2012-13 Strategic Plan

Bold Aspirations: The Strategic Plan for the University of Kansas, 2012-2017, was formulated with considerable involvement and input from the entire research and graduate education community. All six of its goals relate closely to the mission of the Office of Research and Graduate Studies (RGS): “To facilitate innovation, creative activity, discovery, and the application and dissemination of knowledge.” The purpose of the RGS strategic plan is to ensure alignment with Bold Aspirations and Changing for Excellence, in order to achieve systematic progress in fulfilling our mission over the life of the plan.

The RGS plan articulates five strategic goals of its own. Each goal might take three to five years to achieve fully. For each goal, the recommended actions identify long-term strategies for its achievement. Metrics provide measurable indicators of progress toward the goal.

Specific objectives for each goal are intended to reflect realistic accomplishments to be achieved within a calendar year. Progress toward achieving specific objectives will be assessed informally during the year and more formally each spring. In addition, new or revised specific objectives that contribute to accomplishing a specific goal will be developed each spring and approved by the RGS leadership. Individuals charged with the implementation of each goal and its action steps will be identified and held accountable for progress on an annual basis. At that time the overall plan will also be reviewed and modified as appropriate, based on completion, lack of progress, changing conditions, etc.

This plan builds upon a document produced in 2009. The original plan, with subsequent modifications, proved to be a useful tool for RGS during a period of remarkable growth and change at KU. The next several years promise to be equally challenging, for KU as a whole and for research and graduate education on the Lawrence campus. For that reason, we view the RGS plan as a dynamic instrument. It will be used and modified accordingly to achieve the mission of RGS and the broader vision articulated in Bold Aspirations.

Questions and comments about the RGS strategic plan may be addressed to me at sfwarren@ku.edu, (785) 864-7298.

Steven F. Warren
Vice Chancellor for Research and Graduate Studies
September 2012
Strategic Goal 1:  
Increase the Impact of Faculty Research and Creative Activity

Rationale
Chancellor Bernadette Gray-Little has made enhancing KU faculty research and creative activity one of the university’s top priorities. *Bold Aspirations* speaks directly to this strategic goal in a variety of ways, especially “Driving Discovery and Innovation,” “Engaging Scholarship for Public Impact,” and “Elevating Doctoral Education.” A broad base of high-impact, research-intensive schools, departments, and centers is critical to the mission of a comprehensive research university such as KU. Enhancing the impact of our research beyond today’s already high levels requires a variety of strategies and tactics. These strategies are aligned with the *Bold Aspirations* plan and also reflect findings and recommendations of the 2010 bi-campus Chancellor’s Research Engagement Task Force Report.

Goal Leader: Steve Warren

Progress Since 2010
Accomplishments since the inception of the original RGS plan include:
1. Acquisition and use of Academic Analytics data as tools for comparing KU disciplines/departments with similar units at other major research universities;
2. Implementation of Digital Measures as the foundation for the development of a comprehensive faculty activity reporting system: Professional Record Online (PRO);
3. Implementation of annual research plans by the deans;
4. Submission of an annual Research Enhancement Progress Report to the Chancellor (starting with the first such report in July 2011); and
5. Active participation in the development of *Bold Aspirations*, which features a major emphasis on research and creative activity through the identification of four strategic initiatives themes. Each theme is the focus for broad-based efforts and a range of subsequent steps that institutionalize these initiatives, including new criteria for recruitment plans, establishment of Strategic Initiative Grants, and the creation of several new research development positions.

Recommended Actions
1. Support the growth of research capacity
   a. Leverage partnerships and collaborative efforts with the Kansas Bioscience Authority to support priority areas, including drug discovery, chemical biorefining, and biomedical engineering.
   b. Allocate internal funds from the Strategic Initiative Grants to support collaborative projects developed around the four *Bold Aspirations* themes: “Sustaining the Planet, Powering the World”; “Promoting Well-Being, Finding Cures”; “Building Communities, Expanding Opportunities”; and “Harnessing Information, Multiplying Knowledge.”
2. Work closely with the Provost’s Office and academic deans to align policies and practices for recruitment, retention, and promotion to encourage and support the highest levels of faculty research and creative activity.

3. Use Academic Analytics, internal data, and other sources as appropriate to establish objective, discipline-specific, and realistic criteria for assessing research outputs of departments, programs, and research units. Promote the widespread adoption of these resources by academic deans to make data-driven decisions about resource allocation, hiring, etc.

4. Provide support for the development of complex, collaborative, and inter-disciplinary research proposals.

5. Increase the diversity of external funding sources through greater support for industry collaboration, foundation funding, and the cultivation of increased knowledge and contacts with government agencies beyond NIH, NSF, and the Department of Education.

6. Cultivate research leaders by developing educational programs and materials, as well as mentorship opportunities, to enhance faculty skills in grant-writing, grant-management, research compliance, and other aspects of research leadership.

Metrics

1. Evidence of effective establishment and institutionalization of the four strategic initiative themes through research funding related to the four themes, relevant faculty hiring, and improved university rankings on meaningful metrics such as Academic Analytics measures.

2. The Final Report of the Work Group on Scholarly Metrics for the Humanities and the subsequent implementation of its recommendations of metrics used for recruiting, tenure, promotion, etc.

3. Increased external funding for research and an increase in the research ranking of KU relative to other major research universities.


6. A new Industry Portal, designed to enhance industry access to KU and to grow industry-university research collaborations.

7. Construction of specialized space for biomedical engineering.

8. Recruitment of KBA-supported Eminent Scholars and Rising Stars in the areas relevant to chemical biorefining, biomedical engineering, and drug discovery and development.

Specific Objectives for FY 2013

1. Deans begin or increase their active use of Academic Analytics data (where appropriate) to assist in strategic hiring and program development decisions (Vitter, Warren, Hummert)

2. Research Investment Council makes first-year investment decisions on Level I proposals (Warren, Hummert, RIC committee members, Vitter)

3. Work Group on Metrics for Scholarly Engagement in the Humanities and Arts completes its charge and engages in appropriate discussions/presentations with colleagues at the University of Notre Dame (Warren, Hummert).
4. A new Institute for Climate, Energy, and Sustainability Research is planned and launched (Warren, Heppert, Bergman, and a group of center directors).

5. A new Institute for Chemical-Biology Research is created and launched jointly by the Lawrence and Medical Center campuses (Heppert, Warren, Terranova).

6. A new Industry Portal is launched as part of the KU Center for Technology Commercialization to enhance research collaborations between KU faculty and industrial partners on both campuses (Nagel, Warren, Heppert, Stevens).

7. A specific effort to expand biomedical engineering is initiated with the awarding of a construction grant from the Kansas Bioscience Authority, adding specialized space to the new School of Engineering building (Heppert, Warren, Stan Rolfe, Vitter).

8. Searches are initiated for KBA Rising Star and Eminent Scholar hires in chemical biorefining and biomedical engineering (Warren, Heppert, Rolfe, Vitter).

9. A high-level research development staff person is hired and creates a team of individuals in support of these efforts (Heppert, Warren, Torres).

10. At least 15 proposals for foundation funding are submitted by July 1, 2013 (Nagel, Peterson).

11. Use of Epigeum training materials is initiated in order to grow research leadership on campus (Heppert, Torres).

12. Create a database of potential KU National Academy nominees, with an individualized “to do” list for each scholar to enhance their competitiveness for this honor (Torres, Warren).
Strategic Goal 2:
Increase the Efficiency and Effectiveness of RGS Support Services

Rationale
The sixth goal of the Bold Aspirations strategic plan – “Developing Infrastructure and Resources” – commits all parts of the university to “Responsibly steward fiscal and physical resources and energize supporters to expand the resource base.” At the same time, the Changing for Excellence initiative seeks to make KU’s organizational structure more effective and efficient, enabling the university to “transform administratively and operationally so we can invest in our priorities.”

RGS support services are essential for the effective conduct of sponsored project activities. In addition, these support services ensure compliance with the myriad regulatory requirements associated with sponsored research. The quality of these services affects the ability of KU investigators to submit competitive proposals, manage sponsored projects effectively, and ensure compliance with federal, state, and university regulations and policies.

At the same time, the cost of providing these services reduces the funds available to support the university’s research mission in other ways. Consequently, RGS seeks to enhance the quality of service provided while reducing the expense. In order to achieve these objectives, RGS will:

- Monitor its activities to identify and address areas of inefficiency;
- Identify important indicators of the efficiency and quality of the services it provides;
- Enhance communication with the campus community it serves; and
- Promote the continual enhancement of the skills, knowledge, and expertise of research administration staff, both within RGS and in other campus units.

Goal Leaders: Joanne Altieri, Linda Sadler, Nick Stevens, Susan MacNally

Progress Since 2011
- A new grants forecast reporting system was implemented, utilizing KUCR proposal and award success data, with results and analysis provided by an external vendor. While we continue to refine the data and intelligence fed into the system, the system already provides a forecast outlook and analysis tools much more flexible and in sync with our grants activity than the methods of forecasting previously used in isolation.
- Staff provided leadership and was actively involved in the university’s “Changing for Excellence” initiative, with particular emphasis on the Research Administration, eProcurement, all-funds budgeting, leveraging of software purchases, adoption of the FMW budget/analysis reporting tools, and the development and implementation of Shared Service Centers. RGS leaders also participated in the HR/Pay system (APEX) upgrade project, which covers all campuses.
- A new Financial Conflict of Interest Reporting System was adopted and implemented, with the process involving staff in Research Integrity, Research Administration, Research Information Systems, as well as counterparts at KUMC. It also involved the creation and
promulgation of a new KU policy to satisfy a deadline for implementation of new NIH regulations related to financial conflict of interest disclosure and management.

- Multiple reference guides/manuals for Research Integrity (HSCL), the KU Center for Technology Commercialization, and Financial Services (accounts receivable, accounts payable, purchasing) are completed or in final revision. Other guides are continually being developed.

- Training of staff, including staff housed in research centers, increased and will continue to do so in response to demonstrated need. This will become even more important as Shared Service Centers are introduced. Examples of training sessions were introductory “boot camps” for A-21 and A-110 familiarity, monthly Thursday Research Topics (TRT) meetings, continuation of NCURA video workshops and “RA-101,” scheduling of 23 drop-in sessions for FCOI reporting assistance, and the Kansas Research Administration Conference. TRT and NCURA programs are being video recorded and archived for broader use.

- The development of five formal business plans for the core service laboratories was in progress and soon to be completed, with another five to follow. An annual schedule was established for the review of core service lab rates, with all rates subject to revision on a minimum of a two-year schedule. A “fast-track” process was also developed for appropriate service center rate requests.

- The KU Center for Research, Inc. took advantage of depressed interest rates to refinance the outstanding 20-year Multidisciplinary Research Building bonds. The resulting savings will be significant over the life of the bonds, enabling KUCR to utilize those funds in support of other research-related activities.

- Management of the www.research.ku.edu website transitioned to Research Information Systems, and preparations were under way to implement the new KU website template and the new KU content management system, a software platform that enables users to easily build and maintain websites, in addition to providing other benefits. The content and functionality of the website will continue to improve as these changes occur.

- Progress was made in the implementation of data monitoring to promote continuous improvements in data integrity and internal control. Examples: Post-Award Services has implemented billing milestones into PeopleSoft to improve tracking for all billing requirements on a project-by-project basis. Reporting milestones are currently being entered as well, to assist with tracking and response of required reports. Also, Accounting Services now tracks daily output by individual as well as the overall current vouchers outstanding in the pipeline, with follow up for aged departmental transactions not yet received.

- A risk impact/probably matrix was developed and incorporated for use in the Risk Committee process of risk assessment of various issues that arise in KUCR operations, whether research, financial or other.

- Provided leadership to re-establish the annual Kansas Research Administration Conference within research institution in Kansas, providing a network of expertise and cooperation among the institutions. The conference is scheduled for September of each year, and KU hosted the first of the new series in September, 2011.

- KUCR introduced and implemented an improved mainstream process and capability for handling research participant payments utilizing GreenPhire’s clincard system, simultaneously providing greater flexibility for researchers and strengthening internal controls.
**Recommended Actions**

1. Support the Changing for Excellence initiatives through technology implementations, training, and communication.
2. Adapt the internal organization as needed to improve integration among units, provide continuity of service for sponsored projects from inception to completion, and establish career advancement and staff development opportunities.
3. Develop procedures that better integrate research compliance training, monitoring, and risk management into all areas of the project lifecycle.
4. Implement a standard set of metrics that allows real-time monitoring of key business processes associated with research activities. Identify and implement solutions that improve performance as reflected by these indicators.

**Metrics**

1. Research administration expenditures are maintained or decreased, relative to sponsored project expenditures, without shifting costs to other campus units.
2. The campus community’s satisfaction with key KUCR sponsored project management activities improves, based on annual customer survey responses.
3. Investment in staff development and training activities increases and is maintained.
4. Lag time is reduced for completion of business processes, such as travel reimbursement, payment of sub-recipient, set up of project budgets, project invoicing, and overall response to telephone and e-mail contacts.
5. Resolve problems with reliability and quality of financial data associated with external grants.

**Specific Objectives for FY 2013**

1. Support the Changing for Excellence initiatives through technology implementations, training, and communication.
   a. Initial implementation of the new conflict of interest policy/process and a joint COI system with KUMC (Stevens, MacNally, Altieri).
      • Initial implementation August 2012; ongoing policy and process changes throughout FY 2013.
   b. Implement the PeopleSoft Accounts Receivable and Billing Modules (Stevens, Sadler, Kuester).
      • June 2013
   c. Implement the Click Commerce IRB and IACUC Modules in conjunction with KUMC (MacNally, Stevens).
      • June 2013
   d. Explore opportunities with KUMC and KUMCRI to increase policy and process consistency and collaboration, e.g., subcontracting of personnel through the new HR system, audit/financial coordination, compliance, etc. (Stevens, Altieri, Sadler, MacNally).
2. Adapt the internal organization as needed to improve integration among units, provide continuity of service for sponsored projects from inception to completion, and establish career advancement and staff development opportunities.
   a. Realign staff to support the Industry Portal initiative (Nagel, Altieri, Stevens).
      • September 2012
   b. Provide leadership in the integration of research administration with the development of shared service centers (Stevens, Sadler, Altieri, MacNally, Kuester).
      • Initial implementation Spring 2013
   c. Assist with the development and execution of a campus wide communication plan to address research administration and compliance issues (MacNally, Sadler, Stevens, Altieri, Boatright).
      • June 2013
   d. Create an organization wide skill assessment and staff development program (Sadler, MacNally, Stevens, Altieri).
      • June 2013
3. Develop infrastructure to better integrate research compliance training, monitoring, and risk management into all areas of the project lifecycle.
   a. Hire Export Control and Facility Security Officer (MacNally).
      • November 2012
   b. Obtain facility security clearance and develop written programs for export control and secure research (MacNally).
      • June 2013
   c. Implement the CITI training module (MacNally).
      • October 2012
   d. Create guidance tools for researchers to provide quality materials related to Human Subjects and other areas of Research Integrity (MacNally).
      • June 2013
   e. Create tools and processes to ensure compliance documentation is linked to the appropriate sponsored projects (MacNally, Altieri, Kuester).
      • June 2013
   f. Create a reciprocal training program to better integrate research integrity and research administration staff, in order to increase compliance and deliver service more efficiently (MacNally).
      • June 2013
4. Implement a standard set of metrics that allows real-time monitoring of key business processes associated with research activities. Identify and implement solutions that improve performance as reflected by these indicators (Stevens).

   a. Continue to produce metrics data to guide the performance of RGS staff and inform RGS leadership of staff productivity/effectiveness (ongoing).

   b. Establish metrics benchmarks for key RGS services (December 2012).

   c. Publish metrics for key performance indicators to describe the efficiency and effectiveness of RGS staff to the campus (March 2013).
Strategic Goal 3:
Improve Doctoral Research and Education, Recruitment, Time-to-Degree, and Completion

Rationale
The second goal of the Bold Aspirations strategic plan – “Elevating Doctoral Education” – commits us to “Prepare doctoral students as innovators and leaders who are ready to meet the demands of the academy and our global society.”

Excellent doctoral programs are essential to the research mission of the university. Top-notch graduate students and graduate programs enhance the research efforts of the faculty and help recruit and retain excellent faculty. Doctoral programs should integrate research training with the research goals of the discipline. Graduate students, particularly doctoral students, are central to a research university and, as such, university doctoral programs must be continuously supported and nurtured. In order to improve doctoral education, it is imperative that the institution heighten awareness of quality and outcomes in doctoral training at the department level by providing programs with data on research engagement, student support, time-to-milestones/degree, job placement, graduate student publications, and comparisons with peers. The ultimate goal is to increase faculty engagement in active doctoral training by providing data on admissions, progress, and outcomes, and by encouraging departments to benchmark and set doctoral training goals.

Goal Leader: Thomas Heilke

Progress Since 2011
Graduate Dean Sara Rosen accepted the position of senior vice provost for academic affairs in June 2011. Joshua Rosenbloom served as interim dean until January 2012, when Thomas Heilke was appointed to the position on a permanent basis.

During the past fiscal year, Graduate Studies has:
1. Enhanced the quantity, presentation, and availability of quantitative metrics related to doctoral education, including preparation and dissemination of online Doctoral Program Profiles for all departments;
2. Secured approval of a new policy allowing use of state funds for graduate student recruitment, worked with University Graduate Fellowship departments to refine recruitment plans, and increased the number of departments holding recruitment weekends for admitted students;
3. Received increased funding from the Provost’s Office for University Graduate Fellowships and refined the disbursement criteria and strategies for these funds;
4. Identified admission, enrollment, and progress-to-degree policies for re-articulation, substantial editing, or initial formulation; and
5. Collaborated with Human Resources, the College of Liberal Arts and Sciences, and Huron Consulting Group representatives to move toward conversion of the hiring process for
graduate positions (GTA, GRA, and GAs) from a paper-based process to an electronic one. It is anticipated that the electronic process will be utilized for the spring 2013 hiring season.

Recommended Actions
1. Increase active recruitment of quality doctoral students at the department level.
2. Increase support for doctoral education by increasing the proportion of students on:
   a. Fellowships through training grants and endowments;
   b. GRAs from research grants; and
   c. Multi-year hybrid funding through a combination of fellowship, GTA and GRA funding.
3. Improve completion and attrition rates, and time-to-degree, by:
   a. Increasing the quality and consistency of mentoring; and
   b. Determining completion goals (completion, attrition, and time) appropriate to the discipline\(^1\), and working with departments to develop avenues to reach those goals.
4. Work toward an appropriate size for doctoral programs, based upon faculty mentoring capacity and reasonable funding levels.
   a. Determine appropriate size for doctoral programs. Request justification from all programs for the size of the program, based upon the number of faculty, areas of (sub)specialization, mentoring capacity, levels of funding, and need for graduates in the workforce\(^2\).
   b. Decouple doctoral funding from undergraduate student credit hour production. Decrease recruitment of GTAs and increase recruitment for doctoral training in selected programs.

Metrics
1. Measures of heightened recruitment activity:
   a. Increased number of applications per year;
   b. Decreased number of incomplete applications;
   c. Increased number of departments holding campus recruitment visits;
   d. Increased quality of admissions, as indicated by standard measures, e.g., GRE scores, GPA.
   e. Increased number of students from underrepresented groups and international students in targeted fields.

\(^1\) Roughly 43% of students entering doctoral programs never complete the doctoral degree, according the Council of Graduate Schools’ 2008 monograph *Ph.D. Completion and Attrition: Analysis of Baseline Program Data from the Ph.D. Completion Project*. Ph.D. Completion and Attrition: Analysis of Baseline Program Data from the Ph.D. Completion Project.

\(^2\) Many would argue that we are not preparing researchers for the workforce; we are training and educating researchers and scholars. There is a legitimate question whether it is appropriate to limit access to doctoral education on the basis of workforce demands or job availability. We do, however, have a responsibility to make doctoral students fully aware of job market challenges and demands.
2. Measures of improvement in doctoral training:
   a. Increased degree-completion rates of post-comprehensive students;
   b. Decreased attrition or increased early attrition;
   c. Decreased time-to-milestones;
   d. Increased student productivity, e.g., publications, paper presentations, grants, awards and fellowships; and
   e. Increased faculty engagement in mentoring, e.g., number of meetings with mentor per year.

3. Improved outcomes in targeted programs:
   a. Increased degree-completion rates;
   b. Decreased time-to-degree, determined by discipline;
   c. Improved post-graduation placements, as measured by exit survey; and
   d. Improved national rankings for KU graduate programs.

4. Right-sizing:
   a. Changed student/faculty ratios in targeted departments; and
   b. Increased proportion of students with multi-year funding packages.

Specific Objectives for FY 2013
1. Increase recruitment activities.
   a. Implement those aspects of the March 2012 recruitment plan that can be funded. In particular, acquire and deploy a graduate customer relationship management (CRM) system (Heilke).
   b. Develop a funding model to support program-level recruitment (Heilke).
   c. Adjust application fee policies necessary to fund recruitment activities (Heilke).

2. Set program-specific goals for doctoral education.
   a. Publish Doctoral Program Profiles annually on the website (Pokphanh).
   b. Continue to work with Office of Institutional Research and Planning to develop benchmark data in DEMIS on program performance (Pokphanh).
   c. Use the Doctoral Program Profiles to provide performance data to departments (Pokphanh, Heilke).
      • Spring 2013
   d. Develop data reports on newly collected Graduate Student Satisfaction Survey (GSSS), Doctoral Completion Survey, and progress-to-degree milestone data (Pokphanh, Heilke).
      • May 2013
   e. Learner Outcomes.
i. Develop second round of doctoral dissertation learner outcomes rubrics for redeployment by departments (Pokphanh, Heilke).
   - December 2012

ii. Develop master’s exams learner outcomes rubric (Pokphanh, Heilke).
   - Spring 2013

f. Launch CRM (Heilke).

3. Improve completion rates and time-to-degree.
   a. Annually publish Doctoral Program Profiles on website and link to departmental websites (Pokphanh).
   b. Continue to provide benchmark data on program performance (Pokphanh).
      - May 2013
   c. Continue discussions on how to expand the existing AIMS data profile (Pokphanh).
   d. Work with tuition simplification and Executive Council of Graduate Faculty to set post-comprehensive exam enrollment policies to influence completion (Pokphanh).
      - Summer 2013

4. Adjust size of programs to match funding and mentoring capacity (Heilke).
   a. Funding-determined admissions.
      i. Develop new University Graduate Fellowship (UGF) program to affect:
         1. Active recruitment;
         2. Mentoring, completion, time-to-degree; and
         3. Outcomes and job placement.
      ii. Assess two existing models of UGF for effectiveness prior to new round of UGF funding competition during the Fall 2012 semester.
      iii. Call for UGF proposals
         - October 2012
   b. Increase GRA funding for doctoral education.
      i. Improve and streamline appointment process with HR PeopleSoft upgrade, moving GTA/GRA/GA hiring to an electronic process effective with the Spring 2013 hiring season (Pokphanh).
      ii. Work with the dean of the College and the provost to develop GTA/GRA flexibility to create more GRA positions. (GS is currently funding tuition for English GRA appointments.) (Heilke).
         - Summer/Fall 2012
   c. Increase fellowship funding.
      i. Expand fellowship workshops to encourage applications (Pokphanh).
         - Fall 2012 and ongoing
ii. Expand communication to graduate faculty of fellowship opportunities (Pokphanh).

- Fall 2012 and ongoing

d. Re-model GTA funding in response to changes in general education, with length of time and difficulty dependent upon the implementation of Bold Aspirations “Energizing the Educational Environment” recommendations. [This item is being mentioned in conversations around departmental external reviews and in other contexts. The question is one of timing, i.e., at what point in the general education requirements reform process do GTA funding and other graduate program concerns come under consideration?] (Heilke).

e. Evaluate the success of current departmental seminars designed to encourage application for national fellowship competitions. Utilize this information to create best practices workshops for faculty to encourage more seminars and subsequent applications for funding (Heilke).

f. Develop implementation strategies for the June 2012 Doctoral Funding Work Group report, with close collaboration between Senior Vice Provost Sara Rosen and Graduate Dean Thomas Heilke (Heilke).

5. Refine the online hiring process for graduate positions (Pokphanh).

6. Record data in the student record concerning faculty participation on students’ exam committees (Heilke).

7. Evaluate the results of the current format of departmental graduate fellowship competitions and refine the program in response to those results (Heilke).

8. Develop faculty seminars on best practices for doctoral student mentoring, broadly conceived (Pokphanh, Heilke).

9. Streamline, simplify, index, and sequence Graduate Studies policies (Heilke, Fitts, Pokphanh).

10. Refine Graduate Studies communication strategies, which will include website renovation and innovation and reallocation of student hourly resources toward communications initiatives (Pokphanh).

11. Establish new electronic theses and dissertations policy, based on committee report (Heilke, Pokphanh, Fitts).

12. Develop Graduate Studies materials in support of Far Above: The Campaign for Kansas (Heilke).

   a. Continue conversations with Jerome Davies at KU Endowment.

   b. Continue conversations with academic deans.

   c. Develop materials for distribution to potential donors.
Strategic Goal 4:  
Characterize and Address Major Research Infrastructure Needs

Rationale

The sixth goal of the Bold Aspirations strategic plan – “Developing Infrastructure and Resources” – commits all parts of the university to “Responsibly steward fiscal and physical resources and energize supporters to expand the resource base.” At the same time, the Changing for Excellence initiative seeks to make KU’s organizational structure more effective and efficient, enabling the university to “transform administratively and operationally so we can invest in our priorities.”

Modern research universities rely on major research infrastructure to support the scholarly and creative activities of faculty, students, and staff. Discussions of research infrastructure should include all of the space, instrumentation and equipment, IT resources, university research centers, and research service functions that support this scholarly work. Like many research universities, KU has a mixed track record of monitoring its ongoing investments in major research infrastructure, and a weak record of projecting future needs to upgrade and enhance these resources. A more comprehensive understanding of the current state of our research infrastructure and our ongoing institutional investments in these areas will allow us to project the institution’s future infrastructure needs more effectively. This will help KU sustain the vitality of its research enterprise.

Goal Leader: Joe Heppert

Progress Since 2011

1. The development of five formal business plans for the core service laboratories was in progress and will be completed soon, with another five to follow. An annual schedule was established for the review of core service lab rates. [Shared with Goal #2]

2. Partnered with KU Information Technology to offer a new 200 Tb central storage solution designed specifically for research data. Principal investigators, core lab directors, and unit managers can request up to 250 GB of storage for their research data at no charge, with additional storage for a nominal fee. Two tiers of research storage are available.

3. Plans with KU Information Technology will rewire four major science and engineering buildings on campus for high bandwidth networking.

4. Convened a COBRE/Program Project discussion attended by 25 investigators. Participants submitted white papers on concepts for programs and cores. Follow-up meetings were held to refine potential topics for new COBRE submissions, with neuroscience, biomaterials, and infectious diseases as possible focus areas.

5. Undertook a review of KU’s basic science and core lab infrastructure biological and chemical research, resulting in a report and recommendations. The initial phase of Haworth HVAC and electrical renovation was funded, and the Campus Planning Committee endorsed the investment of $300,000 of planning funding for new construction and renovation of Malott Hall.
6. Planning headed by the College of Liberal Arts and Sciences is currently in progress with Cannon Design to create a comprehensive plan for upgrading the basic science research and teaching facilities on campus. This plan will involve overview of needs beyond Malott, Haworth and Lindley Halls.

Recommended Actions
1. Develop longitudinal database of annual institutional investments in KU research infrastructure, including:
   a. New research construction;
   b. Renovation of existing research space;
   c. Major capital equipment resources (shared instrumentation >$100,000);
   d. Research IT infrastructure; and
   e. Startup funding.
2. Routinely document institutional priorities for research investment in personnel, facilities, and infrastructure.
   a. Gather information from academic and research units and core service laboratories to project short- and long-term research infrastructure investments, improvement needs, and investment opportunities.
   b. Create and regularly update white papers on priorities for institutional investment in promising research and programmatic areas, major shared instrumentation, and new and renovated research spaces.
3. Help researchers proactively plan major grant submissions to federal agencies and foundations and improve communication about resources to accomplish these goals.
4. Develop management accounting systems that clarify the costs associated with existing and anticipated research-related activities.
5. Modify strategic planning processes for RGS-related research units to include quantifiable metrics for the development of research initiatives.
6. Reorganize the administrative and support structures of research centers and core laboratories to minimize duplication of resources and services.

Metrics
1. Databases of new construction, renovation, capital equipment, research IT and startup funding are developed and used to track institutional investment in research infrastructure.
2. Information is routinely gathered from academic and research units and core service laboratories about short- and long-term research infrastructure improvement needs and investment opportunities.
3. Planning and coordination meetings are held on a regular basis to discuss and prioritize future institutional submissions to large programmatic initiatives.
4. Designated center and core service laboratory strategic plans are enhanced with metrics that look toward expansion into new multidisciplinary research initiatives aligned with the four *Bold Aspirations* strategic initiatives and the creation of new services for researchers.
5. A new administrative governance structure is created for core service laboratories that analyzes support for existing cores and evaluates requests to create new cores.

6. One or more additional designated research super centers are created based on combining existing smaller centers and new initiatives.

Specific Objectives for FY 2013

1. Work with RGS and KU IT accounting staff to develop a longitudinal database of annual university expenditures on infrastructure research space (Heppert, Reynolds, Goddard).
   a. New construction.
   b. Renovation of existing facilities.
   c. Research-related IT infrastructure.
   d. Research-related instrumentation and capital equipment.
   e. Startup packages.
      • November 1

2. Coordinate networking/computing/storage needs of high performance computing users with KU IT (Heppert, Alexander, Perry).
   a. Develop a plan to provide uniform “desktop” support for all faculty, staff and graduate students.
   b. Continue to establish a priority list for high bandwidth network connectivity for research units and promote the creation of a parallel research network.
   c. Continue development of a plan for sustaining high-performance computing resources and services by refining the Advance Computing Facility strategic plan.
   d. Push for the development of a plan for creating a KU long-term research data archive.
   e. Facilitate discussions of a KU data management policy and enabling procedures.
   f. Engage with stakeholders in planning for a visualization laboratory.
      • October 1

3. Reorganize the management and governance of core service laboratories (Heppert, Bennett).
   a. Create a coordinating committee to consider the organization, funding and management of core service laboratories.
   b. Develop a new application process for chartering university-supported core service laboratories.
   c. Incorporate metrics for growth and diversification of services into core service laboratory strategic plans.
      • October 1

4. Work with the Higuchi Biosciences Center and its stakeholders to evaluate and update the existing HBC administrative and operational structure (Heppert, Warren).
a. Seek stakeholder input on how to enhance the effectiveness and efficiency of HBC and the HBC-related shared service center envisioned under Changing for Excellence.

b. Define the relationship between HBC and the proposed Chemical-Biology Research Institute.
   • January 1 – March 1, 2013

5. Restructure the management and evaluation of RGS-related university research centers and institutes, including shared service centers (Heppert, Torres).
   a. Create new templates for strategic plans that emphasize metrics related to the development of multidisciplinary initiatives aligned with the four Bold Aspirations strategic initiatives and emphasizing concrete metrics and outcomes.
   b. Create a new designated university center focusing on energy and sustainability.
      • November 1

6. Prepare a white paper on needs and priorities for research construction and renovation (Heppert, Torres, Warren).
   • March 1

7. Reinvigorate and institutionalize the faculty representatives program and core service lab directors groups (Heppert, Torres).
   a. Create a single communication pathway for RGS units to communicate with researchers.
      • September 30
Strategic Goal 5:
Engage Businesses Across the Research and Translation Continuum, With Particular Focus On Corporate-Sponsored Research, Licensing Intellectual Property, and Creating Companies

Rationale
Increasingly, states are relying on major public research universities such as KU to play an important role in economic development. Universities are potential seedbeds for economic development because they are tasked with fostering the intellectual capital represented by their faculty, students, and staff, and possess a substantial research infrastructure. Over the past 30 years, KU has played a role in many of the functions that are key for economic development: commercializing new technologies, collaborating with industry, spinning-off new companies, attracting businesses to Kansas, supporting job creation, educating the labor force, and training entrepreneurs. Maximizing KU’s institutional contribution to economic development will require the thoughtful selection of investment opportunities; multidisciplinary collaborations among many of KU schools, departments, and centers; cooperation between the administrative leaders of both campuses; and close collaboration with state, federal, and private sector entities. KU will need to work more proactively with their entrepreneurial and executive talent base, which is located throughout the country and around the world. The university will also need to be more engaged in the regional entrepreneurial community. KU is in an excellent position to contribute to state plans for economic development because of our strong research base, excellent track record of commercialization, and improving expertise in technology transfer.

Goal Leader: Julie Goonewardene

Progress Since 2011:
During FY 2012 KUCTC continued to focus on process improvement and the implementation of software to support the technology transfer process. A new director of KUCTC was hired from the University of Utah, one of the leading technology transfer programs in the country. The “book” to support the venture fund is in the final stages of approval at KUEA. A new position of assistant director was created in KUCTC with a primary responsibility being the support of IAMI. In further support of IAMI, a funding pipeline document has been drafted and a policy for revenue distribution has been approved. Finally a proposal for a comprehensive industry engagement program at KU has been developed that includes necessary infrastructure and programs to elevate KU/industry interactions.

Recommended Actions
1. Continue to collect longitudinal data, e.g., interviews and surveys, to document KU’s progress in growing activities that directly enhance economic development. Maintain and utilize base-line data on the performance of the technology transfer operation.
2. Streamline university policies and business practices to facilitate collaboration with the private sector, licensure of technologies, and creation of spin-off companies. Especially important to this ongoing activity is the simplification of the following: conflict of interest,
equipment rental, rate setting, standard risk language in contracts, and incentives for KU based start-ups, including BTBC tenants.

3. Increase the number and scope of training programs that foster innovation and entrepreneurship among faculty, students, and staff, including “boot camp” events, internships, and other educational programs.

4. Increase partnerships with the private sector and the commercialization of KU technologies: invention disclosures, technology licenses, research partnerships with industry, and spin-off commercialization. Utilize a comprehensive industry engagement group and implement a plan for industry that includes account management training and a supporting customer relationship management system. Reconfigure the KUCTC Board in order to increase the number of external partners.

5. Work with an external vendor to develop and launch a new KUCTC web portal.

6. Implement new policies concerning the interface between IAM and the commercialization process at KU, including the liaison with KUCTC, strategic planning efforts, and revenue distribution.

Metrics

1. Increase institutional engagement and success in economic development activities:
   a. Increase activity on the national stage.
   b. Create and implement an economic development message for the Department of Commerce for KU.
   c. Increase activity in industrial advisory boards, seminars, recruitment contacts, and presentations with partner organizations.
   d. Increase numbers of invention disclosures.

2. Increase the ratio of new KU start-up companies to the volume of funded research, meeting or exceeding the ratio as reported by the Association of University Technology Managers.

3. Increase the percentage of KU start-ups that successfully raise investment capital.

4. Increase the percentage of KU patented technologies that are licensed or result in start-ups. (Note: this may require a reduction in patented technologies rather than an increase in licensures and start-ups.)

5. Shorten timelines to process research contracts, as well as confidentiality, materials transfer, and non-disclosure agreements with industry.

6. Create KU promotion and tenure policies and decisions that begin to recognize more fully the value of invention and commercialization of research, e.g., Texas A&M in 2006.

Specific Objectives for FY 2013

1. Assess and implement changes in process to enable efficient, cohesive negotiation of industry agreements across campuses (Nagel, Warren, Terranova, Stevens, Assistant Director for Industry Agreements).
   - February 2013
2. Create a more integrated process with Bioscience & Technology Business Center staff to assist with tenant identification. Finalize affiliates agreement and sign MOU with BTBC (Goonewardene, Nagel, Kulkarni).


5. Implement COI process changes identified by a 2011 external evaluation of university economic development models (Goonewardene, Nagel, Kulkarni, Warren, Terranova, Heppert).

6. Fully implement Wellspring and industry CRM as systems of record for technology transfer and industry partnerships, respectively. Demonstrate ability to pull reports to ensure data-driven strategy (Kulkarni, Nagel, Assistant Director for Industry Agreements).

7. Increase number of investor visits to the KU campus, e.g., Merck, Southwest Michigan Venture Fund, Springboard, and others. Goal for the year is six such visits (Goonewardene, Nagel, Kulkarni, Assistant Director for Industry Agreements).

8. Partner with KU Endowment to identify research contracts being received by them as philanthropy. Finalize MOU between KUCTC and KU Endowment (Goonewardene, Nagel, Warren, Terranova, Peterson).

9. Launch formal strategic partners program. Sign MOU’s with four strategic partners for KU (Goonewardene, Nagel).

10. Sign 12 license agreements (Kulkarni).

11. Increase license revenues by 20% and industry sponsored research by 10% (Goonewardene, Nagel, Kulkarni).

12. Launch one or two funded KU start-up companies (Goonewardene, Kulkarni).