

ORAL PRESENTATION SCHEDULE

Friday, January 18 | 1:00 - 4:10 p.m.

	St. Tropez Room	Las Palmas/Marbella Room	Portofino/Marseilles Room
	Session Chairs: Lily Apedaile & Arlene Ramos	Session Chairs: Karen Allis & Ben VanDusen	Session Chairs: Gretchen Rollwagen-Bollens & Jeffrey Wuebber
1:00	A1. <i>"Cells, Microvesicles, and Lung Biology"</i> Chelsea Defino , Institute for Collaborative Ed, Brooklyn, NY Mr. Jahar Bhattacharya, Columbia University, New York, NY	A2. <i>"Impacts of plant diversity and fertilizer applications on soil biodiversity and soil carbon cycling"</i> Violet Martin , Capital High School, Boise, ID Dr. Marie-Anne deGraaff, Boise State University, Boise, ID	A3. <i>"Phytoplankton Diversity in Response to Physical Oceanic Processes and Plastics"</i> Heather Blair , David Douglas High School, Portland, OR Dr. Anne Thompson, Portland State University, Portland, OR
1:16	B1. <i>"Osteocalcin signaling in the liver favors the Cori cycle and FGF21 secretion"</i> Rachel Taylor , Millennium High School, New York, NY Mr. Gerard Karsenty, Columbia University, New York, NY	B2. <i>"Pesky pests and the plants that kill them: harnessing chemical complexity in the fight against pesticide resistance"</i> Jenna Raino , Skyview High School, Nampa, ID Dr. Jennifer Forbey, Boise State University, Boise, ID	B3. <i>"Do Nutrients Limit Phytoplankton Growth in the Columbia River?"</i> Alixandra Coker , Camas High School, Camas, WA Dr. Stephen Bollens, Washington State University – Vancouver, Vancouver, WA
1:32	C1. <i>"Development and Optimization of the Protocol for the SSRL Plate for In-situ Crystallization and Automated Diffraction Data Collection"</i> Joann Siegfried , Thurgood Marshall High School, San Francisco, CA Brooke Connell , Capuchino High School, San Bruno, CA Dr. Aina Cohen, Stanford Linear Accelerator Center, Menlo Park, CA	C2. <i>"The Anatomy of Pyelonephritis"</i> Aja Brown , Metropolitan Soundview High School, Bronx, NY Dr. Jonathan Barasch, Columbia University, New York, NY	C3. <i>"Atom Probe Tomography of Hyena Teeth"</i> Tomas McGriff , Pasco High School, Pasco, WA Dr. Arun Devaraj, Pacific Northwest National Lab, Richland, WA
1:48	D1. <i>"Insights into Catalytic Mechanism to Aerobic 4-Hydroxybutryl-CoA Dehydratase"</i> Danielle Baur , SLAC National Accelerator Laboratory, Stanford, CA Dr. Hasan DeMirci, Stanford Linear Accelerator Center, Stanford, CA	D2. <i>"The Innovative Use of Mouse Models to Study the Brain-Gut Axis"</i> Cenia Santana , Port Chester High School, Port Chester, NY Dr. Kara Gross-Margolis, Columbia University, New York, NY	D3. <i>"A Classic Game of Frogger: Monitoring the Movement and Habitat Preference of Red-Legged Frogs in Portland, OR"</i> Jeff Buckingham , Beaverton High School, Beaverton, OR Dr. Catherine de Rivera, Portland State University, Portland, OR
2:04	E1. <i>"Testing Ancient Soil Bacteria for New Antibiotics"</i> Amy Sutton , Benson Polytechnic High School, Portland, OR Dr. Angela Hoffman, University of Portland, Portland, OR	E2. <i>"In Situ Measurements of Turbulence Utilizing Radiosondes with Quantification of Relative Estimation Error between NWP Analysis and Measurements"</i> Michelle Hooks , NASA Jet Propulsion Laboratory, Pasadena, CA Dr. Laurie M. Barge, NASA Jet Propulsion Laboratory, Pasadena, CA	E3. <i>"Preservation of Great Barrier Reef and Fisheries Management"</i> Uzma Shah , Baruch High School, New York, NY Dr. Morgan Pratchett, James Cook University, Townsville, NY
2:20	F1. <i>"Defects in ZnO nanocrystals studied by photoluminescence and Raman spectroscopy"</i> Jonathan Moreno-Ramirez , Riverstone International School, Boise, ID Dr. Dmitri Tenne, Boise State University, Boise, ID	F2. <i>"Carbon and Nitrogen Changes due to Soil Warming"</i> Dana Coppernoll-Houston , Thomas Jefferson High School, Tacoma, WA Dr. Christopher Potter, NASA, Mountain View, CA	F3. <i>"Sustainable Production of A Potent Insect Repellent from an Australian Essential Oil"</i> Denice Gamper , Bard High School Early College, New York, NY Dr. Michael Oelgemoeller, James Cook University, New York, NY

2:35 – 2:50 p.m. Break

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	Session Chairs: Timothy Lewis & Mary Zelinski	Session Chairs: Charlie Bruner & Diana Gordon	Session Chairs: Lori Lancaster & John Finke
2:50	G1. “Effects of Current and Future Environmental Stressors on Freshwater Ecosystems” Kendra Moser , Lewis & Clark High School, Spokane, WA Dr. Betsy Bancroft, Gonzaga University, Spokane, WA	G2. “Exploring the Roles of Understudied Antiviral Proteins” Katie Capp , Belgrade High School, Belgrade, MT Mr. Joel Graff, Montana Tech of the University of Montana, Butte, MT	G3. “Collective Behavior of Leafcutter Ants” Julia Harvey , South Eugene High School, Eugene, OR Dr. Tristan Ursell, University of Oregon, Eugene, OR
3:06	H1. “Separating Fruit from Leaves using Thermal Infrared Imaging” Paul Verhage , Treasure Valley Math & Science Center, Wilder, ID Dr. Duke Bulanon, Northwest Nazarene University, Nampa, ID	H2. “Age-related Changes in Synaptic and Glial Protein Expression in the Prefrontal Cortex of Rhesus Macaques” Rachel Stagner , Madison High School, Portland, OR Dr. Henryk Urbanski, Oregon Health & Science University, Portland, OR	H3. “Protein-protein interactions involved in synthesis of the D1 protein of Photosystem II” Sonja Ljungdahl , Springfield High School, Springfield, OR Dr. Alice Barkan, University of Oregon, Eugene, OR
3:22	I1. “Tracking Ancient Earthquakes - Further Adventures in the Use of Dendrochronology and Radiocarbon Dating to Investigate a Subfossil Forest in Puget Lowland and Southeast Olympic Mountains” Emily Carson , Olympia High School, Olympia, WA Mr. Patrick Pringle, Centralia College, Centralia, WA	I2. “Robo-dope: Optimizing passage-less dopaminergic neuron differentiation protocol for application on robots.” Joshua Modeste , Urban Assembly School for Global Commerce, Bronx, NY Dr. Yosif Ganat, New York Stem Cell Foundation, New York, NY	I3. “Identification of InSight 2016 and 2018 Bacterial Isolates” Jamie Lehnen , NASA Jet Propulsion Laboratory, Kingwood, TX Mr. Arman Seuylemezian, NASA Jet Propulsion Laboratory, Pasadena, CA
3:38	J1. “Using enzyme kinetics in human endometrial cells to understand infertility” Brittany Sanchez , Kuna High School, Kuna, ID Dr. Jennifer Chase, Northwest Nazarene University, Nampa, ID	J2. “Oral Presentation Title: Modeling Brain Cell Development Using Organoids” Suzette Nelson , Clara Barton High School, Brooklyn, NY Ms. Suzanna Burstein, New York Stem Cell Foundation, New York, NY	J3. “Piloting STEAM career camp for high school girls and improving project efficiency for the vacuum lab” Carolina Nava , WyEast Middle School, Hood River, OR Dr. Giulia Lanza, SLAC National Accelerator Laboratory, Menlo Park, CA
3:54		K2. “Targeting Adipocyte for Diabetes and Obesity Treatment” Tchnavia Merrick , Brooklyn Prospect High School, Brooklyn, NY Dr. Li Qiang, Columbia University, New York, NY	K3. “Monitoring Spectral Lines to Calibrate LIGO Data” Joseph Milliano , Lee’s Summit West High School, Lee’s Summit, Missouri Dr. Greg Mendell, LIGO-Hanford Observatory, Hanford, WA