

Iowa State undergraduates showcase their research at annual Capitol event April 4

AMES, Iowa -- From an analysis of recycled asphalt shingle use in pavements to a comparison of children's decision-making based on snack packages, there will be lots to talk about when 24 Iowa State University undergraduates present their research to legislators and others during the seventh annual "Research in the Capitol." The event will be from 11:30 a.m. to 1:30 p.m. Wednesday, April 4, in the rotunda of the State Capitol building in Des Moines.

More than 60 undergraduate students from Iowa's three Regent universities (Iowa State, the University of Iowa and the University of Northern Iowa) will display their research posters and describe their work. The event highlights the importance of research to the undergraduate learning experience.

At Iowa State, participation is open to all undergraduate students. The University Honors Program coordinates the event.

The Iowa State students who will present their work at the Capitol, their hometowns, majors, research projects and research mentors are:

Brandon Alvarado, Cedar Falls, graphic design: "Designing Decision Aids for Reproductive Health Communication," Sunghyun Kang, assistant professor of art and design, and Debra Satterfield, director and associate professor of graphic design.

Leah Willadsen, Council Bluffs, graphic design: "Designing Decision Aids for Reproductive Health Communication," Sunghyun Kang, associate professor of art and design, and Debra Satterfield, director and associate professor of graphic design.

Emily Artz, Iowa City, animal ecology: "Effects of Seed Dispersal by Bison on Post-Dispersal Seed Predation," W. Sue Fairbanks, associate professor of natural resource ecology and management.

Sawyer Baker, Altona, Ill., political science and sociology: "Recent Leadership Trends in the Iowa General Assembly: A Gendered Analysis," Valerie Hennings, adjunct assistant professor of political science.

Conrad Brendel, Elizabethtown, Penn., environmental engineering: "Investigation into the Correlation between Electrical Conductivity and Total Dissolved Ions for Application in Watershed Modeling," Michelle Soupir, assistant professor of agricultural and biological engineering.

Nick Terhall, Morris, Ill., aerospace engineering: "Investigation into the Correlation between Electrical Conductivity and Total Dissolved Ions for Application in Watershed Modeling," Michelle Soupir, assistant professor of agricultural and biological engineering.

Lyndee Clark, Colfax, meteorology: "Maize and Soybean Albedo Variations with Zenith Angle over Ames, Iowa," Brian Hornbuckle, associate professor of agronomy.

Whitney Farrell, Chariton, graphic design: "Decision-Making in Children based on Snack Packages," Sunghyun Kang, associate professor of art and design.

Alyssa Lauer, pre-graphic design, Morton, Ill.: "Decision-Making in Children based on Snack Packages," Sunghyun Kang, associate professor of art and design.

Katelyn Oswald, Lakeville, Minn., pre-graphic design: "Decision-Making in Children based on Snack Packages," Sunghyun Kang, associate professor of art and design.

Angelica Flores, Monroe, child, adult and family services: "Latino Families in Iowa," Janet Melby, program manager, human development and family studies.

Matthew Kirby, Keokuk, civil engineering: "Use of Recycled Asphalt Shingles in Asphalt Pavements," Chris Williams, professor of civil, construction and environmental engineering; and Andrew Cascione, graduate assistant, civil, construction and environmental engineering.

Shane Kirkegaard, Pocahontas, biology and business: "Chemical Investigations on a Scarce but Promising Anticancer Agent," Jason Chen, assistant professor of chemistry.

Robert Manatt, Ames, forestry: "Analysis of On-farm Decision Support Tools (DSTs) for Ecosystem Service Management," John Tyndall, assistant professor of natural resource ecology and management.

Elease McLaurin, Clinton, Miss., industrial engineering: "Comparison of Ergonomic Risk Ratings by Three Different Assessment Tools," Richard Stone, assistant professor of industrial and manufacturing systems engineering.

Matthew Monaco, Panora, hotel, restaurant and institution management: "Experiences of Students Suffering from Food Allergies with College and University Dining: What can College and University Dining Services Learn?" Lakshman Rajagopal, assistant professor of apparel, events and hospitality management.

Brock Pope, Pella, genetics: "Understanding Gene Expression Networks in Mouse Retinal Ganglion Cells (RGCs)," Jeff Trimarchi, assistant professor of genetics, development and cell biology.

Nathan Sage, Mason City, agronomy: "ViriChip™: a Sensitive Solid Phase Immunoassay for the Specific Capture and Identification of Viruses by Atomic Force Microscopy," Eric Henderson, professor of genetics, development and cell biology; James C. Johnson, chief science officer, Aspera Corp.; Asrun Kristmundsdottir, program coordinator, Office of Sponsored Programs Administration; Curtis Mosher, associate scientist, genetics, development and cell biology.

Samantha Santeiu, Dearborn Heights, Mich., meteorology: "Validation of Hail Detection in the 26 May 2010 Denver, Colorado Hailstorm Using Dual-Polarization Radar," Patrick Kennedy, facility manager, CSU-CHILL, National Radar Facility.

Nikhil Shah, Cedar Rapids, chemical engineering: "Targeted Nanovaccines against the Influenza A H5N1 Respiratory Pathogen," Surya Mallapragada, professor and chair of chemical and biological engineering.

Molly Slattery, Calamus, kinesiology: "Exercise Improves Host Response to Influenza in Obese and Non-obese Mice," Marian Kohut, professor of kinesiology.

Claire Steinweg, Plymouth, Minn., environmental science and international studies: "Increasing Heat Waves and Mortality in St. Louis, Missouri and Future Modeling," William Gutowski, professor of geological and atmospheric sciences.

Christian Tormos, Guaynabo, Puerto Rico, chemical engineering: "Synthesis of a Novel Photopolymerized Nanocomposite Hydrogel for Treatment of Acute Mechanical Damage to Cartilage," Surya Mallapragada, professor and chair of chemical and biological engineering.

Brandon Woods, Urbandale, biology: "Surveillance for Blacklegged Ticks (*Ixodes scapularis*) and the Bacterium That Causes Lyme Disease (*Borrelia burgdorferi*) in Two Ames, Iowa Neighborhoods," Julie Blanchong, assistant professor of natural resource ecology and management.