The Ohio Academy of Science newsletter has arrived!



www.ohiosci.org

OAS NEWSLETTER - WINTER 2021, PART I

Dear Members, Friends, and Volunteers,

I hope this finds you safe and well. Need a distraction from both the pandemic and the polar vortex? No problem. This is a great time of year to become a volunteer judge for the Virtual District Science Day 2021, the Buckeye Science & Engineering Fair, or State Science Day. Allow yourself to learn a thing or two about soybeans, behavioral science, or perhaps a novel prototype solution from an aspiring design engineer. We have something for everyone.

Thank you to the teachers who have persisted through all of the challenges to make inquiry a top educational priority. Despite all obstacles and challenges, you are the true champions for fanning the flames of curiosity and for encouraging students to take these giant leaps without being consumed by failure. This is going to be another great year!

2021 Virtual District Science Day – Judges Needed

THE OHIO ACADEMY OF SCIENCE



In the fall of 2020, it was unclear how schools would safely pursue teaching and learning. To address this issue, it was decided that all students who complete a project will be able to participate in the 2021 Virtual District Science Day without having competed in a Local, County, or other Independent Science Day. This way, teachers could focus on assisting students with their projects and not be concerned about scheduling facilities, recruiting judges, or setting-up a virtual fair.

Because of this, we need the help of judges, now more than ever.

Please consider lending your expertise by volunteering as a judge. <u>It's a virtual fair that you can do anytime of the day or night, provided that you can find an hour and half of free time from March 29 – April 6.</u>

REGISTER TO JUDGE THE 2021 VIRTUAL DISTRICT SCIENCE DAY

American Junior Academy of Science

Where do legendary scientists like LeRoy Hood and Phillip Sharp meet with high school students to discuss current topics of interest? That would be the Annual Meeting of the American Junior Academy of Science. Every year, student delegates are selected by The Ohio Academy of Science to attend the AJAS Meeting.

This is not a competition, but a recognition of excellence in scientific research. At the AJAS Meeting, students are emersed in the social, cultural, intellectual, and professional aspects of STEM that include career possibilities as a STEM professional.

The 2021 AJAS Delegates included:

Cyril Andrews - University School
Sraavya Anne - Mayfield High School
Ryan Ballou - Carroll High School
Jessica Chang - Hathaway Brown School

Devi Dheekshita Nelakurti - Metro Early College HS Michelle Park_- Solon High School Emily Qian - Hathaway Brown School Sunay Rastogi - University School **Anjali Dhanekula -** Hathaway Brown School

Kaitlyn Greppin - Hathaway Brown School Isabel Hsieh - Hathaway Brown School Zuha Jaffar - Hathaway Brown School Jonathan Jang - University School Caroline Jung - Hathaway Brown School Sohum Kapadia - University School Kimberly Lin - Hathaway Brown School Julia Madureira - Hathaway Brown Toussaint Miller - University School Nathan Mu- University School

Shruthi Ravichandran – Hathaway Brown School

Kaisal Shah - Hathaway Brown School Avinash Singh - Sylvania Northview High School

Ian Swain - University School Kailey Takaoka - Hathaway Brown School Angela Yu - Hathaway Brown School

Ohio EPA Scholarship – Applications are now being accepted



Since the inception of this program in 2000, The Ohio EPA has awarded \$964,950 in scholarships to 380 students among 51 different colleges and

universities. The scholarship program is administered by The Ohio Academy of Science.

"We are making an investment in today's environmental scholars to foster stewardship well into the future," said Ohio EPA Director Laurie A. Stevenson. "We also look forward to seeing future work from these students."

Who is eligible?

Up to \$5,000 is available for students entering their junior or senior year in four-year and five-year programs in Ohio public or private colleges and universities and up to \$2,500 is available to students in two-year degree program in Ohio public or private technical and community colleges.

Selection Criteria

Scholarship awardees will be selected on: 1) Academic record with an overall GPA of at least 3.0, 2) education, employment, and/or internships, honors/awards, professional memberships, publications, presentations given and professional meetings attended, and community service, 3) reasons for choosing a career in environmental science or environmental engineering and how the scholarship will help, 4) original research, scholarship, employment, and/or internships, or other unique contributions to environmental science or engineering, 5) extracurricular activities and participation in organizations that demonstrate leadership, interpersonal skills and social responsibilities, 6) letters of recommendation from education or environmental professionals.

HERE IS HOW TO APPLY



Funded by the State of Ohio through the Department of Higher Education and operated as a program of The Ohio Academy of Science, Believe in Ohio is a STEM and entrepreneurship program that teaches students how to commercialize products and services and create business plans that are driven by innovation.

Recently, students from 28 high schools throughout Ohio competed in the first of two Regional Competitions for the opportunity to advance to the 2021 Believe in Ohio State Competition. Student projects are developed and then evaluated either as a STEM Commercialization Plan or a STEM Business Plan. The next Regional Competition will be held in May and the Believe in Ohio State Competition will take place in June where they will compete for \$250,000 in total scholarship awards.

RESULTS FROM THE REGIONAL COMPETITON - \$31,000 IN SCHOLARSHIPS

Reimbursement for Innovative Graduate Credit Hour

As a high school or middle school teacher, are you interested in building your knowledge and skills for STEM innovation, entrepreneurship, and design-thinking?

Workshop activities will provide opportunities for educators to explore resources that they can utilize for engaging their students in applying entrepreneurial concepts and the design thinking process for developing STEM business or commercialization plans. The workshop is offered asynchronously Spring semester with opportunities to earn 7 contact hours (FREE) or one graduate workshop credit hour

Tuition fees will be reimbursed 100% to high school teachers who successfully complete the workshop requirements and middle school teachers are eligible to earn 7 contact hours (FREE).

For more information, please visit https://believeinohio.org/pd/

OAS UNDERGRADUATE RESEARCH AWARD



Audra Stueve, University of Cincinnati

Major: Biological Sciences (4th year)

Research Mentors: Drs. Charles V. Vorhees and Michael T. Williams

Mentor Location: Cincinnati Children's Hospital and Medical Center, Neurology

Department

Project Title: Neurocognitive Effects of Proton Therapy Exposure

Audra's work aims to better understand potential neurological side effects of proton therapy used to treat brain tumors. She spent the first several months of her research experience developing research skills by reading papers, attending lab meetings, and assisting PhD students with experiments conducted in the Animal Behavior Core at Cincinnati Children's Hospital and Medical Center. After demonstrating her ability to handle research animals and showing an attention to detail in experimental set-up and data capture, Audra was provided the opportunity to take a leading role on the proton therapy project. As part of this project, Audra was responsible for conducting learning and memory assays on adult rats sixweeks after they were treated with whole-brain conventional proton beam radiation. Her results were mixed: in some of the tests, the rats exhibited learning and memory impairment; in others, there was no measurable effect. Because of the impairments demonstrated in some of the assays, the project is on-going

STATE SCIENCE DAY - SPONSORSHIP OPPORTUNITIES

State Science Day is the pinnacle of studentoriginated, inquiry-based science and engineering education in Ohio. In 2020, 797 STEM scholars in grades 5-12 competed for nearly \$500,000 in sponsored scholarships and awards. A total of 258 schools participated. State Science Day 2020 was sponsored by the America OF SCIENCE

THE OHIO ACADEMY

Science Day 2020 was sponsored by the American Electric Power Foundation, Battelle, CAS, Charles River, Kokosing, Inc., the Ohio EPA, The Ohio State University, and the Ohio Tuition Trust Authority's College Advantage 529 Plan.

Sponsoring an award or scholarship at State Science Day not only recognizes and encourages student achievement, but it is also provides awareness by promoting the opportunities within your industry, profession, college or university.

The list of sponsored awards and scholarships might provide the inspiration for your organization. The award provider establishes the criteria and eligibility requirements.

Please consider offering an award or scholarship at State Science Day 2021!!

LIST OF 2020 STATE SCIENCE DAY SPONSORED AWARDS STATE SCIENCE DAY SPONSORED AWARD FORM STATE SCIENCE DAY SPONSORSHIP FORM

For more information about sponsoring an award or options on how to provide general support for State Science Day, please email info@ohiosci.org or call 614-389-2182.

Ohio Academy of Science - Members in the Spotlight

The Ohio Academy of Science's Board of Trustees conferred Honorary Life Memberships to both Dr. Norman Fausey and Dr. Lynn Elfner for their many years of distinguished service to the Academy. Congratulations to both Norman and Lynn and thank you for your unselfish dedication and commitment.

Biographical Profiles

Dr. Norman Fausey is recently retired from the US Department of Agriculture. He attended high school in Fremont, OH and graduated from The Ohio State University most recently in 1976 when he received his PhD in Soil Physics. He is recognized as an international expert in agricultural water management and water quality protection. He has served on the Boards of the American Society of Agricultural and Biological Engineers, the Ohio Farm Bureau Foundation, and the Ohio Academy of Science. Dr. Fausey is a Fellow of the Ohio Academy of Science and has served as a technical reviewer for *The Ohio Journal of Science* and for annual meeting abstracts. As a member of the Graduate School faculty at OSU, he has served on more than 100 MSc and PhD examination committees.

Currently Editor of *The Ohio Journal of Science*, Dr. Lynn Elfner was employed as the chief executive of The Ohio Academy of Science from February 1975, until January 1, 2013, when he became CEO Emeritus. He received a B.S. in agriculture (1967) and an M.S. in botany (1971) from The Ohio State University. In 2011, he was awarded an Honorary Doctor of Science degree from Ohio Northern University. He also worked at the Mt. Orab Local School District, The Ohio State University, Ohio Environmental Council, and the Ohio Office of Budget and Management. Dr. Elfner is a Life Member and Fellow of AAAS, was active with national Sigma Xi and the National Association of Academies of Science. He received the President's Award

from Ohio School Boards Association and the Ohioana book award for *Ohio's Natural Heritage*. Over his career he raised millions of dollars for STEM education. Currently he is a Board member and co-chair of the grants committee of The Ohio 4-H Foundation.

Please forward this email on to any of your colleagues that may be interested in the Academy or our programs, and contact us any time for more information.

Sincerely,

Michael E. Woytek Executive Director

The Ohio Academy of Science | www.ohiosci.org

Follow us on Facebook and Twitter to stay informed on everything going on at the Academy!



The Ohio Academy of Science | 5930 Wilcox Place Ste F, Dublin, OH 43016

<u>Unsubscribe dgruber@ohiosci.org</u>

<u>Update Profile | Customer Contact Data Notice</u>

Sent by mwoytek@ohiosci.org powered by

