nih-public-access-policy
- Responsible Conduct http://ors.umkc.edu/office-of-research-services/responsible-conduct-in-research
- OMB Uniform Guidance http://ors.umkc.edu/office-of-research-services/omb-uniform-guidance

8. What is the role and mission of the Institute for Human Development and the Innovation Center within ORS and how are they supporting the research mission?

The UMKC Innovation Center is a multifaceted operation that bridges the University's commitment to community entrepreneurship and economic advancement, intellectual property development and workforce development through innovation. Under the leadership of Maria Meyers, the innovation Center has become an economic engine for the community as well as UMKC by attracting high profile federal research grants, including the NSF-funded Whiteboard to Boardroom Program and the U.S. Department of Commerce (Economic Development Agency) Digital Sandbox. These achievements are the envy of much larger and more visible university innovation center operations and they speak volumes of the leadership under Maria Meyers and her team.

The UMKC Institute for Human Development is one of 67 national University Centers for Excellence on Developmental Disabilities (UCEDD) in every state and territory. The Institute for Human Development began in the late 1970s as the UMKC Institute for Community Studies. At that time, the Administration on Developmental Disabilities and the Missouri Planning Council for Developmental Disabilities were encouraging expansion of

community-based programs for people with developmental disabilities. To this end, in 1977 the Institute for Community Studies established the Missouri University Center for Excellence on Developmental Disabilities (UCEDD). The new UCEDD specifically addressed consumer-identified needs from a community-based perspective. Given Missouri's dual rural and urban nature, the expectation was that the program would be outreach oriented and responsive to needs across the state.

In the mid-80s, the name was changed to the UMKC Institute for Human Development. In 1985, the establishment of the UMKC Institute for Human Development (IHD) further strengthened the UCEDD and it's role at the university. The Institute was designed with the purpose of administrating the UCEDD's training, demonstration, and research activities as well as supporting the University Urban Mission. The Institute reports directly to the Vice-Chancellor for Research and Economic Development, and has strong linkages with a wide range of academic units.

The Institute for Human Development works with a multitude of partners to respond to needs at the local, state, and national level. IHD projects span the full range of the human condition and life cycle, from prevention to gerontology and address varying community needs, from urban mission to Latino community development in rural counties.

More recently, the Institute for Human Development is focusing on the larger concepts of community inclusion through diversity, cultural competency, and social capital. Throughout the years, it has become increasingly apparent that our community members with developmental disabilities are also members of other underserved populations, whether defined by gender, race, or economic status. By focusing on community inclusion and social capital at the larger level, we are striving to improve overall quality of life for everyone.

The mission of UMKC Institute for Human Development is to develop partnerships for effective social change.

Over the course of the last 5 years the IHD has been responsible for $30M in research awards/expenditures. As such, from an award standpoint, they represent the most successful research institute in the history of UMKC!

(**See also, the appended documents on the Innovation Center and the IHD**)

9. What is the ORS strategic plan/vision for enhancing research and funding success at UMKC?

(**See Appended Strategic Plan document**)

Appendix 4a

Questions for ORS based off Evaluation Question Responses

1. If the IHD is self-sustained, why is there staff salary support in the ORS budget? (Question 1)

The Staff Support line in our budget is for Russell Roberts, an employee that ORS shares with the IHD. Russ has been involved in a number of projects dealing with published materials for IHD and ORS, including the first two editions of Explore magazine. His specialty area is media and communications. He could be IHD only, but we wanted to increase efficiency through the shared position.

2. Why is the EHS given 10% of the F&A? (Question 1)

The funding formula for F&A distribution (i.e. campus 50%, ORS 40%, EHS, 10%) was enacted under the leadership of former Chancellor Guy Bailey. The ORS and the Vice Chancellor for Research had no role in this decision. My personal opinion is that the F&A distribution policy should be revisited as well as the funding for ORS.

3. What are strengths of the revenue stream before Chancellor Guy Baily changed it in 2008 (a blend of GRA plus some F&A), and what are the strengths of the revenue stream as it stands now (40% of total F&A)? (Question 1)

The pros of a blended GRA/F&A source of revenue for ORS include a more stable, predictable budget that provides greater budgeting and forecasting accuracy. If structured such that core expenditures (i.e. staff compensation, IT support services, software, training, travel, publication material, etc.) be funded by GRA this will indeed allow for greater budget accountability. A defined portion of F&A could then supplement the budget to provide the resources necessary for research support services, such as core facility support (including the non-compensation component of the LARC), collaborative agreements (i.e. cost sharing on grant initiatives and S-10 proposals, membership in consortia, etc); faculty research grants, seed money for special initiatives, etc. If F&A were used only for the above mentioned items, it would be in the range of $1M/year (LARC subsidy alone is ~$350,000/yr) rather than the ~$2.2M that currently (under)funds all of ORS activities. The only disadvantage I see to this model is that it locks ORS in with little room for incentive enhancement, and could pin the core expenditures to the health of GRA (which could have a large impact on investigators). Activity could be incentivized if the portion of F&A allocated to ORS is a set percentage but one that does not drop below a certain amount (i.e. for discussion sake, ORS would receive $1M in F&A and 50% of the F&A total that exceeds $2.5 M (cap to be adjusted over time as necessary). This imbeds an incentive for future F&A growth without tying ORS to the consequences of a multi-year decline (current situation).

The pros of the current situation are that the budget will increase as F&A increases. This is not a bad model except during a period of F&A decline. During decline, core services are in jeopardy and increasing our capacity to deliver services that provide grant lifecycle activities (pre-award, post-award, audit, compliance) and those that keep us in compliance with Federal/State law and System mandates (LARC infrastructure, IRB, Tech Commercialization, etc). If an F&A funding model is to be retained, it should at the very least be structured in such a way to provide ORS with a dollar amount from F&A (not percentage) that covers core functions prior to the split with the academic units (i.e. off the top). The remaining F&A could then be split by a percentage formula

along with an additional piece to cover research infrastructure investments (i.e. faculty grant funding, workshops, meetings, equipment, core facilities, etc). The major con to this model is the tradeoff in faculty support; many faculty want core facilities, special programs, excellent pre-/post-award support, and matching funds when needed, but do not want to sacrifice their F&A incentive.

It is for the above reasons that I do not see a total F&A funding model for ORS as appropriate or sustainable. No other UM System School funds its research operation in this manner. During the course of gathering data for F&A distribution models at various Universities around the country, there were no examples observed where research services was funded solely by F&A.

I would be happy to discuss this in greater detail with you by interview if you wish.

4. Please provide more detail in the Computing/Contract/IT Agreements area of the budget. Where is this money being spent? (Question 1)

This line item includes the annual payments for ORS Workstation replacements, Key Solutions annual fee for eProtocol (the IRB software), the Key Solutions software tool for IACUC protocol and LARC operations management; the Financial Conflict of Interest software (Osprey) and the Qiagen IPA cloud computing software system for the Center for health Insights.

5. What is the discretionary support used for? ($500,000/year) (Question 1)

This refers to the Research Services Support Initiatives listed on the 5-year budget sheet. The $500K was an estimate based on the previous years where the range has been between $242,530 (FY15) and $537,467 (FY14). It includes items that ORS is obligated to support [i.e. KCALSI dues, Bioinformatics Director support (three year commitment), Innovation Center Support, Frontiers Match, Veatch Award Compliance Chairs, etc.) and other items that are campus support items (Confocal Microscope Support (School of Dentistry), Multi-photon Support (School of Dentistry), Mass Spectrometry Core Facility (SBS), Faculty Retention support (Biological Sciences, School of Nursing, School of Pharmacy), etc.] All items are listed on the budget sheet provided.

6. Revenue – the two categories "Internal Sales" and "Other Incomes" represent what sources of income? (Question 1)

"Internal Sales" are fees for LARC services paid by UMKC faculty (I.e. <u>per diem</u> charges, etc.); "External billing" are the fees for LARC services paid by outside entities (Children's Mercy, KCUMB, TMC). Other Income is the fee we receive for Adult Health IRB service to Truman Medical Center and Children's Mercy Hospital

7. Expense – "Other Operating" ($88,340 FY17) varies a large amount year-to-year – what costs does this characterize? (Question 1)

This category is just as it's name implies "other operating expenses" that do not fall into broader budget categories. It includes things such as postage, FedEx, Telecom, Long distance charges, office supplies, copy services, Explore costs, Xerox lease, dues and memberships in various compliance and oversight organizations (AALAS, AALAC, NAI, PRIM&R, AUTM), conference costs, other miscellaneous cots, etc.

8. Expense – "Professional/Consult/Contract Svs" this category varies greatly every year – what fees are these? (Question 1)

This category is for LARC temp employees provided by Aerotek Temporary Staffing Service when needed. Some temp service is needed just about every year.

9. Research Support Initiative – "IS Support/Found Svcs/SOM" – this is a new item in FY16 and the FY17-budget, what item does this support? (Question 1)

This was an IT support staff member that was being supported by IS, the School of Medicine and ORS to provide data support services through the Center for Health Insights. With Mark Hoffman's departure, this is on hold and we have not budgeted for it moving forward.

10. Please clarify the turnaround time for the IACUC like what was given for the IRB (# of days with IACUC staff and # of days with researcher). (Question 2)

Because IACUC does not use an eProtocol-like utility, these data will need to be calculated manually. This could be a laborious exercise and I would like to avoid putting staff time towards this unless this is deemed absolutely necessary. Is it the opinion of the Task Force that IACUC protocol application process is broken or that there are inordinate delays? If so, I would rather address that issue/perception directly.

11. Can ORS provide a list of NIH funded investigators at UMKC, including an email distribution list? (List not necessary, just info on if it is available)

(See list at end of document)

12. How are researchers notified about mechanism for ongoing researcher input and who to contact? (Question 4)

It is the opinion of the ORS staff that most researchers that have gone through the exercise of applying for a grant should know how to connect with the office to provide feedback, or know a pre-award staff member or the Pre-award manager, or the ORS Director by name or previous contact and thus would have a point of contact to start a conversation. All new faculty members are invited to (and many attend) an ORS "introduction" session at the beginning of each year to meet the staff and to put names with faces. Lastly, is the Research Advisory Council (RAC), which is asked to connect with and disseminate any critical opinions or decisions that impact research; it is a formal mechanism that individual faculty, through their chairs, or, directly to the unit representative, can provide input. These latter two mechanisms have only been in place since I have taken over as VC for Research so we are only in the 4th year of that program but we feel like this provides informal and formal means for faculty to connect with ORS. Alternatively faculty can always contact me directly, or one of the Directors (Maureen Hannoun for general ORS questions, Chris Winders for Research Compliance matters, Linda Daugherty for Pre-award services, Eric Anderson for Tech Commercialization, and Jodi Troup for LARC). These names, titles and contact information are all found on our web site. The Senate also has a direct line to ORS and has used it at least four times in the last three years to discuss questions or provide suggestions, similar to those posed by the task force here. Greater detail on the RAC is provided in the response to question 14 below.

13. How many ORS-Sponsored Training sessions were held in the last year? (Question 4, bullet 10)

(See attached list of sessions provided by ORS staff members over the course of the last 16 months – over 60 sessions)

14. It is stated that membership on the RAC is elected from each academic unit. The committee feels that members are appointed, not elected. Is this correct? (Question 5)

The RAC charge states that member should be elected. Most faculty members to the RAC are elected but this is a unit-by-unit decision. The College (3 members), SBS, the Bloch School, the Law School, the Conservatory, and the School of Education all elect their members. The Schools of Dentistry, Medicine and Nursing and Pharmacy (I believe) have appointed members, (a decision by their deans that I have not challenged out of respect for the Deans' decisions). As you may recall, prior to my taking over the role of VC for Research there was no RAC-like committee on campus. And the creation of the RAC was to promote research activity, awareness and strategies for improving research at UMKC. If the task Force feels that the RAC is not serving a useful purpose, then the concept for creating the RAC should be revisited.   We will certainly continue to communicate with the Associate Deans for Research as we have always done – it should be added that this group meets with the RAC for the purpose of dissemination of information but these individuals are not members of the RAC. In place of the RAC the faculty senate would be encouraged to create a faculty-driven research related committee, if it so desires. These things are all open to discussion.

Specific functions of the RAC include: (Question 5)

a. Serve as the primary committee engaged in developing the mission, vision and goals for research and scholarship at UMKC

The RAC was part of the discussion that helped shape a Strategic Plan in 2014. That is the plan provided to the Task Force

b. Develop and implement strategies aimed at increasing research opportunities and funding at UMKC

None to date.

c. Review and develop policies and procedures that impact research operations (such as ORS activities and budget, research space, funding, investment, F&A distribution, etc.) in an attempt to improve administrative efficiencies, streamline grant submissions, and removal of administrative barriers to research at UMKC

A year-long discussion was conducted in 2013-2014 on reshaping the F&A distribution structure as recommended by an external review of the Research Operation. After those discussions with the RAC, the Faculty Senate and faculty groups from across campus, it was clear that a proposal to change the F&A distribution model was not viable. Much of the input for this decision was provided by the RAC.

d. Support undergraduate and graduate student research activities

None to date

e. Proved a reviewer pool for internal competitive funding opportunities and research recognition awards.

RAC members have participated in the review of the FFE awards for each of the two years that the program has been in existence. Members of the RAC have ben involved in the review of Trustee Awards and the N.T. Veatch Award for the last three years.

Since the establishment of the RAC in 2012, please provide information on what has been achieved under each of the specific functions listed.

It should be pointed out that the list of RAC functions are those that the RAC could be and should be involved with, but not a mandate for the RAC. It is incumbent upon RAC members to take an active role in the functions of the RAC not only by their attendance but also by shaping the agenda for the meetings. A call is routinely put out for items to be included on the agenda. I can think of only 4 examples where members have taken advantage of this. Those were: to discuss the role of the RAC in research misconduct, to discuss the IRB turnaround times; to see the ORS budget; and to discuss the planned LARC rate increase.

15. Over the last 5 years, how much money has the IHD brought to the UMKC F&A? (Question 8)

Fiscal Year	IHD Portion	Total Generated
FY15	$310,758	$621,517
FY14	$356,072	$712,145
FY13	$280,939	$561,877
FY12	$256,432	$512,864
FY11	$254,778	$509,557
	$1,458,979	**$2,917,960**

Recent ORS Training Sessions:

1. 11/1/16   SGS Grant Opportunities Training Workshop: (Pre-award, 1 hour)
2. 10/27/16   Mark Livengood (MO Humanities Council): funding opportunities for Humanities faculty (1 hr)
3. 10/26/16   Dr. Sarah Pilgrim (social work): grant opportunities/new faculty orientation review (Pre-award, 1 hour)
4. 10/20/16   New Faculty Orientation: 10 faculty attended (Pre-award, 2 sessions, 1 hour each)
5. 10/18/16   School of Ed Grad Student Organization: training on finding funding (Pre-award, 1 hour)
6. 10/14/16   Budget Office training: grant reporting, grant process, PCEs, etc (ORS staff, 2 hour)
7. 10/13/16   Drs. Cox and Holt (Pharmacy): Training discussion on grantwriting workshop (Pre-award, 2 hours)
8. 10/7/16   Physics Department Faculty: grant reporting, processing training (Post-award, 1.5 hours)
9. 10/4/16   Daphne Hunter (Physics): award administration training (Post-award, 1 hour)
10. 9/29/16   Dr. Cindy Russell (Nursing): discuss subcontract processes and training (Post-award, .5 hours)
11. 9/28/16   Host NSF ERA forum webinar: (ORS staff, 1 hour)
12. 9/27/16   Vanessa Mackey (Dentistry): Subcontracts, UTA (Post-award, 1 hour)
13. 9/22/16   Drs. Alison Graettinger and Fengpeng Sun (geosciences): grant processes training (ORS staff, 1 hour)
14. 9/22/16   Host SAMHSA webinar: final reports, reconciliation, etc (ORS staff, 2 hours)
15. 9/21/16   Host PCORI webinar: online dashboard, pre and post award functions (ORS staff, 2 hours)
16. 9/21/16   Vanessa Mackey (Dentistry): finalization for expenses for Annual FFR 425
17. 9/20/16   Dr. Anita Skarbek (SON): Training on grant award administration (Post-award, 1 hour)
18. 9/19/16   Dr. Sarah Pilgrim (social work): UMRB review and discussion (Pre-award, 1 hour)
19. 9/9/19   Dr. Gary Sutkin (SOM): UMRB intro and discussion (Pre-award, 1 hour)
20. 9/8/16 Drs. Paula Nichols, Mark Nichols, and Gary Sutkin (SOM and SON): intro to office and grant processes (ORS staff, 2 hours)
21. 9/7/16 Sharon Colbert (SON): Training/conf call with new subcontractor (Post-award, .5 hours)
22. 9/6/16 Dr. Kathleen Kilway (chemistry): SBIR grant submission (Pre-award, 5 hours)
23. 9/2/16 Dr. JoDee Davis (conservatory): UMRB review and discussion (Pre-award, 1 hour)
24. 8/31/16   UMRB info session and training for Arts and Humanities Faculty (Pre-award, 1 hour)
25. 8/30/16   Dr. Fengpeng Sun (geosciences): intro to grants office and processes (Pre-award, 1 hour)
26. 8/24/16   School of Nursing Faculty: Review grant processes and administration (Pre-award and Post-award, 2 hours)
27. 8/16/16   Dr. Jennifer Santee (Pharmacy): Training on finding funding opportunities (Pre-award, 1 hour)
28. 7/25/16   Dr. Michael Henry (Continuing Ed): Intro to Pivot and grants funding (Pre-award, .5 hours)
29. 7/16/16   Courtney Drerup (SOM): Invoice Reporting Training (Post-award, 1 hour)
30. 6/14/16   Host SAMHSA Webinar: budget issues, financial reporting (ORS Staff, 2 hours)

31. 5/24/16   SOM PCORI submission review: (Pre-award, 1 hour)
32. 5/19/16   Julie Koch (conservatory): project budget training for NEA grant (Pre-award and Post-award, 1 hour)
33. 5/16/16   Amy Brost (history): review history financials, train on running reporting and cost-share (Post-award, 1 hour)
34. 4/27/16   Dr. Lynda Bonewald (Dentistry): Team meeting and training on PPG submission
35. 4/16/16   Pat Weary (SOM): Quarterly Reporting Training (Post-award, 1 hour)
36. 4/15/16   Erin Gilmore (Bioinformatics): CDC grant submission training (Pre-award, 1 hour)
37. 4/12/16   Dr. Lori Sexton (Criminal Justice): DOJ grant submission process, proposal review (Pre-award, 1 hour)
38. 3/22/16   Dr. Lynda Bonewald (Dentistry): Proposal submission review (Pre-award, 1 hour)
39. 3/21/16   Dr. Jimmy Adegoke (Geosciences): Grant financial training and review (Post-award, 1 hour)
40. 3/18/16   Jennifer Burrus (Geosciences): PS pages training on creating proposals (Pre-award 1 hour)
41. 3/18/16   Dr. John Kevern (CME): Proposal review and discussion (Pre-award, 1 hour)
42. 3/15/16   SGS Grant Funding Opportunity Spring Workshop: (Pre-award, 1 hour)
43. 3/11/16   Dr. Wael Mourad (SOM): Pivot registration and training (Pre-award, 1 hour)
44. 2/15/16   Emily Favaregh (SON): SAMHSA grant submission training (Pre-award, 1 hour)
45. 2/8/16   Dr. Adrienne Hoard (Black Studies): NEA grant proposal and submission training (Pre-award, 1 hour)
46. 1/25/16   Dr. Jennifer Lundgren and Kaycie Bennett (Psychology): R01 Modular budget training (Pre-award, 1 hour)
47. 1/12/16   Dr. Ryan Mohan (SBS): Pivot registration and training (Pre-award, 1 hour)
48. 12/9/15   Dr. Cindy Russell (SON): Grant Reporting Training (Post-award, 1 hour)
49. 12/7/15   Dr. Viviana Grieco (History): Research Poster training and development (Pre-award, 1 hour)
50. 12/1/15   Dr. Adegoke and Jennifer Burrus (Geosciences): Grant reporting and review (Post-award, 1 hour)
51. 11/30/15   Dr. Naveen Vaidya (Math): Grant proposal training and review (Pre-award, 1 hour)
52. 11/11/15   Pat Weary (SOM): A/R Training (Post-award, 1 hour)
53. 11/2/15   Maria Meyers (Innovation Center): ORS, UMSystem collaborative training on grant management (ORS staff, 2 hours)
54. 10/29/15   Host NSF Webinar: proposal development and submission (ORS staff, 2 hours)
55. 10/28/15   Host DTRA webinar: 'Doing business with DTRA' (ORS staff, 2 hours)
56. 10/21/15   Dr. Nash Boutros (Psychiatry): NIH R15 proposal development and submission training (Pre-award, 1 hour)
57. 10/14/15   Jeanne Rooney (KCUR): PS pages proposal training (Pre-award, 1 hour)
58. 10/7/15   New Faculty Orientation and training: (Pre-award, 2 sessions, 1 hour each)
59. 9/23/15   UMRB proposal training and info session for Arts and Humanities Faculty: (Pre-award, 1 hour)
60. 9/8/15   New Faculty Orientation (CME): (Pre-award, 1 hour)
61. 8/27/15   Hannayd Ruiz (Dentistry): Subcontract review and training (Post-award, 1 hour)

Current NIH Grant-Holders

Berkley Patton,Jannette	School of Medicine	berkleypattonj@umkc.edu
Bouyain,Samuel Eric Andre	School of Biological Sciences	bouyains@umkc.edu
Cheng,Kun	School of Pharmacy	chengkun@umkc.edu
Dallas,Sarah L	School of Dentistry	dallass@umkc.edu
Friedman,Simon H	School of Pharmacy	FriedmanS@umkc.edu
Gutheil,William G	School of Pharmacy	GutheilW@umkc.edu
Honigberg,Saul M	School of Biological Sciences	HonigbergS@umkc.edu
Johnson, Mark	School of Dentistry	johnsonmark@umkc.edu
Kumar,Anil	School of Pharmacy	kumaran@umkc.edu
Lim,Seung Lark	College of Arts & Sciences	limse@umkc.edu
Nickel,Jeffrey Charles	School of Dentistry	nickeljc@umkc.edu
Qureshi,Nilofer	School of Medicine	qureshin@umkc.edu
Russell,Cynthia Lorraine	School of Nursing & Health St	russellc@umkc.edu
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Yu,XiaoQiang	School of Biological Sciences	yux@umkc.edu

Summary of ORS TF interview with VCR Lawrence Dreyfus on November 15, 2016

Question 1:   What is working well at ORS?
Answer: Dr. Dreyfus stated that ORS has terrific staff members that are dedicated to their jobs. He stated that ORS holds weekly staff meetings to deal with problems that come up and that the leadership team meets once a month. He also stated that ORS has organized successful meetings like the Faculty Research Symposium and instituted the well-received Funding For Excellence grant awards.

Question 2:   What needs improvement at ORS?
Answer: Dr. Dreyfus stated that the different offices within ORS are separated physically across different locations on campus and that ORS could utilize staff more effectively if the offices were all housed in the same building. He stated that communication between ORS and the campus community could be better. He stated that ORS has had difficulties collecting funds owed by companies for sponsored programs and events. He stated that ORS could improve their effectiveness in helping faculty find sponsors for research; Pivot software is not as effective as first perceived.

Question 3:   How would you carry out the needed improvements?
Answer: Dr. Dreyfus stated that ORS could organize more meetings/conferences within the campus community and also send out a monthly/quarterly newsletter. He stated that the website could be changed so people know what resources are available to them, where they are, and who the staff are. He proposed to launch an asset map, identifying research activities and facilities at UMKC, so researchers on campus can see what other researchers are doing and increase collaboration within the UMKC community.
(An ORS TF committee member suggested integrating Pivot and myVITA, for example, so faculty can enter information in myVITA and have relevant portions be available to the UMKC research community through Pivot. Faculty members would no longer have to enter their information multiple times in different systems, saving them time and improving their participation in a researcher database like Pivot.)

Question 4:   There are references to changing the budget model for ORS – has this issue/suggestion been addressed to the current Provost and Chancellor by the VCR?
Answer: Dr. Dreyfus stated that the Provost knows about the problem with the ORS budgeting process, which does not provide ORS with a predictable budget that has year-to-year stability, and is looking at an alternate mechanism.

Question 5:   What level of support would you like to see from the institution to ensure the effective operations of the ORS going forward?
Answer: Dr. Dreyfus stated that he would like to see GRA funds (State of Missouri allocation to UMKC) used for IRB software and other items necessary for ORS to do its job. He would like to see F&A funds (indirect funds from grants) used for developing and maintaining research core facilities as well as for research incentives and retention funds for faculty. When asked to give a dollar amount necessary for supporting ORS, Dr. Dreyfus stated that $3.5-4.5 million would be adequate at the present time, with $3 million going to compensation for ORS staff. He stated that UMSL has a good budget model for funding their ORS.

Question 6:   How many requests did ORS receive in the last year to help academic units retain faculty that were considering leaving UMKC for another institution?
Answer: Dr. Dreyfus stated that he received 4-5 requests and that he was able to grant 2 of those. Dr. Dreyfus expressed that there should be a university-wide initiative to retain effective faculty, encompassing the provost's office and the academic units.

Question 7:   What does the ORS do to track how the different units spend their indirect funds and to ensure that these dollars are spent to support research?
Answer: Dr. Dreyfus stated that ORS does not track how different units spend their indirect funds as he does not think this is the job of ORS. He stated that there are no actual polices saying what F&A should be spent on. Dr.

Dreyfus stated that he is not worried about this particular issue since our campus is more transparent than others in this regard. He stated that if guidelines were set, it would need to come from the top administration, not ORS. Dr. Dreyfus also stated that he finds the current F&A distribution model to be fair: 50% of F&A funds go to the academic units that generated the grant dollars and those units distribute the funds how they see fit. He stated that at the beginning of his tenure at ORS he was charged with seeing if there was a more effective way to distribute F&A funds but he did not find one. Dr. Dreyfus suggests using GRA funds to support the core mission of the ORS and F&A funds to support academic units and researchers (RIFs – Research Incentive Funds).

Question 8:   How can the ORS better understand, support, and celebrate non-STEM research that may not be associated with large amounts of grant dollars or indirects that go to the University?
Answer: Dr. Dreyfus stated that this is a big issue they have tried to address, partly by successfully engaging non-STEM researchers to participate in the annual UMKC Faculty Research Symposium. He described that ORS has presented the stories of non-STEM researchers in the Explore journal and has promoted non-STEM researchers as recipients of UMKC trustee awards and Funding For Excellence grants. He also stated that we are a huge STEM university in the largest engineering city, so it somewhat reflects who we are as a university, but that ORS is continuing to try to find a balance and there is growing recognition of non-STEM fields.

Question 9:   When the ORS funded a Grant Writing Workshop, how many grant applications were submitted in response and how many of them received funding?
Answer: Dr. Dreyfus stated that at least two grant proposals were submitted and at least one was funded but that he did not know exact numbers. He stated that the grant that was funded (to Dr. Simmer-Beck) brought in more money than the cost of the workshop. He also noted that the person doing the data analysis on this left the university.

Question 10: What steps are being taken to increase submission of grant applications? What is the success/submission ratio?
Answer: Dr. Dreyfus stated there were about 450 submissions of grant applications per year, with 200 getting awarded funds, but many of these funded grants are not high dollar awards. He stated that grant awards are often dispensed over multiple years, creating a challenge in associating grant funds in a given year with particular applications. Dr. Dreyfus stated that ORS can only do so much to increase grant applications: the services are there, but researchers do not take full advantage of them. He stated, however, that ORS has been inviting new faculty members to learn about the grant application process during the last 3 years.

Question 11: The Associate VCR was appointed to increase funding in physical science. What is the growth/increase since his appointment?
Answer: Dr. Dreyfus stated that Associate VCR Dr. Tony Caruso is doing a terrific job and has been very successful engaging with industrial partners throughout Kansas City and driving initiatives around materials science. He stated that Associate Dean of the College of Arts and Sciences, Dr. Michael Kruger, and Dean of the School of Computing and Engineering, Dr. Kevin Truman, will corroborate that Dr. Caruso is doing a good job.

Question 12: What is your vision of what is needed to enhance research at UMKC and how do you see the roles of the ORS and UMKC in this?
Answer: Dr. Dreyfus stated that he has the charge to advance research, but none of the authority to do so. He stated that he can only advocate what he thinks is best for research but that he is excited about the new Provost (Dr. Barbara Bichelmeyer) and thinks that she really cares about research. Dr. Dreyfus identified key areas of research at UMKC: the brain, health disparities & personalized medicine, and materials science. He sees an opportunity area in connecting the university with outside entities and in developing collaborations. He would like to see a strategic plan built around this with faculty hired in this area. He said that STEM is technically where the money is at, so it tends to be a bit of a focus. He would also like UMKC to be able to hire at the highest level and have research that makes people want to work here. He would like to use the Explore journal to showcase to the community what we are doing at UMKC and where we are going.

Additional Questions from ORS Task Force

1. The Associate VCR was appointed to increase funding in physical science. What is the growth/increase since his appointment?

Dr. Tony Caruso, Assistant Vice Chancellor for Research, was in part, appointed to assist us in bolstering the research productivity and grant success, especially in the natural and applied sciences. He is also charged with developing relationships with external partners around research and educational collaborations. Tony also plays a role in developing strategies at the UM System level around Department of Defense Funding Opportunities. His UMKC appointment is a collaboration between the ORS, the School of Computing and Engineering (where he now serves as their Associate Dean for Research under this arrangement) and the College of Arts and Sciences. Given this arrangement, compensation for his duties is split between ORS, SCE and A&S. (see Letter of Offer)

It is impossible to assign any specific growth or increase in grant funding that is attributable to Tony's appointment (at this time given the fact that he has only been in his role for just over 2 years). ***This line inquiry seems to address the value of the role that Dr. Tony Caruso plays for UMKC and within the UM System***. This is a valid question, however, rather than basing that assessment on whether we have *experienced a growth in grant funding since his appointment* – whereby *any answer* (positive or negative) would be equivocal given the short timeframe of dr. Caruso's appointment – I would recommend that you base that assessment on conversations with those he is directly serving and interacting with on a regular basis. Those individual include:

- **Dean Kevin Truman**, School of Computing and Engineering; trumank@umkc.edu
- **Associate Dean (A&S) Michael Kruger**; KrugerM@umkc.edu
- **Interim Chancellor Hank Foley**, UM-Columbia Chancellor and former Vice President for Research Economic Development and Academic Affairs; foleyh@missouri.edu
- **Robert Schwartz**, UM System Vice President for Research Economic Development and Academic Affairs; schwartzrob@umsystem.edu
- **Sarah Sprietzer,** UM System Director of Federal Relations (spreitzers@umsystem.edu)
- **John Stanley**, Federal Programs, MRI_Global; jstanley@mriglobal.org
- **Kevin Baugh**, Honeywell FM&T; kbaughn@kcp.com

2. What is the responsibility of the Associate VCR in terms of administration and intellectual input to enhance the mission of UMKC?

ABOVE And See Dr. Caruso's letter of offer (attached).
Also, Dr. Caruso works directly with faculty members from SCE, Chemistry, Physics, Geosciences, and Math to help them frame research questions surrounding pending proposals. Tony also started the "White Paper Review Program" http://ors.umkc.edu/pre-award/proposals-and-grants/request-technical-or-non-technical-white-paper-review
To assist investigators in conceptualizing their research project for early stage grant proposal. Though early in its inception, this project along with the coming of full-proposal review hopefully will reinvigorate the funding opportunities for a number of UMKC faculty members as well as the mentoring of junior faculty members.

Tony also meets with our Pre-award and Post-award staff members during our regular meeting to provide an inside look into the faculty issues within the natural and applied sciences. He also

attends SCE faculty meeting and faculty meetings of various A&S Departments to address research questions/needs.

3. What is your philosophy and policy for research space distribution in relation to grants and funding?

Research space, is a premium in most academic units and thus clear policies on how that space is allocated and used are necessary. Responsibility for space allocation starts with the Chancellor and makes its way, by delegation of authority, deans who control space within their own academic units. The University Space Utilization Policy (attached), including Appendix B where Research Space is addressed generally supports the notion that space allocation for research is not permanent and should be periodically reassessed in consultation with faculty; including the following statement:

> *"Faculty members may be subject to reassignment of research space as a result of inadequate research productivity. Factors such as the amount of external research support, indirect cost recovery, supervision of graduate students, residents, scholarly activity, and fellows on research projects may be considered in reassigning space."* **UMKC Space Management Policies and Procedures, Appendix B.3**

I am in agreement with the policy statement and thus, to answer your question, I support the notion that grant funding (and other financial support mechanisms) should be at least one of the considerations in the allocation of research space. In the September 2016 meeting of the RAC we discussed the fact that I along with Dr. Caruso, and Associate Vice Chancellor for Administration Bob Simmons have begun working on a policy recommendation for defining specific language and procedures for space allocation/reallocation. Once a draft of that document is revised by the entire RAC it will be passed along to the Provost and Faculty Senate for comment and a decision of approval.

4. How much discussion or involvement does the VCR have on new hire researchers from the various UMKC Schools? Does the VCR feel ORS should have a larger role in recruiting and retaining new research faculty to UMKC?

Generally speaking, I play little, if any, role in recruiting or hiring faculty members, though some units and departments have involved me directly in the interview process. Over the last two years I have been invited to interview dozens of candidates for positions in Chemistry, Math, Psychology, Sociology, Geosciences, Physics, Computing and Engineering, and Biological Sciences and I welcome those opportunities and take them very seriously. I provide feedback on candidates when asked. Often those visits are to inform the candidate of the research resources available to them and thus I do my part to help "sell UMKC" to the candidate.

On the topic of retaining faculty members, as I mentioned in my interview, I have been involved in helping to attempt to retain faculty members, but this is an unsustainable role since resources are very limited. I would certainly like to play a larger part in this process, provided a defined budget to support this activity was in place. It cost considerably less to retain outstanding and productive faculty relative to the cost incurred in replacing them, not to mention the gap in funding return between the time of a faculty departure and the time it takes for recruit and hire a replacement, not to mention the time it then takes for them to be fully functional. Often t the Chancellor and Provost step in when the departing individual is highly coveted by the University,

but often by the time a departure notice makes its way, even to a dean, the faculty member is "out the door". This is an institutional issue/problem that needs to be addressed and I am more than willing to participate in the discussion and be involved in the solution if possible.

Finally, I believe the VCR should play a role in hiring of faculty just as the Provost should play a more active role. I am a firm believer in strategic hiring or cluster hiring and I believe this should be an interdisciplinary effort across academic units. I am a believer in the "Center" and "Institute" model of helping to concentrate resources around strategic hiring and research focus areas. In this scenario, I believe the Provost and the VCR must take on a collaborative role with the deans. We have never done this at UMKC and I believe it is one of the most critical things for us to do in moving forward. As you may have noted in reading the **Strategic Plan for Research** that I presented to you in the original set of documents, this "strategic hiring" approach is in that plan and I believe it to be vital to our success.

5. Faculty are sometimes told that they need to earn the university enough indirect cost to 'repay' their start-up packages. Does ORS apply a similar metric in their performance evaluations of ORS staff?

Honestly, I have never heard such a notion that faculty are told that they are responsible for "paying back" their start-up through F&A recovery. ***In fact, I believe this sends precisely the wrong message to junior faculty members.*** This is akin to "holding a debt they need to repay" in front of them. I am more of a proponent of creating incentives for success.

If a faculty recruit is successful then "repayment of start-up costs through F&A recovery" will indeed happen, and in some cased many times over. However, I am of the mind that as an outcome of faculty success, all attention must be given to ensuring that our faculty recruits have the support they need vis-à-vis research that increases the probability of their success. To this end, I believe the VCR, in partnership with the Deans and Associate Deans for Research can and should collaborate to make sure this happens. A mutual incentive structure should be created to drive this activity.

6. What is job description for VCR and Associate VCR? Please provide a copy of the HR document if possible

(See Attached Documents)

Office of Research Services Survey

Which of the following best describes your position?

◯ Tenured Faculty
◯ Tenure-Track Faculty
◯ Non-Tenure Track Faculty
◯ Post-Doc Fellow/ Research Associate/Other

Have you used the grant pre-award services of the ORS within the last 5 years?

○ Yes
○ No

Please rate the following for pre-award services:

	Excellent	Good	Average	Fair	Poor	N/A
Knowledge of staff	○	○	○	○	○	○
Availability of staff	○	○	○	○	○	○
Turnaround time for assignments	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the grant pre-award services of the ORS:

Have you used the grant post-award services of the ORS within the last 5 years?

◯ Yes
◯ No

REDCap

Please rate the following for post-award services:

	Excellent	Good	Average	Fair	Poor	N/A
Knowledge of staff	○	○	○	○	○	○
Availability of staff	○	○	○	○	○	○
Turnaround time for assignments	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the post-award services of the ORS:

Have you submitted a protocol to the Institutional Review Board (IRB) within the last 5 years?

◯ Yes
◯ No

REDCap

Please rate the following for the IRB:

	Excellent	Good	Average	Fair	Poor	N/A
Protocol review process	○	○	○	○	○	○
Availability of staff to answer questions	○	○	○	○	○	○
Access to information on rules and regulations	○	○	○	○	○	○
Communication between IRB and investigators	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the IRB:

Have you submitted a protocol to the Institutional Animal Care and Use Committee (IACUC) within the last 5 years?

◯ Yes
◯ No

REDCap

Please rate the following for the IACUC:

	Excellent	Good	Average	Fair	Poor	N/A
Protocol review process	○	○	○	○	○	○
Support for preparation of protocols	○	○	○	○	○	○
Access to information on rules and regulations	○	○	○	○	○	○
Communication between IACUC and investigators	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the IACUC:

Have you used the services of the Lab Animal Research Center (LARC) within the last 5 years?

◯ Yes
◯ No

REDCap

Please rate the following for the LARC:

	Excellent	Good	Average	Fair	Poor	N/A
Quality of animal housing facilities and equipment	○	○	○	○	○	○
Animal care	○	○	○	○	○	○
Access to veterinary advice	○	○	○	○	○	○
Communication between LARC staff and investigators	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the LARC:

REDCap

Have you submitted a protocol to the Institutional BioSafety Committee (IBC) within the last 5 years?

◯ Yes
◯ No

REDCap

Please rate the following for the IBC:

	Excellent	Good	Average	Fair	Poor	N/A
Protocol review process	○	○	○	○	○	○
Support for preparation of protocols	○	○	○	○	○	○
Access to information on rules and regulations	○	○	○	○	○	○
Communication between IBC and investigators	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the IBC:

Have you used the services of the Radiation Safety Committee (RSC) within the last 5 years?

◯ Yes
◯ No

Please rate the following for the RSC:

	Excellent	Good	Average	Fair	Poor	N/A
Application/permit review process	○	○	○	○	○	○
Support for preparation of application/permit	○	○	○	○	○	○
Access to information on rules and regulations	○	○	○	○	○	○
Communication between RSC and authorized users	○	○	○	○	○	○
Overall service provided	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the RSC:

REDCap

Have you used the services of the Technology Transfer Office within the last 5 years?

◯ Yes
◯ No

Please rate the following for the Technology Transfer Office:

	Excellent	Good	Average	Fair	Poor	N/A
Knowledge of staff	○	○	○	○	○	○
Availability of staff	○	○	○	○	○	○
Expert support and advice on patenting and licensing	○	○	○	○	○	○
Effectiveness of technology advisory committee	○	○	○	○	○	○
Disclosure submission process	○	○	○	○	○	○
Outreach of tech transfer office to faculty	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the Technology Transfer Office:

REDCap

Have you worked with/interacted with the staff of the Research Compliance Office within the last 5 years?

◯ Yes
◯ No

www.projectredcap.org

REDCap

Please rate the following for the Research Compliance Office:

	Excellent	Good	Average	Fair	Poor	N/A
Support from Compliance staff	○	○	○	○	○	○
Knowledge of Compliance staff on rules, regulations, and policies	○	○	○	○	○	○
Availability/responsiveness of Compliance staff	○	○	○	○	○	○
Communication with investigators	○	○	○	○	○	○
Turnaround time for Non-Human Subjects and Exempt applications	○	○	○	○	○	○

Suggestions and comments for improvement/additional services for the Research Compliance Office:

Is there an appropriate mechanism for ongoing faculty input into the operations of ORS?

◯ Yes
◯ No

Please explain:

REDCap

Are you presently engaged in research activities at UMKC?

○ Yes
○ No

REDCap

Is research sufficiently funded/supported at UMKC?

◯ Yes
◯ No

What would you recommend?

REDCap

Please share any additional comments/suggestions for the functioning of the Office of Research Services not already addressed in this survey:

Appendix 6

ORS Task Force Survey Data

Excellent – 5
Good – 4
Average – 3
Fair – 2
Poor- 1
N/A – removed from calculations

Please rate the following for pre-award services:			
	Mean	Standard Dev	Sample Size
Knowledge of staff	3.99	1.14	132
Availability of staff	4.02	1.05	130
Turnaround time for assignments	3.93	1.12	131
Overall service provided	3.88	1.17	129

Please rate the following for post-award services:			
	Mean	Standard Dev	Sample Size
Knowledge of staff	3.58	1.24	107
Availability of staff	3.51	1.32	107
Turnaround time for assignments	3.35	1.36	104
Overall service provided	3.38	1.32	106

Please rate the following for the IRB:			
	Mean	Standard Dev	Sample Size
Protocol review process	3.59	1.21	143
Availability of staff to answer questions	3.78	1.14	137
Access to information on rules and regulations	3.65	1.18	141
Communication between IRB and investigators	3.57	1.27	140
Overall service provided	3.6	1.22	143

Please rate the following for the IACUC:			
	Mean	Standard Dev	Sample Size
Protocol review process	3.78	1.22	18
Support for preparation of protocols	3.83	1.2	18
Access to information on rules and regulations	3.88	1.17	17
Communication between IACUC and investigators	3.78	1.11	18
Overall service provided	3.89	1.23	18

Please rate the following for the LARC:			
	Mean	Standard Dev	Sample Size
Quality of animal housing facilities and equipment	4.3	0.76	23
Animal care	4.09	0.95	23
Access to veterinary advice	3.83	1.11	23
Communication between LARC staff and investigators	3.87	1.29	23
Overall service provided	4	1.13	23

Please rate the following for the IBC:			
	Mean	Standard Dev	Sample Size
Protocol review process	4	1.22	24
Support for preparation of protocols	3.83	0.19	23
Access to information on rules and regulations	4.09	0.95	23
Communication between IBC and investigators	4.13	1.03	24
Overall service provided	3.96	1.2	24

Please rate the following for the RSC:			
	Mean	Standard Dev	Sample Size
Application/permit review process	4.32	0.89	19
Support for preparation of application/permit	4.16	0.9	19
Access to information on rules and regulations	4.28	0.67	18
Communication between RSC and authorized users	4	1.05	19
Overall service provided	4.11	1.1	19

Please rate the following for the Technology Transfer Office:			
	Mean	Standard Dev	Sample Size
Knowledge of staff	3.96	1.08	24
Availability of staff	3.92	1.22	25
Expert support and advice on patenting and licensing	3.61	1.34	23
Effectiveness of technology advisory committee	3.31	1.35	16
Disclosure submission process	3.32	1.38	19
Outreach of tech transfer office to faculty	3.39	1.47	23

Please rate the following for the Research Compliance Office:			
	Mean	Standard Dev	Sample Size
Support from Compliance staff	4.2	1.04	69
Knowledge of Compliance staff on rules, regulations, and policies	4.27	0.88	67
Availability/responsiveness of Compliance staff	4.03	1.04	69
Communication with investigators	4.1	1.05	67
Turnaround time for Non-Human Subjects and Exempt applications	4.14	0.96	56

Summaries of the Survey Comments

Question-1
Suggestions and comments for improvement/additional services for the pre-award services of the ORS

Overall, the comments were evenly split between positive and negative comments. The positive comments all focused on the quality of the staff and seemed to indicate good working relationships between individual investigators and their pre-award contacts. Many of the positive comments include a caveat that there are sometimes delays because the staff seems overworked. Most of the negative comments fell into three categories: 1) complaints about lack of knowledge of federal procedures and rules for grant submissions (sometimes resulting in work being shifted to PIs that commenters felt should be done by ORS), 2) claims of obstructionism or being policemen rather than facilitators (although one of these seems to really be about the IRB), and 3) general complaints about the long lead times required by ORS and the PeopleSoft paperwork. The complaints all lacked enough specific detail to be actionable, but these might be good topics to explore in our interviews (i.e. is the person complaining about long lead times really wanting to drop off everything 15 minutes before a deadline??)

Question-2
Suggestions and comments for improvement/additional services for the post-award services of the ORS

The balance of positive to negative comments for post-award services was roughly 1/3 positive to 2/3 negative. The positive comments were general praises and reports of work well done. The negative comments clustered into two broad categories: 1) lack of responsiveness from staff both in terms of responses to voice mail and e-mail and also in terms of delivering reports or getting accounts set up in a timely fashion and 2) claims of lack of knowledge related to both regulations and procedures with 6 reports of mistakes by post-award services that cost the university money because invoices or reports weren't submitted on time. Item 2 suggests that we should gather more details about the 6 grants to get a more complete picture of what happened in these cases and whether or not this is common.

Question-3
Suggestions and comments for improvement/additional services for the IRB

There were a lot of survey responses (~ 140) and comments to this particular section of the survey. Several replies suggested improvements in the UMKC Institutional Review Board (IRB) review of research within recent years. Many of the positive comments reflected on the ORS Compliance staff rather than the actual IRB committee. Some replies expressed satisfaction with the determination process used by the compliance officers. Many survey responders in this section of the survey failed to make a distinction between the ORS Compliance staff that administer the IRB and the actual IRB committee and its review.

Many negative comments were received and several responses reflect researchers' challenges using the IRB electronic submission system (eprotocol) for submission to the committee and the review response from the committee. A few replies indicate that social science projects cannot be fully evaluated because the IRB is skewed towards medical research. There was a negative comment about IRB committee members and conflicts of interest, however the long response is confusing and rambles to other topics. There were a few responses which appear to be a disagreement with the IRB's assessment of the research. Some concerns may have been better aimed at other areas of the survey (e.g., ORS support of research or faculty input into ORS operations). Concerns are collated and listed below.

Summaries of the Survey Comments

Concerns –

- Delays in IRB review times or extended review turnaround time has delayed research project activity.
- Lack of response from phone calls to IRB office.
- Eprotocol system is too complex for users.
- Communication between the IRB and UMKC Institutional Biosafety Committee for reviews of the same project need to be synchronized better.
- IRB reviews and questioning about research protocols that may not be encountered at another institution.
- Lack of compliance with regulations regarding review of research projects and composition of the committee.

Question-4
Suggestions and comments for improvement/additional services for IACUC

There were seven feedback comments in relation to the IACUC. The overall consensus was that the IACUC is one area of the ORS that functions well/satisfactorily but there are problems with the review process. The IACUC coordinator was particularly commended for work assisting IACUC users.

Concerns- The major concern raised by several respondents is that the IACUC review process often requires several rounds of review comments and that comments from multiple reviewers are not collated before sending the protocol to the PI for revisions. This makes the process long winded. Concerns were also raised about the use of work study students and inexperienced staff for some IACUC work rather than experienced trained staff. This was viewed as a reflection of failed leadership of the ORS. A concern raised by more than one respondent is that there have not been any LARC/IACUC user meetings for over a year. These are important to update users on any changes in regulations/operation of the animal facility and allow users to ask questions. This also enhances communication between the IACUC/LARC and the user community

Suggestions for Improvement:
- Streamline the IACUC review process and collate comments from more than one reviewer to minimize the number of times investigators have to respond to review comments.
- Re-institute the annual or bi-annual user meetings to enhance communication between IACUC and investigators.
- Since most IACUC protocols are linked to extramural funding, integrating IACUC's activities with pre and post award would significantly enhance research productivity.
- Launch the online application process, which should improve efficiency over the current word-based protocol system.

Question-5
Suggestions and comments for improvement/additional services for the LARC

There were seven feedback comments on the LARC. The overall consensus was that it is one of the areas of the ORS that functions fairly well and has improved significantly over the last couple of years but that a major deficiency is the lack of institutional support for a full time veterinarian. The new animal facility manager and the part-time veterinarian were commended for their work assisting investigators.

Concerns- Several respondents expressed concern that the University does not invest in a full time Veterinarian to oversee the UMKC animal facility. This is not a criticism of the current

Summaries of the Survey Comments

Veterinarian, but of the lack of institutional support for the facility. Having a full time Veterinarian would enhance the operations of the facility and the IACUC review process and allow him/her to be included as a co-Investigator on grants, which might enhance grant competitiveness. There was also concern over the lack of institutional support for the LARC which has likely contributed to the loss of several high quality externally funded investigators from UMKC.

Suggestions for Improvement:
- Leadership should make it a priority to secure funding for remodeling of the unfinished shell space in the Nursing/Pharmacy building to convert it into specialized animal facility space to advance translational research.
- The LARC and its activities should be made a priority for institutional support in order to sustain UMKC as a research University as well as to aid with recruitment and retention of faculty.
- As part of this, the institution should make it a top priority to support a full time veterinarian to oversee the UMKC animal facility.
- Update the website to include information about animal care and husbandry since many journals are now requesting this information as part of the research integrity initiative.
- Reinstate the annual users meetings to enhance communication between LARC and investigators

Question-6
Suggestions and comments for improvement/additional services for the IBC
Summary of ORS Survey Comments for Services of the IBC

There were very few comments (24 survey respondents and 8 comments) related to the UMKC Institutional Biosafety Committee (IBC). Some comments complimented the staff that support the IBC as well as compliments to committee members.

Concerns – more than one respondent indicated that quarterly meetings are not sufficient, especially if a meeting is cancelled as that may delay the start of some projects. Having only four scheduled meetings a calendar year was the largest issued raised from the survey. Another comment suggested that the IBC and Institutional Review Board committee reviews need to be better coordinated for projects that require review by both committees.

Question-7
Suggestions and comments for improvement/additional services for the RSC
There were only three comments in this category. 2 positive and 1 negative. The two positives were fairly weak – with one describing the unit as 'pretty good' and one expressing fear that it was 'eroding too'. The negative comment described members of the office as substituting personal preferences for legal requirements.

Question-8
Suggestions and comments for improvement/additional services for the Technology Transfer Office
Past practices by the office that focused on facilitating commercialization should be continued. The office staff is helpful but there are concerns about clarity and consistency in UMKC's technology transfer efforts. Is there a strategic plan to promote technology transfer? It is not clear how or if the Office of Technology Commercialization interfaces with the UMKC Innovation Center to promote budding faculty entrepreneurs seeking to commercialize technologies

Summaries of the Survey Comments

developed through their UMKC research programs or to help them partner with local entrepreneurs.

Suggestions and comments for improvement/additional services for the Research Compliance Office

There were more positive survey comments than negative comments. Many respondents used the terms for the Institutional Review Board (IRB) and Research Compliance Office interchangeably. Several replies indicated that the staff are knowledgeable and responsive. Some replies noted improvements in the office in recent years and that the office serves as a contact resource before individuals connect with other university compliance offices. Most comments positively reflected on Research Compliance staff, but there were couple comments that indicated an issue with the Compliance staff interaction regarding responses to committee (e.g,, IRB) submissions.

Concerns – Most of the negative responses appear to be specific instances related to a particular project or should have been directed to the survey response in the IRB portion of the survey.

- One individual raised an issue that the various committees – IRB, Institutional Biosafety, IACUC, and Radiation Safety have conflicts of interest and the conflicts should be eliminated.
- Another respondent replied that the University Registrar should not have a say in how University data is used and that ORS should manage the data.
- Some respondents raised an issue with the IRB submission system and IRB coordination between UM-Columbia.
- One comment suggested the Compliance website could be improved in regards to submission to the IRB for human subjects research determinations.

Question-10
Is there an appropriate mechanism for ongoing faculty input into the operations of ORS?

Faculty that responded positively to this question cited different ways that faculty input occurs. These include personal contact with ORS staff and leadership, the faculty senate, the campus Research Advisory Committee, and the IRB. However, there were large numbers of "no" and "I don't know" responses to this question. The themes that kept recurring in these responses suggest that the mechanisms for faculty input could be strengthened. Several responses asked for more regular input possibilities, a more active role for the Research Advisory Committee, and a process for handling faculty input to generate a response.

Question-11
Is research sufficiently funded/supported at UMKC?

This question was responded by 189 respondents and only 29 of these individuals responded in affirmative. However there was no comment offered by any of these 29 respondents. The suggestions for improvement included streamlining of administration, decrease bureaucracy, increase support service, lack of appreciation for research at UMKC, lack of clearly defined goals (priority areas), lack of knowledge among ORS staff, increase indirect return to researchers, involve people with experience in grant writing, lack of infrastructure, better core facilities, lack of

Summaries of the Survey Comments

GRA support, funding mechanism for NTT during summer, walk the talk, equality of different disciplines, retention plan for successful researchers, more post award support, training for grant writing, policy for space distribution, competitive salary, mentoring of junior faculty members, inclusion of research initiative in capital campaign and increased collaboration among units

Some respondents also commented on items which are not within purview of this taskforce. These included lack of school support and need for vacation policy for tenure and tenure track faculty members.

Question-12
Any additional comment

In the additional comments section, an extensive list of 52 comments were submitted. 5 were positive, 28 were negative and 19 were neutral. The overall consensus was that the ORS has improved over the past few years and the compliance staff were commended for helping facilitate this improvement. The research symposium that has been initiated by ORS was also viewed as a good opportunity for investigators to showcase their work and meet colleagues. However, there are still a number of concerns with ORS operations with many comments focusing on the lack of institutional support and the need for dynamic leadership.

Concerns - Several respondents felt that the leadership at ORS is not strong and there is a need for improvement. There is concern among many investigators that UMKC is not doing a good job in retaining our outstanding researchers who are well funded and that because of this, our extramural grant dollars have been declining. Without strong institutional support coupled with dynamic leadership at the ORS, UMKC's research operation may continue to decline to the point where we will no longer sustain a significant research operation. There is a feeling amongst UMKC's research community that the institution does not value research highly enough and does not make it a priority for financial support. The ORS also does not appear to have a strategic plan for enhancement and expansion of research at UMKC and for increasing funding that has been communicated clearly to investigators. UMKC does not have much support for research Cores (e.g. proteomics, imaging, gene profiling, transgenic/CRISPR) and these have tended to be set up by individual investigators willing to invest the time and commitment rather than the Institution making them a priority. Therefore UMKC has fallen behind other institutions that can offer these core facilities and resources to their investigators. This has put us at a competitive disadvantage for recruitment and retention of faculty as well as competing for grant funds. Another concern relates to applications for multi-user grants. The ORS does not have a system in place to distribute e-mails to investigators who might potentially be interested in participating in multi-user grants. Therefore, opportunities are being missed to submit grants such as S10 equipment grants, infrastructure grants, etc. which require a large user base to be competitive. One of the few things UMKC has that may serve as an incentive for retention and recruitment of investigators is the RIF distribution to the investigators. There has been talk at ORS of reducing the RIF distribution to investigators. This would be catastrophic and would likely lead to an additional exodus of funded investigators, as UMKC offers few advantages over other institutions without these RIF funds coming back to the investigator.

Suggestions for Improvement:
- The institution should prioritize support (in the form of dollars) for research and research infrastructure and make it a priority to provide funding support for graduate students.
- Improve support for grant writing and provide assistance to investigators with budgets, etc. Currently this seems to be provided mainly at the unit level and so the quality of support for grant writing is very variable between different schools. Many other

institutions provide this as a more centralized resource and UMKC should consider doing this. Grant writing workshops would also be helpful.

- The institution should make it a priority to identify more funds for support of research projects that could provide preliminary data for extramural grant applications as well as funds for bridging support.
- Re-instate the research advisory board that used to meet with the Vice Chancellor for Research. This could be a valuable resource to facilitate improvement at UMKC.
- The ORS should develop a strategic plan (in consultation with the internal research advisory board as well as an external advisory board), with deliverable outcomes. This plan should be clearly communicated to the investigators and acted upon.
- The ORS together with the institution should develop initiatives and provide support for the establishment of core facilities comparable to those at other institutions (e.g. proteomics, imaging, gene profiling, transgenic, etc).
- Investigators wishing to submit multi-user grants, such as S10 instrumentation grants, infrastructure grants, center grants, etc. must have access to e-mail distribution lists for all UMKC researchers as well as information on which investigators have active funded grants. This information is essential to submit a competitive grant. ORS should develop a means to accomplish this.
- Identify the reasons why funded investigators have left UMKC in the last few years so that strategic approaches can be developed to help retain our top researchers.
- ORS should make a better effort to reach out to new faculty to make sure they are fully aware of the operations and responsibilities of the ORS and how the ORS can support their research endeavors.

Appendix 8

	New Applications	3 Year Renewals	Annual Continuations	Major Amendments	Minor Amendments
IACUC	46	42	16	23	8
PI	18	19	1	12	1
Total	64	61	17	35	9

Appendix 9