

Act as One University

KU: The Research University of Kansas City	Status/Examples	SB 345
<ul style="list-style-type: none"> Life Sciences Initiative 	<p>The University of Kansas is collaborating with seven other institutions to put the bi-state greater Kansas City area on the cutting edge of life sciences research. The initiative is a project of the Kansas City Area Life Sciences Institute, the Civic Council of Greater Kansas City, and the Kansas City Area Development Council. The main goals are to make Kansas City a top 10 city for the life sciences and to reach \$500 million in annual life-sciences research expenditures by 2010.</p>	II-3
	<p>KU's partners in the endeavor are Midwest Research Institute, Stowers Medical Research Institute, University of Missouri at Kansas City, University of Health Sciences, Children's Mercy Hospital, and St. Luke's Hospital. Five areas of research specialization have been designated: cancer, human development and aging, cardiovascular, infectious diseases, and neurological diseases.</p>	
	<p><i>In June 2001, the Hall Family Foundation pledged \$27 million to help fund a new life sciences research facility at the KU Medical Center in Kansas City. This facility will bring together the researchers and resources of KU's institutes for brain research, genetic medicine, and the Center for Proteomics, and will strengthen KU's ties with other Kansas City organizations involved in the Kansas City Area Life Sciences Initiative. An additional \$2.5 million will be used to supplement a KUMC program that provides seed funding for researchers seeking federal grants (\$1.5 million,) and to endow two KU professorships in the life sciences (\$1.0 million.)</i></p>	
	<p>KU Medical Center and Children's Mercy Hospitals and Clinics announced an "Alliance for Children" collaboration on pediatric research, education, and patient care. The Hall Family Foundation has pledged up to \$5 million in support.</p>	

	<p>The Stowers Institute for Medical Research and KU reached an agreement on promoting medical research. Under the agreement, Stowers, KU, and the KU Medical Center will exchange data on research programs and jointly apply for contracts, federal grants, and awards for medical research, instead of competing separately.</p>	<p>II-3</p>
	<p>The largest private gift for a building project in the history of the KU Medical Center will establish a new center for brain research. The gift, a \$4 million pledge to the KU Endowment Association from KU alumni Forrest and Sally Roney Hogle of Dallas, will build and equip the Hogle Brain Imaging Center.</p>	
	<p>The center will use brain-imaging methods to study neurological problems such as developmental disabilities, autism, cerebral palsy, stroke, Alzheimer's disease, Parkinson's disease, and epilepsy. KU Medical Center will be one of only three facilities in the nation with the capability of safely scanning the brain of a fetus in the womb.</p>	

<ul style="list-style-type: none"> • Technology Transfer 	<p>A formal agreement between KU and Children’s Mercy Hospital has been created to assist the hospital in all phases of technology transfer activities, including marketing of technologies, development of intellectual property, and patent and copyright guidance. Similar assistance is being provided to St. Luke’s hospital on an informal basis.</p>	
<ul style="list-style-type: none"> • Kansas City-Focused Research/Community Initiative 	<p>KU is a member of the KC Catalyst Implementation Task Force, an organization serving as a resource network to create and expand technology-based companies and to commercialize new technologies in the bi-state region.</p>	
	<p>KU, along with the Midwest Research Institute, UMKC, the Life Science Institute, the Brush Creek Enterprise Center, and others, are members of the Metropolitan Entrepreneurial Commercialization Alliance (MECA). This alliance reflects the realization that a cooperative, coordinated network of commercialization and incubator organizations is essential for the success of KC Catalyst. Members are committed to building an infrastructure that will foster and sustain long-term growth and innovation, and build a strong regional technology-focused economy.</p>	
	<p>The KU-MRI Alliance encourages collaborative research efforts between scientists from KU’s campuses and the Midwest Research Institute. The Alliance has established a capabilities database on researchers from KU, MRI, and Children’s Mercy Hospital, and will be adding information on researchers from the Stowers Institute. The Alliance has promoted and coordinated KU-MRI joint ventures, projects, and proposals.</p>	<p>II-3</p>
	<p>Working with the Kauffman Foundation, KU helped to develop a Science and Technology Commercialization Forum for the Greater Kansas City Area. Attendees included representatives from KUMC, Rockhurst University, UMKC, Midwest Research Institute, Children’s Mercy Hospital, the Health Sciences Center, and Research Medical Center. Among the Forum topics were venture capital, intellectual property, and industry valuation of technology.</p>	<p>II-3</p>
	<p>KU, along with UMKC, Midwest Research Institute, the Life Science Institute, the Kauffman Foundation, KCCatalyst and Brush Creek Enterprise Center, is participating in an NSF grant for “Partnerships in Innovation.”</p>	<p>II-3</p>

	<p>The Higuchi Biosciences Center (HBC) is continuing its involvement with the KCADC/Civic Council Task Force on the Life Sciences, which hopes to coordinate KC research and business activities with research from the Stowers Institute.</p>	<p>II-3</p>
	<p>The HBC was one of the sponsors of the first North American Bioanalytical Forum, held in Kansas City in September, 2000. More than 130 scientists attended, representing area educational institutions, pharmaceutical firms, and clinical reference and other laboratories. A second forum is scheduled for September/October 2002.</p>	
	<p>The Juniper Gardens Children's Project (JGCP), a long-standing, high profile education research project of KU's Schiefelbush Institute for Life Span Studies, helps schools and families with the education and treatment of children. JGCP carries out research in numerous daycare centers, preschools, and school districts in the Kansas City area, and in two educational cooperatives in Kansas and Iowa. The Life Span Institute also is a collaborator on multi-site research programs with colleagues at the Universities of Minnesota and Oregon, Notre Dame University, and Georgetown University, among others.</p>	<p>III-1</p>
	<p>Kansas City-based Sprint Corporation, with a commitment of \$12 million over 12 years, is a major partner in the research programs of KU's Information and Telecommunication Technology Center. ITTC helps to keep Sprint competitive by providing the applied research critical to keeping the company technically viable and financially profitable.</p>	
	<p>The Kansas Geological Survey (KGS) recently conducted a study of bedrock fractures at the Johnson County landfill. Such fractures, unless identified and contained, can allow the downward movement of landfill waste, thus threatening the municipal water supply of a major population center.</p>	<p>III-4</p>
	<p>The KGS has been studying landslide activity in several residential areas of Kansas City where major downward slope movement has occurred. The KGS also has been mapping slide-susceptible areas in Atchison and Leavenworth counties in Kansas.</p>	<p>III-3 III-4</p>

Increase Interdisciplinary Research	Status/Examples	SB 345
<ul style="list-style-type: none"> KU Medical Center 	<p>The University of Kansas Medical Center has received five major grants – two from the Hall Foundation, two from the Mellon foundation, and a grant from the Department of Health and Human Services. The Department of Pediatrics, the Institute for Child Development, and the Department of Molecular and Integrative Physiology are the recipients of nearly \$9.6 million in grant funds.</p>	<p>II-1 II-3</p>
	<p>Two special grants awarded to KUMC, which recognize the unique patient treatment facilities and the focused research interests of the medical center, include a \$1.8 million grant from the National Institutes of Health (NIH) for Hogland Brain Imaging Center equipment, and \$2 million from the State of Kansas for pediatric research.</p>	<p>II-3 ?</p>
	<p>KUMC researchers in three departments, including Molecular and Integrative Physiology, Biochemistry and Molecular Biology, and Molecular Genetics and Immunology, have received awards totaling over \$5.4 million for studies in contraception, membrane structures, and cell division.</p>	
	<p>Collaborative research activities involving KUMC and Lawrence-based KU faculty include two NIH grants, one a \$5.8 million grant for research in the biology of the maternal-fetal interface, and the other a \$4.8 million grant for PKD research.</p>	<p>II-3</p>
	<p>The NIH currently is considering a nearly \$6 million collaborative project, the Kansas Biomedical Research Infrastructure Network (K-BRIN). Collaborating researchers in this project are from KU, KUMC, Kansas State University, Wichita State University, Fort Hays State University, Pittsburg State University, Emporia State University, Washburn University in Topeka, and Haskell Indian Nations University in Lawrence. This project will develop procedures and programs which serve to encourage promising undergraduates to pursue careers in biomedical fields.</p>	
	<p>The University of Kansas Medical Center Research Institute has received a \$1.5 million grant from the Hall Family Foundation to fund pilot research at KUMC; has invested \$.75 million in internal faculty research grants; and has collaborated with KTEC to fund five start-up biotech companies. The Institute also managed a record 260 clinical trials, totaling nearly \$6 million in contracts.</p>	

	<p>Arising out of KU's alliance with Midwest Research Institute (MRI) in Kansas City, KUMC pharmacological researchers are working with members of MRI's Pharmaceutical Product Development Division on a project that focuses on hormone-induced breast cancer.</p>	
<ul style="list-style-type: none"> • Higuchi Biosciences Center 	<p>Led by the director of KU's Higuchi Biosciences Center Drug Discovery Program and Cancer Therapeutics Group, a group of 19 researchers from KU, KUMC, Kansas State University, and Emporia State University has received a five year, \$9.9 million grant from the National Institutes of Health to establish a Center for Cancer Experimental Therapeutics. The researchers also received matching funds from the University of Kansas and the Kansas Technology Enterprise Corporation.</p>	<p>II-1 II-3</p>
	<p>Higuchi Biosciences Center for Drug Delivery research staff, researchers from CritiTech, Inc., a Lawrence, Kansas company, and a researcher at KUMC are conducting collaborative research on devising new drug candidates.</p>	
	<p>The Higuchi Biosciences Center has provided technical assistance to Phylogenetix, a Kansas City-based company, which markets OmniAmp, a method utilizing DNA sequencing technology to rapidly identify a wide variety of bacterial or fungal infectious agents. Phylogenetix is now using OmniAmp with Felton Medical of Lenexa, Kansas, to help that company develop an inoculation device called a repeating injector, which can give numerous inoculations against disease in a timely and cost-effective manner. Felton Medical and a team of Russian bioengineers recently signed an unprecedented agreement that will facilitate the immunization of more than one million children in Third World countries. With a \$1.4 million grant from the Department of Energy, the team will further refine the needle-free inoculation technology.</p>	
	<p>KU and Lawrence area researchers and business leaders have formed the Lawrence Technology Association. The Higuchi Biosciences Center and the Information and Telecommunication Technology Center are charter members of this technology-focused professional organization that hopes to capitalize on technological innovations developed in the region.</p>	

<ul style="list-style-type: none"> Schiefelbusch Institute for Life Span Studies 	<p>KU’s Kansas Mental Retardation/Developmental Disabilities Research Center has been funded by the National Institutes of Health (NIH) for the past 35 years. During this period, KU and KUMC researchers have leveraged more than \$24 million in NIH funding into \$174 million of additional Center research funding. Currently the Center supports the research of 70 scientists in 20 disciplines on the Lawrence and Kansas City campuses, at the Parsons Research Center, and at Juniper Gardens Children’s Project in Kansas City.</p> <p>The increasingly interdisciplinary nature of Center research drives the trend towards increased collaboration. Nearly nine of ten Center investigators collaborate with at least one investigator from another discipline. In 2000, the Life Span Institute was involved in two new interdisciplinary and collaborative project proposals involving researchers from KU-Lawrence, KUMC, Midwest Research Institute, and Children’s Mercy Hospital.</p>	<p>II-3, III-1</p>
<ul style="list-style-type: none"> Hall Center for the Humanities 	<p><i>In June 2001, the Hall Family Foundation pledged up to \$7 million in support of Humanities programs at KU. Three million dollars will be used to remodel or replace the existing Hall Center for the Humanities building. To help the Center qualify for a National Endowment for the Humanities challenge grant, the foundation committed \$1 million to support outreach programs. The foundation gift also includes a \$2.5 million grant to help fund new endowed chairs in the humanities, and \$.5 million for the Joyce and Elizabeth Hall distinguished professorship in the humanities.</i></p> <p>In January, 2001, six KU study centers – the African Studies Research Center, the Center for East Asian Studies, the Center for Russian & East European Studies, the Center of Latin American Studies, the Center for European Studies, and the Indigenous Nations Studies Center – affiliated with the Hall Center for the Humanities. These affiliations will increase the visibility of the humanities within the university, and will strengthen the Hall Center and the affiliated centers in their quest for external funding.</p> <p>The Hall Center is working with the “Gender and Nationalism” faculty colloquium at KU to submit an application to become a Rockefeller Residency Site. Becoming a residency site will advertise the university as a place of research distinction, attract faculty from other universities, and enhance KU’s reputation as an excellent location choice for graduate study.</p>	<p>II-3</p> <p>II-4</p>

	<p>The Hall Center continues to support nine interdisciplinary seminars which meet four times each semester. Drawing support from departments across the university, these seminars inspire interdisciplinary teaching and research.</p>	<p>II-3</p>
	<p>Each fall semester, the Hall Center sponsors a colloquium with an interdisciplinary theme. The core colloquium group of eight faculty is drawn from different KU academic departments.</p>	<p>II-3</p>
<ul style="list-style-type: none"> Information and Telecommunication Technology Center 	<p>KU's Information and Telecommunication Technology Center (ITTC) and the Center for Research on Learning have teamed up to create the e-Learning Design Lab, which will explore ways to improve both teaching and learning using new technology. The lab initially will comprise faculty from three KU departments: electrical engineering and computer science, special education, and teaching and leadership, and it will encourage collaboration among university researchers, students, industry, governmental agencies, the military, and private foundations.</p>	<p>I-2, II-3</p>
<ul style="list-style-type: none"> Kansas Applied Remote Sensing 	<p>The University of Kansas Applied Remote Sensing Program (KARS), a research program of the Kansas Biological Survey, was established to conduct research which will enable public agencies and private firms to better utilize satellite and airborne remote sensing systems. Over the past two years, KARS has strengthened its research relationships with a number of Kansas agencies, and has received more than \$2.5 million to conduct fundamental and applied research in several critical areas, including agricultural and water resources, grasslands, and land use mapping and monitoring.</p>	<p>II-3 III-3</p>
	<p>As one of only seven NASA Regional Earth Science Applications Centers, the KARS Great Plains RESAC has greatly stimulated new interdisciplinary research initiatives. Funding of \$1.8 million for three such research projects came from NASA and the U.S. Department of Transportation.</p>	
	<p>The KARS NASA Center also has formed interdisciplinary partnerships with state and federal agencies, researchers at other universities, and private corporations to utilize research results in the development of products which will enhance the Great Plains agricultural economy. Recent commercial successes include Crop Planner and Yield Planner, two agricultural remote sensing products. Two new companies emanating from this research are TerraMetrics, which works with KARS to develop and commercialize satellite products and applications, and AquaSolutions, a consulting firm focused on ecological and water quality applications of remote sensing.</p>	

<ul style="list-style-type: none"> Biodiversity Research Center 	<p>The Biodiversity Research Center/Natural History Museum (BRC) has National Science Foundation funding of \$6 million for collaborative work in biodiversity informatics. Working with national partners, including the San Diego Supercomputer Center, the BRC will gather and centralize knowledge of the planet's biological diversity. The project involves collaboration with KU's department of electrical engineering and computer science to extend the programming language for searching museum databases worldwide.</p>	<p>II-3</p>
	<p>The KU Biodiversity Research Center and the KU department of electrical engineering and computer science are collaborating on a research project to develop robotic tools for science education, and the Center is also collaborating with the San Diego Supercomputer Center on earth systems science research.</p>	<p>II-3</p>
<ul style="list-style-type: none"> Center for Research on Learning 	<p>KU's Center for Research on Learning is collaborating with local, state, regional, and national partners on a vast array of projects, programs, and joint ventures, aimed at developing student academic skills, encouraging parental support, providing mentors, identifying and removing barriers to student success, and preparing and supporting teachers.</p> <p>Given the synergistic nature of these activities, and that much of the Center's programming is web-based, Center program growth and development is extremely dynamic. Distribution of the Center's many work products is anticipated to be worldwide.</p>	<p>II-3</p>
	<p>The Center for Research on Learning, in collaboration with the Kansas Department of Human Resources, the Cerebral Palsy Research Foundation, the SRS Division of Health Services, and others, is working to make Kansas Rehabilitation Services' One-Stop Centers more effective, especially for Kansans with disabilities.</p>	<p>II-3</p>
<ul style="list-style-type: none"> Kansas Geological Survey 	<p>The Kansas Geological Survey, Kansas State University, and the U.S. Geological Survey are collaborating to monitor agri-chemical soil infiltration. The purpose of this important, cooperative research project is to predict the probability of these chemicals contacting important underground Kansas aquifers and degrading water quality.</p>	<p>III-3</p>
	<p>Due to rapidly escalating natural gas prices, the Kansas Geological Survey and the U.S. Geological survey have joined forces to assess the energy potential of coal bed methane resources near Kansas City and in northeast Kansas.</p>	<p>III-3</p>

<ul style="list-style-type: none"> Other Multidisciplinary 	<p>Through the collaborative efforts of the Huguchi Biosciences Center, the Information Technology and Telecommunications Center, and the KU Director of Technology Transfer and Intellectual Property, venture capital firms are learning about the life science and information technology investment opportunities that exist on the Lawrence campus. Outside start-up companies and prospective management personnel have met with KU personnel to evaluate potential collaborative opportunities, which could include participation in sponsored research projects. These efforts have high yield potential from both the financial and the research perspective.</p>	
	<p>The KU curator of ornithology has ongoing research collaborations with colleagues in the department of mathematics to discern how the structure of bird feathers and skin generates color. This project is supported by an NSF grant of over a half million dollars.</p>	<p>II-3</p>

Build Common Systems/Remove Barriers	Status/Examples	SB 345
<ul style="list-style-type: none"> • University-wide Systems 	Common 5-digit dialing among campuses has been implemented.	IV-1
	The Comprehensive KU telephone directory includes all students, faculty, and staff on all campuses.	IV-4
	The new Kansas University Library Information System (KULIS) catalogs library collections at Lawrence and KUMC.	
	PeopleSoft systems are being installed at Lawrence and KUMC for human resources/payroll, financial, and student data.	IV-2
	Data warehouses to capture operational data from all campuses to provide comprehensive management information are being built and used at all KU campuses.	IV-2
<ul style="list-style-type: none"> • Removing Research Barriers 	The methodologies for determining the Principal Investigator(s) are different on the Lawrence and KUMC campuses. Until these variances are resolved, they will effectively limit multi-campus research undertakings. [Plug]	
	The regulations related to research using human subjects vary widely on the Lawrence and the Medical Center campuses. As research focused on human health becomes increasingly interdisciplinary and interagency in nature, resolution of such differences is a crucial first step toward establishing and maintaining productive research relationships. [Plug]	