# 2014 Final Awards - ND State Science and 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 Los Angeles 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 Los Angeles 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 Los Angeles California and will exhibit his/her project.

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

Gage Metzen, Hankinson School District , "The Natural Decontamination of Industrial and Agricultural Water"

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

Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

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

Grady Mauch, Hankinson School District, "The Fungicidal Impact of Detrimental Weeds on Soybeans"

#### **Senior Division Place Winners**

All first and second place winners received a gold plaque and a hooded sweatshirt and will advance to the ISEF in Los Angeles California in May and will exhibit their project.

All third and fourth place winners received a silver plaque and are alternates to the ISEF in Los Angeles California in May but will not exhibit their project unless a first or second place winner cannot attend.

#### **Norhtwest Region**

 $1^{st}$  Place - Symbria Bell, New Town School District , "Is Lake Sakakawea As Healthy As It Should Be?"

2<sup>nd</sup> Place - Kelsey Guttormson, Tioga School District, "Hello My Name Is... Happy!"

3<sup>rd</sup> Place - Ryan Joyce, Tioga School District, "Power Struggle"

4<sup>th</sup> Place - Chevenne Liedle, Tioga School District, "Oink Oink"

## **North Central Region**

- 1<sup>st</sup> Place Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine, and Glucose on the Adenosine Circadian Cycle"
- $2^{nd}$  Place Paul Eapen, Our Redeemer Christian School School District , "A Novel Simple Identification Method for Urinary Stones"
- 3<sup>rd</sup> Place Preston Miller, Sawyer School District, "Vortexing Magnetic Fields" (1<sup>st</sup> Place Winner is the only presenter from region at ISEF.)

## **Northeast Region**

- $1^{st}$  Place Devarshi Patel, Red River School District , "Molecular Biology of Selenoenzymes in Prevention of Mercury Toxicity"
- 2<sup>nd</sup> Place Morgan Ellingson, Valley/Edinburg School District , "The Relative Effects of Curcuminoids on HPV (positive and negative) Cervical Cancer Cells"
- 3<sup>rd</sup> Place Shelby Cyr, Valley/Edinburg School District, "The Effects of Soluble Versus Fibrillar A beta Peptide on Polyamine Synthesis in Neural Tissue- Relevance to Alzheimer's Disease" (1<sup>st</sup> Place Winner is the only presenter from region at ISEF.)

## **Southwest Central Region**

- 1st Place Dale Spilman, Mandan School District, "Fungus Amongus"
- 2<sup>nd</sup> Place Seth Obritsch, Belfield School District , "Supplementing Cattle: Is it really worth it? Feeding Heifers in a ND Winter"
- 3<sup>rd</sup> Place Andrew Hulm, Strasburg School District, "Helianthus Annuus Incendium"
- 4<sup>th</sup> Place Savanah Canen, Hebron School District , "How Sleep Deprivation Affects Your Reactions"

## **Southeast Central Region**

- $1^{\text{st}}$  Place Tyler Toepke-Floyd, Wishek School District , "Emission Reduction Using an Activated Carbon Supplement"
- 2<sup>nd</sup> Place Sean Loken, Wishek School District, "Solar Engine Applications II"
- 3<sup>rd</sup> Place Hunter Pinke, Wishek School District, "Impact Damage of Hail on Shingles"
- 4<sup>th</sup> Place Rigo Martinez Jr., Kidder Co. Tappen School District, "The Speed of Propeller Blades"

#### **Southeast Region**

- $1^{st}$  Place Carter Mauch, Hankinson School District , "The Insecticidal Properties of Noxious Weeds"
- $2^{nd}$  Place Brennen Boll, Hankinson School District , "The Observation of Growth Enhancers on the Development and Meat Quality of Sus scrofa"
- 3<sup>rd</sup> Place Tayson O'Hara, Hankinson School District, "Bacteriostatic Properties of Tree Leaves"
- 4<sup>th</sup> Place Wyatt Wilm, Hankinson School District, "An Analysis of Human Distraction"

#### **Junior Division Sweepstakes Winners**

The first place (Sweepstakes) winner received a gold state plaque, a \$100 cash award from the University of North Dakota School of Graduate Studies, 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 \$50 cash award from the University of North Dakota Graduate Studies.

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

Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

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

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing Sediment in our Streams"

#### **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**

- 1st Place Thaddeus Moore, Trinity Christian School District, "Laws Of Light"
- 2<sup>nd</sup> Place Joel Kletke, Trinity Christian School District, "Toxic Environment"
- 3<sup>rd</sup> Place Abigail Larson, Tioga School District, "What Color Is Your Blood Pressure?"
- 4<sup>th</sup> Place Nicole Postovit, Tioga School District, "Hands That Kill"

## **North Central Region**

- 1st Place Emma Howe, Velva School District, "Did You Hear That"
- 2<sup>nd</sup> Place Noah Christman, Berthold School District, "Pop Can Heater"
- 3<sup>rd</sup> Place Keaton Nelsen, Leeds School District, "How To Make Grass Not Grow So Fast"
- 4<sup>th</sup> Place Evan Follman, Leeds School District, "Robots and Ultrasonic Sensors"

#### **Northeast Region**

- 1st Place Maia Jackson, Schroeder School District, "Bad to the Bone"
- 2<sup>nd</sup> Place Wesley Kemp, Valley Edinburg School District, "Calculating the Crash-Comparison of Collision & Impulse for Different Materials"
- 3<sup>rd</sup> Place Micah Setness, Park River School District, "Corrosive Clash"
- 4<sup>th</sup> Place Francie Shaft, Schroeder School District, "Molten Mitten"

#### **Southwest Central Region**

- 1<sup>st</sup> Place Adam Hulm, Strasburg School District, "Which Soil Retains the Most Water"
- $2^{nd}$  Place Mattie Milford, Bismarck Homeschool School District , "Which Rocks Work Best for Roads"
- 3<sup>rd</sup> Place Abbigale Steeke, Scranton School District, "Go Away Bacteria"
- 4<sup>th</sup> Place Sam Dart, Grant County School District, "Supercooling & the Mpemba Effect"

## **Southeast Central Region**

- 1st Place Olivia Byerley, Ellendale School District, "Busting Bristle Bacteria"
- 2<sup>nd</sup> Place Yuliet Monatukwa, Ellendale School District, "Bacteria Among Us"
- 3<sup>rd</sup> Place -- Casey Durheim, Ellendale School District, "Wipes in the Pipes"
- 4<sup>th</sup> Place Chase Bader, Wishek School District, "Shaping Your Thoughts"

## **Southeast Region**

- 1<sup>st</sup> Place Branden Skjoiten, Hankinson School District, "A Chemical and Biological Analysis of Lake Water Decontamination"
- $2^{nd}\,\text{Place}$  Abbey Simonson, Oak Grove Middle School School District , "Effects of Chemicals on Daphnia"
- 3<sup>rd</sup> Place Jeremy Liljenquist, Griggs County Central School District , "Bringing Saline and Sodic Soils to Life"
- 4<sup>th</sup> Place Cody Mauch, Hankinson School District, "The Effects of Natural Products on Glycine max Production"

# Agriculture/Soil Science

#### **UND School of Graduate Studies**

Project Related to Agriculture

1 Winner: Junior Division : Received A Monetary Award of \$50 And a Certificate Cody Mauch, Hankinson School District , "The Effects of Natural Products on Glycine max Production"

#### **UND School of Graduate Studies**

Project Related to Agriculture

1 Winner: Senior Division: Received A Monetary Award of \$100 And a Certificate Brennen Boll, Hankinson School District, "The Observation of Growth Enhancers on the Development and Meat Quality of Sus scrofa"

#### Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Senior Division: Received A Cash Award of \$50 And a Certificate Carter Mauch, Hankinson School District, "The Insecticidal Properties of Noxious Weeds" Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

#### Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Junior Division: Received A Cash Award of \$25 And a Certificate Ben Krump, Hankinson School District, "Effect of Natural Fertilizers on the Native Prairie" Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

#### North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Senior Division : Received A Cash Award of \$150 And a Certificate Grady Mauch, Hankinson School District , "The Fungicidal Impact of Detrimental Weeds on Soybeans"

## North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

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

Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa

decemlineata and Solanum tuberosum"

## North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

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

Jeremy Liljenquist, Griggs County Central School District, "Bringing Saline and Sodic Soils to Life"

### North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

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

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing

Sediment in our Streams"

## Air Force

#### **United States Air Force**

Project That Has Applications Useful to Air Force

4 Winners: Junior or Senior Division: Received A Laptop Backpack, Traveling Ear buds and Case,

A Rotating Flashdrive, a 4 Port Hub, And a Certificate

Nathaniel Geestman, Linton School District, "Popularity Contest"

Shelby Cyr, Valley/Edinburg School District, "The Effects of Soluble Versus Fibrillar A beta

Peptide on Polyamine Synthesis in Neural Tissue- Relevance to Alzheimer's Disease"

Max Freed, Trinity Christian School District, "Ballistic About Aerogel"

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine,

and Glucose on the Adenosine Circadian Cycle"

# Army

#### **United States Army**

Project (All Categories Considered)

1 Winner: Senior Division : Received A Backpack, A Nalgene Water Bottle, A Notebook, And a Certificate

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon Supplement"

# Chemistry/Biochemistry

## **UND Department of Chemistry**

Project in the Chemistry Category

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

Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

## **UND Department of Chemistry**

Project in the Chemistry Category

1 Winner: Senior Division: Received A Monetary Award of \$100, A \$300 Scholarship, And a

Certificate

Devarshi Patel, Red River School District, "Molecular Biology of Selenoenzymes in Prevention of

Mercury Toxicity"

## **American Association for Clinical Chemistry**

**Project in Clinical Chemistry** 

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

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine,

and Glucose on the Adenosine Circadian Cycle"

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

Project in Field of Chemistry

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

And a Certificate

Symbria Bell, New Town School District, "Is Lake Sakakawea As Healthy As It Should Be?"

#### **NDSSEF Association**

Project in Biochemistry

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

Shelby Cyr, Valley/Edinburg School District, "The Effects of Soluble Versus Fibrillar A beta

Peptide on Polyamine Synthesis in Neural Tissue- Relevance to Alzheimer's Disease"

# Dentistry/Optometry

#### **North Dakota Dental Foundation**

Project Related to Dentistry

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

Hayden Boll, Hankinson School District, "A Comparative Analysis of Various Toothpastes"

## **North Dakota Dental Foundation**

Project Related to Dentistry

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

Madysen Houle, Trenton School District, "Human vs. Canine"

Paige Buck, Hankinson School District, "What Should Your Enamel be Wearing?"

## **North Dakota Optometric Association**

Project in Field of Optometry

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

Micayla Erdahl, Velva School District, "What "Eye" See"

Danielle Durand, Valley/Edinburg School District, "Correlation Between Eye Color and Sensitivity

to Bright Light"

# Earth/Atmospheric Sciences

## **UND Department of Atmospheric Sciences**

Project in the Field of Atmospheric Science

1 Winner: Junior or Senior Division: Received A Monetary Award of \$75 And a Certificate

Sam Dart, Grant County School District, "Supercooling & the Mpemba Effect"

## **UND Odegard School of Aerospace Sciences**

Project in Earth (Geology/Geography and Atmospheric Sciences)

1 Winner: Junior Division: Received A Monetary Award of \$100 And a Certificate

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing

Sediment in our Streams"

#### **UND Odegard School of Aerospace Sciences**

Project in Earth (Geology/Geography and Atmospheric Sciences)

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

Carter Mauch, Hankinson School District, "The Insecticidal Properties of Noxious Weeds"

## **UND Department of Geography**

Project in the Geography Category

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

Ben Krump, Hankinson School District, "Effect of Natural Fertilizers on the Native Prairie"

#### **UND Department of Geography**

Project in the Geography Category

1 Winner: Senior Division: Received A Monetary Award of \$50, A \$250 Scholarship, And a

Certificate

 $Gage\ Metzen,\ Hankinson\ School\ District\ ,\ "The\ Natural\ Decontamination\ of\ Industrial\ and$ 

Agricultural Water"

#### American Society of Photogrammetry and Remote Sensing, St. Louis Region

Project in the Field of Geospatial Mapping or Earth Science

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

Gage Metzen, Hankinson School District, "The Natural Decontamination of Industrial and

Agricultural Water"

## **National Oceanic & Atmospheric Administration**

Project Related to Improved Understanding of the Earth's Processes

1 Winner: Junior Division: Received A Certificate And a Medallion

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing

Sediment in our Streams"

#### **Association For Women Geoscientists**

Project Related to Geosciences

1 Winner (Must Be A Female Exhibitor): Junior or Senior Division : Received A Certificate Mattie Milford, Bismarck Homeschool School District, "Which Rocks Work Best for Roads"

## **North Dakota Geological Society**

Project in Field of Geology or Earth Science

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

Mattie Milford, Bismarck Homeschool School District, "Which Rocks Work Best for Roads"

#### **North Dakota Geological Society**

Project in Field of Geology or Earth Science

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

Carter Mauch, Hankinson School District, "The Insecticidal Properties of Noxious Weeds"

### **American Meteorological Society**

Project Related to Meteorology

2 Winners: Junior or Senior Division: Received A Certificate

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing

Sediment in our Streams"

Symbria Bell, New Town School District, "Is Lake Sakakawea As Healthy As It Should Be?"

# Energy/Power/Electricity

## **Otter Tail Power Company**

Project Related to Energy or Electricity

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

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

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon

Supplement"

Ryan Joyce, Tioga School District, "Power Struggle"

### **Otter Tail Power Company**

Project Related to Energy or Electricity

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

Gurturan Johal, Oak Grove Middle School School District, "What's Best to Drink"

Wesley Kemp, Valley Edinburg School District, "Calculating the Crash-Comparison of Collision &

Impulse for Different Materials"

## **Xcel Energy**

Project Related to Energy or Electricity

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

Jayron Mardani, Schroeder School District, "Pencil Resistors"

Ashley Vollmer, Velva School District, "Investigating the Mpemba Effect"

Kordell Loewen, Velva School District, "Mentos and Cola"

## **Xcel Energy**

Project Related to Energy or Electricity

3 Winners: Senior Division: Received A Cash Award of \$25 And a Certificate Wyatt Wilm, Hankinson School District, "An Analysis of Human Distraction" Preston Miller, Sawyer School District, "Vortexing Magnetic Fields"

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

## MDU Resources Group, Inc.

Project Related to Energy or Electricity

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

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon Supplement"

Ryan Joyce, Tioga School District, "Power Struggle"

Adam Fisher, Leeds School District, "Boat Hulls"

## MDU Resources Group, Inc.

Project Related to Energy or Electricity

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

Evan Follman, Leeds School District, "Robots and Ultrasonic Sensors"

Casey Durheim, Ellendale School District, "Wipes in the Pipes"

Gurturan Johal, Oak Grove Middle School School District, "What's Best to Drink"

## Engineering

## **UND Department of Chemical Engineering**

Project in the Chemical Engineering Category

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

Desa Sand, Ellendale School District, "Stop that Leak"

#### **UND Department of Chemical Engineering**

Project in the Chemical Engineering Category

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

Max Freed, Trinity Christian School District, "Ballistic About Aerogel"

### **UND Department of Civil Engineering**

Project in the Civil Engineering Category

1 Winner: Junior Division: Received A Monetary Award of \$25 And a Certificate

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing Sediment in our Streams"

### **UND Department of Civil Engineering**

Project in the Civil Engineering Category

1 Winner: Senior Division: Received A Monetary Award of \$25 And a Certificate

Cole Ketterling, Wishek School District, "Which Truss is the Strongest"

## **UND Department of Electrical Engineering**

Project in the Electrical Engineering Category

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

Noah Christman, Berthold School District, "Pop Can Heater"

## **UND Department of Electrical Engineering**

Project in the Electrical Engineering Category

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

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

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

Project in the Mechanical Engineering Category

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

Philip Steffan, Lakota School District, "Are Screw Pumps Better?"

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

Project in the Mechanical Engineering Category

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

Hunter Pinke, Wishek School District, "Impact Damage of Hail on Shingles"

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

Project Related to Engineering

1 Winner: Junior Division: Received A Monetary Award of \$100 And a Certificate

Tanner Kempf, Ashley School District, "Fishing Line Strength"

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

Project Related to Engineering

1 Winner: Senior Division: Received A Monetary Award of \$200 And a Certificate

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon

Supplement"

## **IEEE Red River Valley Section**

Project in Electrical Engineering

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

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

#### **IEEE Red River Valley Section**

Project in Electrical Engineering

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

Noah Christman, Berthold School District, "Pop Can Heater"

## **Society of Automotive Engineers**

**Project in Mobility Engineering** 

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

Evan Follman, Leeds School District, "Robots and Ultrasonic Sensors"

#### **Society of Automotive Engineers**

Project in Mobility Engineering

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

Tyler Toepke-Floyd, Wishek School District , "Emission Reduction Using an Activated Carbon

Supplement"

#### **ASM Materials Education Foundation**

Project in Materials Engineering

1 Winner: Junior or Senior Division: Received A Medallion And A Certificate

Adam Schaefbauer, Strasburg School District, "How Wood Can Expand & Shrink 2"

## **Environmental Sciences**

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

Project in Energy or Environmental Science Categories

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

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon Supplement"

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

Project in Energy or Environmental Science Categories

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

Noah Christman, Berthold School District, "Pop Can Heater"

#### **NDSSEF Association**

Project Related to Environmental Remediation

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

Branden Skjoiten, Hankinson School District, "A Chemical and Biological Analysis of Lake Water Decontamination"

#### **NDSSEF Association**

Project Related to Environmental Remediation

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

Gage Metzen, Hankinson School District , "The Natural Decontamination of Industrial and Agricultural Water"

## **Ricoh Corporation**

Project Related to Environmentally Friendly Businesses

1 Winner: Senior Division: Received A Certificate

Courtney Estad, Valley/Edinburg School District , "Harmful Herbicides-Effects of Common

Agricultural Herbicides on Human Cells"

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

**Outstanding Environmental Project** 

1 Winner: Senior Division : Received A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate

Gage Metzen, Hankinson School District , "The Natural Decontamination of Industrial and Agricultural Water"

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

**Outstanding Environmental Project** 

1 Winner: Junior Division : Received A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing Sediment in our Streams"

# **Human Nutrition/Nursing**

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

Project in the Area of Nutrition and Food Science

1 Winner: Junior Division: Received A Monetary Award of \$25 And a Certificate

Bennett Carter, Park River School District, "Sweet Confusion"

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

Project in the Area of Nutrition and Food Science

1 Winner: Senior Division : Received A Monetary Award of \$50, A \$250 Scholarship, And a

Certificate

Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

## **UND College of Nursing & Professional Disciplines**

Project Related to Nursing

2 Winners: Junior Division: Received A Monetary Award of \$100 And a Certificate Davis Sunderland, Oak Grove Middle School School District, "Bacteria in Our Homes" Braden Prochnow, Hankinson School District, "The Antimicrobial Effects of Wound Care Treatments"

#### **UND College of Nursing & Professional Disciplines**

Project Related to Nursing

2 Winners: Senior Division: Received A Monetary Award of \$200 And a Certificate

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine,

and Glucose on the Adenosine Circadian Cycle"

Dale Spilman, Mandan School District, "Fungus Amongus"

#### **North Dakota Dietetic Association**

Project Related to Science of Human Nutrition

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

Brennen Boll, Hankinson School District, "The Observation of Growth Enhancers on the

Development and Meat Quality of Sus scrofa"

### U.S. Department Of Health And Human Service

Project Promoting Healthy Life Style

1 Winner: Junior or Senior Division: Received A Certificate

Hayden Boll, Hankinson School District, "A Comparative Analysis of Various Toothpastes"

## **ISEF Alumni**

#### **ISEF Alumni**

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division: Received A Cash Award of \$200 And a Certificate Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

#### **ISEF Alumni**

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division : Received A Cash Award of \$100 And a Certificate Tyler Toepke-Floyd, Wishek School District , "Emission Reduction Using an Activated Carbon Supplement"

## Life Sciences

## **UNDSMHS Department of Basic Sciences**

Project in the Area of Life Sciences

2 Winners: Junior Division: Received A Monetary Award of \$50 And a Certificate Juli Spilman, Mandan School District, "Effects of Freezing on Cells" Jaxon Mauch, Hankinson School District, "A Microbial Analysis of the School Environment"

#### **UNDSMHS** Department of Basic Sciences

Project in the Area of Life Sciences

2 Winners: Senior Division: Received A Monetary Award of \$50 And a Certificate Shelby Cyr, Valley/Edinburg School District, "The Effects of Soluble Versus Fibrillar A beta Peptide on Polyamine Synthesis in Neural Tissue- Relevance to Alzheimer's Disease" Devarshi Patel, Red River School District, "Molecular Biology of Selenoenzymes in Prevention of Mercury Toxicity"

#### **UND Department of Biology**

Project in the Biology Category

1 Winner: Junior Division : Received A Monetary Award of \$50 And a Certificate Branden Skjoiten, Hankinson School District , "A Chemical and Biological Analysis of Lake Water Decontamination"

#### **UND Department of Biology**

Project in the Biology Category

1 Winner: Senior Division : Received A Monetary Award of \$100, A \$300 Scholarship, And a Certificate

Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

## Society for In Vitro Biology

Project in the Area of Tissue Culture

1 Winner: 11th Grader Division: Received A Certificate

Morgan Ellingson, Valley/Edinburg School District, "The Relative Effects of Curcuminoids on HPV (positive and negative) Cervical Cancer Cells"

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

Project Related to Veterinary Medicine

1 Winner: Senior Division: Received A Cash Award of \$100 And a Certificate Zachary Fischer, Ashley School District, "What are Your Cattle Drinking?"

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

Project Related to Veterinary Medicine

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

Brennen Boll, Hankinson School District, "The Observation of Growth Enhancers on the

Development and Meat Quality of Sus scrofa"

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

Project Related to Veterinary Medicine

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

Abbigale Steeke, Scranton School District, "Go Away Bacteria"

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

Project Related to Veterinary Medicine

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

Maia Jackson, Schroeder School District, "Bad to the Bone"

#### **NDSSEF Association**

Project in Botany

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

Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

#### **NDSSEF Association**

Project in Botany

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

Grady Mauch, Hankinson School District, "The Fungicidal Impact of Detrimental Weeds on

Soybeans"

# Math/Computer Science

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

Project in the Computer Science Category

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

Evan Follman, Leeds School District, "Robots and Ultrasonic Sensors"

## **UND Department of Computer Science**

Project in the Computer Science Category

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

Eileen Spilman, Mandan School District, "Equation of State Solver"

#### **UND Odegard School of Aerospace Sciences**

Project in the Computer Science Category

1 Winner: Junior Division: Received A Monetary Award of \$100 And a Certificate

Thaddeus Moore, Trinity Christian School District, "Laws Of Light"

#### **UND Odegard School of Aerospace Sciences**

Project in the Computer Science Category

1 Winner: Senior Division: Received A Monetary Award of \$150 And a Certificate Wyatt Wilm, Hankinson School District, "An Analysis of Human Distraction"

#### **UND Department of Mathematics**

Project in the Mathematics Category

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

Mya Vetter, Linton School District, "Safety Barriers"

#### **UND Department of Mathematics**

Project in the Mathematics Category

1 Winner: Senior Division: Received A Monetary Award of \$100, A \$500 Scholarship, And a

Certificate

Zach Danks, New Town School District, "Soda Acid Decay"

## **Intel Excellence In Computer Science**

Project in Computer Science Category

1 Winner: Senior Division: Received A Cash Award of \$200 And a Certificate

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

## Mu Alpha Theta

**Project Involving Modern Mathematics** 

1 Winner: Senior Division: Received A Certificate

Mikayla Kosolofski, Hope-Page School District, "You're Hired?"

## Medicine/Health

#### **Kingsbury Outstanding Health Science Project**

Project Related to Health Sciences

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

Courtney Estad, Valley/Edinburg School District, "Harmful Herbicides-Effects of Common

Agricultural Herbicides on Human Cells"

#### **UNDSMHS** Department of Basic Sciences

Project Related to Medical or Health Sciences

1 Winner: Junior Division: Received A Monetary Award of \$100 And a Certificate

Bennett Carter, Park River School District, "Sweet Confusion"

## **UNDSMHS Department of Basic Sciences**

Project Related to Medical or Health Sciences

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

Morgan Ellingson, Valley/Edinburg School District, "The Relative Effects of Curcuminoids on HPV (positive and negative) Cervical Cancer Cells"

## **UND Department of Pathology**

Project Related to Medical or Health Sciences

2 Winners: Junior Division: Received A Monetary Award of \$100 And a Certificate

Braden Prochnow, Hankinson School District, "The Antimicrobial Effects of Wound Care

Treatments'

Isabella Froehling, Wishek School District, "Physiological Effects of Meditation: Blood Pressure"

## **UND Department of Pathology**

Project Related to Medical or Health Sciences

2 Winners: Senior Division: Received A Monetary Aaward of \$100 And a Certificate

Kelsey Guttormson, Tioga School District, "Hello My Name Is... Happy!"

Cheyenne Liedle, Tioga School District, "Oink Oink"

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

Project Related to Medical or Health Sciences

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

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine,

and Glucose on the Adenosine Circadian Cycle"

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

Project Related to Medical or Health Sciences

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

Maia Jackson, Schroeder School District, "Bad to the Bone"

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

Project Related to Medical or Health Sciences

1 Winner: Junior Division: Received A Monetary Award of \$100 And a Certificate

Mary Labuhn, Ellendale School District, "Coffee Break"

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

Project Related to Medical or Health Sciences

1 Winner: Senior Division: Received A Monetary Award of \$200 And a Certificate

Betsy Asp, Hankinson School District, "Exploring Antimicrobial and Physiological Effects of

Natural Remedies"

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

Project Related to Laboratory Medicine

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

Brennen Boll, Hankinson School District, "The Observation of Growth Enhancers on the

Development and Meat Quality of Sus scrofa"

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

Project Related to Laboratory Medicine

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

Gracie Mosher, Hankinson School District, "A Comparative Analysis of Disinfectants"

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

Project Related to Medicine

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

Shelby Cyr, Valley/Edinburg School District, "The Effects of Soluble Versus Fibrillar A beta

Peptide on Polyamine Synthesis in Neural Tissue- Relevance to Alzheimer's Disease"

#### Virginia George Inheritance Fund

Project in Field of Health Sciences

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

Paul Eapen, Our Redeemer Christian School School District, "A Novel Simple Identification

Method for Urinary Stones"

# Microbiology/Pharmacology

## **UNDSMHS Department of Basic Sciences**

Project Related to Microbiology / Immunology or Infectious Disease (Priority to Microbiology Projects)

2 Winners: Junior Division: Received A Monetary Award of \$50 And a Certificate Olivia Byerley, Ellendale School District, "Busting Bristle Bacteria" Gracie Mosher, Hankinson School District, "A Comparative Analysis of Disinfectants"

#### **UNDSMHS Department of Basic Sciences**

Project Related to Microbiology / Immunology or Infectious Disease (Priority to Microbiology Projects)

2 Winners: Senior Division : Received A Monetary Award of \$100 And a Certificate Grady Mauch, Hankinson School District , "The Fungicidal Impact of Detrimental Weeds on Soybeans"

Tayson O'Hara, Hankinson School District, "Bacteriostatic Properties of Tree Leaves"

#### **UNDSMHS Department of Basic Sciences**

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

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

Hayden Boll, Hankinson School District, "A Comparative Analysis of Various Toothpastes"

#### **UNDSMHS Department of Basic Sciences**

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

1 Winner: Senior Division: Received A Monetary Award of \$100 And a Certificate
Tayson O'Hara, Hankinson School District, "Bacteriostatic Properties of Tree Leaves"

#### **North Dakota Pharmacists Association**

Project in Field of Pharmacology

1 Winner: Junior Division : Received A Cash Award of \$75 And a Certificate Cati Silva, Hankinson School District , "The Effects of Flower Power"

#### **North Dakota Pharmacists Association**

Project in Field of Pharmacology

1 Winner: Senior Division: Received A Cash Award of \$100 And a Certificate Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine, and Glucose on the Adenosine Circadian Cycle"

## Navy

### **United States Navy**

Project (All Categories Considered)

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

Max Freed, Trinity Christian School District, "Ballistic About Aerogel"

Tyler Toepke-Floyd, Wishek School District, "Emission Reduction Using an Activated Carbon Supplement"

Wyatt Wilm, Hankinson School District, "An Analysis of Human Distraction"

#### **United States Navy**

Project (All Categories Considered)

3 Winners: Junior Division: Received A Medallion And a Certificate

Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing Sediment in our Streams"

Branden Skjoiten, Hankinson School District , "A Chemical and Biological Analysis of Lake Water Decontamination"

# Physics/Astronomy

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

Project in the Physics Category

1 Winner: Junior Division: Received A Monetary Aaward of \$100 And a Certificate

Wesley Kemp, Valley Edinburg School District, "Calculating the Crash-Comparison of Collision & Impulse for Different Materials"

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

Project in the Physics Category

1 Winner: Senior Division : Received A Monetary Award of \$100, A \$500 Scholarship, And a Certificate

Ryan Joyce, Tioga School District, "Power Struggle"

#### **United States Metric Association**

**Project Using Metric System for Measurements** 

5 Winners: Junior Division: Received A Certificate

Wesley Kemp, Valley Edinburg School District , "Calculating the Crash-Comparison of Collision & Impulse for Different Materials"

Jayron Mardani, Schroeder School District, "Pencil Resistors"

Kordell Loewen, Velva School District, "Mentos and Cola"

Gurturan Johal, Oak Grove Middle School School District, "What's Best to Drink"

James Fisk, Lakota School District, "A Battery That Makes Cents"

#### **North Dakota Physics Teachers**

Project in Area of Physics or Physical Science

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

Preston Miller, Sawyer School District, "Vortexing Magnetic Fields"

#### **North Dakota Physics Teachers**

Project in Area of Physics or Physical Science

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

Jayron Mardani, Schroeder School District, "Pencil Resistors"

## Social/Behavioral Sciences

#### **UND Department of Psychology**

Project in the Psychology or Behavioral Science Category

2 Winners: Junior Division: Received A Monetary Award of \$125 And a Certificate

Chase Bader, Wishek School District, "Shaping Your Thoughts"

Bennett Carter, Park River School District, "Sweet Confusion"

## **UND Department of Psychology**

Project in the Psychology or Behavioral Science Category

2 Winners: Senior Division: Received A Monetary Award of \$125 And a Certificate

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine,

and Glucose on the Adenosine Circadian Cycle"

Taylor Ohlhauser, Tioga School District, "Colored Foods?"

## **UND College of Arts & Sciences**

Project in the Fields of Social or Behavioral Science

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

Kelsey Guttormson, Tioga School District, "Hello My Name Is... Happy!"

#### **UND College of Arts & Sciences**

Project in the Fields of Social or Behavioral Science

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

Bennett Carter, Park River School District, "Sweet Confusion"

#### Virginia George Inheritance Fund

Project in the Fields of Social or Behavioral Science

1 Winner: Senior Division : Received A Monetary Award of \$125 And a Certificate

Ethan Johnson, Hope-Page School District, "Stereotype Foundations"

## Virginia George Inheritance Fund

Project in the Fields of Social or Behavioral Science

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

Cassidy Walth, Wishek School District, "How Does Tone Affect Memory"

## **Association of North Dakota Geographers**

Project in the Field of Human-Environment Interaction

1 Winner: Senior Division : Received A Monetary Award of \$125 And a Certificate

Tani White, Bismarck Century School District, "The Halo Effect in High School"

## **American Psychological Association**

Project Related to Psychology

1 Winner: Junior or Senior Division: Received A Certificate

Wyatt Limke, Berthold School District, "The Effects of Theobromine, Theophylline, Paraxanthine, and Glucose on the Adenosine Circadian Cycle"

## Virginia George Inheritance Fund

Project in Field of Social Sciences

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

Selena Hobbs, Valley/Edinburg School District, "Finding Fingerprints- A Comparison of Processes and Surfaces for Obtaining Fingerprints"

Courtney Duff, Valley/Edinburg School District, "Factors that Influence Attitudes Toward Gay Males and Lesbian Females"

# **Sweepstakes**

### **UND Office of Research & Economic Development**

Project exhibiting Exceptional Creativity

1 Winner: Junior or Senior Division: Received A Monetary Award of \$500 And a Certificate Kelsey Guttormson, Tioga School District, "Hello My Name Is... Happy!"

## **UND College of Arts & Sciences**

Outstanding Math or Science Project (Female)

1 Winner (must be a female exhibitor): Senior Division : Received A Monetary Award of \$100 And a Certificate

Mya Steinwehr, Hankinson School District, "The Effects of Insecticides on Leptinotarsa decemlineata and Solanum tuberosum"

#### **UND College of Arts & Sciences**

Outstanding Math or Science Project (Female)

1 Winner (must be a female exhibitor): Junior Division : Received A Monetary Award of \$50 And a Certificate

Lakin Mauch, Hankinson School District, "A Comparison of Tiled and Non-tiled Fields"

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

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

1 Winner: Senior Division: Received A Medallion And a Certificate

Grady Mauch, Hankinson School District , "The Fungicidal Impact of Detrimental Weeds on Soybeans"

# Water Quality

#### **American Water Works Association**

Project Related to Drinking Water Quality

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

Alyssa Kemp, Valley Edinburg School District, "An Evaluation of Erosion Control - Reducing Sediment in our Streams"

#### **American Water Works Association**

Project Related to Drinking Water Quality

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

Katie Baumgartner, Strasburg School District, "Solar vs Distilled"

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

Project Related to Water Quality

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

Kristian Myrdal, Valley/Edinburg School District, "Does Water Temperature Change the

Detrimental effects of glyphospate?"

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

Project Related to Water Quality

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

Abbey Simonson, Oak Grove Middle School School District, "Effects of Chemicals on Daphnia"

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

Project Related to Water Quality

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

Gage Metzen, Hankinson School District, "The Natural Decontamination of Industrial and

Agricultural Water"

#### **Water Environment Federation**

Project Related to Water Quality or Water Conditions

1 Winner: Junior or Senior Division: Received A Certificate

Zachary Fischer, Ashley School District, "What are Your Cattle Drinking?"