

# CSMCONNECT

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COLLEGE OF SCIENCE AND MATHEMATICS BIENNIAL NEWSLETTER

ECOLOGY, EVOLUTION, AND ORGANISMAL BIOLOGY

CHEMISTRY AND BIOCHEMISTRY

MATHEMATICS

MOLECULAR AND CELLULAR BIOLOGY

PHYSICS

STATISTICS AND ANALYTICAL SCIENCES

**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.

## National Institutes of Health awards Kennesaw State University \$1 million grant

*Grant will fund research program to increase diversity in biomedical sciences*

The National Institutes of Health (NIH) has awarded Kennesaw State University's College of Science and Mathematics a five-year, \$1.018 million grant to increase the number of doctorate-holding scientists from underrepresented groups.

The NIH award recognizes the strength of Kennesaw State's biomedical research programs and its commitment to building diversity in the nation's biomedical research workforce. Serving as the lead institution, Kennesaw State's College of Science and Mathematics will work with partner institutions Georgia Institute of Technology, Georgia Regents University and the University of Georgia to educate and train Ph.D.-level scientists.

The grant is designed to annually recruit college graduates who want to further their science education, eventually obtaining a doctorate degree. Participants will pursue master's degrees in Integrative Biology or Chemical Sciences, learning modern research techniques using cutting-edge instrumentation such as optical biosensors, next generation sequencing and confocal microscopy in Kennesaw State's 73,000-square-foot Science Laboratory building.

As part of their individual development plans, participants will also prepare for and, upon completion of their studies, bridge to biomedical doctoral programs.

"Kennesaw State's programs are small and flexible enough to execute highly individualized training in an array of disciplines from synthetic chemistry to developmental biology and in interdisciplinary endeavors that may take participants from high performance computing to microliter-scale calorimetry," said Mark Anderson, dean of the College of Science and Mathematics.

***"The NIH award recognizes the strength of KSU's biomedical research programs and its commitment to building diversity in the nation's biomedical research workforce."***

The NIH selected Kennesaw State in part because it already has multiple NIH-funded researchers who will contribute to the students' diverse mentoring and learning opportunities.

"With multiple externally funded researchers and a new research facility, Kennesaw State's master's programs in Integrative Biology (MSIB) and Chemical Sciences (MSCB) offer highly individualized, flexible and unique training and mentoring environments," Anderson said.

Anderson said Associate Dean for Research and Associate Professor Jonathan McMurry will direct the program, which will draw other professors and mentors from Kennesaw State's Departments of Molecular and Cellular Biology, as well as Chemistry and Biochemistry.

"Our goal is to recruit participants from historically black colleges and universities and Appalachian-serving institutions that are not yet well integrated into NIH research enterprises as well as from other sources such as the Peach State LSAMP consortium and other primarily undergraduate institutions throughout the Southeast," McMurry said.

## New Ph.D. program draws interest

The new Ph.D. in Analytics and Data Science program in the College of Science and Mathematics saw its inaugural round of cohorts start classes in the Fall 2015 semester. The Ph.D. program received a total of 35 applications for the fall semester, with only seven applicants being accepted into the program. Of the seven applicants, five were provided funded positions, while two were sponsored from an external source.

The variety of backgrounds applicants bring to the program is what makes it absolutely unique. The interdisciplinary approach to data science and analytics takes students through coursework in computer science, mathematics, and statistics before engaging in real world business problems through a dual focus of application and research. Students may have expertise in one subject, they may not have a considerable amount of experience in others.

"We find that the students are working together as a cohort and learning from each other as much as they are learning from the faculty," says Director of the Ph.D. in Analytics and Data Science Jennifer Priestley.

The Ph.D. program was developed in response to the growing demand for analytical talent at the local and national level. Approved by the Board of Regents for the University System of Georgia in February 2015, the degree makes Kennesaw State University the only university in Georgia and one of the few in the country to provide a Ph.D. of its kind.

"Companies across the state were having to go outside of GA and the region to recruit Data Scientists," says Priestley. "Having a program housed within the state provides companies with an important local source of deep analytical talent, which should also be an incentive for companies with strong analytical needs to consider moving to Georgia."

The program has already received interest in hiring graduates from local, national, and international companies, including The Southern Company, AT&T, LexisNexis, Equifax, IBM, Teradata, and KPMG.

For more information on the Ph.D. in Analytics and Data Science, visit [datascience.kennesaw.edu](http://datascience.kennesaw.edu).



## CSM Student Success

### Birla Carbon Top Poster Award

*Congratulations to Eric Gabilondo!*



Congratulations to Eric Gabilondo for receiving the Top Poster Award at the Birla Carbon Symposium on August 21, 2015! He will receive an additional \$2,000 in travel funds to present his research at a national or regional conference of his choice.

### 2015 Clendenin Scholar Recipient

*Congratulations to Reuben Hilliard!*



Reuben Hilliard, a student in Kennesaw State's accelerated bachelor's-master's program, will receive \$15,000 annually to pursue the Master of Science in Applied Statistics degree at the University. Hilliard graduated in May 2015 with a Bachelor of Science in Biology with a minor in Applied Statistics and Data Analysis.



# Alumni Spotlight

## Passing the Test

Aridth Gibbons found her life's calling as a Kennesaw State University student, and the world is healthier for it. Gibbons, who is with the Centers for Disease Control and Prevention in the Viral Special Pathogens Branch, was a member of a history-making team on the ground in Sierra Leone in fall 2014 at the height of the Ebola outbreak. She and her three-person Bio Lab Team 5 members not only were the first and only all-woman team to run CDC's Ebola testing lab to date in the midst of the Sierra Leone outbreak, they did so in record-shattering fashion.

"Kennesaw State was extremely instrumental in my career in sciences," said Gibbons, a 1995 graduate in biology. "Dr. Army Lester was the one who kind of took me under his wing. He took me to a Society of Toxicology Conference (in Dallas) one year, and at that conference, I ended up getting an internship at the University of Arizona in their Pharmacology/ Toxicology department. And that is actually what ignited my career or curiosity in science."

Read the complete story in the Summer 2015 edition of Kennesaw State University Magazine: <http://bit.ly/1JK2jz5>

## University honors 100,000th graduate

Kennesaw State University student Laura Pyronneau, a biology major from Douglasville, became the 100,000th student to graduate, as the University celebrated an important milestone during its afternoon Commencement on Wednesday, July 29, 2015.

The 22 year-old Pyronneau was one of more than 1,200 students to graduate in Kennesaw State's three Commencement ceremonies on the Kennesaw Campus. In addition to her degree, she received a framed special certificate acknowledging her special status among the University's alumni.

Continue reading the story on the 100,000th graduate at <http://bit.ly/1KEwcSe>

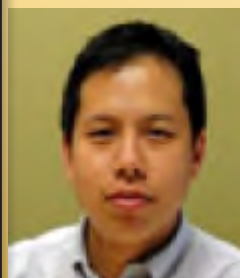
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# College of Science & Mathematics Research



*Dr. Kisa Ranasinghe*  
**Associate Professor of Physics**

My current research is in the area of bioactive glass. Biomedical engineering is one of the leading topics in the world and a certain composition of glasses, referred to as bioactive glasses, have been widely investigated for healing bone defects applications. We are currently looking into a glassy material with special properties that can be used for bone degeneration.



*Dr. Tsai-Tien Tseng*  
**Assistant Professor of Biology**

My research group focuses on bioinformatic analyses of membrane transporters in sequence data resulted from genomics and metagenomics studies. Bioinformatics is the science that interfaces biology and computer science to answer biological questions on a molecular level for nucleotide and protein sequences, allowing the elucidation of relationships between structure, function and evolution. We are specifically interested in the molecular evolution and expression pattern of voltage-gated ion channels and their auxiliary subunits. We also collaborate with colleagues from the College of Computing and Software Engineering to develop highly desirable software tools for rapid discovery of patterns in biological sequences to enhance our data-mining capabilities.





College of Science and Mathematics

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## Alumni Spotlight

Be featured in CSMConnect, our alumni newsletter!  
Let us know what you are doing after graduation and how our programs prepared you for your career. Visit <http://bit.ly/CSMAAlumniSpotlight> today to submit your story!

### ScienceTalk: A lecture series

Join us for the Fall 2015 event with special guest President & CEO of Arbor Pharmaceuticals Ed Schutter.

**When:** Thursday, October 15 at 2:00pm  
**Where:** Prillaman Hall, room HS1000

**Space is limited!**

Register at <http://bit.ly/ScienceTALKOct2015> today!

### Plant the seed of Education

and donate to the College of Science and Mathematics



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<http://community.kennesaw.edu/>

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College of Science and Mathematics Alumni group

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