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FOR IMMEDIATE RELEASE

Grangeville and Kamiah high school projects earn top honors at third annual North Idaho science fair

COEUR D'ALENE, Idaho (March 20, 2019) — Judges at the Northern Idaho Science & Engineering Fair declared projects from Grangeville High School and Kamiah High School the Best of Fair award winners and one from Moscow High School as the Fair Runner Up. They were among 76 projects presented by 119 students from 12 North Idaho schools at the third annual event, which the Idaho STEM Action Center staged March 2 at the Coeur d'Alene Resort.

Best of Fair winners

Grangeville High School senior Paige Lindsley's "The Effects of Smoke on Farming Produce" earned one of two Best of Fair awards, as well as the Best in Category award in Earth, Environmental, and Plant Sciences and a Category Gold award. She also won several special awards, including an American Meteorological Society Certificate of Outstanding Achievement, the Association for Women Geoscientists Award, and a Genius Olympiad Award.

"Equus Caballus Hair as a Suture Material: Equus Caballus Hair Tensile Strength as Related to Coat Color and Hair Structure" submitted by Kamiah High School sophomore Cecily Puckett garnered the other Best of Fair award. In addition, she earned a Best in Category award in Physical Sciences, a Category Gold award, and a special award from the ASM Materials Education Foundation.

On top of serious bragging rights, the two students and their mentors earned all-expense-paid trips to Phoenix to compete in the Intel International Science and Engineering Fair May 12-17.

Fair Runner Up

Meanwhile, Moscow High School's Emily Ball and Ari Carter earned Fair Runner Up for their project titled "Bees and Flowers: Teaching Young Audiences Modeling and Manipulation of Evolutionary and Coevolutionary Patterns with Video Games." The duo also earned a Best in Category award in Mathematics, Computer Science, and Embedded Systems, a Category Gold award, and two special awards — the First Place Idaho Academy of Science & Engineering Award and the Intel Excellence in Computer Science Award.

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Six strands, many awards

Students in ninth through 12th grades in 10 North Idaho counties ranging from Boundary County in the north to Idaho County in the south were eligible to submit entries in six categories: Animal, Biomedical, and Microbiological Sciences; Behavioral and Social Sciences; Earth, Environmental, and Plant Sciences; Engineering; Mathematics, Computer Science, and Embedded Systems; and Physical Sciences. The remaining Best in Category projects included:

- “Paper Pal” submitted by Lewiston High School juniors Jaiden Caviness, Kyle Fiske, and Kit Pancheri earned the Best in Category award in Engineering and a Category Gold award. The team and their mentor also earned all-expense-paid trips to attend the Intel ISEF as observers. The STEM Action Center sends observers to the Intel ISEF so they can apply what they learned at the event to their Idaho Science & Engineering Fair entries the following year, as well as share their insights with fellow students.
- “Demographics’ Influence on Views of Same-Sex Marriage” submitted by Grangeville High School senior Kaitlyn Spets earned the Best in Category award in Behavioral and Social Sciences, as well as a Category Gold award and the American Psychological Association Award.
- “Do Video games Improve Hand-Eye Coordination?” submitted by Priest River Lamanna High School senior Josh Schwartz earned the Best in Category award in Animal, Biomedical, and Microbiological Sciences and a Category Gold award.

Judges honored 11 more projects with Category Gold awards: “Fortnite Comparison,” an Animal, Biomedical, and Microbiological Sciences entry by Deary Junior-Senior High School sophomores Cassidy Henderson, London Kirk, and Brayden Stapleton; “Alternative Medicine vs. Western Medicine for Relieving Pain,” an Animal, Biomedical, and Microbiological Sciences entry by Priest River Lamanna High School senior Chloe Livingston; “Effects of a Placebo Energy Drink on Students,” a Behavioral and Social Sciences entry by Post Falls High School freshman Miles Butler; “Anthropomorphic Neuroprosthetics,” an Engineering entry by Lewiston High School seniors Gerard Jaquez and Patrick Schlangen; “Using Thermoelectric Ceramic Plates to Power a DC Water Pump to Supply Heated Water to Livestock,” an Engineering entry by Lapwai High School sophomores Tre’ton Bybee and Jenz Kash Kash; “Project DownFall,” a Mathematics, Computer Science, and Embedded Systems entry by Grangeville High School junior Caleb Barger; “Force Sensitive Steering Wheel,” a Mathematics, Computer Science, and Embedded Systems entry by Grangeville High School junior Kevin Finnegan; “Packing Trees in Complete Bipartite Graphs,” a Mathematics, Computer Science, and Embedded Systems entry by Moscow High School junior Jieyan Wang; “How Plastic Affects Freshwater Ecosystems,” an Earth, Environmental, and Plant Sciences entry by Grangeville High School senior Jolie Tosten; “Water to Fuel to Water: Fuel Cycle of the Future,” a Physical Sciences entry by Lewiston High School seniors Ashley Corrigan, Lindsey Stachofsky, and Drew Terry; and “Determination of Ascorbic Acid by Ion-Pair HPLC,” a Physical Sciences entry by home-schooled Coeur d’Alene senior Jonathan Webb.

The STEM Action Center also presented 31 projects with Category Silver awards and an additional 20 special awards from the American Meteorological Society, Genius Olympiad, the Idaho Academy of Science and Engineering, Mu Alpha Theta, NASA, the National Oceanic and Atmospheric Administration, the Office of Naval Research, Ricoh, the Society for In Vitro Biology, the Stockholm International Water Institute, the U.S. Air Force, the U.S. Metric Association, and Yale University.

A group of local experts from an array of STEM-related fields served as judges.

One of three regional fairs

NISEF is one of three regional science fairs the STEM Action Center stages statewide each spring. Idaho State University hosted the Eastern Idaho Science & Engineering Fair in Pocatello March 8, and Boise State University is hosting the Western Idaho Science & Engineering Fair in Boise March 15. The Best of Fair winners from those events and select observers will join the top NISEF prizewinners at the international science fair courtesy of the STEM Action Center.

Ensuring economic prosperity

According to STEM Action Center executive director Dr. Angela Hemingway, competitions like the Idaho Science & Engineering Fairs are important to the state's future, because they offer students opportunities to engage in original research projects aligned with their interests and meet and learn with other motivated students in their area.

"Our North Idaho fair continues to grow significantly, from 13 projects in 2016, our inaugural year, to 76 this year," Dr. Hemingway said. "Moreover, the quality of the research is impressive and the work our students are doing is competitive at the international level. The technical skills gained from participating in our Idaho Science & Engineering Fairs, as well as the ability to communicate results, think deeply and critically about issues, and solve real-world problems, will serve these students well as they transition into the workforce."

Hemingway said the Idaho Department of Labor predicts upwards of 100,000 STEM jobs will exist in Idaho by 2024. She said these jobs will represent \$6.5 billion in personal income and almost \$350 million in tax revenue if Idaho's workforce is poised to fill them.

About the Idaho STEM Action Center

The Idaho STEM Action Center was created in 2015 because Idaho citizens are not entering the STEM pipeline fast enough to meet current and future Idaho workforce needs. Its goals are to coordinate and facilitate implementation of science, technology, engineering, and math programs, align education and workforce needs, and increase awareness of STEM learning and careers throughout Idaho. The organization is working with industry, government, educators, and students to develop new resources and support high-quality teacher professional-development opportunities to foster a STEM-educated workforce that ensures Idaho's continued economic prosperity. Visit STEM.Idaho.gov for more information.