

KU Discovery & Innovation

News from KU Research

September 2015

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Kevin Boatright
Director of External Affairs
KU Office of Research
kboatright@ku.edu
(785) 864-7240

Central District Redevelopment Coming Soon

Dozens of individuals from the KU and Lawrence communities turned out at two public forums in July and August to learn about Central District redevelopment efforts on the KU Lawrence campus.

The forums, led by Design and Construction Management, presented concept designs for an integrated science building (ISB), a new student union, student housing and dining facilities, a power plant and parking facilities to be built in an area south of Irving Hill Road (concept at left).



"As we said when we launched the Campus Master Plan in 2014, this is a special opportunity for us to transform the university into a national model and better position ourselves to serve the state and nation," said Jim Modig, DCM director and university architect.

Construction is expected to begin this winter. The ISB addresses long-overdue upgrades to critical teaching and research laboratories. Antiquated

facilities in Malott Hall have placed some program accreditation in jeopardy and have contributed to failed grant applications. The ISB will provide modern teaching and research laboratories that are flexible and can be modified as research concentrations and safety requirements change in the future. The design of the building also fosters interaction among researchers of different disciplines as well as increases interaction with undergraduate students. (See p. 2)

Search Under Way for Buchanan Successor at Geological Survey



Rex Buchanan, interim director of the Kansas Geological Survey (KGS) since 2010, will retire in 2016. The search for his successor has begun.

Buchanan (left) joined the KGS in 1978 as director of information. He later served as assistant director for publications and public affairs, associate director for public outreach, and deputy director. Among many accomplishments, he is co-author of *Roadside Kansas: A Traveler's Guide to Its Geology and Landmarks* and editor of *Kansas Geology: An Introduction to Landscapes, Rocks, Minerals, and Fossils*.

"Rex is a tremendous asset for the university and it will not be easy to find his successor at the KGS," said Jim Tracy, vice chancellor for research. "Under his leadership much has been learned about the state's aquifers, the relationship between saltwater disposal from oil production and earthquakes, and the underground sequestration of carbon dioxide. His focus on providing service to Kansas is a model for all of us at KU."

Tracy has appointed a 10-person search committee, chaired by Greg Ludvigson and Jim Butler at the KGS. A full position description and application procedures will be [posted soon at KU Jobs](#).

(From p. 1)

The Central District redevelopment extends from Allen Fieldhouse west to the Daisy Hill residence halls, and from Burge Union south to 19th Street. The project becomes the heart of KU Innovation Way, a corridor of discovery that stretches from the Earth, Energy and Environment Center, to the School of Engineering Complex, to the planned integrated science building, and continues to the southwest, across Iowa Street, to research and teaching facilities on the West District.

The redevelopment project employs an alternative financing model to construct several projects simultaneously over the span of three years rather than a more traditional approach that seeks individual bonding for each construction project. Working with Edgemoor Infrastructure and Real Estate, the university will lease the facilities with a combination of funds available through Changing for Excellence measures, other sources and some student fees.

Rick Perlstein is First Humanities Lecturer



Rick Perlstein (left), an historian of conservatism and bestselling author, will present the **first Humanities Lecture Series presentation of the 2015-16 year**.

He will speak on Wednesday, September 16 at 7:30 p.m. in Woodruff Auditorium at the Kansas Union. His topic is "The Invisible Bridge: From Nixon to Reagan to Palin and Beyond." The event is free and open to the public.



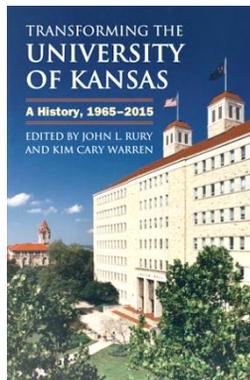
This is the first of six Humanities Lecture Series programs scheduled this year. The series, presented by KU's Hall Center for the Humanities, continues on October 21 when urban ethnographer Alice Goffman (left) of the University of Wisconsin-Madison presents "On the Run: Fugitive Life in an American City." Her 7:30 p.m.

talk will take place in The Commons at Spooner Hall. It is also free and open to the public.

October 9 Deadline for Level II Proposals

The Strategic Initiative Grant (SIG) Level I awards program is suspended for the fall semester. The smaller **SIG Level II program**, which is administered by the KU Office of Research, will continue. There are now three deadlines for the submission of proposals: October 9, February 5 and May 6. Turnaround time for review and a decision will remain approximately two weeks, starting from the deadline date.

New History Part of 'KU 150' Celebration



The University Press of Kansas has published *Transforming the University of Kansas: A History, 1965-2015*. It features essays by current or former KU faculty or staff in three broad categories: leadership and politics; teaching and research; and students, protest and sports. The editors are John Rury, professor in the School of Education and

Department of History, and Kim Cary Warren, associate professor in the Department of History.

KU Libraries and KU Bookstore will host a panel discussion with the authors and editors on Tuesday, September 29 at 7:30 p.m. in the Big 12 Room of the Kansas Union. A book signing and reception will follow in the Jayhawk Room. **A similar event** is scheduled for Tuesday, October 6 at 6:30 p.m. at KU Edwards Campus.

Jim Tracy to Speak at Postdocs Luncheon

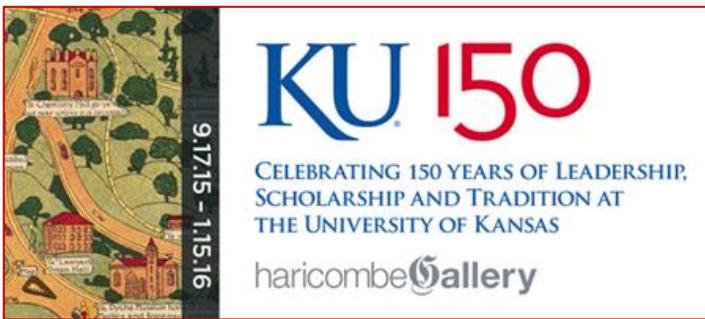
The **KU Postdoctoral Association (KUPA)** will hold its second luncheon meeting of the year on Friday, September 25. All KU postdocs are welcome to attend from noon-1 p.m. in the Relays Room at Burge Union. Lunch is free, but registration at the website is requested by September 18.

Jim Tracy, vice chancellor for research, will speak at the meeting, which occurs during the sixth annual **National Postdoc Appreciation Week**. The week recognizes the significant contributions postdoctoral scholars make to U.S. research and discovery.



KUPA officers are (left to right): Rita-Marie McFadden, communications; Sara Thomas, president; and Huili Yao, vice president and treasurer.

At the first KUPA meeting of the year, Chance Clutter of the KU Career Center led a presentation on networking and online image.



Libraries Celebrates Scholarship, Tradition

KU Libraries is about to launch a new exhibition in honor of the university's sesquicentennial.

"KU 150: Celebrating 150 Years of Leadership, Scholarship and Tradition at the University of Kansas" is located in Watson Library's Haricombe Gallery. An opening reception will take place there on Thursday, September 17. A free 5:30 p.m. reception will be followed at 6:30 by a presentation on KU traditions by James Carothers, professor of English.

"The Haricombe Gallery exhibition will begin to uncover the rich and diverse contributions made to the university throughout its long history," says Sarah Goodwin Thiel, community engagement librarian and exhibits program coordinator. "By showcasing campus individuals, resources, collections and events, we hope to pique the interest of our visitors and urge them to learn more about their beloved university."

To RSVP for the opening event, contact [Nathan Chamberlain](#) at (785) 864-3601.

Meet Inventors at 'Technology Tuesday'

KU Innovation and Collaboration (KUIC) and the Bioscience & Technology Business Center (BTBC) will host a free networking event on September 22 from 4-6 p.m. for researchers, investors, companies and economic development professionals.

This **first "Technology Tuesday" event** will take place at the BTBC, 2029 Becker Drive on the West Campus Research Circle. KUIC licensing staff will present partnering opportunities in several leading areas of research.

Refreshments are provided and no reservations are necessary. A second "Technology Tuesday" event is planned for December 8.

Defense SBIR/STTR Funding Seminar

KU Innovation and Collaboration (KUIC) will host a seminar on Tuesday, September 15 on proposal preparation for federal **SBIR/STTR funding from the Department of Defense**. It will take place from 8:30 a.m. to 4:30 p.m. at the Bioscience & Technology Business Center. All interested persons are welcome to register. Breakfast and lunch are provided.

Many federal agencies have **Small Business Innovation Research and Small Business Technology Transfer grant programs**. During the past year, KUIC hosted seminars on SBIR/STTR programs at the National Science Foundation and National Institutes of Health.

The seminar will be led by Becky Aistrup of **BBC Entrepreneurial Training & Consulting**.

KU 'Science to Art' at KCALSI Dinner



"Science to Art" images by KU bioengineering doctoral student Saba Ghazvini (left) and bioengineering postdoc Adam Mellott have been chosen for display at the **Kansas City Area Life Sciences Institute Annual Dinner** September 30.

The works will be put up for silent auction at the dinner, with proceeds benefiting STEAM education (STEM and art) in the Kansas City area. Contributing artists from KCALSI institutions will be featured in a video presentation at the dinner.

The theme of this year's event is "Exponential Health: Solving Today's Problems with the Technologies of Tomorrow." **Salim Ismail**, founding executive director of Singularity University, will speak on "Shifting from Linear to Exponential Thinking."

KU is a KCALSI stakeholder and a sponsor of the dinner, which involves more than 500 persons from universities, medical centers and companies. Guests will include a group of 10 KU graduate students, representing Medicinal Chemistry, Pharmaceutical Chemistry, Pharmacology and Toxicology, Bioengineering and Molecular Biosciences.

Research Notes

'Research Administration 101' Starts September 16

The annual 10-week **RA 101 introduction to research administration** is scheduled for consecutive Wednesdays, September 16 through November 18. All sessions will be held 2:30 – 4:30 p.m. in the Ron Evans Apollo Auditorium at Nichols Hall.

RA 101 is a free certificate program offered by the KU Office of Research to members of the KU community. Each session is taught by in-house experts as well as invited guests from the campus community. The course provides participants with an overview of what sponsored projects are, how they are administered at KU, and who bears responsibility for seeing that they are administered responsibly.

New Staff at KU Research

- **Joanne Altieri**, a familiar face at KU, has joined Contract Negotiations as a research contract officer. Joanne has 27 years of research administration experience and most recently was an associate director of grants management at the University of Chicago. Joanne succeeds Gale Carter, who retired from KU last summer following many years of service.
- **Melinda Fish** joined Post-Award Services in August, assigned to PAS Team 3. Melinda was recently employed as program coordinator under the direction of Sunil David and has prior post-award experience at the Higuchi Biosciences Center.



"STARTUP WEEKEND" IS COMING TO LAWRENCE
September 25-27 at the Bioscience & Technology Business Center (BTBC).

It's a fun, competitive event that brings local entrepreneurs together. Ideas are pitched, teams formed around those ideas, and then the weekend is spent diving into making the idea into a business with the support of great minds serving as mentors to the teams. At the end of the weekend, the teams present their businesses to panel of judges and the top three teams are named.

Startup Weekend is sponsored by KU Innovation and Collaboration, the KU School of Business, the BTBC, and the Lawrence Chamber.



Next Topic is 'Data Visualization'

Red Hot Research brings together scholars from all disciplines, in response to the call set forth in KU's *Bold Aspirations* strategic plan. The format is simple: short, slide-based talks that introduce audiences to a topic.

Each installment features faculty members, speaking for six minutes each. Audience members are encouraged to connect with the speakers (and each other) during breaks.

The next Red Hot Research is set for Friday, September 18, at 4 p.m. at The Commons in Spooner Hall. The topic is "Data Visualization," and presenters are:

- **Jamie Basham**, Special Education
- **Fengjun Li**, Electrical Engineering & Computer Science
- **Mahbub Rashid**, Architecture
- **Luke Huan**, Electrical Engineering & Computer Science
- **Doug Walker**, Geology

Emcees for the program are Jim Miller, Electrical Engineering & Computer Science, and Bob Rummer, Office of Research.



IF YOU'VE NEVER ATTENDED RED HOT RESEARCH, here is Philip Drake, English, speaking during the August 28 "Water, Energy, Climate" session. His topic was "Representing Nature in the Echo of Disaster." Other presenters were Rex Buchanan and Greg Ludvigson, Kansas Geological Survey; Dorothy Daley, Public Affairs & Administration / Environmental Studies; and Shannon O'Lear, Geography / Environmental Studies. Emcee was Travis Weller, Institute for Policy & Social Research.

Baxendale Award Nominations Sought

KU seeks nominations for the third annual **James Baxendale Innovation Award**. It recognizes a researcher or research group at any KU campus for excellence in entrepreneurship and commercialization.

“Part of KU’s mission is making discoveries that change the world,” said Julie Nagel, interim associate vice chancellor for innovation and entrepreneurship. “Commercialization benefits people and grows the Kansas economy. This award is a singular honor for innovative researchers with a translational vision. It showcases those who excel at moving KU research discoveries from the laboratory to the marketplace.”

The Baxendale Award is named in honor of KU’s former commercialization director. It is sponsored by KU Innovation & Collaboration, the unit led by Nagel that manages KU’s entrepreneurship and economic development efforts. Previous recipients of the award are Lisa Stehno-Bittel, professor, Department of Physical Therapy and Rehabilitation Science at the KU Medical Center; and Cory Berkland, professor, departments of Pharmaceutical Chemistry, Chemical and Petroleum Engineering at the Lawrence campus. Both have successfully launched startup companies in Kansas.

Anyone can **submit a nomination online**. Nominators should provide detail on how the nominee has demonstrated excellence in commercialization, including:

- Descriptions of innovations/technologies developed by the nominee(s);
- Impact of the technology, from the research and product perspectives;
- List of disclosures, patents, licenses (invented and assigned to KU); and
- Examples of major milestones toward external validation and marketplace achievement.

The nomination deadline is Sept. 25. The recipient will be announced Oct. 7 at a special reception following KU’s half-day “A Celebration of Innovation: A Start-Up Showcase” at the Bioscience & Technology Business Center in Lawrence. Registration for that event can also be **submitted online**. See the related article on page 6.

Researcher Kudos

- **Ron Borchardt**, Distinguished Professor Emeritus in the Department of Pharmaceutical Chemistry, will be honored in Lawrence October 21-23 during a special “Tribute to Ronald T. Borchardt: Teacher, Mentor, Scientist, Colleague, Leader and Friend.” The Board of Trustees of the American Pharmacists Association, and the Editorial Board of the *Journal of Pharmaceutical Sciences* will dedicate the Feb. 2016 issue in honor of Borchardt, the editor-in-chief.
- **David Volkin**, Distinguished Professor in the Department of Pharmaceutical Chemistry, has received the inaugural **Ronald T. Borchardt Professorship**. Former colleagues and students of Borchardt contributed more than \$1.8 million to establish the professorship.
- **Elizabeth Kozleski**, professor and chair in the Department of Special Education, is co-recipient of a three-year, **\$2.75 million award** from the U.S. Department of Education’s Institute of Education Sciences. The project will help teachers in Kansas and California enact proven methods to teach reading to students with extensive support needs.
- **David Roediger**, Foundation Distinguished Professor of American Studies/History, is the 2015 recipient of the **Byron Caldwell Smith Book Award** in the non-fiction category. He was cited for *Seizing Freedom: Slave Emancipation and Liberty for All*. The award is presented by the Hall Center for the Humanities.
- **Gail Buttorff**, assistant professor in the Department of Political Science, is **co-author of “Working Those Connections: Exploring Arab Women’s Differential Access to Opportunity in the Middle East and North Africa.”** The issue brief was published by the **Baker Institute for Public Policy** at Rice University.
- Congratulations to the 15 fall semester **recipients of \$1,000 Undergraduate Research Awards** to support mentored projects. The competition is coordinated by the Center for Undergraduate Research and funded by the College of Liberal Arts and Sciences, the Office of Research, Undergraduate Studies and the Office of the Provost.
- **Brian Blagg**, professor in the Department of Medicinal Chemistry, is the recipient of the **Lester and Betty Mitscher Professorship**. The late Lester Mitscher was a former university distinguished professor in the department.
- **Wally Meyer**, director of entrepreneurship in the School of Business, will be an “Ecosystem Groups Bring Investment” panelist September 18 during **TechWeek Kansas City**, a five-day technology conference and festival.

Please Submit HERD Survey Promptly

Recipients of new research awards now receive a specific email request from the Office of Research concerning the federal Higher Education Research & Development (HERD) survey. KU reports its research-related expenditures on the NSF HERD survey annually. The data is used for analysis purposes by funding agencies and higher education organizations. It also determines some of KU's rankings among national public research universities.

To help categorize KU research awards appropriately, PIs are now asked to complete a two-question online survey. From a list, choose 1) the purpose of the award and 2) the field of study. Then submit. That's all it takes!

You can review the [project categorization form](#) online. Note that the purpose options are not exhaustive. Only the options provided in the actual HERD survey are listed. Use your judgment in choosing the most appropriate response.

PIs are asked to submit the HERD information within five days of receiving the specific request from KU Research. If you have any questions, please email kucr_herd@ku.edu.

KUIC 'Celebration of Innovation' is Oct. 7

KU Innovation and Collaboration (KUIC) will host "A Celebration of Innovation: A Startup Showcase" from 1 – 5 p.m. on Wednesday, October 7 at the Bioscience & Technology Business Center. The program is free.

It's a unique opportunity to see KU startup companies commercializing the latest life science, medical device, and cutting-edge technologies generated as a result of KU research. This is a great event for those interested in licensing, commercializing, investing or otherwise becoming involved with getting new discoveries to the marketplace.

Jeff Vitter, executive vice chancellor and provost will make opening remarks. A KU panel on "The Commercialization Ecosystem at KU" will be followed by an industry panel on "Technology Acquisition." Later, there will be presentations by six faculty startups and five student startups. The full agenda, plus [registration information, is available online](#).

Following the showcase, KUIC and BioKansas, will host the Inventor's Networking Reception and BioBreak. During the reception, the third annual [James Baxendale Innovation Award](#) will be given. See the related article on page 5.

CEBC Receives \$4 Million NSF Grant

A new, four-year, \$4 million grant from the National Science Foundation (NSF) will support research aimed at developing novel technologies for converting plant biomass into chemical and fuel intermediates. The outcome is a renewable source of feedstock that can be used to manufacture plastics and other products currently made from petroleum crude.

The award supports a team of researchers from KU's Center for Environmentally Beneficial Catalysis (CEBC) and the University of South Carolina.

Bala Subramaniam, Dan F. Servey Distinguished Professor in KU's Department of Chemical & Petroleum Engineering, is director of CEBC and the lead researcher on the new project. He is joined by R.V. Chaudhari, Deane E. Ackers Distinguished Professor of Chemical & Petroleum Engineering, as early-career faculty mentors.

"We are excited to partner with the University of South Carolina catalysis group," he said. "This latest NSF funding allows us to address the grand challenge problem: How do you reconstruct naturally occurring lignin to make petrochemical-equivalent chemicals, instead of burning it?"

Lignin is a class of complex organic polymers found in all sorts of plants. It is a major byproduct of agricultural processing. Archer Daniels Midland, a CEBC industry partner, will provide lignin samples for the project.

"A unique aspect of this grant," said Subramaniam, "is the nontraditional mentoring opportunities for several young professors, including new collaborations across-disciplines with academic and industry partners, and course development with new student-engagement strategies."

Early-career KU researchers on the project are Franklin Tao, Miller Associate Professor with joint appointments in the departments of Chemical & Petroleum Engineering and Chemistry; Juan J. Bravo Suarez, Chemical & Petroleum Engineering; Marco Caricato, assistant professor, Chemistry; and Anand Ramanathan, research associate, CEBC.

The award is one of eight interstate grants announced by NSF through its Experimental Program to Stimulate Competitive Research (EPSCoR) initiative. The grant requires recipients to develop early-career faculty, who can develop and sustain flourishing research programs.

Upcoming Events

Additional events and details are available at the [KU Calendar](#).

SEPTEMBER 16

Hall Center Humanities Lecture Series: Rick Perlstein, "The Invisible Bridge: From Nixon to Reagan to Palin and Beyond"

7:30 p.m.

Kansas Union, Woodruff Auditorium

SEPTEMBER 16 – NOVEMBER 18

Training: "Research Administration 101"

Wednesdays, 2:30 – 4:30 p.m.

Nichols Hall, Ron Evans Apollo Auditorium

SEPTEMBER 18

Summit: "Navigating Digital Futures"

9 a.m. – 1 p.m.

Spooner Hall, The Commons

Red Hot Research: "Data Visualization"

4 p.m.

Spooner Hall, The Commons

SEPTEMBER 21-25

National Postdoc Appreciation Week

SEPTEMBER 22

KUIC: "Technology Tuesday"

4 – 6 p.m.

Bioscience & Technology Business Center, Chamber Room

SEPTEMBER 25

Meeting: KU Postdoctoral Association, with Jim Tracy

Noon – 1 p.m.

Burge Union, Relays Room

NCURA National Research Administrators Day

SEPTEMBER 25-27

"Start-Up Weekend at KU"

Bioscience & Technology Business Center, Chamber Room

SEPTEMBER 29

Authors Panel: Transforming the University of Kansas:

A History, 1965-2015, ed. John L Rury and Kim Cary Warren

7:30 p.m.

Kansas Union, Big 12 Room and Jayhawk Room

SEPTEMBER 30

KCALSI Annual Dinner: "Exponential Health: Solving Today's Problems with the Technologies of Tomorrow"

Arvest Bank Theatre at The Midland, Kansas City, MO

OCTOBER 6

Authors Panel: Transforming the University of Kansas:

A History, 1965-2015, ed. John L Rury and Kim Cary Warren

6:30 p.m.

KU Edwards Campus, Regnier Auditorium

OCTOBER 7

KUIC: "A Celebration of Innovation: A Startup Showcase"

1 – 5 p.m.

Bioscience & Technology Business Center, Chamber Room

OCTOBER 8

Deadline: Annual Required Conflict of Interest Reporting

OCTOBER 9

Deadline: Strategic Initiative Grant Level II Proposals

OCTOBER 21

Hall Center Humanities Lecture Series: Alice Goffman, "On the Run: Fugitive Life in an American City"

7:30 p.m.

Spooner Hall, The Commons

NOVEMBER 6-7

14th Annual Great Plains Infectious Disease Meeting

School of Pharmacy

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