

CSMConnect is the College of Science and Mathematics' (CSM) biannual newsletter designed to keep you informed of the latest activities and developments, going on in the college. CSM is soaring into the next level of national prominence through cutting-edge research. The College is active in local and international scientific communities and promotes innovation in teaching. CSM values the networks developed with partners on and off campus. You are important in our network of partners.

PRESTIGIOUS SCHOLARSHIP AWARDED

Kennesaw State biochemistry student receives coveted Barry M. Goldwater scholarship

Kennesaw State University student has received a Barry M. Goldwater Scholarship, a prestigious and competitive award given annually to highly qualified students planning to pursue careers as scientists, mathematicians or engineers. It is the first time a Kennesaw State student has received the scholarship.

Jiexi Liao, a junior majoring in biochemistry, received the scholarship, which will cover up to \$7,500 of her college costs starting the fall 2013 semester. The 22-year-old student was a Presidential Emerging Scholar, has received numerous awards while at Kennesaw State and spent last summer assisting research in magnetic materials at MIT.

Liao's recognition by the Goldwater program was based partly on her involvement in research carried out with Jeremy Gulley, an assistant professor in Kennesaw State's Department of Biology and Physics. Gulley's research involves computer simulations of how laser pulses move through materials that do not conduct electricity, such as glass and clear plastic. The work is funded by the Air Force Office of Scientific Research. "She has

an impressive ability to master large amounts of new material and complex subjects while being driven by a fundamental curiosity to understand the natural world," Gulley said.

Liao plans to pursue a Ph.D. in materials science and to conduct research in bio-molecular science as a university professor.

"I've always loved science," Liao said. "I like to know how nature operates. I am also interested in learning how to mimic nature and how to use the knowledge for practical applications. That's why I want to study materials science in general, instead of biology or biochemistry, in graduate school."

The Barry M. Goldwater Scholarship and Excellence in Education Program was established for the purpose to provide a continuing source of highly-qualified scientists, mathematicians, and engineers by awarding scholarships to college students who intend to pursue careers in these fields. The program identifies approximately 300 scholars each year from a field of more than 1,000 nominees.



(ABOVE) Photo of Jiexi Liao, Biochemistry student at Kennesaw State University. Photo courtesy of Kennesaw State University.

John Haseltine, associate professor of chemistry, advises the students throughout the application process. "Liao's achievement is another example of how Kennesaw State attracts some of the region's top students," Haseltine said. "Not only do we have some of the best students, but they are on a clear trajectory toward professional excellence."

NEW PROGRAM APPROVED: BACHELOR OF APPLIED COMPUTER SCIENCE

New degree helps meet growing demand for technology professionals

The program will utilize an innovative approach to instructional delivery combining hybrid online classes and a traditional classroom setting to provide flexibility for today's students demand. The new program will launch in fall 2014. The curriculum offers students the opportunity to study specific applications such as cloud computing, robotic, mobile devices, and computer security.

"This degree truly provides students with the best of both worlds — a solid foundation and wide breadth of computer science knowledge with hands-on experience and the ability to focus on two to three key areas of expertise," said Ken Hoganson, interim chair of Kennesaw State's Department of Computer Science and Professor of Computer Science & Information Systems.

SCHOLARSHIPS & RESEARCH

Dr. Marina Koether's Legacy:

Dr. Marina Koether, born in Canada, earned her Ph.D. in Environmental Chemistry from Queen's University in Ontario. Eventually the research opportunities at Kennesaw State led Dr. Koether to join the Kennesaw community over 15 years ago.

As a professor of environmental chemistry and studying water treatment, Dr. Koether learned about the issues faced by pharmaceutical drugs entering the water system. Consumption of drug particles remaining in the water systems was affecting fish and other animals as well as people.

Assisted by four undergraduate students, Dr. Koether's current research examines the dissolution rates of pharmaceuticals, characterizing how quickly medications dissolve. Her research compares medicines already on the market, including powdered samples as well as liquids like Pepto-Bismol.

Dr. Koether's commitment to Kennesaw State includes monthly payroll giving to

support KSU's needs today, as well as a bequest that will endow a scholarship for tomorrow's female students pursuing chemistry. As an undergraduate, she recalls more male than female students and no female faculty members in the sciences. "There will always be a need for more females in the sciences," she states.

During her own education, she received a four-year scholarship as well as other funding opportunities, and notes the impact made on her education. In hopes that others will be inspired to give back, she encourages graduates to recall the assistance they received during their education, and consider what a difference their gift could make for another student.

"Give back, because you received," is her philosophy. "Your legacy can make a difference."



(ABOVE) Dr. Marina Koether

Dr. Koether is one of more than 50 Legacy Circle donors who have chosen to include KSU in their will or estate plan. To leave your Legacy at KSU, contact Ellen Jones, Director of Gift Planning at 678-797-2284 or for more information, visit: www.kennesaw.edu/giftplanning

JOYCE AND IRA PEGUES MEMORIAL GREENHOUSE

Revitalized with diversity of plant species

The greenhouse was originally dedicated in April, 2000 and disassembled in 2011, during the construction of the Science Lab Building. Since then, the greenhouse was relocated, improved and rededicated in October, 2012.

Thanks to Dr. Joel McNeal, assistant professor of biology and the generous donations of plant specimens from UGA and Atlanta Botanical Gardens, the greenhouse is stocked full of plants used in plant morphology, plant ecology and plant systematics classes.

Graduate students in the Masters of Science in Integrative Biology (MSIB) degree program, Deayne Johnson and Eric Duncan research root fungus, grasses and restoration.



(ABOVE) Photo of Joyce and Ira Pegues Memorial Greenhouse. Photo courtesy of Dr. Joe McNeal. To view more greenhouse pictures, please visit: <http://www.pbase.com/joelmcneal/ksugmhs>

NEW ASSOCIATE DEAN OF RESEARCH

McMurry will be instrumental in securing research grants

Jonathan McMurry, associate professor of chemistry, started his new position Aug. 1, 2013. His mission is to catalyze development of research programs, increase the external funding the college receives and continue to build collaborations among faculty and with other institutions. McMurry, has secured more than \$1 million in grants from the National Institutes of Health, the National Science Foundation and the Research Corporation for Science Advancement.

"Jonathan is an excellent addition to the leadership team of the college," said Mark Anderson, dean of the College of Science and Mathematics. "He has a distinguished record of research, and he has established many collaborations within KSU and with colleagues at other USG institutions for his own research activities. His ability to build research teams will help to continue to expand KSU's research profile."

"Kennesaw State has active and growing research programs," McMurry said. "My primary goal is to continue to build the research infrastructure in the College of Science and Mathematics by facilitating collaborations among colleagues and helping them obtain more research grants."



(ABOVE) Photo of Dr. Jonathan McMurry, Associate Dean of Research.



DISCOVER KSU

CSM plays key role on new program: **Atlanta Tech Edge**

Kennesaw State University's College of Science and Mathematics is a major sponsor of 11Alive's new program, Atlanta Tech Edge. The weekly program airs on Sundays at 11 a.m. on WXIA-TV 11Alive.

Mark Anderson, dean of the College, serves on the program's advisory board.

"As one of four title sponsors, we will also have opportunity to be on the show and highlight some of the work going on in the College. Our association with this show and the high-technology industry base should provide extensive exposure to the College, and give people another reason to discover KSU," Anderson said.

Wes Moss hosts the program, which debuted on Aug. 4. The half-hour show highlights the latest and most exciting advancements in technology, showcasing local tech businesses and their ideas. It will offer a revealing look at the fascinating people who are making it all happen in the Atlanta area.

John Deushane, president and general manager of WXIA/WATL-TV, said: "As Atlanta is rapidly becoming the Silicon Valley of the South, it's fitting that this burgeoning industry have its own locally produced weekly television program. Airing immediately after *Meet the Press* ensures its viewership will be upscale, informed and engaged. While we're thrilled about the launch, we're even more excited to watch it evolve over the next few months and years. Technology is never stagnant. Atlanta Tech Edge will be equally as dynamic."

Check out the new DISCOVER KSU commercial: <http://science.kennesaw.edu/atlantatechedge.html>



\$40,000 AT&T CONTRIBUTION TO BOOST STUDENT SUCCESS

Mobile app to help students master gateway math courses

The Kennesaw State University Foundation has received a \$40,000 contribution from AT&T that will help undergraduates pass difficult-to-master math courses with the aid of peer learning assistants and for the development of a mobile application connecting them to study networks.

The AT&T contribution will help the College of Science and Mathematics' Kennesaw Community Learning for Undergraduate Engagement (K-CLUE) project, which is designed to boost retention, progression and graduation rates.

"We want to thank AT&T for partnering with us in this initiative," said Mark Anderson, dean of the College of Science and Mathematics. "The College is committed to advancing student success and engagement in the STEM disciplines. We also want to expose students to careers as STEM educators. AT&T's contribution will help us achieve these goals."



FACULTY AWARDS

CONGRATULATIONS to **Dr. Yuliya Babenko**, assistant professor of mathematics, for receiving a 2013 KSU Foundation Prize for her publication: "Sharp Asymptotics of the LP Approximation Error for Interpolation on Block Partitions".

The Kennesaw State University Foundation awarded \$127,500 to outstanding faculty and staff across the university at ceremonies on August 14, 2013.

Established in 2003 by the KSU Foundation Board of Trustees as part of its effort to encourage, support and recognize scholarly activities among tenure-track faculty, the KSU Foundation Prize recognizes high quality publications by a faculty member in each college/school of the University.



(ABOVE) Photo of AT&T Check Presentation. Photo courtesy of Sara Blunk.



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ADDRESS SERVICE REQUESTED



UPCOMING EVENTS



This newsletter is a collaboration between the College of Science and Mathematics and the KSU Alumni Association.



College of Science and Mathematics



CELEBRATING OUR PAST, IGNITING OUR FUTURE

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On October 9, 1963, Kennesaw State University was chartered by the Board of Regents of the University System of Georgia. To mark this and other historical milestones on the University's journey toward graduating its first class, Kennesaw State will launch a four-year 50th anniversary celebration beginning October 2013 and culminating in June 2017.

The 50th anniversary is a time for the College of Science and Mathematics to acknowledge the milestones in its history, highlight significant achievements and share the vision for Kennesaw State University as it begins to look ahead to its next 50 years. Our history establishes a solid foundation that allows us to build for the future. It also shows that change is a constant, and it is necessary to meet the current and future needs of the college.



What is a Science Café?

Science Cafés are lively events that take place in casual settings, are open to everyone, and feature an engaging conversation with a scientist about a particular topic.

This event is free to attend, and is open to everyone! Space is limited, **RSVP is required**. Please visit website for additional information: <http://science.kennesaw.edu/sciencecafe.html>



ScienceTALK is a seminar series focusing on recent developments in the fields of Mathematics and Science. **Reservation is Required**. For additional information, please visit website: <http://science.kennesaw.edu/sciencetalk.html>

Wednesday, October 2, 2013

Location: Prillaman Hall, Room 1000
Time: 2:00 - 3:00 p.m.

Franca R. Jones, Ph.D., Assistant Director of Chemical and Biological Countermeasures in the Office of Science and Technology Policy (OSTP), Executive Office of the President

Monday, October 7, 2013

Location: Clendenin Building, Room 1008
Time: 3:30 - 4:45 p.m.

Donald G. Saari, Ph.D., Director of the Institute for Math Behavioral Sciences at the University of California, Irvine