

SD EPSCoR

RESEARCH. EDUCATION. ECONOMIC DEVELOPMENT.

E-NEWSLETTER

September 2016

Third annual Undergraduate Research Symposium demonstrates promising future for South Dakota undergrads

Students, faculty and industry experts from institutions across the state gathered in Pierre, South Dakota July 31 – Aug. 1 to participate in the SD EPSCoR program's third annual Undergraduate Research Symposium.

The symposium showcased summer research projects from more than 151 undergraduate students representing South Dakota's public, private and tribal universities who participated in the Research Experiences for Undergraduates (REU) and the Biomedical Research Infrastructure Network (BRIN) summer research programs. The symposium was first established in 2014 to bring together undergraduate students across the state to gain real-life research experience, strengthen their skill-sets, network and learn more about South Dakota graduate programs.



The event kicked off Sunday evening with a panel discussion on STEM-based workforce opportunities, the benefits for pursuing graduate education and employment opportunities for a STEM major in the private sector with special emphasis on the jobs available in South Dakota. Keynote speakers included Laurie Gill, mayor of Pierre, Jay Perry, assistant vice president for academic affairs for the South Dakota Board of Regents, and Christian Phancao, project center operations manager at Eagle Creek Software.

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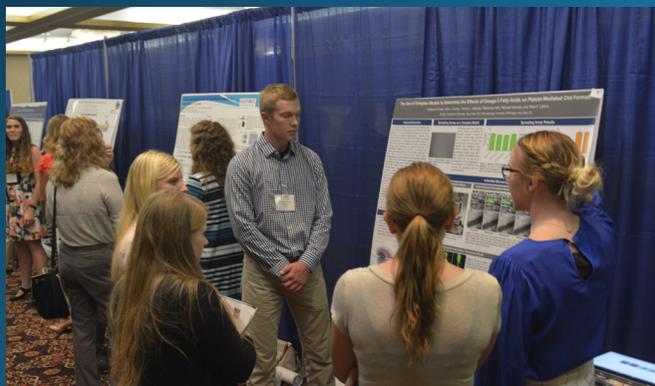
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“Students should consider the vast number of opportunities a graduate degree can present. Not only is it an insurance policy during an unstable economy, but students can expect to see a 10 to 1 ROI for a masters and 14 to 1 ROI for a doctoral degree”

-Jay Perry, assistant vice president for academic affairs, SD BOR

www.sdepscor.org

Undergraduate Symposium continued...



151 Undergraduates



12 Public and private institutions



7 Award Recipients



5 Guest Speakers

Other speakers during the symposium included Dr. Joerg Schlatterer, program director for the Division of Graduate Education's Graduate Research Fellowship Program (GRFP) at the National Science Foundation (NSF) and Camille Griffith, graduate student at Black Hills State University and recipient of a GRFP fellowship from NSF. "From 2010 to 2016, NSF has awarded 2,000 fellowships each year, providing students with the flexibility to choose their own projects in a broad field of STEM eligibility," said Schlatterer. Both spoke on the benefits of receiving a fellowship and answered questions on the application process, provided advice and encouraged students interested in pursuing a graduate degree in STEM to apply.

Poster sessions showcased summer STEM research conducted by students at 12 public and private institutions across South Dakota. Poster presentations were reviewed and evaluated on technical content, poster appearance and oral presentation by a panel of judges consisting of faculty mentors from the universities represented.

"Undergraduate research is the culminating experience in an undergraduate STEM major's education," said Dr. Jim Rice, project director for the SD EPSCoR program. "It's where they learn to apply what they know from their studies to solve a real-world problem. These problem-solving experiences are also important because they help prepare the students for entering the STEM workforce. The demonstrated ability to apply what a student knows to solving a problem and then communicating that solution is a highly sought-after ability by STEM employers."

Poster Competition Results:

Morning Poster Session:

- 1st: James May, *USD*
- 2nd: Zoey Glenn, *SDSU*
- 3rd: Kingsley Chow, *BHSU*

Afternoon Poster Session:

- 1st: Abigail McBride, *SDSMT*
- 2nd: Lucas Bartl & Josh Reider, *Augustana*
- 3rd: Gabrielle Martin, *SDSMT*



SD EPSCoR High School Science Lab Makeover and School Challenge Competition helps keep South Dakota Students on STEM career pathway

SD EPSCoR is strengthening STEM education in rural and tribal schools across South Dakota by creating a state science fair network that provides hands-on, problem solving research experiences for secondary school students.

SD EPSCoR is providing expanded opportunities for the state's middle and high school students by creating the infrastructure to allow for increased participation. Examples of the infrastructure investments are registration web pages and an online registration database to accommodate the growing number of students participating in the state's four regional science fairs. SD EPSCoR in partnership with Fisher Science Education helps improve the capacity of high schools to support student research through its High School Science Lab Makeover and School Challenge Competition awards that encourage research participation. Students compete for these awards on behalf of their schools to improve their school science laboratory programs. The awards are given at each regional science fair. The High School Science Lab Makeover award is given to rural and tribal schools, participating in a regional science fairs. Three School Challenge Competition awards are given at each regional science fair to the schools with the highest average of three student research projects. Awards can be used for the purchase of new equipment, materials and technological supplies or other items that can be used to support student research.

"I have never in my 16 years of teaching had an opportunity to purchase state of the art lab equipment for my classroom,"

said 2016 High School Science Lab Makeover award recipient LuAnn Lindskov, "When the boxes arrived it felt like Christmas in July."

SD EPSCoR supports K-12 STEM education throughout South Dakota across all academic levels but focuses its efforts on high school students.

With the High School Science Lab Makeover and School Challenge Competition awards SD EPSCoR has made awards to 12 schools across South Dakota in 2016. These awards totaled \$29,000 and are divided amongst each of the four regional fairs. In a unique EPSCoR/public partnership, these awards are co-funded by Fisher Science Education. In addition to funding provided by SD EPSCoR, Science Fisher Education enhances these awards by contributing an additional \$1,000 to the High School Science Lab Makeover



Award and \$500, \$250 and \$100 prizes to the School Challenge competition. An important component of this partnership is that Fisher Science Education also provides every school in South Dakota with a 25 percent discount on items from their catalog plus it waives the associated shipping charges.

SD EPSCoR is funded by the National Science Foundation/ EPSCoR Grant Number IIA-1355423 and by the State of South Dakota.

EDUCATOR ACADEMY WORKSHOPS:

CALLING ALL SCIENCE TEACHERS! The SD EPSCoR will host two-day hands-on workshops across the state throughout September and October. The workshops are designed to provide science teachers at all grade levels the knowledge, skills and tools to assist students in the development of hypothesis-driven research projects that lead to student participation in South Dakota's regional science fairs.

To view dates and various locations or to register, visit www.sdepscor.org/event/educator-academy-workshop and click on the registration link.



CHECK IT OUT! SCIENCE FAIR PROMO VIDEO



RESEARCH An Essential Activity in STEM Education

See through the experiences of educators and companies, how science fairs build a path to STEM-based careers for students.

[CLICK HERE TO VIEW](#)

Upcoming Events:

- **EDUCATOR ACADEMY WORKSHOPS**
 - Sept. 15 & 16 - SDSU campus
 - Sept. 20 & 21 - NSU campus
 - Sept. 22 & 23 - DWU campus
 - Sept. 26 & 27 - SDSM&T campus
 - Sept. 29 & 30 - Sinte Gleska University campus
 - Oct. 6 & 7 - Sisseton Wahpton college campus
 - Oct. 19 & 20 - Oglala Lakota college campus
- **Cellular Imaging Informatics Symposium**
Sept. 16 - University Center, Sioux Falls
- **CAREER Proposal Development Workshop**
Nov. 17 - University Center, Sioux Falls
- **CAREER Proposal Resubmission Consultations**
Nov. 18 - University Center, Sioux Falls

CLICK HERE to register for one of the above dates!

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