

Symposia sessions are an opportunity to share information with students, parents, teachers and fair directors, and do not imply endorsement by Society for Science & the Public. No fees have been paid.

Monday, May 14

8:45 a.m. to 9:45 a.m. Room: 408-410

Navigating Intel ISEF - What You Need to Know to Steer Your Way through the Week

Ingrid Weigand, Austin Science Education Foundation, Austin, TX

Intel ISEF week overview for the first time Fair Directors -- what to expect on each day, deadlines for certain tasks, how to prepare students for judging, events to attend and resources available.

Type: Presentation

Audience: Fair Directors, Teachers

8:45 a.m. to 9:45 a.m. Room: 411

When Researchers Apply to College

Tim Hickey-LeClair, Massachusetts Institute of Technology, Cambridge, MA

We will discuss elements of the college search and application process as they pertain to young researchers.

Type: Presentation

Audience: Students

8:45 a.m. to 9:15 a.m. Room: 412

RESET: Research Experiences for STEM Educators and Teachers

Phoebe Mullis Lawing, Army Education Outreach Program (AEOP),
Stuart W. Cramer High, Belmont, NC

RESET provides educators with summer research experience at participating Army laboratories. The goal of this enrichment program is to reinforce teachers' knowledge through interactions with Army and Department of Defense scientists and engineers.

Type: Panel Discussion

Audience: Fair Directors, Teachers

10:00 a.m. to 11:00 a.m. Room: 411

Honey Bee Colony Losses: Research Efforts to Save a Key Pollinator

Jay D. Evans, U.S. Department of Agriculture, Bee Research Laboratory, Beltsville, MD

Honey bees and other pollinators are critical for agriculture and the environment. This session will highlight bee research across genetics, chemistry, behavior, and field surveys.

Type: Presentation

Audience: Fair Directors, Teachers & Students

10:30 a.m. to 11:30 a.m.

Room: 412

Bring Science to Life: Creating Simulations, VR/AR and More with Unity

Liana Holmberg, Unity Technologies, San Francisco, CA

Scientists are using Unity's real-time 3D content creation platform to not only do research, but communicate their results through powerful, immersive experiences.

Type: Presentation

Audience: Teachers, Students

11:45 a.m. to 12:45 p.m.

Room: 412

Leveraging Your Science Fair Experience: Oh the Places You Can Go!

Maya Ajmera, President & CEO, Society for Science & the Public and Publisher, *Science News*, Washington, DC

Life After Science Fair! Bring your questions to a discussion with recent Intel ISEF finalists. Hear about their triumphs, college and career choices and how their science fair experience positioned them to succeed.

Panel of 4 alumni will share stories about their academic and career pathway, the impact of science fairs and how current participants can leverage the opportunities to further their own academic and professional pursuits.

Type: Panel Discussion

Audience: Fair Directors, Teachers & Students

1:00 p.m. to 2:00 p.m.

Room: 408-410

Judging at Intel ISEF

Chuck Vukotich, Judging Chair, Intel ISEF 2018, Pittsburgh, PA

Robert Yost, Intel ISEF, Judging Ombudsman

Join us to learn more about the judging process at Intel ISEF. This session will be valuable for those new to Intel ISEF and those who are veterans. Question and answer period to follow presentation.

Type: Presentation

Audience: Fair Directors, Teachers & Students

2:15 p.m. to 3:15 p.m.

Room: 411

Best Practices for Incorporating Statistics and Charts in Your Project

Christopher Malone, Winona State University, Winona, MN

This presentation will help students, parents, and teachers learn about how to best incorporate statistical outcomes and charts into your science fair project.

Type: Workshop

Audience: Fair Directors, Teachers & Students

2:15 p.m. to 3:15 p.m.

Room: 412

Applying to Highly Selective Engineering Schools Outside of the United States

Catherine Eames, Imperial College London, United Kingdom

Stephen Johns, University of Toronto, Canada

Advice and guidance for school counselors and students from admissions representatives at two of the world's leading engineering schools in the United Kingdom and Canada.

Type: Presentation

Audience: Teachers, Students

3:00 p.m. to 4:00 p.m.

Room: 408-410

Communicating Your Science -- and Doing It Well!

Janet Raloff, *Science News* and Society for Science & the Public, Washington, DC

Let the professionals show you how to write about and discuss your science in such a way that others will understand and care about the message you want to convey.

Type: Workshop, Presentation

Audience: Students

3:30 p.m. to 4:30 p.m.

Room: 412

Protect Your Intellectual Property: Patents, Trademarks, Copyrights and Trade Secrets

Dr. Jorge L. Valdes, U.S. Patent & Trademark Office, Alexandria, VA

Learn how intellectual property tools (patents, trademarks, copyrights, trade secrets) can help protect your science and engineering projects and help you continue on the path to innovation.

Type: Presentation

Audience: Fair Directors, Teachers & Students

3:45 p.m. to 4:15 p.m.

Room: 411

Extract Essential Oils from Plants in a Home Microwave - No Lab Needed - STEM Projects Galore!

Dr. David Hackleman, Oregon State University

Essential oils from plants, easily extracted by this 15 minute method, offer a wide variety of science and engineering project opportunities at very low cost.

Type: Presentation

Audience: Fair Directors, Teachers

Tuesday, May 15

9:00 a.m. to 10:00 a.m.

Room: 408 - 410

Admissions 101: Pursuing Science and Engineering at Highly-Selective Universities

Jim Caldarise, Columbia University, New York, NY

An overview of college education in STEM fields, especially at highly-selective Universities like Columbia University, plus insight into finding the right "fit" for you as a prospective applicant.

Type: Presentation

Audience: Teachers & Students

9:00 a.m. to 10:00 a.m.

Room: 411

Change Agents' Stories for Sustainability

Andrew Bernier, Arizona State University, Tempe, AZ

This session shows how to tell your story as a sustainability change agent while preparing your audience with the tangible knowledge and skills they need to enact change.

Type: Workshop

Audience: Fair Directors, Teachers & Students

9:00 a.m. to 10:00 a.m.

Room: 412

Teaching Current Research and Science Literacy with *Science News* in High Schools

Anna Rhymes, Society for Science & the Public, Washington, DC

The Society's Science News in High Schools program is offering ways to integrate current research and literacy-based learning into classroom curricula to make science more approachable and meaningful for students.

Type: Workshop

Audience: Fair Directors, Teachers

10:15 a.m. to 11:15 a.m.

Room: 408-410

Communicating Your Science -- and Doing It Well!

Janet Raloff, *Science News* and Society for Science & the Public, Washington, DC

Let the professionals show you how to write about and discuss your science in such a way that others will understand and care about the message you want to convey.

Type: Workshop, Presentation

Audience: Students

10:15 a.m. to 11:15 a.m.

Room: 411

Using Math and Science to Innovate in the Real World

Po-Shen Loh, Carnegie Mellon University, Pittsburgh, PA

Why are math and science relevant? Join an interactive session on using a technical mindset to approach practical issues in the real world.

Type: Presentation

Audience: Fair Directors, Teachers & Students

10:15 a.m. to 11:15 a.m.

Room: 412

Responsible Conduct of Research: A Perspective

Philip DeShong, University of Maryland, College Park, MD

Responsible conduct of research (RCR) incorporates more than research misconduct. This perspective discusses the centrality of data in RCR.

Type: Presentation

Audience: Fair Directors, Teachers & Students

11:30 a.m. to 12:30 p.m.

Room: 411

Regeneron Science Talent Search: A Program of the Society for Science & the Public

Allie Stifel, Society for Science & the Public, Washington, DC

Learn about the nation's oldest and most prestigious STEM competition (and a chance to win \$250,000). The 2019 application will open June 1, 2018 for rising U.S. High School seniors.

Type: Presentation

Audience: Fair Directors, Teachers & Students

11:30 a.m. to 12:30 p.m.

Room: 412

Bringing Science Communication Skills to the High School Classroom

JulieAnn Villa, Niles West High School, Glenview, IL

Can you talk, write, and present science? Learn to help students effectively present research to the public and get NGSS (Next Generation Science Standards) "sci comm" lessons for your high school classroom.

Type: Presentation

Audience: Fair Directors, Teachers

Wednesday, May 16

9:15 a.m. to 10:15 a.m.

Room: 411

Don't Let Salmonella Ruffle Your Feathers!

Marjorie Miles Dozier, Polk County School, Bartow, FL

Participants will explore a CDC lesson with hands-on learning, a real world outbreak case of salmonellosis and data to learn the best ways to represent and analyze data. We will also address how to teach concepts of zoonotic diseases.

Type: Workshop, Presentation

Audience: Fair Directors, Teachers

9:15 a.m. to 10:15 a.m.

Room: 412

Carnegie STEM Excellence Pathway - Journey to STEM Success!

Ian Zang, Carnegie Science Center, Pittsburgh, PA

Learn about this initiative built upon the belief that schools and educators can improve their STEM education practices through a positive, collaborative approach.

Type: Presentation

Audience: Teachers

10:30 a.m. to 11:30 a.m.

Room: 408-410

SRC - 2019 Rules and Guidelines

Intel ISEF 2018 Scientific Review Committee

Meet with members of the Intel ISEF Scientific Review Committee to learn of changes in the 2019 International Rules and Guidelines. Following will be a Q&A period.

Type: Presentation

Audience: Fair Directors, Teachers & SRC members

1:00 p.m. to 1:30 p.m.

Room: 412

Developing Scientific Communication Skills in High School for Student Researchers

Kim Hoehne, Minnetonka High School, Minnetonka, MN

Being able to clearly articulate ideas to a variety of audiences is essential for today's students. Learn various strategies to develop key communication skills.

Type: Presentation

Audience: Teachers

1:15 p.m. to 2:15 p.m.

Room: 411

Intel ISEF Display & Safety Rules

Diane Hecht, Chair, Intel ISEF Display & Safety Committee

Come join the Display & Safety Committee to discuss infractions encountered this year as well as changes to the rules and guidelines for 2019. Bring your questions for the committee to answer.

Type: Panel Discussion

Audience: Fair Directors, Teachers

1:45 p.m. to 2:15 p.m.

Room: 412

Outreach and Equity Programs at Society for Science & the Public

Caitlin Sullivan, Society for Science & the Public, Washington, DC

Learn about the Society's Research Teachers Conference, Advocate Grant Program, STEM Action and Research Grants, and Science News in High Schools.

Type: Presentation

Audience: Fair Directors, Teachers

2:45 p.m. to 3:45 p.m.

Room: 411

Intel ISEF Scientific Review Committee - SRC Project Review

Intel ISEF Scientific Review Committee

Meet with members of the Intel ISEF Scientific Review Committee to discuss project review by local and regional SRC's and to review "sample" projects. English and Spanish speaking members will be in attendance. Preference will be given to those who have not previously attended.

Type: Workshop

Audience: Local & Regional SRC members

2:45 p.m. to 3:45 p.m.

Room: 412

Protect Your Intellectual Property: Patents, Trademarks, Copyrights and Trade Secrets

Dr. Jorge L. Valdes, U.S. Patent & Trademark Office, Alexandria, VA

Learn how intellectual property tools (patents, trademarks, copyrights, trade secrets) can help protect your science and engineering projects and help you continue on the path to innovation.

Type: Presentation

Audience: Fair Directors, Teachers

Thursday, May 17

9:15 a.m. to 10:15 a.m.

Room: 411

Growing Your Rural Science Fair

Stefany Burrell, Maine Mathematics and Science Alliance, Augusta, ME

Do you want to reach more rural youth? Find out how we tripled science fair participation in Maine, and learn what new challenges we're facing.

Type: Presentation

Audience: Fair Directors, Teachers

9:15 a.m. to 10:15 a.m.

Room: 412

Broadcom MASTERS: Society for Science & the Public's National Middle School Science and Engineering Competition

Raeva Ramadorai, Society for Science & the Public, Washington, DC

Learn about the Society's national middle school competition in this general information session. Former finalists will answer questions and share advice.

Type: Presentation

Audience: Fair Directors, Teachers

10:45 a.m. to 11:45 a.m.

Room: 411

Smorgasbord of Technology Tips & Tricks

Kris Clements, Caddo Parish Magnet High, Shreveport, LA

Google Chrome shortcuts, apps, extensions, and some Google Drive (docs, forms, sheets) and add-ons are shared. Three other captivating (perhaps life-changing!) items will be demonstrated too!

Type: Presentation

Audience: Fair Directors, Teachers

10:45 a.m. to 11:45 a.m.

Room: 412

Building a Dye-Sensitized Solar Cell Using Blackberries

Dr. Lurea J. Doody, Beyond Benign, Waynesburg, PA

Participants will build and test a dye-sensitized solar cell. The 12 Principles of Green Chemistry will be presented and discussed in relation to the solar cell.

Type: Workshop

Audience: Teachers

1:30 p.m. to 2:30 p.m.

Room: 411

Intelligence Community STEM Careers - a Discussion

Torland J. Wingfield, Sr., (ODNI) Office, Director of National Intelligence, Washington, DC

Intelligence Agencies (IC) fall under the Office of the Director of National Intelligence, each IC Agency has its own application and hiring process. This includes student programs, internships and coop opportunities. Come join me and others from the (NSA) National Security Agency, (DIA) Defense Intelligence Agency, and (NGA) National Geospatial-Intelligence Agency.

Type: Presentation, Panel Discussion

Audience: Students

1:30 p.m. to 2:30 p.m.

Room: 412

Climate Change, Modeling, and Supercomputers

Mark R. Petersen, Los Alamos National Laboratory, Los Alamos, NM

Climate change research relies on high-resolution computer models to understand the complex, interdependent processes that will affect the atmosphere, ocean, and land in the coming century.

Type: Presentation

Audience: Students

2:45 p.m. to 3:45 p.m.

Room: 412

From Exploration to Publication

Eman Ghanem, Sigma Xi, The Scientific Research Honor Society, Research Triangle Park, NC

Publishing scientific research is a challenging process. Learn how to convert your project into a manuscript and where to submit it for publication.

Type: Workshop

Audience: Fair Directors, Teachers & Students

3:00 p.m. to 3:30 p.m.

Room: 411

Sense-Making and Critical Thinking

Dr. William Christian, Deputy Chief, National Security Agency's Informatics Research Office, Fort Meade, MD

This presentation discusses challenges associated with answering different kinds of questions in a world overflowing with data -- and the kinds of answers one might prefer.

Type: Presentation

Audience: Fair Directors, Teachers & Students