


## August 30, 2016

### CSM recognizes 2016 Birla Carbon Scholars

(Pictured at right: 2016 Birla Carbon Scholar Katerina "Katie" Slavicinska receives Top Poster Award at the Birla Carbon Symposium from KSU's Dean Mark Anderson of the College of Science and Mathematics.)

Photo of 2016 Birla Carbon Scholar Katerina "Katie" Slavicinska

*Sophomore Katerina "Katie" Slavicinska wins Top Poster Award*

**KENNESAW, Ga. (Aug. 30, 2016)** — Kennesaw State University student Katerina "Katie" Slavicinska's research project won the Top Poster Award at the Birla Carbon Symposium, at which the College of Science and Mathematics (CSM) officially recognized the 10 new 2016 Birla Carbon Scholars.

Nearly 100 students, faculty, staff and Birla Carbon executives reviewed the posters on display in the KSU Center, which featured comments from Kennesaw State Interim President Houston Davis, College of Science and Mathematics Dean Mark Anderson and Birla Carbon's North American Region Chief Technology Officer Dale Clark.

"Over the summer, these students have actively engaged as collaborators on projects ranging from methods that could potentially yield nanowires, to the use of bioinformatics to detect more accurately E. coli or salmonella contamination in packaged foods, to the remediation of soils contaminated during the Fukushima nuclear catastrophe in Japan," said Anderson. "These are all very impressive projects that the students were given the opportunity to work on full time, thanks to the generous support of Birla Carbon."

The event marked the third year of a five-year partnership with Birla Carbon, which has allowed the College's 10 Birla Carbon Scholars to participate in summer research opportunities. Birla Carbon is the world's largest manufacturer of carbon black, which is used to make everything from car tires to electronics. It is a flagship business of the \$40-billion Aditya Birla Group, a multinational conglomerate based in India.

The scholars program was developed in April 2014 with a \$250,000 pledge from Birla Carbon for a five-year annual gift of \$50,000 to support research opportunities for students in Kennesaw State's College of Science and Mathematics. The program has awarded 30 Kennesaw State students each a \$4,000 stipend since 2014.

"This stipend allows them time and financial freedom to expand their research skills outside of the classroom and continue Kennesaw State's tradition of academic excellence," Anderson said. "Kennesaw State is proud to celebrate Year 3 of this integral partnership."

This year's scholars include: Jonathon Ard, physics; David Axford, biology; Graeme Bettler, chemistry; Soprinye Dappa-Fombo, biology; Rebecca Hyche, biology; Elena Ninova, biology; Katerina Slavicinska, chemistry; Omar Ugarte Trejo, chemistry; Danielle Varljen, biology; and Courtney Willett, biology.

Slavicinska took the top prize for her research project entitled, "Designing a Liquid-Solid Cell for in Situ Analysis of Nucleoside Phosphorylation by Schreibersite." She worked beside her faculty mentor, Assistant Professor of Chemistry Heather Abbott-Lyon, in the Abbott-Lyon Laboratory (ALL).

"Her project involved an examination of a mineral found in meteorites called schreibersite," said Abbott-Lyon. "Using infrared light, she analyzed the mineral surface to find traces of phosphate groups, which are a primary component of life found in nucleic acids, cell membranes and energy-transfer coenzymes."

Slavicinska explained, "This allowed me to obtain data about the surface that will help me understand how a metal-phosphorus alloy like schreibersite could phosphorylate (transfer a phosphate group to) various prebiotic molecules like nucleosides and glycerol." She said, "We prepare solutions of these prebiotic molecules separately and then submerge our synthetic meteorite in them."

Slavicinska, currently serving as vice president of the Student Affiliates of American Chemical Society, KSU's chemistry and biochemistry club, plans to pursue graduate studies in either astrochemistry or astrobiology.

"I'm interested in space and the origins of life," she said. "I really enjoyed the research project this summer and how interdisciplinary it was."

In its ongoing research, along with partners from Georgia Tech and the University of South Florida, the Abbott-Lyon Laboratory immerses schreibersite in solutions of water and other molecules vital to cell function. The hope is to find clues about how the mineral might have contributed reactive phosphorus to form the first biopolymers needed for life.

Along with the \$4,000 stipend each scholar received, Slavicinska received an additional \$2,000 in travel funds to present her research at a national or regional conference of her choice.

Applicants for the annual scholarship must be freshmen, sophomores or juniors during the spring semester in which they apply for the program and have a minimum 3.0 GPA. In addition to the scholars program, funds from the Birla Carbon gift will be used to provide research supplies needed for faculty assisting students and supplies needed for the end-of-the term symposium.

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Kennesaw State University is the third-largest university in Georgia, offering nearly 150 undergraduate, graduate and doctoral degrees. A member of the University System of Georgia, Kennesaw State is a comprehensive university with more than 33,000 students from over 130 countries. In January 2015, Kennesaw State and Southern Polytechnic State University consolidated to create one of the 50 largest public universities in the country.

— Robert S. Godlewski