

**ExxonMobil Texas State Science & Engineering Fair Awards**

| <b><u>School</u></b>     | <b><u>Student</u></b> | <b><u>Category Award</u></b>                            | <b><u>Special Awards</u></b> | <b><u>Title</u></b>  |
|--------------------------|-----------------------|---|------------------------------|--|
| Anderson HS              | Jin Hyung Lee         | 3rd Place Biochemistry Sr. Div.                         |                              | Early Stage Druggability Assessment of Small Molecules From Displacement Assay         |
| Anderson HS              | Maria Sterrett        | 3rd Place Cellular Biology Sr. Div.                     | Navy Award                   | Effects of Wnt cell signaling pathway inhibition on stem cell properties               |
| Anderson HS              | Alex Crisara          | 2nd Place Engineering Materials/Bioengineering Sr. Div  |                              | Improving the Efficiency of Matter Transfer in Algae Photo-Bioreactors                 |
| Anthony Homeschool MS    | Dee Anthony           | 1st Place Engineering Materials/Bioengineering Jr. Div. | Navy Award                   | Reflecting the Heat  |
| Austin Jewish Academy MS | Noga Beer             | 2nd Place Animal Sciences Jr. Div.                      |                              | Fantasia In The Lab  |
| Austin Jewish Academy MS | Sarah Swedlow         |   | Navy Award                   | Desiccation Station  |
| Bowie HS                 | Nathan Timmerman      | 2nd Place Engineering Electrical/Mechanical Sr. Div.    | Navy Award                   | Active Vibration Dampening   |
| Brenham HS               | Megan Meier           | 2nd Place Animal Sciences Sr. Div.                      |                              | Acidosis, A Corny Disease: Year 3  |
| Canyon Ridge MS          | Lauren Poole          | 3rd Place Environmental Sciences Jr. Div.               |                              | How does a solar powered water purifier affect water quality?                          |
| Deb Homeschool           | Chaarushena Deb       | 1st Place Behavioral Science Jr. Div.                   |                              | "See Jane Learn, Help Jane Learn" - An Exploration of Innovative Virtual Peer Teaching |
| Dripping Springs MS      | Darrell Adams         | 2nd Pace Cellular Biology Jr. Div.                      |                              | Cancer Genome Project  |
| Dripping Springs MS      | Piper Reid            | 1st Place Physics & Astronomy Jr. Div.                  |                              | Differential Brightness Method for Detection of Extra Solar Planets                    |

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| Harmony SA College Station MS | Kira Metoyer                  | 4th Place Chemistry Jr. Div.                         |   | Bioaccumulation of arsenic in plants: Is it a feasible solution?                          |
| Harmony School of Science MS  | Avrind Bala                   | N/A  | Navy Award  | Radiation Reduction   |
| Murchison MS                  | Jahan Rabii                   | 2nd Place Chemistry Jr. Div.                         |   | THE ENHANCEMENT OF CHEMICAL LUMINESCENCE BY CATALYST RATIO                                |
| Neighbors Home School MS      | Nicholas Neighbors, Gus Bates | 1st Place Team Physical Sciences Jr. Div.            |   | Magnetodynamics - Is it possible to design, engineer and construct a novel magnetic array |
| Patil Homeschool MS           | Neil Patil                    | 4th Place Engineering Electrical/Mechanical Jr. Div. |   | Principles Behind Mechanical to Electrical Energy Conversion                              |
| Private HS                    | Nathan Nissen                 | 1st Place Energy & Transportation Sr. Div.           |   | A Fuel Cell Construction and Analysis   |
| Renaissance Academy MS        | Saima Khan                    | 3rd Place Cellular Biology Jr. Div.                  |   | Testing the accuracy of eyewitness testimony  |
| Vista Ridge HS                | Brittany Kyle                 | 2nd Place Behavioral Science Sr. Div.                |   | The Power of Suggestion and Pediculus capitis   |
| Vista Ridge HS                | Taylor Wilson                 | 4th Place Biochemistry Sr. Div.                      | Texas Statistics Association Certificate, Texas Science & Technology Governor's Award | The effects of light on desynchronization using <i>Neurospora crassa</i>                  |
| Vista Ridge HS                | Makayla Kelso                 | Honorable Mention Cellular Biology Sr. Div.          |   | Callus Formation in African Violets   |
| Vista Ridge HS                | Thomas Powers                 | 4th Place Computer Science Sr. Div.                  |   | Improving CAPTCHA to Stop Spam on The Internet  |
| Vista Ridge HS                | Kenneth Marino                | 1st Place Engineering Electrical/Mechanical Sr. Div. |   | A Synthesis of Dead Reckoning and Map-Based Navigation in Multiple Robotic Agents         |
| Vista Ridge HS                | Zachary Scott                 | 1st Place Environmental Management Sr. Div.          | Texas Science & Technology Governor's Award   | Desalination using bacteria   |

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| Vista Ridge HS | Alisha Alvarez                     | 2nd Place Microbiology Sr. Div.                        |  | The Effects of Probiotics in the Digestive System.  |
| Vista Ridge HS | Tim O'Hara                         | 4th Place Physics & Astronomy Sr. Div                  |  | Construction and Evaluation of a Two-Parabola Light Collection System   |
| Vista Ridge HS | Samantha Brokenshire, Devyn Miller | 2nd Place Team Life Science Sr. Div.                   | Advancing to International Intel ISEF Fair | Inducing Apoptosis in Embryonic Stem Cells by Adding Capsaicin as a Model for Capsaicin's Effect on Cancerous Cells |
| Vista Ridge HS | Ashley Covington, Tyler Harrison   | N/A  | Science & Technology Award                 | Maximizing Efficiency Through Distributed Collection and Localized Conversion                                       |
| LASA HS        | Max Wimberley                      | 1st Place Mathematical Science Sr. Div.                | Mu Alpha Theta Certificate                 | Creating and Deducing Structure Using Domination Numbers in Permutation Graphs                                      |
| Westwood HS    | Bao Nguyen                         | Honorable Mention Chemistry Sr. Div.                   |  | Study of the Kinetic Rate of the Reduction of Nitrophenols Using Monometallic and Bimetal                           |
| Westwood HS    | Vikram Parolkar                    | 1st Place Earth Science Sr. Div.                       | UTSA Scholarship                           | The Day After Tomorrow: T-test detection of abrupt transitions in model projections of cli                          |
| Westwood HS    | Timothy Moon                       | 3rd Place Engineering Materials/Bioengineering Sr. Div |  | Cuprous Oxide Under Pressure: An Ab Initio Study of Pressure-Induced Structural Transition                          |
| Westwood HS    | Jonathan Chang                     | 4th Place Environmental Sciences Sr. Div.              |  | Similarities between HULIS and chromophores formed via OH treatment of phenolic compounds                           |
| Westwood HS    | Shantanu Banerjee, Varun Koneru    | 1st Place Team Life Science Sr. Div.                   |  | Encapsulate to Mitigate   |