## 2022 Cenovus Energy's Eastern Newfoundland Science Fair Summary

Junior Life Sciences

The Concentration of Vitamin C in Citrus Fruits-

Alexander Evermann – MacDonald Drive Jr. High School

**Teeth Whitening Strawberries-**

Alishba Azrin & Nate Lake – MacDonald Drive Jr. High School

Algae: The Future of Biofuels Gold

Alpita Patro – MacDonald Drive Jr. High School

Visual Search Bronze

Anna Zhao – St. Bonaventure's College

Age Versus Reaction Time Bronze

Emma Donovan – St. Bonaventure's College

Influence of Caffeine on the Stroop Effect Bronze

Joyeeta Goyali – MacDonald Drive Jr. High School

Does the Five Second Rule Work? Silver

Vidya Chedella – MacDonald Drive Jr. High School

Junior Physical Sciences

Which Super Glue is Stronger? Silver

Abbey Janes – MacDonald Drive Jr. High School

Gravity: What, Who, How?

Bronze

Madison Drover – St. Bonaventure's College

Waste-to-Energy, Is It the Right Solution to Our Waste Management... Gold

Makenzie Wishart – St. Bonaventure's College

| How Sugary Drinks Affect Your Teeth                                       | Bronze |
|---|--------|
| Matthew Earle & James Piercey – MacDonald Drive Jr. High                  |        |
| Do Rubber Dryer Balls Reduce Drying Time?                                 | Silver |
| Millie Janes – MacDonald Drive Jr. High                                   |        |
| Comparing the Porosity and Permeability of Various Materials              | Silver |
| Jorja Breen & Ariana Cosmo – St. Bonaventure's College                    |        |
| Triboelectric Effect and Nanogenerator                                    | Gold   |
| Sophia Zhang – St. Bonaventure's College                                  |        |
|   |        |
| Intermediate Life Sciences  |        |
| Growing An Organ: How Stem Cells Can be Used to Bioengineer An Organ      | Gold   |
| Adhira Ganesh- MacDonald Drive Jr. High                                   |        |
| Yeast B'y   | Silver |
| Andrew Simms- Holy Spirit High School                                     |        |
| Analyzing SARS-CoV-2 Variants Using Protein Sequencing and Bioinformatics | Gold   |
| Tanish Bhatt- Gonzaga High School   |        |
|   |        |
| Intermediate Physical Sciences  |        |
| How Culvert Design Affects Climate Change Resiliency of                   | Bronze |
| Dipayan Dhar – Gonzaga High School  |        |
| Effect of Surface Tension at Air-Fluid Interface on Floating and Sinking  | НМ     |
| Orpa Hawlader – MacDonald Drive Jr. High School                           |        |
| The Future of Energy: Vertical or Horizontal                              |        |
| Lakshmi Prajwala Chedella – Holy Heart of Mary High School                |        |
|   |        |

Senior Life Sciences

| Does Caffeine Mean More Green? How Caffeine Affects Plants                   | Bronze |
|--|--------|
| Emily Simms – Holy Spirit High School  |        |
| Investigating the change in pH of Hydrogen Carbonate-containing Algal Beads. | Gold   |
| Farha Farha – Holy Heart of Mary High School                                 |        |
| The Effect of Zinc Gluconate on Grass Seed Germination and Growth            | Gold   |
| Megan Cui- Holy Heart of Mary High School                                    |        |
| How Much Greens For Your Green   | НМ     |
| Rachael Moores & Moira Costigan – Holy Spirit High School                    |        |
| The Effect of pH on the Growth of Seedlings                                  | Bronze |
| Stephanie Pelley – Holy Heart of Mary High School                            |        |
| Senior Physical Sciences   |        |
| Determining the Difference in Calorie Content Between Potato Chips           | Bronze |
| Amy Rose – Holy Heart of Mary High School                                    |        |
| Determining the Concentration of Ammonia Hydroxide in Glass Cleaner          | Bronze |
| Annie Hu- Holy Heart of Mary High School                                     |        |
| Storm Drain Redesign   | Bronze |
| Caleb Lethbridge- Holy Spirit High School                                    |        |
| The Breakdown of Soya in Pepsin and Hydrochloric Acid in Vitro               | Gold   |
| Chaturrvi Maruthireddy – Holy Heart of Mary High School                      |        |
| Determining the Mass of Calcium Carbonate in Antacid                         | НМ     |
| Daniel Stokes – Holy Heart of Mary High School                               |        |
| What is the Optimal Wind Turbine?  | Gold   |
| Eli Paulin & Matthew Sheppard- Holy Spirit High School                       |        |
| Which is the Healthiest Household Fruit?                                     |        |
| Emily Dunn – Holy Spirit High School   |        |

How Does the Temperature Affects the Sound of the Flute?

| Emma Braga & Nadia Pom | a – Holy Spirit High School |
|------------------------|-----------------------------|
|------------------------|-----------------------------|

| The | <b>Pressure</b> | in Pop |
|-----|-----------------|--------|
|-----|-----------------|--------|

Fatih Alam – Holy Heart of Mary High School

| The Affect of boiling time on the vitamin C Content in Various Superioods | The Affect of Boilin | Time on the Vitamin C Content in Various Superfoods | Silver |
|---|----------------------|---|--------|
|---|----------------------|---|--------|

Georgia Roberts- Holy Heart of Mary High School

The Effect of Different Water Sources on the Rate of H2 Gas Production... Bronze

Heidi Snow – Holy Heart of Mary High School

Determining the Concentration of Vitamin C in Bell Peppers

Bronze

Jenna Hu – Holy Heart of Mary High School

Dissolved Oxygen Content in Water in Newfoundland HM

Joohyeok Seo- Holy Heart of Mary High School

Determining the Mass of Nitrogen from Ammonium Fertilizer HM

Kaitlyn Ward- Holy Heart of Mary High School

**Determination of the Calcium Carbonate Content in Eggshells** 

Katie Yanchus – Holy Heart of Mary High School

Determining the Lead Content in Soil Samples Bronze

Ky Bromley – Holy Heart of Mary High School

Extracting and Measuring the Caffeine Content in Popular Energy Drinks

Bronze

Lucy Steffler-Minty – Holy Heart of Mary High School

The Effect of Temperature on the Coagulation of Casein Bronze

Manasvi Ganti – Holy Heart of Mary High School

Finding the Calcium Ion Concentration of Eggshell Water Solutions

Bronze

Morgan Decker-Snow – Holy Heart of Mary High School

The Effect of Temperature on the Enzyme Activity of Pectinase

Nimeesha Vankadara – Holy Heart of Mary High School

Examining How the Application of Oils Affects the Rate of Corrosion of... Bronze

Nyamae Alloway-Pike – Holy Heart of Mary High School

How Hard is my Water?

Bronze

Rachel Pearcey- Holy Heart of Mary High School

Measuring the Mass of Iron in Plant Based Specimens HM

Rachel Ruiz – Holy Heart of Mary High School

**How Temperature Affects Spoiling of Milk** 

Shaharyar Siddiqui – Holy Heart of Mary High School

Does liver, yeast or potato have the most catalase enzyme activity?

Shahin Labib- Holy Heart of Mary High School

The Effect of Lactase Enzyme at Various Temperature Points in 3.25% Milk

Shathvihan Longendraraj – Holy Heart of Mary High School

Comparing the pH of Organic Lemons through Titration

Sophia Hawco – Holy Heart of Mary High School

Determining the Effect of pH on the Activity of the Enzyme Rennin

Bronze

Stella Cook- Holy Heart of Mary High School

**Iodine Value** 

Tadiwanashe Chimuputi – Holy Heart of Mary High School

The Effect of Light Intensity and Colour Upon Dissolved Oxygen HM

Wenxuan (Claire) Qi- Holy Heart of Mary High School

Special Awards

2022 Sanofi Biogenius Canada Award-Eastern Newfoundland

Algae: The Future Of Biofuels – Alpita Patro – MacDonald Drive Jr. High

**Memorial University Entrance Scholarship** 

Investigating the Change in pH of Hydrogen Carbonate-containing algae.... –

Farha Farha – Holy Heart of Mary High School

## **Cenovus Energy Best in Fair**

Triboelectric Effect and Nanogenerator – Sophia Zhang – St. Bonaventure's College

Top 3 Projects 2022 (no specific order)

Alpita Patro- MacDonald Drive Junior High

Farha Farha-Holy Heart of Mary High School

**Sophia Zhang** – St. Bonaventure's College

Team NL- Canada Wide Science Fair

Alpita Patro – MacDonald Drive Jr. High

Megan Cui – Holy Heart of Mary High School

Sophia Zhang – St. Bonaventure's College

Makenzie Wishart – St. Bonaventure's College

**Tanish Bhatt** – Gonzaga High School

Farha Farha- Holy Heart of Mary