

# 2016 – Final Awards – ND State Science & Engineering Fair

## Senior Division Sweepstakes Winners

The first place (Marcus J. Friskop Sweepstakes) winner received a gold state plaque, a hooded sweatshirt, a \$200 cash award from the Marcus J. Friskop Family, a \$500 cash award from the University of North Dakota Division of Student Affairs / UND Office of Research & Economic Development, and a 1 Year \$2500 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona and will exhibit his/her project.

The second place (sweepstakes runner-up) winner received a gold state plaque, a hooded sweatshirt, a \$250 cash award from the University of North Division of Student Affairs / UND Office of Research & Economic Development, and a 1 Year \$2000 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona and will exhibit his/her project.

The third place (sweepstakes 2<sup>nd</sup> runner-up) winner received a state plaque, a hooded sweatshirt, a \$200 cash award from the University of North Dakota School of Graduate Studies, and a 1 Year \$1000 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona and will exhibit his/her project.

## Senior Division – 1<sup>st</sup> Place – Sweepstakes Winner

Madison Goetzfridt, Mandan School District , "The Eye of the Beholder: Creating a New Prototype of a Medical Infusion Pump"

## Senior Division – 2<sup>nd</sup> Place – Sweepstakes Runner-Up

Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

## Senior Division – 3<sup>rd</sup> Place – Sweepstakes Second Runner-Up

Josianna Prochnow, Hankinson School District , "A Bacterial Analysis of Hand Sanitization Products"

## Senior Division Place Winners

Projects that are selected as finalists received a gold plaque and a hooded sweatshirt and will advance to the ISEF in Phoenix Arizona in May and will exhibit their project.

Projects selected as alternates received a silver plaque and are alternates to the ISEF in Phoenix Arizona in May but will not exhibit their project unless a finalist from that region cannot attend.

## Northwest Region

1<sup>st</sup> Finalist: Nokomis Poitra, Trenton School District , "Survey Says"

2<sup>nd</sup> Finalist: Carson Hatter, Trenton School District , "The Energy In Trash"

3<sup>rd</sup> Finalist: Reese Nielson, Trenton School District , "Critters In Your Cooler"

1<sup>st</sup> Alternate: Kimberlie Gardea, Trenton School District , "Synthetic or Natural?"

2<sup>nd</sup> Alternate: Zachary Luallen, Tioga School District , "One Magnet To Bring Them All"

### **North Central Region**

1<sup>st</sup> Finalist: Roman Knudsvig, Berthold School District , "The Effects of Caffeine "

1<sup>st</sup> Alternate: Lanie Kunz, Berthold School District , "Diet and Attention Deficit Disorder"

2<sup>nd</sup> Alternate: Declan Ritterman, Leeds School District , "Exercise Your Brain"

### **Northeast Region**

1<sup>st</sup> Finalist: Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

1<sup>st</sup> Alternate: Wesley Kemp, Valley-Edinburg School District , "Shake, Rattle and Wave - How Seismic Waves Affect Structures"

2<sup>nd</sup> Alternate: John Heuchert, St. Thomas School District , "Fruit Power"

### **Southwest Central Region**

1<sup>st</sup> Finalist: Eric Spilman, Mandan School District , "Capturing Waste Energy from ND Oil Field Flares"

2<sup>nd</sup> Finalist: Dale Spilman, Mandan School District , "Wind Tunnel Demonstration of Airfoil Drag Reduction"

1<sup>st</sup> Alternate: Savanah Canen, Hebron School District , "An Exploration of Dactylography: How Many Ridge Characteristics Do Family Members Share?"

2<sup>nd</sup> Alternate: Juliann Spilman, Mandan School District , "Shielding Effect of Particulates on UV Disinfection of Greywater"

### **Southeast Central Region**

1<sup>st</sup> Finalist: Paige Schmidt, Kidder Co. Tappen School District , "The Identification of Parasites in Bovine Feces"

2<sup>nd</sup> Finalist: Katie Schmidt, Ashley School District , "Where to Go?"

1<sup>st</sup> Alternate: Cassidy Walth, Wishek School District , "The Chromatic Adaption Project"

2<sup>nd</sup> Alternate: Desa Sand, Ellendale School District , "Saving the World One Ranch at a Time"

### **Southeast Region**

1<sup>st</sup> Finalist: Braden Prochnow, Hankinson School District , "The Antibacterial Potential of Conifer Chemical Extracts"

1<sup>st</sup> Alternate: Benjamin Krump, Hankinson School District , "Acomparison of Natural Fertilizers with Added Decomposers"

2<sup>nd</sup> Alternate: Martin Krump, Hankinson School District , "The Effects of Pasteurization on Capra hircus Milk"

## **Junior Division Sweepstakes Winners**

The first place (Sweepstakes) winner received a gold state plaque, a \$125 cash award from the ND IDeA Network of Biomedical Research Excellence and a \$250 cash award in honorarium of Marcus J. Friskop from the Maddock High School Science Fair Alumni Students.

The second place (Sweepstakes Runner-Up) winner received a silver plaque and a \$75 cash award from the ND IDeA Network of Biomedical Research Excellence.

### **Junior Division 1<sup>st</sup> Place – Sweepstakes Winner**

Isabelle Chambers, Fargo Homeschool School District , "Improving Vision in Pseudophakic Uvetis Patient vis Photoactivation"

### **Junior Division 2<sup>nd</sup> Place - Sweepstakes Runner-Up**

Broden Diederich, Schroeder School District , "Programmed To Go"

## **Junior Division Place Winners**

All first and second place winners received a gold plaque. All third and fourth place winners receive a silver plaque.

### **Northwest Region**

1<sup>st</sup> Place: Elijah Nible, Trinity Christian School District , "Fire To Wire"

2<sup>nd</sup> Place: Ethan Decker, Trinity Christian School District , "Oil Absorbents"

3<sup>rd</sup> Place: Andra Smith, Trinity Christian School District , "Stop In The Name Of Lenz"

4<sup>th</sup> Place: Josh Watson, Trinity Christian School District , "Creative Change"

### **North Central Region**

1<sup>st</sup> Place: Malorie Sabo, Leeds School District , "The Substance that is Most Efficient in a Hydraulic System is..."

2<sup>nd</sup> Place: Zoe Lauckner, Leeds School District , "How to Make Tough Cuts of Meat Tender"

3<sup>rd</sup> Place: John Fischer, Leeds School District , "Which Parachutes Fall Slowest"

### **Northeast Region**

1<sup>st</sup> Place: Zoe Jiran, Schroeder School District , "BPM vs BPM"

2<sup>nd</sup> Place: Ryan Linstad, Lakota School District , "Do Plants and Soil Types Alter the Effect of Erosion?"

3<sup>rd</sup> Place: Mike Erickson, Schroeder School District , "The Need for Speed"

4<sup>th</sup> Place: Christie Stayman, Schroeder School District , "Fit to Kill"

### **Southwest Central Region**

1<sup>st</sup> Place: Pamela Nash, Strasburg School District , "Do Video Games Help Your Brain?"

2<sup>nd</sup> Place: Daniel Schumacher, Linton School District , "Brain Teaser"

3<sup>rd</sup> Place: Keagan Marshall, Wing School District , "To Till or Not to Till"

4<sup>th</sup> Place: Alex Vander Vorste, Strasburg School District , "Fungicides or NA"

### **Southeast Central Region**

1<sup>st</sup> Place: Bradyn Lachenmeier, Kidder Co. Tappen School District , "The Heat Content of Wood"

2<sup>nd</sup> Place: Madelyn Schmidt, Kidder Co. Tappen School District , "The Effect of Eye-Hand Dominance on Free Throw Percentages"

3<sup>rd</sup> Place: Calli Hauck, Ellendale School District , "Dewormer Deluxe"

4<sup>th</sup> Place: Brandon Hahne, Ellendale School District , "Artesian Well vs. Surface Well Quality"

### **Southeast Region**

1<sup>st</sup> Place: Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

2<sup>nd</sup> Place: Mandy Saxerud, Lisbon School District , "Candle Sense"

3<sup>rd</sup> Place Maezy Myers, Griggs County Central School District , "What's Growing on Your Smart Phone?"

4<sup>th</sup> Place: Abby Post, Hankinson School District , "The Impact of Marigolds on Garden Vegetables"

## **Agriculture/Soil Science**

### **North Dakota Soil Conservation District/Auxiliary**

Project Related to Soil Conservation

1 Winner: Senior Division: A Cash Award of \$150 And a Certificate

Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

### **North Dakota Soil Conservation District/Auxiliary**

Project Related to Soil Conservation

1 Winner: Senior Division: A Cash Award of \$50 And a Certificate

Tyler Blegen, Leeds School District , "Can Erosion be Stopped"

### **North Dakota Soil Conservation District/Auxiliary**

Project Related to Soil Conservation

1 Winner: Junior Division: A Cash Award of \$150 And a Certificate

Hannah Fischer, Wing School District , "Soil Stabilizer"

### **North Dakota Soil Conservation District/Auxiliary**

Project Related to Soil Conservation

1 Winner: Junior Division: A Cash Award of \$50 And a Certificate

Ethan Decker, Trinity Christian School District , "Oil Absorbents"

### **Farmers Union Insurance - North Dakota**

Project Related to Agriculture

2 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Brendin Monge, Belfield School District , "Horse Hoof Growth"

Benjamin Krump, Hankinson School District , "Acomparison of Natural Fertilizers with Added Decomposers"

### **Farmers Union Insurance - North Dakota**

Project Related to Agriculture

2 Winners: Junior Division: A Cash Award of \$25 And a Certificate

Abby Post, Hankinson School District , "The Impact of Marigolds on Garden Vegetables"

Calli Hauck, Ellendale School District , "Dewormer Deluxe"

## **Chemistry/Biochemistry**

### **UND Department of Chemistry**

Project in Chemistry

1 winner: Junior Division: Monetary award of \$50 and a certificate

Brody LaRoque, Trenton School District , "Pollution Conclusion"

### **UND Department of Chemistry**

Project in Chemistry

1 winner: Senior Division: Monetary award of \$100 and a certificate

Braden Prochnow, Hankinson School District , "The Antibacterial Potential of Conifer Chemical Extracts"

### **American Association for Clinical Chemistry**

Project in Clinical Chemistry

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Alexis Keller, Mandan School District , "Sunscreen Alternative"

### **American Chemical Society-Red River Valley Section**

Project in Field of Chemistry

1 Winner: Junior or Senior Division: A \$100 Barnes and Noble Gift Card, A 5-in-1 Pen, And a Certificate

Kiana Schatz, Hebron School District , "Does Coffee Stain Teeth?"

### **NDSSEF Association**

Project in Biochemistry

2 Winners: Junior Division: A Cash Award of \$50 And A Certificate

Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

Abby Post, Hankinson School District , "The Impact of Marigolds on Garden Vegetables"

### **NDSSEF Association**

Project in Biochemistry

1 Winner: Senior Division: A Cash Award of \$50 And A Certificate

Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

## Dentistry/Optomety

### **North Dakota Dental Foundation**

Project Related to Dentistry

2 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Kyrsten Sherlock , Griggs County Central School District , "Do Foods Cause bacteria in Your Mouth to Grow?"

Jade Schothauer, East Fairview School District , "Rethink What You Drink"

### **North Dakota Dental Foundation**

Project Related to Dentistry

2 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Kiana Schatz, Hebron School District , "Does Coffee Stain Teeth?"

Mya Vetter, Linton School District , "An Anaylsis of ND Medicinal Plants as Used by Native Americans"

### **NDSSEF Association**

Project in Field of Vision and Eye Care

1 Winner: Senior Division: A Cash Award of \$50 And A Certificate

Cassidy Walth, Wishek School District , "The Chromatic Adaption Project"

### **NDSSEF Association**

Project in Field of Vision and Eye Care

1 Winner: Junior Division: A Cash Award of \$50 And A Certificate

Heather Schwartz, Schroeder School District , "Colors Help"

## Earth/Atmospheric Sciences

### **UND Department of Atmospheric Sciences**

Project in Atmospheric Sciences

1 winner: Junior or Senior Division: Monetary award of \$75 and a certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

### **UND Department of Geography**

Project in Geography

1 winner: Junior Division: Monetary award of \$50 and a certificate

Paul Hardy, East Fairview School District , "Ice Ice Baby"

### **UND Department of Geography**

Project in Geography

1 winner: Senior Division: Monetary award of \$50 and a \$100 scholarship for Geography Major Student and a certificate

Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

### **UND Harold Hamm School of Geology & Geological Engineering**

Project in Geology/Geological Engineering

1 winner: Junior Division: Monetary award of \$100 and a certificate

Elijah Nible, Trinity Chrisitan School District , "Fire To Wire"

## **UND Harold Hamm School of Geology & Geological Engineering**

Project in Geology/Geological Engineering

1 winner: Senior Division: Monetary award of \$100 and a certificate

Eric Spilman, Mandan School District , "Capturing Waste Energy from ND Oil Field Flares"

## **American Society of Photogrammetry and Remote Sensing, Heartland Region**

Project in the Field of Geospatial Mapping or Earth Science

1 Winner: Senior Division: Monetary Award of \$100 And a Certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

## **North Dakota Geological Society**

Project in Field of Geology or Earth Science

1 Winner: Junior Division: A Cash Award of \$50 And a Certificate

Ryan Linstad, Lakota School District , "Do Plants and Soil Types Alter the Effect of Erosion?"

## **North Dakota Geological Society**

Project in Field of Geology or Earth Science

1 Winner: Senior Division: A Cash Award of \$50 And a Certificate

Desa Sand, Ellendale School District , "Saving the World One Ranch at a Time"

## **American Meteorological Society**

Project Related to Meteorology

2 Winners: Junior or Senior Division: A Certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

Paul Hardy, East Fairview School District , "Ice Ice Baby"

## **Association For Women Geoscientists**

Project Related to Geosciences

1 Winner (Must Be A Female Exhibitor): Junior or Senior Division: A Certificate

Bailey Hulm, Linton School District , "Volcanic Ash Concrete"

## **National Oceanic & Atmospheric Administration**

Project Related to Improved Understanding of the Earth's Processes

1 Winner: Junior Division: A Certificate And A Medallion

Hannah Fischer, Wing School District , "Soil Stabilizer"

## **NASA Earth System Science Award**

Project Related to Earth's Interconnected System

1 Winner: Junior or Senior Division: A Certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

# Energy/Power/Electricity

## **UND Energy and Environmental Research Center**

Project in Energy, Power, and Electricity

1 Winner: Senior Division: Monetary award of \$100 and a certificate  
Sean Loken, Wishek School District , "Solar Engine Applications IV"

## **Otter Tail Power Company**

Project Related to Energy or Electricity

3 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Rodrigo Martinez Jr., Kidder Co. Tappen School District , "The Effect of Mass and Charge Pressure on Projectile Range Part 2"

John Heuchert, St. Thomas School District , "Fruit Power"

Evan Follman, Leeds School District , "Solar Mirrors"

## **Otter Tail Power Company**

Project Related to Energy or Electricity

2 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Elijah Nible, Trinity Chrisitan School District , "Fire To Wire"

Brandon Morten, Lakota School District , "Which 6 Volt Battery Provides The Best Electrical Current to Power a Motor?"

## **Xcel Energy**

Project Related to Energy or Electricity

3 Winners: Junior Division: A Cash Award of \$25 And a Certificate

David Steinke, Hope-Page School District , "LED Lights to the Test"

Ella Farida, Glen Ullin School District , "Batteries Made Cents"

Adam Swartz, Schroeder School District , "Tap It!"

## **Xcel Energy**

Project Related to Energy or Electricity

3 Winners: Senior Division: A Cash Award of \$25 And a Certificate

Alec Stroh, Kidder Co. Tappen School District , "Diesel and Gas Combo"

Nathan Elverud, Leeds School District , "Best Fan Setup"

Carson Hatter, Trenton School District , "The Energy In Trash"



# Engineering

## **UND School of Engineering & Mines**

Project in Engineering

1 Winner: Junior Division: Monetary award of \$100 and a certificate  
Mandy Saxerud, Lisbon School District , "Candle Sense"

## **UND School of Engineering & Mines**

Project in Engineering

1 Winner: Senior Division: Monetary award of \$200 and a certificate  
Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

## **UND Department of Petroleum Engineering**

Project in Engineering

1 winner: Senior Division: Monetary award of \$50 and a certificate  
Eric Spilman, Mandan School District , "Capturing Waste Energy from ND Oil Field Flares"

## **UND College of Engineering & Mines**

Project in Engineering (Female)

1 Winner: Senior Division: A \$500 scholarship for female student in Engineering and a certificate  
Madison Goetzfridt, Mandan School District , "The Eye of the Beholder: Creating a New Prototype of a Medical Infusion Pump"

## **Society of Automotive Engineers**

Project in Mobility Engineering

1 Winner: Junior Division: A Cash Award of \$100 And a Certificate  
Broden Diederich, Schroeder School District , "Programmed To Go"

## **Society of Automotive Engineers**

Project in Mobility Engineering

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate  
Dale Spilman, Mandan School District , "Wind Tunnel Demonstration of Airfoil Drag Reduction"

## **ASM Materials Education Foundation**

Project in Materials Engineering

1 Winner: Junior or Senior Division: A Medallion And A Certificate  
Rio Falcon, Trenton School District , "Drink It & Wear It"

# Engineering (Chemical)

## **UND Department of Chemical Engineering**

Project in Chemical Engineering

1 winner: Junior Division: Monetary award of \$50 and a certificate  
Makenna Binder, Kidder Co. Tappen School District , "Heat Content in Foods"

## **UND Department of Chemical Engineering**

Project in Chemical Engineering

1 winner: Senior Division: Monetary award of \$50 and a certificate  
Adam Fischer, Leeds School District , "Water Purity"

## **Engineering (Electrical)**

### **Dr. Richard Schultz Award - UND Department of Electrical Engineering**

Project in Electrical Engineering

1 winner: Junior Division: Monetary award of \$50 and a certificate and a bag  
Adam Swartz, Schroeder School District , "Tap It!"

### **Dr. Richard Schultz Award - UND Department of Electrical Engineering**

Project in Electrical Engineering

1 winner: Senior Division: Monetary award of \$50 and a certificate and a bag  
Sean Loken, Wishek School District , "Solar Engine Applications IV"

## **Engineering (Mechanical)**

### **UND Department of Mechanical Engineering**

Project in Mechanical Engineering

1 Winner: Junior Division: Monetary award of \$50 and a certificate  
John Fischer, Leeds School District , "Which Parachutes Fall Slowest"

### **UND Department of Mechanical Engineering**

Project in Mechanical Engineering

1 Winner: Senior Division: Monetary award of \$50 and a certificate  
Madison Goetzfridt, Mandan School District , "The Eye of the Beholder: Creating a New Prototype of a Medical Infusion Pump"

## **Environmental Science**

### **Coalition For Conservation & Environmental Education**

Outstanding Environmental Project

1 Winner: Senior Division: A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate  
Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

### **Coalition For Conservation & Environmental Education**

Outstanding Environmental Project

1 Winner: Junior Division: A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate  
Abby Post, Hankinson School District , "The Impact of Marigolds on Garden Vegetables"

### **Ricoh Corporation**

Project Related to Environmentally Friendly Businesses

1 Winner: Senior Division: A Certificate  
Desa Sand, Ellendale School District , "Saving the World One Ranch at a Time"

### **NDSSEF Association**

Project Related to Environmental Remediation

1 Winner: Junior Division: A Cash Award of \$50 And A Certificate

Brody LaRoque, Trenton School District , "Pollution Conclusion"

### **NDSSEF Association**

Project Related to Environmental Remediation

1 Winner: Senior Division: A Cash Award of \$50 And A Certificate

Tyler Blegen, Leeds School District , "Can Erosion be Stopped"

### **UND School of Engineering & Mines**

Project in Energy/Environmental Science

1 Winner: Senior Division: Monetary award of \$100 and a certificate

Eric Spilman, Mandan School District , "Capturing Waste Energy from ND Oil Field Flares"

### **UND School of Engineering & Mines**

Project in Energy/Environmental Science

1 Winner: Junior Division: Monetary award of \$50 and a certificate

Tavon Stadler, Griggs County Central School District , "How Wind Turbine Blade Size Affects the Amount of Energy Produced"

## **Human Nutrition/Nursing**

### **UND Department of Nutrition & Dietetics**

Project in Nutrition and Food Science

1 winner: Junior Division: Monetary award of \$25 and a certificate

Zoe Lauckner, Leeds School District , "How to Make Tough Cuts of Meat Tender"

### **UND Department of Nutrition & Dietetics**

Project in Nutrition and Food Science

1 winner: Senior Division: Monetary award of \$50 and a \$250 scholarship and a certificate

Martin Krump, Hankinson School District , "The Effects of Pasteurization on Capra hircus Milk"

### **Hot Cakes Café Excellence in Science Award**

Project That Has Emphasis on Food Quality or Food Safety

1 Winner: Junior or Senior Division: A Cash Award of \$25 And a Certificate

Reese Nielson, Trenton School District , "Critters In Your Cooler"

## ISEF Alumni

### ISEF Alumni

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division: A Cash Award of \$150 And a Certificate

Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

### ISEF Alumni

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division: A Cash Award of \$150 And a Certificate

Sean Loken, Wishek School District , "Solar Engine Applications IV"

## Life Sciences

### UND Department of Biomedical Sciences

Project in Area of Life Sciences (Priority to Molecular Biology Project)

2 winners: Junior Division: Monetary award of \$50 and a certificate

Maezy Myers, Griggs County Central School District , "What's Growing on Your Smart Phone?"

Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

### UND Department of Biomedical Sciences

Project in Area of Life Sciences (Priority to Molecular Biology Project)

2 winners: Senior Division: Monetary award of \$50 and a certificate

Martin Krump, Hankinson School District , "The Effects of Pasteurization on Capra hircus Milk"

Mya Vetter, Linton School District , "An Anaylsis of ND Medicinal Plants as Used by Native Americans"

### UND Department of Biology

Project in Biology

1 winner: Junior Division: Monetary award of \$50 and a certificate

Colton Beeson, Hankinson School District , "Effects of Unique Growth Stimulants on Garden Peas"

### UND Department of Biology

Project in Biology

1 winner: Senior Division: Monetary award of \$100 and a \$300 scholarship and a certificate

Chase Bladow, Hankinson School District , "The Production of a Natural Potato Insecticide Derived from Capsaicin"

### North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Brendin Monge, Belfied School District , "Horse Hoof Growth"

### North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: A Cash Award of \$75 And a Certificate

Paige Schmidt, Kidder Co. Tappen School District , "The Identification of Parasites in Bovine Feces"

### **North Dakota Veterinary Medical Association**

Project Related to Veterinary Medicine

1 Winner: Junior Division: A Cash Award of \$25 And a Certificate  
Afton Shypkoski, Belfield School District , "Catalase Within an Animal"

### **Auxiliary to the North Dakota Veterinary Medical Association**

Project Related to Veterinary Medicine

1 Winner: Junior Division: A Cash Award of \$50 And a Certificate  
Calli Hauck, Ellendale School District , "Dewormer Deluxe"

### **NDSSEF Association**

Project in Botany

1 Winner: Junior Division: A Cash Award of \$50 And A Certificate  
Alex Vander Vorste, Strasburg School District , "Fungicides or NA"

### **NDSSEF Association**

Project in Botany

1 Winner: Senior Division: A Cash Award of \$50 And A Certificate  
Jacob Hanson, Berthold School District , "The Practicality of Hydroponics"

## **Mathematics/Computer Science**

### **UND Department of Computer Science**

Project in Computer Science

1 winner: Junior Division: Monetary award of \$50 and a certificate  
Broden Diederich, Schroeder School District , "Programmed To Go"

### **UND Department of Computer Science**

Project in Computer Science

1 winner: Senior Division: Monetary award of \$50 and a certificate  
Evan Follman, Leeds School District , "Solar Mirrors"

### **UND Department of Mathematics**

Project in Mathematics

1 winner: Junior Division: Monetary award of \$50 and a certificate  
Mike Erickson, Schroeder School District , "The Need for Speed"

### **UND Department of Mathematics**

Project in Mathematics

1 winner: Senior Division: Monetary award of \$100 and a \$500 scholarship and a certificate  
Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

### **Intel Excellence In Computer Science**

Project in Computer Science Category

1 Winner: Senior Division: A Cash Award of \$200 And A Certificate  
Sean Loken, Wishek School District , "Solar Engine Applications IV"

## **Mu Alpha Theta**

Project Involving Modern Mathematics

1 Winner: Senior Division: A Certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

## **Medicine/Health**

### **UND School of Medicine & Health Sciences**

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary award of \$100 and a certificate

Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

### **UND School of Medicine & Health Sciences**

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary award of \$50 and a certificate

Megan Jacobson , Schroeder School District , "Brain Fire and Brain Freeze"

### **UND School of Medicine & Health Sciences**

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary award of \$100 and a certificate

Madelyn Schmidt, Kidder Co. Tappen School District , "The Effect of Eye-Hand Dominance on Free Throw Percentages"

### **UND Department of Biomedical Sciences**

Project in Medical or Health Sciences

1 winner: Junior Division: Monetary award of \$100 and a certificate

Megan Kvernum, Trinity Christian School District , "Comparing Humalog & Novolog"

### **UND Department of Biomedical Sciences**

Project in Medical or Health Sciences

1 winner: Senior Division: Monetary award of \$100 and a certificate

Alexis Keller, Mandan School District , "Sunscreen Alternative"

### **UND Pathology Department & ND IDeA Network of Biomedical Research Excellence**

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary award of \$100 and a certificate

Chase Bladow, Hankinson School District , "The Production of a Natural Potato Insecticide Derived from Capsaicin"

### **UND Pathology Department & ND IDeA Network of Biomedical Research Excellence**

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary award of \$100 and a certificate

Kasi Holm, Ellendale School District , "Probiotic"

### **North Dakota Academy of Family Physicians**

Project Related to Medicine

1 Winner: Senior Division: A Cash Award of \$50 And a Certificate

Madison Goetzfridt, Mandan School District , "The Eye of the Beholder: Creating a New Prototype of a Medical Infusion Pump"

### **North Dakota Society for Clinical Laboratory**

Project Related to Laboratory Medicine

3 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Martin Krump, Hankinson School District , "The Effects of Pasteurization on Capra hircus Milk"

Katelyn Nelsen, Leeds School District , "Slay the Strep"

Kimberlie Gardea, Trenton School District , "Synthetic or Natural?"

### **North Dakota Society for Clinical Laboratory**

Project Related to Laboratory Medicine

3 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Maezy Myers, Griggs County Central School District , "What's Growing on Your Smart Phone?"

Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

Tucker Schiele, Wing School District , "The Electrolyte Challenge"

## **Microbiology/Pharmacology**

### **UND Department of Biomedical Sciences**

Project in Area of Life Sciences (Priority to Microbiology Project)

2 winners: Junior Division: Monetary award of \$50 and a certificate

Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

Maezy Myers, Griggs County Central School District , "What's Growing on Your Smart Phone?"

### **UND Department of Biomedical Sciences**

Project in Area of Life Sciences (Priority to Microbiology Project)

2 winners: Senior Division: Monetary award of \$100 and a certificate

Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

Brock Theede, Hankinson School District , "The Production of a Natural Fungicide Derived from Family Lamiaceae"

### **UND Department of Biomedical Sciences**

Project in Medical or Health Sciences (Priority to Pharmacology Project)

1 winner: Junior Division: Monetary award of \$100 and a certificate

Dylan Benson, Hankinson School District , "A Microbiological Analysis of Citrus"

### **UND Department of Biomedical Sciences**

Project in Medical or Health Sciences (Priority to Pharmacology Project)

1 winner: Senior Division: Monetary award of \$100 and a certificate

Riley McLean, St Mary's-Bismarck School District , "Can the Metastatic Potential of Cancer be Predicted?"

## **North Dakota Pharmacists Association**

Project in Field of Pharmacology

1 Winner: Junior Division: A Cash Award of \$75 And a Certificate

Maezy Myers, Griggs County Central School District , "What's Growing on Your Smart Phone?"

## **North Dakota Pharmacists Association**

Project in Field of Pharmacology

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Josianna Prochnow, Hankinson School District , "A Bacterial Analysis of Hand Sanitization Products"

## **Navy**

### **Navy**

Project (All Categories Considered)

3 Winners: Senior Division: An Educational Recognition Award Valued at \$75, A Medallion, And a Certificate

Rodrigo Martinez Jr., Kidder Co. Tappen School District , "The Effect of Mass and Charge Pressure on Projectile Range Part 2"

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

Alec Stroh, Kidder Co. Tappen School District , "Diesel and Gas Combo"

### **Navy**

Project (All Categories Considered)

3 Winners: Junior Division: A Medallion And a Certificate

Tucker Schiele, Wing School District , "The Electrolyte Challenge"

John Fischer, Leeds School District , "Which Parachutes Fall Slowest"

Madelyn Schmidt, Kidder Co. Tappen School District , "The Effect of Eye-Hand Dominance on Free Throw Percentages"

## **North Dakota Army National Guard**

### **North Dakota Army National Guard**

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Junior Division: A Duffle Bag With Assortment of Items

Isabelle Chambers, Fargo Homeschool School District , "Improving Vision in Pseudophakic Uvetis Patient vis Photoactivation"

### **North Dakota Army National Guard**

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Junior Division: A Backpack With Assortment of Items

Elijah Nible, Trinity Chrisitan School District , "Fire To Wire"

### **North Dakota Army National Guard**

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Senior Division: A Duffle Bag With Assortment of Items

Branden Skjoiten, Hankinson School District , "A chemical and Plant Analysis of Lake Elsier"



## **North Dakota Army National Guard**

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Senior Division: A Backpack With Assortment of Items

Joshua Clark, Mandan School District , "Affect of Music on an Athlete's Efficiency"

## **United States Air Force**

### **Air Force**

Project That Has Applications Useful to Air Force

4 Winners: Junior or Senior Division: An Over-the-Shoulder Sling Pack, Power Bank Charger, Dog Tag USB Flash Memory Drive, a Dual USB Car Charger, And a Certificate

Rodrigo Martinez Jr., Kidder Co. Tappen School District , "The Effect of Mass and Charge Pressure on Projectile Range Part 2"

Dale Spilman, Mandan School District , "Wind Tunnel Demonstration of Airfoil Drag Reduction"

Tavon Stadler, Griggs County Central School District , "How Wind Turbine Blade Size Affects the Amount of Energy Produced"

Roman Knudsvig, Berthold School District , "The Effects of Caffeine "

## **Physics/Astronomy**

### **UND Department of Physics & Astrophysics**

Project in Physics & Astronomy

1 winner: Junior Division: Monetary award of \$100 and a certificate

Andra Smith, Trinity Christian School District , "Stop In The Name Of Lenz"

### **UND Department of Physics & Astrophysics**

Project in Physics & Astronomy

1 winner: Senior Division: Monetary award of \$100 and a \$500 scholarship and a certificate

Zachary Luallen, Tioga School District , "One Magnet To Bring Them All"

### **North Dakota Physics Teachers**

Project in Area of Physics or Physical Science

1 Winner: Senior Division: A Cash Award of \$20, T-Shirt, And a Certificate

Caleb Page, Trinity Christian School District , "How Geomagnetisium Storms Affect WAAG & GPS"

### **North Dakota Physics Teachers**

Project in Area of Physics or Physical Science

1 Winner: Junior Division: A Cash Award of \$20, T-Shirt, And a Certificate

Maximilian Reichert, Schroeder School District , "Stealing the Hope Diamond"

### **United States Metric Association**

Project Using Metric System for Measurements

5 Winners: Junior or Senior Division: A Certificate

Rodrigo Martinez Jr., Kidder Co. Tappen School District , "The Effect of Mass and Charge Pressure on Projectile Range Part 2"

Mandy Saxerud, Lisbon School District , "Candle Sense"

Malorie Sabo, Leeds School District , "The Substance that is Most Efficient in a Hydraulic System is..."

Mike Erickson, Schroeder School District , "The Need for Speed"

David Steinke, Hope-Page School District , "LED Lights to the Test"

## **Social/Behavioral Sciences**

### **UND Department of Psychology**

Project in Psychology or Behavioral Science

2 winners: Junior Division: Monetary award of \$100 each and a certificate

Heather Schwartz, Schroeder School District , "Colors Help"

Jayden Sherrard, Griggs County Central School District , "Does Practice Make Perfect?"

### **UND Department of Psychology**

Project in Psychology or Behavioral Science

2 winners: Senior Division: Monetary award of \$100 each and a certificate

Chantel Kessel, Belfield School District , "Natural or Nothing"

Kellan Benson, Hankinson School District , "Communication Methods' Influence on Reaction Speed"

### **Virginia George Inheritance Fund**

Project in Social or Behavioral Science

1 Winner: Senior Division: Monetary award of \$125 and a certificate

Cassidy Walth, Wishek School District , "The Chromatic Adaption Project"

### **Virginia George Inheritance Fund**

Project in Social or Behavioral Science

1 Winner: Junior Division: Monetary award of \$75 and a certificate

Kyrsten Sherlock , Griggs County Central School District , "Do Foods Cause bacteria in Your Mouth to Grow?"

### **Association of North Dakota Geographers**

Project in Human-Environment Interaction

1 Winner: Senior Division: Monetary award of \$125 and a certificate

Erin Jorgenson, Leeds School District , "Does Weather Affect your Mood"

### **American Psychological Association**

Project Related to Psychology

1 Winner: Junior or Senior Division: A Certificate

Bryce Goettle, Ashley School District , "Rotation Perception"

## Sweepstakes

### **Yale Science And Engineering Association**

Project in Areas of Computer Science, Engineering, Physics, or Chemistry

1 Winner: Senior Division: A Medallion And A Certificate

Eric Spilman, Mandan School District , "Capturing Waste Energy from ND Oil Field Flares"

## Water Quality

### **American Water Works Association**

Project Related to Drinking Water Quality

1 Winner: Junior Division: A Cash Award of \$75 And a Certificate

Brandon Hahne, Ellendale School District , "Artesian Well vs. Surface Well Quality"

### **American Water Works Association**

Project Related to Drinking Water Quality

1 Winner: Senior Division: A Cash Award of \$75 And a Certificate

Branden Skjoiten, Hankinson School District , "A chemical and Plant Analysis of Lake Elsier"

### **North Dakota Water Environment Association**

Project Related to Water Quality

1 Winner: Senior Division: A Cash Award of \$75 And a Plaque

Juliann Spilman, Mandan School District , "Shielding Effect of Particulates on UV Disinfection of Greywater"

### **North Dakota Water Environment Association**

Project Related to Water Quality

1 Winner: Junior Division: A Cash Award of \$75 And a Plaque

Keagan Marshall, Wing School District , "To Till or Not to Till"

### **North Dakota Rural Water Systems Association**

Project Related to Water Quality

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Alyssa Kemp, Cavalier School District , "Dynamic River Dikes - A Study of the Effects of Channel Grade on Agricultural Dikes"

### **Water Environment Federation**

Project Related to Water Quality or Water Conditions

1 Winner: Junior or Senior Division: A Certificate

Desa Sand, Ellendale School District , "Saving the World One Ranch at a Time"