

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Alagar Homeschool**

Principal: **Mary Beth Alagar**

**Rajan Alagar** Teacher: Mary Beth Alagar

*Docking Studies in the Inhibition of Human Serine Hydroxymethyltransferase*

Award	Place	Type
MU Alpha Theta	N/A	Affiliate
Perseverance Award - Honorary Scientist	N/A	Perseverance

**Jaya Alagar** Teacher: Mary Beth Alagar

*Hotelling's Law, Human Behavior and Emerging Econometrics of Product Differentiation*

Award	Place	Type
Perseverance Award - Honorary Scientist	N/A	Perseverance

**Krishnan Alagar** Teacher: Mary Beth Alagar

*Hotelling's Law, Human Behavior and Emerging Econometrics of Product Differentiation*

Award	Place	Type
Perseverance Award - Honorary Scientist	N/A	Perseverance

**Indrani Alagar** Teacher: Mary Beth Alagar

*Analysis of Leaf Pore Adaptation in Fragaria*

Award	Place	Type
Perseverance Award - Honorary Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Ambridge Junior High School**

Principal: **Shaun Cooke**

<b>Dinah Bailey</b>			Teacher: Donald Ayers
<i>Eye Spy</i>			
Award	Place	Type	
Behavioral and Social Science - Intermediate	Fourth Place	Category	

<b>Sofia Chickos</b>			Teacher: Donald Ayers
<i>(Don't) Pour Some Sugar On Me</i>			
Award	Place	Type	
Consumer Science - Intermediate	Fourth Place	Category	
Kennametal	N/A	Sponsor	

<b>Samantha Farah</b>			Teacher: Donald Ayers
<i>Watch Your Weight</i>			
Award	Place	Type	
Kennametal	N/A	Sponsor	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Brady Eisel</b>			Teacher: Donald Ayers
<i>Boat Hull Efficiency</i>			
Award	Place	Type	
Braskem America	N/A	Sponsor	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Matthew Kowalsky**

Teacher: Donald Ayers

*Boat Hull Efficiency*

Award	Place	Type
Braskem America	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Apollo-Ridge Middle/High School**

Principal: **Daniel Consuegra**

**Dominick Cicala** Teacher: Danielle White

*Bacteria Be-Gone*

Award	Place	Type
Clarion University	N/A	Scholarship
Gannon University	N/A	Scholarship

**Megan Ost** Teacher: Danielle White

*Texting While Walking*

Award	Place	Type
Behavioral and Social Science - Senior	Fourth Place	Category

**Breanna Murray** Teacher: Danielle White

*Structural Integrity of Bridges Compared to Their Weight-Bearing Capacity*

Award	Place	Type
Association for Bridge Construction & Design	N/A	Sponsor
Princeton Alumni Association of W. PA	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Beaver County Christian School**

Principal: **Doug Carson**

**Caleb Willson** Teacher: LuAnn Eaton  
*Better Game Better Brain*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Bethel Park High School**

Principal: **Zeb Jansante**

**Angela Burns**

Teacher: Barbara Eisel

*Determine Genes That Regulate PCD in D.melanogaster*

Award	Place	Type
Allegheny College	N/A	Scholarship
Chatham University	N/A	Scholarship

**Jessica Viehman**

Teacher: Randi Durmis

*Geopolymer Concrete: The New Standard?*

Award	Place	Type
American Society of Civil Engineers, Pgh. Section	N/A	Sponsor
Arconic Foundation	N/A	Sponsor
Engineering/Robotics - Senior	Second Place	Category
Perseverance Award - Associate Scientist	N/A	Perseverance
Society of American Military Engineers - Pittsburgh Post	N/A	Sponsor
The Webb Law Firm	N/A	Sponsor
U.S. Army	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Blacklick Valley Junior/ High School**

Principal: **Laura Fisanick**

**Mallorie Coll** Teacher: Becky Bennett

*The Effect of Primer on Paint Durability*

Award	Place	Type
Physics - Intermediate	Fourth Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Cambria Heights High School**

Principal: **David Caldwell**

<b>Lindsey Drass</b>		Teacher: Nathaniel Wharton	
<i>The Effect of Deicers on Daphnia Magna</i>			
Award	Place	Type	
Mt. Aloysius College	N/A	Scholarship	

<b>Paige McConnell</b>		Teacher: Nathaniel Wharton	
<i>Caffeine and the Regeneration Rates of Planaria</i>			
Award	Place	Type	
Clarion University	N/A	Scholarship	
Perseverance Award - Associate Scientist	N/A	Perseverance	

<b>Scott Riner</b>		Teacher: Nathaniel Wharton	
<i>Are Fingerprint Patterns Inherited Based on Gender?</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	
St. Francis University	N/A	Scholarship	

<b>Brynn Thomas</b>		Teacher: Nathaniel Wharton	
<i>The Effect of Calcium on Bones</i>			
Award	Place	Type	
Penn State Altoona	N/A	Scholarship	



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## **Erin Choby**

Teacher: Nathaniel Wharton

### *Eye Development in Genders*

Award	Place	Type
Juniata College	N/A	Scholarship
Mt. Aloysius College	N/A	Scholarship
Perseverance Award - Associate Scientist	N/A	Perseverance

## **Karly Maslonik**

Teacher: Nathaniel Wharton

### *Eyewitness Testimony: The Influence of Misleading Questions*

Award	Place	Type
Indiana University of Pennsylvania	N/A	Scholarship

## **Cody Stockley**

Teacher: Nathaniel Wharton

### *The Future of Energy*

Award	Place	Type
U.S. Army	N/A	Affiliate

## **Alan Venesky**

Teacher: Nathaniel Wharton

### *Most Effective Optical Camouflage*

Award	Place	Type
Penn State Altoona	N/A	Scholarship
U.S. Army	N/A	Affiliate

## **Jayne Ertter**

Teacher: Nathaniel Wharton

### *Regulate Mineral Intake by Testing Hardness of Tap Water*

Award	Place	Type
Association for Women GeoScientists	N/A	Affiliate
Mt. Aloysius College	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Stockholm Junior Water Prize/Water Environment Federation

N/A

Affiliate

## **Kelly Harrison**

Teacher: Nathaniel Wharton

### *Radishes and Radiation*

Award	Place	Type
Mt. Aloysius College	N/A	Scholarship
Penn State Altoona	N/A	Scholarship

## **Patrick Hoover**

Teacher: Nathaniel Wharton

### *Nitrates in Water Systems*

Award	Place	Type
Earth/Space/Environment - Senior	Fourth Place	Category
Juniata College	N/A	Scholarship
Mt. Aloysius College	N/A	Scholarship
Penn State Altoona	N/A	Scholarship
Perseverance Award - Associate Scientist	N/A	Perseverance

## **Tyler Huber**

Teacher: Nathaniel Wharton

### *Coastal Preparedness for Hurricanes*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## **Matthew Illig**

Teacher: Nathaniel Wharton

### *Can Heat Make Electricity*

Award	Place	Type
Duquesne Light	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Perseverance Award - Junior Scientist

N/A

Perseverance

**Elizabeth Ivory**

Teacher: Nathaniel Wharton

*Do Filtered Coffee Grounds Stimulate Plants?*

Award

Place

Type

Penn State Altoona

N/A

Scholarship

**Paul Kinney**

Teacher: Nathaniel Wharton

*UV Effects on Oil Booms*

Award

Place

Type

CHEVRON

Honorable Mention

Sponsor

Geneva College

N/A

Scholarship

Juniata College

N/A

Scholarship

Penn State Greater Allegheny

N/A

Scholarship

Perseverance Award - Associate Scientist

N/A

Perseverance

Slippery Rock University (Scholarship)

N/A

Scholarship

**Morgan Schreyer**

Teacher: Nathaniel Wharton

*Pin(e)s and Needles*

Award

Place

Type

Perseverance Award - Junior Scientist

N/A

Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Nikki McCombie**

Teacher: Nathaniel Wharton

*Jumping Techniques for a Better Vertical Jump*

Award	Place	Type
Penn State Altoona	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Cardinal Wuerl North Catholic High School**

Principal: **Luke Crawford**

**Lena Clerici** Teacher: Amy Murray

*The Effects of Vitamin Suppliments on FAS*

Award	Place	Type
Duquesne University, Bayer School of Natural and Environmental Sciences	N/A	Sponsor

**Hannah Croy** Teacher: Amy Murray

*The Effects of Vitamin Suppliments on FAS*

Award	Place	Type
Duquesne University, Bayer School of Natural and Environmental Sciences	N/A	Sponsor

**Bridget Hudson** Teacher: Amy Murray

*The Effects of Vitamin Suppliments on FAS*

Award	Place	Type
Duquesne University Summer Undergraduate Research Program	N/A	Scholarship
Duquesne University, Bayer School of Natural and Environmental Sciences	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Carson Middle School**

Principal: **Katherine Jenkins**

**Niyati Cannanbilla** Teacher: Joe Harvey

*Effectiveness of Household Water Filtration Systems*

Award	Place	Type
Biological Sciences - Junior	Second Place	Category

**Abhi Ajay** Teacher: Sarah LeDonne

*A Spark of Motivation*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Praneel Murthy** Teacher: Patrick Niven

*The First Step to Cleaner Water*

Award	Place	Type
Range Resources - Appalachia, LLC	N/A	Sponsor

**Nakul Solai** Teacher: Patrick Niven

*Is Tesla Really Good for the Environment as Compared to a Gas Car?*

Award	Place	Type
American Meteorological Society	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Central Catholic HS**

Principal: **Anthony Baginski**

<b>Joe Ebbert</b>			Teacher: Mark Krotec
<i>Effects of BMP-2 and Estradiol on 3T3 Stem Cells</i>			
Award		Place	Type
St. Francis University		N/A	Scholarship
<b>Michael Halahurich</b>			Teacher: Mark Krotec
<i>Effects of Axe Body Spray on Staph and Yeast Survivorship</i>			
Award		Place	Type
Bechtel Marine Propulsion Corporation		N/A	Sponsor
<b>Warren Sipe</b>			Teacher: Mark Krotec
<i>Fruit Juice on Staph. Biofilms</i>			
Award		Place	Type
Biology - Senior		Fourth Place	Category
<b>Blake Neiderlander</b>			Teacher: Mark Krotec
<i>Grass metal pollutant Analysis</i>			
Award		Place	Type
Allegheny County Health Department		N/A	Sponsor
Earth/Space/Environment - Senior		Fourth Place	Category
Perseverance Award - Junior Scientist		N/A	Perseverance
Spectroscopy Society of Pittsburgh		N/A	Sponsor
U.S. Army		N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Chartiers Valley High School**  
 Principal: **Valerie Keys**

**Jack Radzanowski** Teacher: Charles Barber  
*Does Fruit Juice contain more vitamin C than juice from concentrate*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Megan Debski** Teacher: Charles Barber  
*Traffic light Efficiency*

Award	Place	Type
Perseverance Award - Associate Scientist	N/A	Perseverance



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Chartiers Valley Middle School**

Principal: **Adrienne Floro**

**Ethan Hanbury** Teacher: Scott Caplan

*Sparkgap Tesla Coil*

Award	Place	Type
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

**Bridget Schneider** Teacher: Scott Caplan

*Magnetic Eddy Current Lifting Platform*

Award	Place	Type
Eaton Corporation	N/A	Sponsor
Engineering/Robotics - Intermediate	Third Place	Category
Institute of Electrical & Electronics Engineers, Inc.	N/A	Sponsor
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **City Charter High School**

Principal: **Ronald Sofo**

**Kristina Totino** Teacher: Kelly Darr  
*The Effects of Cocoa on Bacteria*

Award	Place	Type
La Roche College	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Community Day School**

Principal: **Mark Minkus**

<b>Luke Glickman</b>		Teacher: Kyle Ison	
<i>Effect of Aloe on Fruit Decomposition</i>			
Award		Place	Type
Biological Sciences - Junior		Fourth Place	Category

<b>Owen Lichtenstein</b>		Teacher: Kyle Ison	
<i>Effect of Aloe on Fruit Decomposition</i>			
Award		Place	Type
Biological Sciences - Junior		Fourth Place	Category

<b>Sophia Levin</b>		Teacher: Kyle Ison	
<i>Racial Bias in Today's Youth</i>			
Award		Place	Type
Behavioral and Social Science - Intermediate		Third Place	Category

<b>Emma Stewart</b>		Teacher: Kyle Ison	
<i>The Effect of Washing on Fire Resistant Clothing</i>			
Award		Place	Type
Perseverance Award - Junior Scientist		N/A	Perseverance

<b>Ben Tarr</b>		Teacher: Kyle Ison	
<i>Manufacturing Graphene-Based Supercapacitors and Their Advantages Over Traditional Capacitors</i>			
Award		Place	Type
ASM Materials Education Foundation		N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Engineering/Robotics - Intermediate

Fourth Place

Category

**Zach Stewart**

Teacher: Kyle Ison

*Finding a more effective way to grow in nutrient poor soil.*

Award

Place

Type

Perseverance Award - Junior Scientist

N/A

Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Dorseyville Middle School**

Principal: **Jonathan Nauhaus**

**Aiden Dorneich** Teacher: Eva Malecki

*SolveBot: The Maze Solving Robot*

Award	Place	Type
CHEVRON	Honorable Mention	Sponsor
Institute of Electrical & Electronics Engineers, Inc.	N/A	Sponsor
Michael Baker Corporation	N/A	Sponsor
Physical Sciences & Engineering - Junior	Third Place	Category

**Jonathan Li** Teacher: Eva Malecki

*Homemade Batteries*

Award	Place	Type
Bechtel Marine Propulsion Corporation	N/A	Sponsor

**Amulya Garimella** Teacher: Eva Malecki

*Pensieve: Analyze the Genes that Affect Memory*

Award	Place	Type
Biology - Intermediate	First Place	Category
Carnegie Science Awards Intermediate Division	N/A	Other
Perseverance Award - Junior Scientist	N/A	Perseverance
Young Women in Bio	N/A	Sponsor

**Vinisha Sant** Teacher: Eva Malecki

*Tablet or Capsule: Which Makes Me Feel Better?*

Award	Place	Type
Biology - Intermediate	Fourth Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Perseverance Award - Junior Scientist

N/A

Perseverance

**Janise Kim**

Teacher: Eva Malecki

*Unwired*

Award

Place

Type

Behavioral and Social Science - Intermediate

Fourth Place

Category

**Zoe Lakkis**

Teacher: Eva Malecki

*The Effect of Ballet on Different Types of Memory*

Award

Place

Type

Slippery Rock University

N/A

Sponsor

**Elizabeth Schwartzman**

Teacher: Eva Malecki

*Crossed Up?*

Award

Place

Type

Behavioral and Social Science - Intermediate

Fourth Place

Category

Perseverance Award - Junior Scientist

N/A

Perseverance

**Theodor Urban**

Teacher: Eva Malecki

*Improving Efficiency of Pneumatic Projectile Systems*

Award

Place

Type

Engineering/Robotics - Intermediate

First Place

Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Sanjay Seshan**

Teacher: Eva Malecki

*Keeping Our Heads Above Water: Early Detection of Stresses in Buried Water Pipes*

Award	Place	Type
Allegheny County Health Department	N/A	Sponsor
Arconic Foundation	N/A	Sponsor
Earth/Space/Environment - Intermediate	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **East Catholic School**  
 Principal: **Judith Stojhovic**

<b>Vincent Kaschauer</b>		Teacher: Angelo Lamanti	
<i>The Color Trio</i>			
Award	Place	Type	
Behavioral and Social Science - Intermediate	Second Place	Category	

<b>Lianna Rishel</b>		Teacher: Angelo Lamanti	
<i>Do You C It?</i>			
Award	Place	Type	
Chemistry - Intermediate	Third Place	Category	



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Fanny Edel Falk Laboratory School**

Principal: **Jeffrey Suzik**

**Abigail (Abby) Andrews**

Teacher: Alex Dragon

*No Laughing Matter*

Award	Place	Type
American Psychological Association	N/A	Affiliate
Behavioral and Consumer Sciences - Junior	Second Place	Category

**Alexander Sayette**

Teacher: Alex Dragon

*No Laughing Matter*

Award	Place	Type
American Psychological Association	N/A	Affiliate
Behavioral and Consumer Sciences - Junior	Second Place	Category

**Theodore Rothstein**

Teacher: Alex Dragon

*Allergies in Families*

Award	Place	Type
Biological Sciences - Junior	Third Place	Category

**Étienne Strandberg-Houzé**

Teacher: Alex Dragon

*The Effects of Light Frequency on the SODIS Procedure*

Award	Place	Type
Biological Sciences - Junior	Fourth Place	Category
Spectroscopy Society of Pittsburgh	N/A	Sponsor
U.S. Air Force	Honorable Mention	Affiliate
University of Pittsburgh	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## **Thomas Votruba-Drzal**

Teacher: Alex Dragon

*Corrosion: Pb in drinking water*

Award	Place	Type
Allegheny County Health Department	N/A	Sponsor
American Industrial Hygiene Assoc.	N/A	Sponsor
Chemistry - Junior	Fourth Place	Category
Ricoh Americas Corporation	N/A	Affiliate

## **Abraham Kallivayalil**

Teacher: Alex Dragon

*Indicator Juice*

Award	Place	Type
Chemistry - Junior	Second Place	Category

## **Phillip Leong**

Teacher: Alex Dragon

*Indicator Juice*

Award	Place	Type
Chemistry - Junior	Second Place	Category

## **Alexis Alarcon**

Teacher: Alex Dragon

*Cell Phone Radiation*

Award	Place	Type
Institute of Electrical & Electronics Engineers, Inc.	N/A	Sponsor
Physical Sciences & Engineering - Junior	Fourth Place	Category
U.S. Metric Association	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Alex Hauskrecht**

Teacher: Alex Dragon

*Compression of materials to simulate building foundations*

Award	Place	Type
American Society of Civil Engineers, Pgh. Section	N/A	Sponsor

**Evan Dine**

Teacher: Alex Dragon

*How Temp affects Magnets*

Award	Place	Type
ASM Materials Education Foundation	N/A	Affiliate

**Benjamin Merchant**

Teacher: Alex Dragon

*How Temp affects Magnets*

Award	Place	Type
ASM Materials Education Foundation	N/A	Affiliate

**Alexander Burton**

Teacher: Alex Dragon

*How does light color, age, and gender affect flicker fusion frequency?*

Award	Place	Type
Behavioral and Social Science - Intermediate	First Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Fort Cherry Jr./Sr. High School**

Principal: **Robert Motte**

**Connor Ehrgood**

Teacher: Jackie Newman

*SticKey - Communication Made Easy*

Award	Place	Type
Engineering/Robotics - Senior	Third Place	Category
FedEx Ground, Inc.	N/A	Sponsor
INTEL International Science and Engineering Award	N/A	Other
The Webb Law Firm	N/A	Sponsor

**Emily Richard**

Teacher: Jackie Newman

*SticKey - Communication Made Easy*

Award	Place	Type
Carnegie Mellon University (Scholarship)	N/A	Scholarship
Engineering/Robotics - Senior	Third Place	Category
FedEx Ground, Inc.	N/A	Sponsor
INTEL International Science and Engineering Award	N/A	Other
The Webb Law Firm	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Fox Chapel Area High School**

Principal: **Michael Hower**

## Jasmine Eng

Teacher: Greg Schubert

*The Effect of Colored Light on Yeast*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## Zachary Lakkis

Teacher: Greg Schubert

*Using CRISPR-Cas to Edit RNA in Living Cells: A Novel Approach to Targeting Cancer*

Award	Place	Type
Biology - Senior	Second Place	Category
Perseverance Award - Associate Scientist	N/A	Perseverance
Society for In Vitro Biology	N/A	Affiliate

## Gina Wang

Teacher: Greg Schubert

*The Effect of Tea on Cell Growth*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## Ameya Velankar

Teacher: Greg Schubert

*Does the Ratio between Facial Features Affect Facial Appeal?*

Award	Place	Type
Behavioral and Social Science - Senior	First Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Sanjana Harish</b>		Teacher: Greg Schubert	
<i>A Device for Sensing Water Leakage</i>			
Award	Place	Type	
Arconic Foundation	N/A	Sponsor	

<b>Shania Khatri</b>		Teacher: Greg Schubert	
<i>Using Bayesian Network Modeling to Locate Breast Cancer Genes</i>			
Award	Place	Type	
INTEL International Science and Engineering Award	N/A	Other	
MU Alpha Theta	N/A	Affiliate	

<b>Ji-Yool Moon</b>		Teacher: Greg Schubert	
<i>From Music Assessment to Word Recognition</i>			
Award	Place	Type	
Perseverance Award - Associate Scientist	N/A	Perseverance	

<b>Moira McCormick</b>		Teacher: Greg Schubert	
<i>Development of an In vitro model to investigate the role of Klotho in Skeletal Muscle Regeneration</i>			
Award	Place	Type	
Duquesne University, Dept. of Biological Sciences	N/A	Sponsor	
Perseverance Award - Honorary Scientist	N/A	Perseverance	

<b>Ayan Sinha</b>		Teacher: Greg Schubert	
<i>Effect of Cytokines on Glucocorticoid Receptor Function</i>			
Award	Place	Type	
Perseverance Award - Honorary Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Franklin Regional MS**  
 Principal: **Andrew Leviski**

**Shrey Ramesh** Teacher: Todd Binnig  
*Passwords: Piece of Cake or a Hard Nut to Crack?*

Award	Place	Type
Computer Science/Math - Intermediate	Third Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance

**Ben Hollerman** Teacher: Todd Binnig  
*Power From The Air*

Award	Place	Type
Arconic Foundation	N/A	Sponsor
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Freeport Area Middle School**

Principal: **Donald Dell**

**Anita Bhat** Teacher: Donald Orlowski

*Does Distraction Reduce the Amount of Discomfort a Person Feels?*

Award	Place	Type
Allegheny County Medical Society Alliance	N/A	Sponsor
FedEx Ground, Inc.	N/A	Sponsor

**Colton Brenneman** Teacher: Donald Orlowski

*Do Males or Females Complete a Paper Maze Faster Backwards?*

Award	Place	Type
Behavioral and Consumer Sciences - Junior	Fourth Place	Category

**Skylyn Ellison** Teacher: Donald Orlowski

*Does the Color and Height of a Box On a Shelf Affect a Persons Preference?*

Award	Place	Type
Behavioral and Consumer Sciences - Junior	Fourth Place	Category

**Anand Bhat** Teacher: Donald Orlowski

*Does Temperature Affect the Elasticity of a Rubber Band?*

Award	Place	Type
Physical Sciences & Engineering - Junior	Fourth Place	Category

**Jesse Hilko** Teacher: Donald Orlowski

*Does the Amount of Carbon In Steel Affect the Strength of a Magnet?*

Award	Place	Type
Carnegie Science Award Junior Division	N/A	Other



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Physical Sciences & Engineering - Junior  
 U.S. Air Force  
 U.S. Army

First Place  
 Honorable Mention  
 N/A

Category  
 Affiliate  
 Affiliate

**James Hower**

Teacher: Donald Orlowski

*Can the Shape of a Window Be Used To Increase the Temperature Inside a House?*

Award	Place	Type
Arconic Foundation	N/A	Sponsor
U.S. Metric Association	N/A	Affiliate

**Elise Whitlinger**

Teacher: Donald Orlowski

*Which Material On a Reacher Is Most Effective At Grasping Objects?*

Award	Place	Type
Physical Sciences & Engineering - Junior	Fourth Place	Category

**Lucas Jones**

Teacher: Donald Orlowski

*Do Cricket Chirps Change by Air Temp.*

Award	Place	Type
Biology - Intermediate	Third Place	Category

**Mackenzie Wolff**

Teacher: Donald Orlowski

*Can Termites Be Used To Repel Insects?*

Award	Place	Type
Biology - Intermediate	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Hanna Brenneman**

Teacher: Donald Orłowski

*Do Left or Right Brained People Yawn Quicker When Stimulated By a Person Who Is Yawning?*

Award	Place	Type
American Psychological Association	N/A	Affiliate

**Brandon Beckett**

Teacher: Donald Orłowski

*Which Type of Bread Molds the Fastest?*

Award	Place	Type
American Industrial Hygiene Assoc.	N/A	Sponsor

**Maggie Hollobaugh**

Teacher: Donald Orłowski

*Does the Color of Nail Polish Affect the Accuracy of a Pulse Oximeter?*

Award	Place	Type
Medicine/Health/Microbiology - Intermediate	First Place	Category

**Michael Hower**

Teacher: Donald Orłowski

*Does The Amount of Calcium Chloride In Flexible Concrete Affect Its Tensile Strength?*

Award	Place	Type
The Pittsburgh Chapter of ACI	N/A	Sponsor

**Robby Kladny**

Teacher: Donald Orłowski

*Does the Magnus Effect Influence the Trajectory of Soccer Balls With Different Panel Designs?*

Award	Place	Type
Physics - Intermediate	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Freeport Area Senior High School**

Principal: **Michael Kleckner**

**Caitlyn Pascucci** Teacher: Donald Orłowski

*Does Age Affect a Person's Ability to Multi Task?*

Award	Place	Type
Behavioral and Social Science - Senior	Fourth Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance

**John Zurisko** Teacher: Donald Orłowski

*Using a Taylor Series to Determine the Height and Velocity of a Moving Object*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Anastazia Herbst** Teacher: Donald Orłowski

*Which Type of Fingerprinting Powder and Lifting Tape Produces the Best Quality Fingerprints?*

Award	Place	Type
Point Park University	N/A	Scholarship
Seton Hill University	N/A	Scholarship

**Isabelle Lindsay** Teacher: Donald Orłowski

*Will the Size, Number and Placement of Tubercles Improve the Performance of a Vertical Axis Wind Turbine?*

Award	Place	Type
Covestro LLC	N/A	Sponsor
Engineering/Robotics - Senior	First Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance
Society of Women Engineers	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## David Kinniburgh

Teacher: Donald Orlowski

*Can Aquatic Plants be Used to Remove Ammonia From Fish Impoundments?*

Award	Place	Type
Earth/Space/Environment - Senior	Third Place	Category
Gannon University	N/A	Scholarship
Perseverance Award - Associate Scientist	N/A	Perseverance

## Rebecca Hollobaugh

Teacher: Donald Orlowski

*Does the Diameter of an Endotracheal Tube on a Respirator Affect the Amount of Medication Delivered to a Patient?*

Award	Place	Type
Chatham University	N/A	Scholarship
Clarion University	N/A	Scholarship
Perseverance Award - Junior Scientist	N/A	Perseverance

## Michaela Mattivi

Teacher: Donald Orlowski

*Which Metal Nanoparticles Inhibit Bacterial Proliferation the Best?*

Award	Place	Type
Allegheny College	N/A	Scholarship
Clarion University	N/A	Scholarship
Duquesne University Summer Undergraduate Research Program	N/A	Scholarship
Duquesne University, Bayer School of Natural and Environmental Sciences	N/A	Sponsor
Gannon University	N/A	Scholarship
Geneva College	N/A	Scholarship
Juniata College	N/A	Scholarship
La Roche College	N/A	Scholarship
Perseverance Award - Honorary Scientist	N/A	Perseverance
Point Park University	N/A	Scholarship
Slippery Rock University (Scholarship)	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

St. Vincent College

N/A

Scholarship

## **Madison Ravotti**

Teacher: Donald Orłowski

*Can a Silver Ion Solution Inhibit Bacterial Proliferation?*

Award

Place

Type

Spectroscopy Society of Pittsburgh

N/A

Sponsor

## **Lurena Stewart**

Teacher: Donald Orłowski

*Does Cast Padding Infused With Nano Silver Particles Inhibit Bacterial Proliferation on the Skin?*

Award

Place

Type

National Institute of Occupational Safety and Health

N/A

Sponsor

## **Alex Kladny**

Teacher: Donald Orłowski

*What Influence Does the Magnus Effect Have on a Rotating Cube?*

Award

Place

Type

Indiana University of Pennsylvania

N/A

Scholarship

Perseverance Award - Associate Scientist

N/A

Perseverance

Physics - Senior

First Place

Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Gateway Middle School**

Principal: **Rocco Telli**

<b>Gavin Spallone</b>		Teacher: Eric Oddo	
<i>Tunnel of Doom</i>			
Award	Place	Type	
Computer Science/Math - Intermediate	First Place	Category	

<b>Liam Brown</b>		Teacher: Eric Oddo	
<i>Working Hard or Hardly Working</i>			
Award	Place	Type	
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate	

<b>Joey Storey</b>		Teacher: Eric Oddo	
<i>Increasing Visual Dexterity</i>			
Award	Place	Type	
Medicine/Health/Microbiology - Intermediate	Third Place	Category	

<b>Jonah Steele</b>		Teacher: Eric Oddo	
<i>Wind Turbines Blade Length and Its Effect on Voltage Output</i>			
Award	Place	Type	
Physics - Intermediate	Third Place	Category	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Greensburg Central Catholic**

Principal: **Ben Althof**

<b>Michelle Binder</b>		Teacher: Pam Cullen	
<i>What Organic Fuel Produces More Heat: Corn or Wood?</i>			
Award	Place	Type	
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor	

<b>Angelika Dewicki</b>		Teacher: Pam Cullen	
<i>How To Make My Clothes More Vibrantly Colored?</i>			
Award	Place	Type	
Chemistry - Intermediate	First Place	Category	
PPG Industries, Inc.	N/A	Sponsor	

<b>Daniel John-Michael Melucci</b>		Teacher: Pam Cullen	
<i>Shedding Light on Microbial Bioload Reduction</i>			
Award	Place	Type	
Perseverance Award - Honorary Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Hopewell Area School District**  
 Principal: **Edward Katkich**

**Karri Albertini** Teacher: Paula Cosnek  
*Sensors Saving the Society*

Award	Place	Type
FedEx Ground, Inc.	N/A	Sponsor
Spectroscopy Society of Pittsburgh	N/A	Sponsor

**Chandler Dameron** Teacher: Paula Cosnek  
*What Solar Panel has a Greater Effect on Water Temperature?*

Award	Place	Type
Earth/Space/Environment - Intermediate	Fourth Place	Category
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Indiana Area High School**  
 Principal: **Wade McElheny**

<b>Tian Schiera</b>		Teacher: Emily Hixson	
<i>The Edge Effect</i>			
Award	Place	Type	
St. Francis University	N/A	Scholarship	

<b>Matthew Berzonsky</b>		Teacher: Emily Hixson	
<i>Effects of Atm on Ch4 Emissions</i>			
Award	Place	Type	
Pittsburgh Geological Society	N/A	Sponsor	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Ingomar Middle School**

Principal: **Heidi Stark**

**Naga Riya Boppudi**

Teacher: Natalie Miles

*Magno-Flow*

Award	Place	Type
Physical Sciences & Engineering - Junior	Third Place	Category
U.S. Metric Association	N/A	Affiliate

**Victoria Ren**

Teacher: Natalie Miles

*Rusting Rates of Nails*

Award	Place	Type
ASM International, Pittsburgh Golden Triangle Chapter	N/A	Sponsor

**Shria Shyam**

Teacher: Natalie Miles

*A Proposal of Plastic*

Award	Place	Type
Earth/Space/Environment - Intermediate	Third Place	Category
Penn State College of Earth and Mineral Sciences	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Lincoln Park Performing Arts Charter School**

Principal: **Lindsay Rodgers**

**Luke Aloï** Teacher: Caroline Dotterer

*Antibacterial Activity of Aqueous and Methanol Extracts of the Clubmoss Lycopodium obscurum*

Award	Place	Type
St. Francis University	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Mars Area Middle School**  
 Principal: **Todd Kolson**

**Raghav Kalbhor** Teacher: Chetan Kalbhor  
*Piezo-Electric Generator (PEG)*

Award	Place	Type
Engineering/Robotics - Intermediate	Fourth Place	Category
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Marshall Middle School**

Principal: **Dan Swoger**

**Arjun Narayan** Teacher: Amy Baschnagel

*Educating Students On Nutritional Facts - An Interactive Website*

Award	Place	Type
Behavioral and Social Science - Intermediate	Third Place	Category

**Shomik Telang** Teacher: Amy Baschnagel

*Reducing paper waste using fading ink*

Award	Place	Type
Chemistry - Intermediate	Fourth Place	Category

**Meghna Behari** Teacher: Amy Baschnagel

*An Integrated Modular Platform for Tracking and Logging Water Quality*

Award	Place	Type
Bechtel Marine Propulsion Corporation	N/A	Sponsor
CHEVRON	N/A	Sponsor
Covestro LLC	N/A	Sponsor
Engineering/Robotics - Intermediate	Second Place	Category
Michael Baker Corporation	N/A	Sponsor
Perseverance Award - Junior Scientist	N/A	Perseverance
Society of Women Engineers	N/A	Sponsor
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Ashnaa Bhide**

Teacher: Amy Baschnagel

*Eyes on the Road: Preventing Distracted Driving*

Award	Place	Type
Duquesne Light	N/A	Sponsor
Engineering/Robotics - Intermediate	Fourth Place	Category
Michael Baker Corporation	N/A	Sponsor
Perseverance Award - Junior Scientist	N/A	Perseverance
U.S. Air Force	N/A	Affiliate
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

**Maanas Belambe**

Teacher: Amy Baschnagel

*Measuring the Cost Effectiveness of Light Bulbs using the Photometer*

Award	Place	Type
Duquesne Light	N/A	Sponsor
Physics - Intermediate	Fourth Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Mary of Nazareth Catholic School**

Principal: **Lynda McFarland**

<b>Gabrielle Mejalli</b>		Teacher: Diane Johnston	
<i>Yeah, Baby! Gender Stereotypes</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Philip Osborn</b>		Teacher: Diane Johnston	
<i>Dimensions affecting average</i>			
Award	Place	Type	
Computer Science/Math - Intermediate	Second Place	Category	

<b>Maya Poziviak</b>		Teacher: Diane Johnston	
<i>Glucose, Don't Sugarcoat It</i>			
Award	Place	Type	
Consumer Science - Intermediate	Third Place	Category	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Ava Dzurenda</b>		Teacher: Diane Johnston	
<i>The Toxic Element</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Mary Queen of Apostles**

Principal: **Catherine Collett**

<b>Olivia DiNatale</b>		Teacher: Cheryl Kestner	
<i>Electrolyte Up Your Game</i>			
Award		Place	Type
Chemistry - Intermediate		Fourth Place	Category
<b>Kira Johnson</b>		Teacher: Cheryl Kestner	
<i>Got Juice?</i>			
Award		Place	Type
Chemistry - Intermediate		Third Place	Category
<b>Olivia Pulcini</b>		Teacher: Cheryl Kestner	
<i>Squeaky Clean?</i>			
Award		Place	Type
Consumer Science - Intermediate		Fourth Place	Category
<b>Will Mason</b>		Teacher: Cheryl Kestner	
<i>Wat-er You Fishing In?</i>			
Award		Place	Type
American Society for Quality		N/A	Sponsor
<b>Marco Vigilante</b>		Teacher: Cheryl Kestner	
<i>Sunscreen... Friend or Foe?</i>			
Award		Place	Type
Earth/Space/Environment - Intermediate		Fourth Place	Category



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

National Oceanic & Atmospheric Administration

N/A

Affiliate

**Ryan Anderson** Teacher: Cheryl Kestner

*The Effect of Temperature on Antibiotics*

Award	Place	Type
Medicine/Health/Microbiology - Intermediate	Fourth Place	Category

**Isabella Florian** Teacher: Cheryl Kestner

*Loop Diameter VS Mechanical Energy and Speed*

Award	Place	Type
Physics - Intermediate	First Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **McMurray Elementary School**  
 Principal: **Blair Stoehr**

**Michael Hsieh** Teacher: Anna Wellek  
*Magnetic Shielding and Maglev Trains*

Award	Place	Type
Community College of Allegheny County	N/A	Sponsor
Physical Sciences & Engineering - Junior	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Montessori Centre Academy**  
Principal: **Yolanda Sweenie**

**William Goetzman** Teacher: Amy McIvor  
*Where to Meat?*

Award	Place	Type
Behavioral and Consumer Sciences - Junior	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Moon Middle School**

Principal: **Melissa Heasley**

**Chancharik Mitra** Teacher: Heidi Gariti

*Electricity from Recyclables*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Mt. Lebanon High School**

Principal: **Brian McFeeley**

**Elizabeth Ly**

Teacher: Kyle Tilger

*Chemical Transformation between PVA and Boric Acid*

Award	Place	Type
PPG Industries, Inc.	N/A	Sponsor

**Max Guthrie**

Teacher: Kyle Tilger

*Comparing Light Intensity to the Rate of Change of Magnetic Flux*

Award	Place	Type
Physics - Senior	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **North Allegheny High School**

Principal: **John Kreider**

<b>Nedah Zahra Ahmad</b>		Teacher: Bruce Allen	
<i>The Vicious Cycle of Inflammation in Human Lung Cancer -Aggravating Itself</i>			
Award	Place	Type	
Society for In Vitro Biology	N/A	Affiliate	

<b>Anuleka Elapavaluru</b>		Teacher: Bruce Allen	
<i>Characterizing Candidate Epigenetically Modified CpG sites in the AQP1 Promoter Region</i>			
Award	Place	Type	
Slippery Rock University (Scholarship)	N/A	Scholarship	

<b>Aditi Edlabadkar</b>		Teacher: Bruce Allen	
<i>Detecting Allergens</i>			
Award	Place	Type	
Chemistry - Senior	Fourth Place	Category	
Gannon University	N/A	Scholarship	

<b>Heya Lee</b>		Teacher: Bruce Allen	
<i>Effects of Cinnamic Acid on Tyrosinase Activity</i>			
Award	Place	Type	
Chemistry - Senior	Second Place	Category	
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor	
Waynesburg University ACS Student Chapter	N/A	Sponsor	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Kavya Balakumar</b>		Teacher: Bruce Allen	
<i>Traffic Congestion Simulation</i>			
Award	Place	Type	
Pittsburgh Intellectual Property Law Association	N/A	Sponsor	

<b>Nikhil Behari</b>		Teacher: Bruce Allen	
<i>An RFID-Based Indoor Mapping Tool for the Visually Impaired</i>			
Award	Place	Type	
Computer Science/Math - Senior	Fourth Place	Category	
FedEx Ground, Inc.	N/A	Sponsor	
Institute of Electrical & Electronics Engineers, Inc.	N/A	Sponsor	
Perseverance Award - Honorary Scientist	N/A	Perseverance	
Pittsburgh Coal Mining Institute of America	N/A	Sponsor	
Slippery Rock University (Scholarship)	N/A	Scholarship	
Society for Mining, Metallurgy & Exploration	N/A	Sponsor	

<b>Akshath Jain</b>		Teacher: Bruce Allen	
<i>AI Based Opto-Lexical Pattern Analysis for Behavior Categorization</i>			
Award	Place	Type	
Indiana University of Pennsylvania	N/A	Scholarship	
U.S. Air Force	N/A	Affiliate	

<b>Adelle Fernando</b>		Teacher: Bruce Allen	
<i>Green Stove for Developing Countries</i>			
Award	Place	Type	
Perseverance Award - Associate Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## **Sanjit Beriwal**

Teacher: Bruce Allen

### *Water Sampling with Drones*

Award	Place	Type
American Meteorological Society	N/A	Affiliate
Carnegie Mellon University Leonard Gelfand Center for Service Learning and Outreach	N/A	Sponsor
Engineering/Robotics - Senior	Fourth Place	Category
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate

## **Abinav Sekhar**

Teacher: Bruce Allen

### *Water Sampling with Drones*

Award	Place	Type
American Meteorological Society	N/A	Affiliate
Carnegie Mellon University Leonard Gelfand Center for Service Learning and Outreach	N/A	Sponsor
Engineering/Robotics - Senior	Fourth Place	Category
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate

## **Zehra Mehdi**

Teacher: Bruce Allen

### *Anti Cancer Effects of Broccoli*

Award	Place	Type
La Roche College	N/A	Scholarship
Mt. Aloysius College	N/A	Scholarship
Perseverance Award - Junior Scientist	N/A	Perseverance



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## Suhye Park

Teacher: Bruce Allen

*Exploring Key Factors of Differentiation of Chemoresponse in Breast Cancer Cell Lines*

Award	Place	Type
Medicine/Health/Microbiology - Senior	Third Place	Category
Robert M. Thompson, Jr. and Diane V. Thompson Fund at the Pittsburgh Foundation	N/A	Other

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Northern Garrett High School**

Principal: **Gary Reichenbecher**

<b>Kayla Guthrie</b>			Teacher: Brian Price
<i>Drug Risk</i>			
Award	Place	Type	
Mt. Aloysius College	N/A	Scholarship	

<b>Nicole Keister</b>			Teacher: Brian Price
<i>How does wind affect a candle flame?</i>			
Award	Place	Type	
Juniata College	N/A	Scholarship	

<b>Angelo Ruggiero</b>			Teacher: Brian Price
<i>Heating and Cooling Copper to Alter its Color for a New Art Medium</i>			
Award	Place	Type	
Geneva College	N/A	Scholarship	

<b>Haley Ross</b>			Teacher: Brian Price
<i>Is it Possible to Produce Medical Equipment for Less?</i>			
Award	Place	Type	
Allegheny County Medical Society Foundation	N/A	Sponsor	
Engineering/Robotics - Senior	Fourth Place	Category	
Juniata College	N/A	Scholarship	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Parker Wilt**

Teacher: Brian Price

*One Arm Robot*

Award	Place	Type
Kennametal	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Norwin High School**

Principal: **Michael Choby**

## **Mackenzie Hutchison**

Teacher: Brian Nevi

### *Pool Problems*

Award	Place	Type
Slippery Rock University (Scholarship)	N/A	Scholarship

## **Remington Lojas**

Teacher: Brian Nevi

### *Nitrate Nightmare*

Award	Place	Type
Geneva College	N/A	Scholarship

## **Cecilia Fidler**

Teacher: Brian Nevi

### *Be a Polynomial Pollyanna: A Simplified Approach to Mutiplying Polynomials of a Higher Degree*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## **Joshua Magyar**

Teacher: Brian Nevi

### *Amount of Fish Affects on Plant Growth*

Award	Place	Type
Chatham University	N/A	Scholarship
Geneva College	N/A	Scholarship
La Roche College	N/A	Scholarship
Mt. Aloysius College	N/A	Scholarship
Slippery Rock University (Scholarship)	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Kylie McCutcheon</b>			Teacher: Brian Nevi
<i>Why you should reconsider using styrofoam</i>			
Award	Place	Type	
Penn State Greater Allegheny	N/A	Scholarship	

<b>Eimile McKinnon</b>			Teacher: Brian Nevi
<i>Mapping the Downstream Effects of Shale Drilling</i>			
Award	Place	Type	
Juniata College	N/A	Scholarship	
Penn State College of Earth and Mineral Sciences	N/A	Sponsor	
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Our Lady of Fatima**

Principal: **Linda Liberatore**

<b>Dominic Flitcraft</b>		Teacher: Shirley Martin	
<i>The Magnetic Gauss Rifle</i>			
Award		Place	Type
U.S. Army		N/A	Affiliate

<b>Grant Phillips</b>		Teacher: Shirley Martin	
<i>Wind Turbine Blade Size Affects Energy Output</i>			
Award		Place	Type
Duquesne Light		N/A	Sponsor

<b>Lauren Boggs</b>		Teacher: Shirley Martin	
<i>Blood Simple All Day EveryDay</i>			
Award		Place	Type
Perseverance Award - Junior Scientist		N/A	Perseverance

<b>Roman Rhodes</b>		Teacher: Shirley Martin	
<i>Storm the Castle</i>			
Award		Place	Type
Perseverance Award - Junior Scientist		N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Our Lady of Grace Catholic School**

Principal: **Sharon Loughran Brown**

**Madeline Debski** Teacher: Theresa Rabogliatti  
*Dance Surfaces and Pointe Shoes*

Award	Place	Type
Physics - Intermediate	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Our Lady of the Most Blessed Sacrament School**

Principal: **Sean Davis**

**Michael Imler** Teacher: Lisa Stough  
*How rocks absorb heat in the microwave*

Award	Place	Type
CHEVRON	N/A	Sponsor



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Pennsylvania Cyber Charter School**

**Manal Boukaabar**

Teacher: Mike Hissam

*And the Moisturizer That Keeps Skin Moist The Longest Is*

Award	Place	Type
Behavioral and Consumer Sciences - Junior	Fourth Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Peters Township High School**

**Nicole Munne** Teacher: Keith Compeggie  
*Manipulating Immune Checkpoints with Anti-Vascular Drugs*

Award	Place	Type
Medicine/Health/Microbiology - Senior	Fourth Place	Category

**Mark McFarlin** Teacher: Keith Compeggie  
*Oscillators*

Award	Place	Type
Physics - Senior	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Pine-Richland High School**

Principal: **Nancy Bowman**

**Arjan Guglani**

Teacher: Ronald Schmiedel

*Aerosoft : Gate to Gate Autonomous Flight*

Award	Place	Type
Computer Science/Math - Senior	Third Place	Category
Innovation Works	N/A	Sponsor
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor
Perseverance Award - Junior Scientist	N/A	Perseverance
Yale Science and Engineering Assoc.	N/A	Affiliate

**Devin Golla**

Teacher: Ronald Schmiedel

*SLS & Fluoride on Teeth*

Award	Place	Type
Perseverance Award - Associate Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Pittsburgh Alderdice HS**

Principal: **Melissa Friez**

## Uthman Fadu

Teacher: Janet Waldeck

*Evolutionary Rate Covariation Defines New Protein Cargo for alpha-arrestins*

Award	Place	Type
Biology - Senior	Fourth Place	Category
Duquesne University College Credit in High School Awards	N/A	Scholarship

## Beatrice Milnes

Teacher: Janet Waldeck

*Evolutionary Rate Covariation Defines New Protein Cargo for alpha-arrestins*

Award	Place	Type
Biology - Senior	Fourth Place	Category
Duquesne University College Credit in High School Awards	N/A	Scholarship

## Israa Abdulmuttaleb

Teacher: Janet Waldeck

*Mutagenesis of the serotonin transporter to investigate its structure*

Award	Place	Type
Gannon University	N/A	Scholarship

## Natalia Hajlasz

Teacher: Janet Waldeck

*Atomistic Simulation of Pathways for Mg<sup>2+</sup> - Water Dissociation With Rigorous Kinetics*

Award	Place	Type
Chemistry - Senior	First Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Nicolas Saba**

Teacher: Janet Waldeck

*The Use of 3D Printing in the Manufacturing of Dentures*

Award	Place	Type
U.S. Army	N/A	Affiliate

**Jahnik Kurukulasuriya**

Teacher: Janet Waldeck

*Fusion Genes as Drivers of Breast-Brain Metastasis*

Award	Place	Type
Allegheny County Medical Society Foundation	N/A	Sponsor
INTEL International Science and Engineering Award	N/A	Other
Medicine/Health/Microbiology - Senior	First Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance

**Daniela Naumov**

Teacher: Janet Waldeck

*DNA Methylation Status of Mitochondria Post TBI*

Award	Place	Type
Chatham University	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Pittsburgh Science and Technology Academy**

Principal: **Shawn McNeil**

**Samuel Senkowicz** Teacher: Brian Rose

*Calorimetry - Finding Calories in Food*

Award	Place	Type
Slippery Rock University	N/A	Sponsor

**Amira Johnson** Teacher: Brian Rose

*Candle Chemistry*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Anand Sooriamurthi** Teacher: Brian Rose

*Do Pittsburgher get enough sunlight?*

Award	Place	Type
Medicine/Health/Microbiology - Intermediate	Fourth Place	Category

**Maya Cranor** Teacher: Brian Rose

*Water Bottle Thermodynamics*

Award	Place	Type
Physics - Intermediate	Fourth Place	Category

**Abidemi Asanbe** Teacher: Brian Rose

*Fall Like Dominoes*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Tilee Miller</b>		Teacher: Brian Rose
<i>Fall Like Dominoes</i>		
Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

<b>Maya AlMoussa</b>		Teacher: Brian Rose
<i>A Genetic Screen for Novel Regulators of Apoptosis</i>		
Award	Place	Type
Perseverance Award - Associate Scientist	N/A	Perseverance

<b>Alexandra Borelli</b>		Teacher: Brian Rose
<i>C. elegans as a Model for Alzheimer's</i>		
Award	Place	Type
Allegheny College	N/A	Scholarship
Biology - Senior	Fourth Place	Category
Carnegie Mellon University Dept.of Biological Sciences	N/A	Sponsor
Duquesne University	N/A	Scholarship
Duquesne University, Dept. of Biological Sciences	N/A	Sponsor
Duquesne University, Bayer School of Natural and Environmental Sciences	N/A	Sponsor
Gannon University	N/A	Scholarship
Perseverance Award - Honorary Scientist	N/A	Perseverance
Seton Hill University	N/A	Scholarship
Slippery Rock University (Scholarship)	N/A	Scholarship
University of Pittsburgh, Dept. of Neuroscience	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## David Donehue

Teacher: Brian Rose

*Degron on VZV Replication Proteins*

Award	Place	Type
Perseverance Award - Honorary Scientist	N/A	Perseverance

## Joseph Flot

Teacher: Brian Rose

*VZV's Effect on Host Proteins*

Award	Place	Type
Biology - Senior	First Place	Category
Carnegie Science Awards Senior Division	N/A	Other
Perseverance Award - Associate Scientist	N/A	Perseverance
Princeton Alumni Association of W. PA	N/A	Sponsor
University of Pittsburgh	N/A	Sponsor

## Gabriele Spokas

Teacher: Brian Rose

*Site-Directed Mutagenesis to Verify Critical Regions of Chd1*

Award	Place	Type
Carnegie Mellon University Dept.of Biological Sciences	N/A	Sponsor

## Michael Warren

Teacher: Brian Rose

*Expression and Purification of Recombinant HIV-1 Nef Protein for Drug Binding Studies*

Award	Place	Type
Biology - Senior	Fourth Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## Sophia Yurkovetsky

Teacher: Brian Rose

*The Effects of shrm on the nervous system in drosophila*

Award	Place	Type
Biology - Senior	Third Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance
Slippery Rock University (Scholarship)	N/A	Scholarship
University of Pittsburgh, Dept. of Neuroscience	N/A	Sponsor

## Angeleia Hall

Teacher: Brian Rose

*The Crime in Racial Profiling*

Award	Place	Type
Behavioral and Social Science - Senior	Fourth Place	Category
Penn State Greater Allegheny	N/A	Scholarship
Perseverance Award - Junior Scientist	N/A	Perseverance

## Neeloy Chakraborty

Teacher: Brian Rose

*Social Net Bullying Mediation*

Award	Place	Type
Perseverance Award - Associate Scientist	N/A	Perseverance

## Alec Helbling

Teacher: Brian Rose

*CNN Training By Set Generation*

Award	Place	Type
Perseverance Award - Associate Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## **Bana AlMoussa**

Teacher: Brian Rose

*Various Techs' Accuracy in Tissue Cross Section Measurement*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## **Shreyo Das**

Teacher: Brian Rose

*Bio-Voltic Cell from Fruits*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## **Joshua Zito**

Teacher: Brian Rose

*CV for Unbiased Data Collection*

Award	Place	Type
Carnegie Mellon University Leonard Gelfand Center for Service Learning and Outreach	N/A	Sponsor
Perseverance Award - Honorary Scientist	N/A	Perseverance

## **Alexis Zito**

Teacher: Brian Rose

*No-Touch Handicap Door Activators*

Award	Place	Type
Carnegie Mellon University Leonard Gelfand Center for Service Learning and Outreach	N/A	Sponsor
Perseverance Award - Associate Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## **Sachin Thiagarajan**

Teacher: Brian Rose

*Isolation of phages to treat bacterial infection in farm fish*

Award	Place	Type
Earth/Space/Environment - Senior	Fourth Place	Category

## **Nicholas Naumov**

Teacher: Brian Rose

*Effects on Immunoresolvins on Mast Cells*

Award	Place	Type
Duquesne University	N/A	Scholarship
Medicine/Health/Microbiology - Senior	Fourth Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance
Slippery Rock University (Scholarship)	N/A	Scholarship

## **Meredith Harrison**

Teacher: Brian Rose

*Sending Signals Underwater*

Award	Place	Type
Allegheny College	N/A	Scholarship
Penn State Greater Allegheny	N/A	Scholarship
Perseverance Award - Honorary Scientist	N/A	Perseverance
Physics - Senior	Fourth Place	Category
St. Vincent College	N/A	Scholarship
U.S. Army	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Providence Heights Alpha School**

Principal: **Peggy Ruefle**

**Annie Snyder**

Teacher: Linda Cessar

*Will Saltwater Impact Seed Germination and Plant Growth?*

Award	Place	Type
Biology - Intermediate	Fourth Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance

**Gigi Corcoran**

Teacher: Linda Cessar

*Does Greater Sunscreen SPF Mean Greater Protection?*

Award	Place	Type
Spectroscopy Society of Pittsburgh	N/A	Sponsor

**Christian Farls**

Teacher: Linda Cessar

*Which Thermocouple Will Produce the Highest Voltage?*

Award	Place	Type
Arconic Foundation	N/A	Sponsor

**Maile Oravitz**

Teacher: Linda Cessar

*Got Milk?*

Award	Place	Type
American Chemical Society	N/A	Sponsor
Chemistry - Intermediate	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## Andrew Pritchard

Teacher: Linda Cessar

*Impact of Temperature on the Viscosity of Motor Oil*

Award	Place	Type
Chemistry - Intermediate	Second Place	Category

## Carson Jacob

Teacher: Linda Cessar

*Effectiveness of Flame Retardants on Children's Sleepwear*

Award	Place	Type
Consumer Science - Intermediate	First Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Queen of Angels**  
 Principal: **Sandra Stonebraker**

<b>Sara Felder</b>		Teacher: Christy Gilkey	
<i>Beat the Heat</i>			
Award	Place	Type	
CHEVRON	Honorable Mention	Sponsor	

<b>Annaliese See</b>		Teacher: Christy Gilkey	
<i>Flying Sparks</i>			
Award	Place	Type	
Duquesne Light	N/A	Sponsor	
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor	
Kennametal	N/A	Sponsor	

<b>Chloe Vandrak</b>		Teacher: Christy Gilkey	
<i>Banking on Bernoulli</i>			
Award	Place	Type	
Thermo Fisher Scientific Inc.	N/A	Sponsor	

<b>Gavin Louch</b>		Teacher: Ann Hall	
<i>How long has the body been there?</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Paige Pickford</b>		Teacher: Ann Hall	
<i>Man vs. Wild</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Zachary Dlugos</b>		Teacher: Ann Hall	
<i>Live Longer: Dog Therapy</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Nolan Casey</b>		Teacher: Ann Hall	
<i>Gelatinous Growth</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Jaime Dermotta</b>		Teacher: Ann Hall	
<i>Fun Under The Sun</i>			
Award	Place	Type	
Chemical Association of Pittsburgh	N/A	Sponsor	

<b>John McGaughey</b>		Teacher: Ann Hall	
<i>The Specific of Specific Heat</i>			
Award	Place	Type	
Chemistry - Intermediate	Fourth Place	Category	
Perseverance Award - Junior Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Katherine Muzy</b>		Teacher: Ann Hall
<i>Sugar Rush</i>		
Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

<b>Maggie Frank</b>		Teacher: Ann Hall
<i>The Effect of Bridge Design on Weight Bearing Capacity</i>		
Award	Place	Type
Association for Bridge Construction & Design	N/A	Sponsor
U.S. Navy/U.S. Marine Corps (Office of Naval Research)	N/A	Affiliate

<b>Rebecca Testa</b>		Teacher: Christy Gilkey
<i>Earthquake Shake</i>		
Award	Place	Type
Society of American Military Engineers - Pittsburgh Post	N/A	Sponsor

<b>Jordan Mastalerz</b>		Teacher: Ann Hall
<i>Gauss Rifle: The Transfer of Power</i>		
Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Sacred Heart Elementary**  
 Principal: **Lynn Rettinger**

**Joseph Thomas** Teacher: Julia Knihnicky  
*Radar*

Award	Place	Type
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor
Spectroscopy Society of Pittsburgh	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Saint John Paul II Homeschool CO-OP**

Principal: **Herm Anand**

**Nathaniel Faber** Teacher: Michelle Faber

*Staying Warm When Wet and Windy*

Award	Place	Type
Covestro LLC	N/A	Sponsor
U.S. Air Force	N/A	Affiliate

**Eduardo Olivas** Teacher: Xhonane Olivas

*Is the Most Expensive Nerf Gun the Fastest?*

Award	Place	Type
Behavioral and Consumer Sciences - Junior	First Place	Category

**Charles Hickenboth** Teacher: Michelle Faber

*Absorption of Dyes on Plastics*

Award	Place	Type
Chemistry - Junior	First Place	Category
National Oceanic & Atmospheric Administration	N/A	Affiliate
PPG Industries, Inc.	N/A	Sponsor
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor

**Regina Anand** Teacher: Herm Anand

*The Best Temperature*

Award	Place	Type
Biology - Intermediate	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

## Helen Kish

Teacher: Maria Kish

*Effects of Sodium Fluoride on Memory of Planaria*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

## Montserrat Olivas

Teacher: Xhonane Olivas

*Effects of Service Dogs on University Students Stress Levels.*

Award	Place	Type
Behavioral and Social Science - Senior	Third Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance
Pittsburgh Psychoanalytic Center	N/A	Sponsor

## Thomas Anand

Teacher: Herm Anand

*The Weed Solution?*

Award	Place	Type
Chemical Association of Pittsburgh	N/A	Sponsor
Gannon University	N/A	Scholarship
Indiana University of Pennsylvania	N/A	Scholarship
La Roche College	N/A	Scholarship
Perseverance Award - Associate Scientist	N/A	Perseverance
St. Francis University	N/A	Scholarship
Waynesburg University ACS Student Chapter	N/A	Sponsor

## Joseph Anand

Teacher: Herm Anand

*The Spice Test*

Award	Place	Type
Medicine/Health/Microbiology - Senior	Fourth Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Perseverance Award - Associate Scientist

N/A

Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Saint Kilian Parish School**

Principal: **Jane Pampena**

**John O'Toole**

Teacher: Kaitlin Garrett

*Is Preen really that Green?*

Award	Place	Type
Biological Sciences - Junior	First Place	Category

**Lauren Angus**

Teacher: Cheryl Hufnagel

*Water Bottle Blues*

Award	Place	Type
Consumer Science - Intermediate	Fourth Place	Category

**Thomas O'Toole**

Teacher: Kaitlin Garrett

*A Biodegradable Silt Fence*

Award	Place	Type
Air & Waste Management Assoc., W. PA Section	N/A	Sponsor
American Meteorological Society	N/A	Affiliate
CHEVRON	Honorable Mention	Sponsor
Earth/Space/Environment - Intermediate	Second Place	Category
Perseverance Award - Junior Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Saint Teresa of Avila School**  
 Principal: **Karen**

**Bridget Lucas** Teacher: Erica Seigneur  
*Thermoelectricity- converting heat to electricity*

Award	Place	Type
Eaton Corporation	N/A	Sponsor
Physics - Intermediate	Third Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Seneca Valley High School**  
 Principal: **Mark Korcinsky**

**Emma Choban** Teacher: Patti Griest  
*The Effect of Toxic Pollutants on Bioluminescent Dinoflagellates*

Award	Place	Type
Allegheny County Sanitary Authority (ALCOSAN)	N/A	Sponsor
American Meteorological Society	N/A	Affiliate

**Jacob Kozora** Teacher: Patti Griest  
*Solubility of Pain Medicines*

Award	Place	Type
Gannon University	N/A	Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Seton LaSalle High School**  
 Principal: **Lauren Martin**

**Justin Cook** Teacher: Katherine Sopczynski  
*Bioluminescence of Dinoflagellates as a Bioassay*

Award	Place	Type
Biology - Senior	Fourth Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance

**Allyson Foster** Teacher: Katherine Sopczynski  
*How White Are Your Teeth?*

Award	Place	Type
Covestro LLC	N/A	Sponsor



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Sewickley Academy**

**Prateek Adurty** Teacher: Lori Sherry

*Utilizing Super Absorbent Polymers for Novel Wastewater Treatment*

Award	Place	Type
American Meteorological Society	N/A	Affiliate
Chemistry - Intermediate	Second Place	Category
NASA Earth System Science Award	N/A	Affiliate
PPG Industries, Inc.	N/A	Sponsor
University of Pittsburgh	N/A	Sponsor

**Srimayi Mulukutla** Teacher: Ron Kinser

*Antibacterial Effects of Copper Surfaces*

Award	Place	Type
Medicine/Health/Microbiology - Intermediate	Second Place	Category
National Assoc of Corrosion Engineers, Pgh Section	N/A	Sponsor
Thermo Fisher Scientific Inc.	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Shady Side Academy**

Principal: **Sopie Lau**

<b>Feno Monaco</b>		Teacher: Heather Fani	
<i>Yogurtalicious</i>			
Award	Place	Type	
American Society for Quality	N/A	Sponsor	

<b>Shreya Gulati</b>		Teacher: Heather Fani	
<i>AMD-Analysis of Mine Drainage</i>			
Award	Place	Type	
Braskem America	N/A	Sponsor	
Carnegie Mellon University (Scholarship)	N/A	Scholarship	
Chemistry - Senior	Fourth Place	Category	
Perseverance Award - Junior Scientist	N/A	Perseverance	
Pittsburgh Geological Society	N/A	Sponsor	
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor	
St. Francis University	N/A	Scholarship	
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Shady Side Academy Middle School**

**Nora Navid** Teacher: Matt Brunner

*Polling Pollinators*

Award	Place	Type
Earth/Space/Environment - Intermediate	First Place	Category
Ricoh Americas Corporation	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Shalaby Homeschool**

**Yusuf Shalaby** Teacher: Jocelyn Tan

*Saving the Queen- a global problem*

Award	Place	Type
Behavioral and Social Science - Senior	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **South Fayette MS**  
 Principal: **Kristin Deichler**

**Siddhartha Khajanchi** Teacher: Lisa Donovan  
*What coil topology works best in wireless power transfer?*

Award	Place	Type
Engineering/Robotics - Intermediate	Third Place	Category
Innovation Works	N/A	Sponsor
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Southern Garrett High School**

Principal: **James Maddy**

<b>William Pariseau</b>		Teacher: Erin Coffman	
<i>Console vs Mobile</i>			
Award	Place	Type	
Perseverance Award - Associate Scientist	N/A	Perseverance	

<b>Zach Rohrbaugh</b>		Teacher: Erin Coffman	
<i>Wind Power and Automobiles</i>			
Award	Place	Type	
Duquesne Light	N/A	Sponsor	
Michael Baker Corporation	N/A	Sponsor	

<b>Tiara Sliger</b>		Teacher: Erin Coffman	
<i>What's so bad about blue light?</i>			
Award	Place	Type	
Gannon University	N/A	Scholarship	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Agnes**  
 Principal: **Cynthia Wessel**

<b>Alaina Beal</b>			Teacher: Lori Guthrie
<i>So Tell Me-What's in Your Soil?</i>			
Award	Place	Type	
Young Women in Bio	N/A	Sponsor	

<b>Ryan Gedman</b>			Teacher: Lori Guthrie
<i>Blast Off!</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	
The Aviation Foundation	N/A	Sponsor	

<b>Angel Patino</b>			Teacher: Lori Guthrie
<i>Bridge Power</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Bernadette School**  
 Principal: **Carol Arch**

<b>Joseph Folino</b>		Teacher: Mary Chase	
<i>Doppler Technology to Measure Heart Rate</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Heath Chase</b>		Teacher: Mary Chase	
<i>Does propeller size matter?</i>			
Award	Place	Type	
The Aviation Foundation	N/A	Sponsor	



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Elizabeth Elementary School**  
 Principal: **Linda Bechtol**

<b>Paula Grachen</b>		Teacher: Susan Morgan	
<i>"BEAUTY IS IN THE PHI OF THE BEHOLDER"</i>			
Award	Place	Type	
Computer Science/Math - Intermediate	Fourth Place	Category	

<b>Kaia Rieger</b>		Teacher: Susan Morgan	
<i>Alternative Plant Growing Methods: Hydroponics vs Aquaponics</i>			
Award	Place	Type	
Association for Women GeoScientists	N/A	Affiliate	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Joseph High School**

Principal: **Beverly Kaniecki**

**Sophia Maltese**

Teacher: Cathy Greco

*Fungal Endophytes and Algae*

Award	Place	Type
Robert Morris University	N/A	Sponsor

**Calley Neelan**

Teacher: Cathy Greco

*Solution to Invasive Mussels*

Award	Place	Type
Carlow University	N/A	Scholarship
Geneva College	N/A	Scholarship
Indiana University of Pennsylvania	N/A	Scholarship
Juniata College	N/A	Scholarship
Penn State Greater Allegheny	N/A	Scholarship
Perseverance Award - Associate Scientist	N/A	Perseverance

**Julianna Nichols**

Teacher: Cathy Greco

*Melatonin and L. sativa*

Award	Place	Type
Biology - Senior	Fourth Place	Category

**Ethan Schroeder**

Teacher: Cathy Greco

*The Effect of EMF on Aedes aegypti*

Award	Place	Type
Biology - Senior	Second Place	Category

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

Seton Hill University

N/A

Scholarship

## **Julia Singleton**

Teacher: Cathy Greco

*Coral Stripping on Lobophytum sp*

Award

Place

Type

Gannon University

N/A

Scholarship

## **Isabelle Schroeder**

Teacher: Cathy Greco

*Hand Sanitizer and BpA Absorption from Thermal Paper*

Award

Place

Type

National Institute of Occupational Safety and Health

N/A

Sponsor

Perseverance Award - Honorary Scientist

N/A

Perseverance

## **Skylar Geibel**

Teacher: Cathy Greco

*Oil vs Shrimp*

Award

Place

Type

Range Resources - Appalachia, LLC

N/A

Sponsor

Seton Hill University

N/A

Scholarship

## **Caroline Maltese**

Teacher: Cathy Greco

*Naled and Zebra Fish Embryos*

Award

Place

Type

Earth/Space/Environment - Senior

First Place

Category

Perseverance Award - Honorary Scientist

N/A

Perseverance

Slippery Rock University (Scholarship)

N/A

Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

St. Vincent College

N/A

Scholarship

**Molly Coleman**

Teacher: Cathy Greco

*Effect of Essential Oils on S. epidermis*

Award

Place

Type

Garrett College

N/A

Scholarship

**Leah Grady**

Teacher: Cathy Greco

*Preventing Alzheimer's*

Award

Place

Type

La Roche College

N/A

Scholarship

**Mason Hurlbut**

Teacher: Cathy Greco

*Golf ball performance*

Award

Place

Type

Garrett College

N/A

Scholarship

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Mary's of the Assumption, Glenshaw**

Principal: **Judith Riegelneegg**

<b>Olivia Bianco</b>		Teacher: Elizabeth Whiteman	
<i>Symbolic Left or Creative Right</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Jacquelyn Borland</b>		Teacher: Elizabeth Whiteman	
<i>What Candy has the most Acid in it?</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Tommy Iurlano</b>		Teacher: Elizabeth Whiteman	
<i>The Fire Weigh In!</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Emma LaRocca</b>		Teacher: Elizabeth Whiteman	
<i>What Drinks will Have the Highest Glucose Concentration Level After Adding the Enzyme Invertase?</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Saralynn Hagmaier</b>		Teacher: Elizabeth Whiteman	
<i>A Computer Program that Simulates Newtonian Physics</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Conlan Moore**

Teacher: Elizabeth Whiteman

*Battery Brand Endurance Comparison*

Award	Place	Type
Institute of Electrical & Electronics Engineers, Inc.	Honorable Mention	Sponsor

**Sam Little**

Teacher: Elizabeth Whiteman

*Kinesio Tape: Help or Hype?*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Adrianna Rossetti**

Teacher: Elizabeth Whiteman

*The Impact of Support Systems on Blood Cancer Treatment*

Award	Place	Type
Perseverance Award - Junior Scientist	N/A	Perseverance

**Jack Noullet**

Teacher: Elizabeth Whiteman

*Which Glue Is The Strongest?*

Award	Place	Type
ASM Materials Education Foundation	N/A	Affiliate

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Raphael Elementary School**  
 Principal: **Robert Munz**

**Matthew Parsi** Teacher: Lindsey Marci  
*In God We Trust, Without Spray We Rust*

Award	Place	Type
Chemistry - Junior	Third Place	Category
Covestro LLC	N/A	Sponsor
National Assoc of Corrosion Engineers, Pgh Section	N/A	Sponsor
PPG Industries, Inc.	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **St. Thomas More School**

Principal: **Setrak Haroutounian**

<b>Ally Buerk</b>		Teacher: Cathy Borecky	
<i>Analysis of Active Ingredients in Whitening Toothpastes on Stained Teeth</i>			
Award	Place	Type	
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor	

<b>Madison DeMarino</b>		Teacher: Cathy Borecky	
<i>Which Substance Prevents Rust the Most?</i>			
Award	Place	Type	
Society for Analytical Chemists of Pittsburgh	N/A	Sponsor	

<b>Theresa Lyle</b>		Teacher: Cathy Borecky	
<i>Electrolyte Concentration and Conductance</i>			
Award	Place	Type	
Chemistry - Intermediate	Fourth Place	Category	

<b>Ethena Conzemius</b>		Teacher: Cathy Borecky	
<i>Which Beverage Contains the Most Electrolytes?</i>			
Award	Place	Type	
Consumer Science - Intermediate	Second Place	Category	



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **The Campus School of Carlow University**

Principal: **Michelle Peduto**

**Eleanor Barth-Wu**

Teacher: Carole Wojciechowski

*How Effective are Flame Retardants*

Award	Place	Type
Chemistry - Intermediate	Third Place	Category
Covestro LLC	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **The Ellis School**  
Principal: **Lauren Laschon**

**Taylor Robinson** Teacher: Erica Holtgraver  
*eHealth: Equity and Efficiency*

Award	Place	Type
Perseverance Award - Honorary Scientist	N/A	Perseverance

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Upper St. Clair High School**

Principal: **Louis Angelo**

## **Sahil Doshi**

Teacher: Lynn Kistler

*SEI Effects on Dendritic Growth*

Award	Place	Type
American Chemical Society	N/A	Sponsor
Chemistry - Senior	Third Place	Category
FedEx Ground, Inc.	N/A	Sponsor
PPG Industries, Inc.	N/A	Sponsor

## **Kevin Chen**

Teacher: Lynn Kistler

*A Deep Learning Approach to the Identification of Transcription Factor-Gene Relationships*

Award	Place	Type
Computer Science/Math - Senior	First Place	Category
Pittsburgh Intellectual Property Law Association	N/A	Sponsor

## **Connor Byrnes**

Teacher: Lynn Kistler

*The Arduino*

Award	Place	Type
Air & Waste Management Assoc., W. PA Section	N/A	Sponsor
American Meteorological Society	N/A	Affiliate
CHEVRON	Honorable Mention	Sponsor
Eaton Corporation	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

**Vedant Parekh**

Teacher: Lynn Kistler

*Green Renewable Battery*

Award	Place	Type
CHEVRON	N/A	Sponsor
Earth/Space/Environment - Senior	Second Place	Category
Eaton Corporation	N/A	Sponsor

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Vincentian Academy**  
 Principal: **Rita Canton**

**Thomas Ik-Huyn Kim** Teacher: Andrea Malm  
*Exploring Key Factors of Differentiation of Chemoresponse in Breast Cancer Cell Lines*

Award	Place	Type
Medicine/Health/Microbiology - Senior	Third Place	Category
Perseverance Award - Honorary Scientist	N/A	Perseverance
Robert M. Thompson, Jr. and Diane V. Thompson Fund at the Pittsburgh Foundation	N/A	Other

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Winchester Thurston School**

Principal: **amanda greenwald**

<b>Elizabeth Stenson</b>		Teacher: David Piemme	
<i>Dehumidifier Filtration System</i>			
Award	Place	Type	
FedEx Ground, Inc.	N/A	Sponsor	

<b>Lucy Chen</b>		Teacher: Graig Marx	
<i>Creating 3D Art to Educate the Visually Impaired</i>			
Award	Place	Type	
American Psychological Association	N/A	Affiliate	

<b>Jonathan Hansen-Kemp</b>		Teacher: Graig Marx	
<i>Shower Filtration for Residents of Flint</i>			
Award	Place	Type	
Robert Morris University	N/A	Sponsor	
Stockholm Junior Water Prize/Water Environment Federation	N/A	Affiliate	

<b>Aria Eppinger</b>		Teacher: Graig Marx	
<i>Round-up's Effect on Gut Microbiome</i>			
Award	Place	Type	
American Statistical Association, Pgh. Chapter	N/A	Sponsor	
Carnegie Mellon Univ. Chapter of Sigma XI	N/A	Sponsor	
Medicine/Health/Microbiology - Senior	Third Place	Category	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

<b>Yiwei Lu</b>		Teacher: Graig Marx	
<i>Designing Assistive Devices for Patients with Parkinson's</i>			
Award	Place	Type	
U.S. Air Force	N/A	Affiliate	

<b>Ross Tedder</b>		Teacher: Graig Marx	
<i>Designing Assistive Devices for Patients with Parkinson's</i>			
Award	Place	Type	
U.S. Air Force	N/A	Affiliate	

<b>Jacob Dubner</b>		Teacher: Graig Marx	
<i>Oral Rehydration Therapy Design</i>			
Award	Place	Type	
Medicine/Health/Microbiology - Senior	Second Place	Category	

<b>Jack Waters</b>		Teacher: Graig Marx	
<i>Oral Rehydration Therapy Design</i>			
Award	Place	Type	
Medicine/Health/Microbiology - Senior	Second Place	Category	

# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Woodland Hills Jr. Sr. High School**  
 Principal: **Kevin Murray**

<b>Alexander Havrilla</b>		Teacher: Jodi Blasi	
<i>An Algebraic Approach to Analyzing Theta Curves</i>			
Award	Place	Type	
Computer Science/Math - Senior	Second Place	Category	

<b>Michael McAllister</b>		Teacher: Jodi Blasi	
<i>Hull and Boats</i>			
Award	Place	Type	
Perseverance Award - Honorary Scientist	N/A	Perseverance	



# Covestro Pittsburgh Regional Science & Engineering Fair Award Winners

School: **Yough Intermediate Middle School**

Principal: **Kevin Smetak**

<b>Emily Stephan</b>		Teacher: Rachel Reissman	
<i>Warning, Warning, RN is Here!</i>			
Award	Place	Type	
Community College of Allegheny County	N/A	Sponsor	

<b>Dakota Cross</b>		Teacher: Rachel Reissman	
<i>Holding Hands With Books</i>			
Award	Place	Type	
Biology - Intermediate	Fourth Place	Category	

<b>Walter Vinoski</b>		Teacher: Rachel Reissman	
<i>Plastic Prosthesis Design</i>			
Award	Place	Type	
Perseverance Award - Junior Scientist	N/A	Perseverance	

<b>Adam Ozegovich</b>		Teacher: Rachel Reissman	
<i>Sound Reduction: Absorbing Acoustic Waves</i>			
Award	Place	Type	
CHEVRON	N/A	Sponsor	
Perseverance Award - Junior Scientist	N/A	Perseverance	
Physics - Intermediate	Fourth Place	Category	