

2019 NWSE Category Winners

Animal Sciences 2nd Place

Hayden Wierman – West Linn High School

Investigating the Correlation Between Noise Pollution Produced by a Continuously Operating Tidal Turbine and Impaired Embryonic Development of Mytilus galloprovincialis

Animal Sciences 3rd Place

Makayla Bruce & Justin Bruce – Wilsonville High School

Husbanding the Limulus polyphemus and Determining a Proper Diet to Increase Amebocyte Production

Chemistry 1st Place

Nathan Tidball – Wilsonville High School

Acrylate Polymerization: Formation of UV Curable Antimicrobial Surfaces

Chemistry 2nd Place

Katarina Pejcinovic – West Linn High School

Development of an Economically Viable, Safe, and Versatile Bioplastic

Chemistry 3rd Place

Caitlin McCabe – West Linn High School

Improving Water Quality of Areas Affected by Harmful Algae Blooms Through Reactions with Guanidinium Groups in Saxitoxins

Bioengineering and Materials Science Honorable Mention

Elijah Cirioli & James Nicholson – West Linn High School

Non-Invasively Measuring Blood Glucose Levels in Type One Diabetics with Near-Infrared Spectroscopy

Bioengineering and Materials Science 3rd Place

Jadyn Sherry & Linnea Collett – Wilsonville High School

An approach to developing a biodegradable water bottle

Electrical and Mechanical Engineering 1st Place

Pooja Jain & Neel Jain – West Linn High School

Skyhound: A low-cost, 3D printed autonomous WiFi tracking search drone to locate missing victims of natural disasters

Energy and Environmental Engineering Honorable Mention

Gigi Schweitzer & Wally Milner – West Linn High School

Sucks to suck: reducing plastic straw waste

Energy and Environmental Engineering Honorable Mention

Logan Rower, Alexander Wilson, and Byon Kea – West Linn High School

Incorporating aquaponics and aeroponics into a cohesive agricultural system

Energy and Environmental Engineering 3rd Place

Adaela Shearer – West Linn High School

Highway Wind Energy

Medicine & Health 3rd Place

Marlee Feltham & Rishima Mukherjee – West Linn High School

A 5th Generation CAR-T Cell: MicroRNA Guided Radiogenetics for T-Cell Engineering

Microbiology 2nd Place

Rachel Cramer – Wilsonville High School

Harvester ant (Pogonomyrmex barbatus) gut microbiome diversity after exposure to pyrethrin and sodium tetraborate

Plant Science 2nd Place

Camryn Pettenger-Willey – Wilsonville High School

Cyanobacteria as a biofertilizer: testing the effects of Anabaena on plant growth and performance

Environmental and Earth Sciences Honorable Mention

Anna Nielsen & Sophia Nielsen – West Linn High School

The impacts of beaver dams on macroinvertebrates

2019 NWSE Special Award Winners

Oregon State University General Scholarship

\$5,000 one-time scholarships for students enrolled at Oregon State University.

Katarina Pejcinovic, *Development of an Economically Viable, Safe, and Versatile Bioplastic*

Jared Wieland, *A Novel Revolutionary Nonsurgical Treatment of Malignant Tumorigenesis*

AbSci Future Innovators Internship Program

Winning students are invited to apply for a paid internship with AbSci located in Vancouver, Washington over the summer. Students will be tasked with projects that with further the innovation happening inside AbSci's lab.

Nathan Tidball, *Acrylate Polymerization: Formation of UV Curable Antimicrobial Surfaces*

IEEE Special Award

The Institute of Electrical and Electronics Engineers awards a certificate and prize.

Pooja Jain & Neel Jain, *SkyHound: A Low-Cost 3D Printed Autonomous WiFi Tracking Search Drone to Locate Missing Victims of Natural Disasters*

Tom Owen Award for Excellence in Statistics

The Oregon Chapter of the American Statistical Association awards a cash prize and certificate.

Camryn Pettenger-Willey, *Cyanobacteria as a Biofertilizer: Testing the Effects of Anabaena on Plant Growth and Performance*

Tom Owen Statistics Honorable Mention

The Oregon Chapter of the American Statistical Association awards a cash prize and certificate.

Rachel Cramer, *Harvester ant (Pogonomyrmex barbatus) gut microbiome diversity after exposure to Pyrethrin and Sodium Tetraborate*

Outstanding Natural Resources Science Project

A plaque sponsored by the Pacific NW Research Station and the USDA Forest Service.

Taylor Edwards, *Remediation of Fire Disturbances through Supplementation of Symbiotic Soil Microbe Frankia alni in Soils throughout the Pacific Northwest*

Outstanding Project in In Vitro Biology

A certificate awarded by the Society for In Vitro Biology

Jared Wieland, *A Novel Revolutionary Nonsurgical Treatment of Malignant Tumorigenesis*

U.S. Air Force Outstanding Project

The U.S. Air Force awards a certificate and bag full of Air Force swag.

Pooja Jain & Neel Jain, *Skyhound: A low-cost, 3D printed autonomous WiFi tracking search drone to locate missing victims of natural disasters*

Yusef Siddiqui, *Using Machine Learning To Classify CD8 T-Cells in Pancreas Ductal Adenocarcinoma From Multiplex Immunohistochemistry Image Cytometry*

U.S. Regional Stockholm Junior Water Prize

The Water Environment Federation awards a certificate and invitation to compete for the State Stockholm Junior Water Prize

Logan Rower, Alexander Wilson, and Byon Kea, *Incorporating aquaponics and aeroponics into a cohesive agricultural system*

2019 Middle School Category Winners

1stPlace

- Behavioral and Social Sciences – Madeline Santoso (Athey Creek)
- Earth Sciences – Sai Kalavai (Wood)
- Energy – Dylan Nguyen (Rosemont)

2ndPlace

- Medicine and Health – Yiyi Song (Rosemont)

- Microbiology – Lyon Bloomberg (Meridian)

3rdPlace

- Chemistry – Sophia Levesque, Cassidy Young (Wood)
- Consumer Products Testing - Siddharth Sundaram, Duncan Duffield (Rosemont)

Honorable Mention

- Consumer Products Testing - Evelyn Morlan, Emma Huberty (Rosemont)
- Earth Sciences – David Burt (Athey Creek)
- Engineering: Mechanical – Uma Grover (Rosemont)
- Medicine and Health – Anna Soose (Rosemont)

Special Awards

Ricoh Corporation Sustainable Development Award

- Wyatt Klinger (Athey Creek)
- Dylan Nguyen (Rosemont)

Office of Naval Research Excellence in Science Award

- Dylan Nguyen (Rosemont)

Broadcom/Masters Nominations

- Lyon Bloomberg (Meridian Creek)
- Yiyi Song (Rosemont)
- Sai Kalavai (Wood)