## ANIMAL BIOLOGY - JR J01

| Idris Abdul-Malik | Institute of Knowledge <br> Middle School |
| :--- | :--- |
|  | Selena Khan |
| Dro Aboulian | Chamlian Armenian School |

First Place
J0104
Split group: -
Second Place J0101 Split group: -

## Third Place

 J0102Split group: -

| Recognition | Using Mealworms to <br> Effectively Biodegrade |
| :--- | :--- |
| J0105 | Styrofoam |
| Split group: - |  |

## Recognition

 J0103 Split group: -Recognition J0106 Split group: -

## First Place

 J0204 Split group: -
## Second Place

 J0201 Split group: -Third Place J0202 Split group: -

Honorable Mention Far From Home and Back J0206 Split group: -

The Heat is On: Examining the Impact of Temperature on Painted Lady Butterfly (V. cardui) Development

An Alternate Source of Protein, The Black Soldier Fly

How Do Raptors Survive in L.A.?

Are Fingerprints Inherited?

Stuck with You! A study on the Long Term Side Effects of Covid-19.

Planaria, Regeneration, and Future of Medicine

Is There a Correlation between the Epstein-Barr Virus (EBV) and Developing Postural Orthostatic Tachycardia Syndrome (POTS)?

The Build Of The Artificial Pancreas Journey of the Eastern Kingbird (T. tyrannus) and

| Magnolia Science | Third Place |
| :--- | :--- |
| Academy 6 | J0202 |
| Sarah Kim | Split group: - |

Institute of Knowledge Middle School

Selena Khan Its Seasonal Lifestyle

| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
| Autrin Anousheh | Mirman School | Recognition | The Role of Wearable <br> Electrocardiogram |
|  |  | Jo203 |  |
|  | Andrea Peoples Marwah | Split group: - | Technology to Detect <br> Electrical Abnormalities |
|  |  | Associated with Sudden <br> Cardiac Arrest in Young |  |
|  |  | Athletes |  |


| Aleena Alkwadri | Al-Huda Islamic School <br> Rula Alshanableh | Recognition J0418 <br> Split group: - | Examining the Stress Relieving Powers of Aroma Therapy. |
| :---: | :---: | :---: | :---: |
| Ashley Chan | Archer School for Girls Junior Division Jerilyn Neshek | Recognition J0403 <br> Split group: - | The Bystander Effect on Humans |
| Audrey Chin Rachel Lee Kevin Han | Ridgecrest Intermediate School <br> Julie Munoz | Recognition J0407 <br> Split group: - | Stroop Effect: Congruent VS. Incongruent Stimuli |
| Noa Delson | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J0410 <br> Split group: | Gossip Girlz |
| Simon Goldberg | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J0415 <br> Split group: | The Proof are in the Prints |
| Arielle Goldscheider | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J0414 <br> Split group: - | The Power Of Color |
| Jenny Hernandez | Magnolia Science Academy 6 <br> Sarah Kim | Recognition J0411 <br> Split group: - | Which is Candy? |
| Sandy Htwe | Al-Huda Islamic School <br> Rula Alshanableh | Recognition J0417 <br> Split group: - | Exploring Short-Term Memory Retention with Visual versus Auditory Methods. |
| Ryan Kim | Stratford School <br> Jett del Mundo | Recognition J0406 <br> Split group: - | Does differently colored food change our food preferences? |
| Rasmi Mustafa | Institute of Knowledge Middle School <br> Selena Khan | Recognition J0413 <br> Split group: - | Brave New World: Exploring the Potential of Virtual Reality Therapy in Overcoming Fears |
| Jenna Orefice Ashley Kpachavi | Sierra Vista Junior High School <br> Shauna Davis | Recognition J0405 <br> Split group: - | How does your nightly routine and environment before sleep affect the quality of sleep and your overall health? |
| Janelle Peralta | Rudecinda Sepulveda Dodson Gifted Magnet Middle School <br> Teresa Aki | Recognition J0408 <br> Split group: - | The Effect of School Gardens on Students' Wellbeing |


| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
| Liliana Ponnezhan | Stratford School | Recognition | Does Guided Deep <br> Breathing Exercises <br> Improve Test Outcomes in <br> Elementary Students? |
|  | Jett del Mundo | J0409 | Split group: - |


| Jordan Rowe | The Science Academy | First Place | The effects of the enzyme <br> Proteinase K on the <br> STEM Magnet |
| :--- | :--- | :--- | :--- |
|  | Flavia DiMonaco | Split group: - | biodegradation of plastic |


| Yousef Hawa | Islamic Center of <br> Claremont School (ICCS) | Recognition <br> J0617 <br> Split group: - |
| :--- | :--- | :--- |
|  | Samraa Smadi | Recognition <br> Jo615 |
| Jasmine Hsiung | Sierra Madre Middle <br> School | Split group: - |
|  | Ravi Dev Anandhan |  |
| Amelie Palma | Sierra Madre Middle | Recognition |
|  | School | J0603 |

## CHEMISTRY - GENERAL - JR J07

| Elle Shepela | Saint Martin of Tours <br> Elementary School <br> Mohammad Ashas |
| :--- | :--- |
| Cormac Malloy | St. Timothy School |
|  | Christy Novak |
| Ellie Chang | Stratford School |
|  | Jett del Mundo |
| Adalina Alshurbaji | Islamic Center of <br> Claremont School (ICCS) |
|  | Samraa Smadi |

## First Place

 J0704 Split group: -
## Second Place

 J0701Split group: -
Third Place J0703 Split group: -
Recognition
J0705
Split group: - Glucose in Apples

The best water filters: Homemade vs. store bought

Pods compared to nonconcentrated dish soap

Which Salt Allows for the Best Crystal Formation to Occur?

| 2023 Los Angeles County Science Fair Category Winners |  |  | Page 7 |
| :---: | :---: | :---: | :---: |
| Douglas Trinh Dylan McMullen | Pomona Unified School District Junior Division bridget gardea | Recognition J0702 <br> Split group: - | Crushing Cans With Air Pressure |
| EARTH / SPACE SCIENCES - JR J08 |  |  |  |
| Melissa Meneses | Magnolia Science Academy 6 <br> Sarah Kim | First Place <br> J0806 <br> Split group: - | Heat Up! Water <br> Temperature in Solar Oven |
| Hayes Elbert | Hale Charter Academy STEAM Magnet Joanne Ramirez | Second Place J0803 <br> Split group: - | Are Horizontal Windmills more efficient than Vertical Windmills? |
| Sara Ziyad | Institute of Knowledge Middle School <br> Selena Khan | Third Place J0805 <br> Split group: - | Tumbling Through Space: How Does Speed Affect Orbiting Altitude? |
| Amelia Sarkisian Ramsey Sarkisian Haley Simon | Brentwood School - Junior Division <br> Aidyl Gonzalez-Serricchio | Honorable Mention J0802 <br> Split group: - | No Glo RadiationProtective Garments: Carbon-Fiber Filament Meshed in Fabric - the Way to Reduce Natural Radiation Exposure |
| ECOLOGY - JR J09 |  |  |  |
| Beau Cartwright | Archer School for Girls Junior Division Jerilyn Neshek | First Place J0907 <br> Split group: - | Effects of glyphosatebased roundup on gonad mass and cellular structure in freshwater mussels |
| Guthrie Luke Daisy Luke | Portola Highly Gifted Magnet <br> Ruth Gramajo | Second Place J0909 <br> Split group: - | The True Cost of Disposable Diapers |
| Francis Lawton | St. Timothy School Christy Novak | Third Place J0906 Split group: - | Water is Water is Water |
| Sophie Herbert Jacqueline Mayne | Archer School for Girls Junior Division Jerilyn Neshek | Honorable Mention J0901 <br> Split group: - | Deadly algae: How fertilizers create algae blooms and decrease dissolved oxygen levels |
| Ariel Hopenstand | Temple Beth Am Pressman Academy <br> Monica Hall | Honorable Mention J0902 <br> Split group: - | Sea Change |
| Hovannes Benneian | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J0911 <br> Split group: - | Rethink Your Drink! |


| Norah Fuad | Al-Huda Islamic School <br> Rula Alshanableh | Recognition <br> J0910 <br> Split group: - |
| :---: | :---: | :---: |
| Leon Hairabdian | Chamlian Armenian School <br> lida Gevorkian | Recognition J0904 <br> Split group: - |
| Shaheer Hashmi | Institute of Knowledge Middle School <br> Selena Khan | Recognition <br> J0908 <br> Split group: - |
| Ranjana Sathish | Hale Charter Academy STEAM Magnet Joanne Ramirez | Recognition <br> J0905 <br> Split group: - |
| Mason Whittemore | Walter Reed Middle School Joyann Sofio | Recognition <br> J0903 <br> Split group: - |

How Does Your Location Affect Air Quality?

Chilling Out Sustainably:
The Quest for an Affordable and EcoFriendly Cooling Solution

How does Supplemental Carbon Dioxide Affect Algae Growth?

## Unclear Contamination

## First Place

J1001
Split group: A
First Place J1003
Split group: A
First Place J1028
Split group: B
Second Place
J1017
Split group: A

Second Place J1040
Split group: B
Third Place J1018 Split group: A

Third Place J1049
Split group: B

3D > 2D: Nonplanar Solar Panels to Increase Surface Area and Efficiency

Trussworthy?

How much more power can a solar panel capture from the sun by using an active tracking system?

How Does the Size of the Filament Affect the Brightness of the Bulb and the Time it Takes to Burn Out?

The Robotic Helping Hand

Decentralize Desalination

When the Nose Doesn't Know

| 2023 Los Ange | ty Science Fair Categor | y Winners | Page 9 |
| :---: | :---: | :---: | :---: |
| Arpi Hokhikyan | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Honorable Mention J1002 <br> Split group: A | Build a heart rate monitor |
| Nick Honda | Palos Verdes Intermediate School <br> Julie Munoz | Honorable Mention J1016 <br> Split group: A | Fog Collection for Agricultural Irrigation |
| Coco Sakuma | Rudecinda Sepulveda Dodson Gifted Magnet Middle School Teresa Aki | Honorable Mention J1011 <br> Split group: A | Stop Building Damages Using Earthquake-resistant Supporters |
| Katia Thomas Pasha Selig | Archer School for Girls Junior Division Jerilyn Neshek | Honorable Mention J1007 <br> Split group: A | Building an Aerodynamic, Sustainable Steam Engine |
| Kayla Arvizu <br> Paria Vahdat | The Science Academy STEM Magnet <br> Flavia DiMonaco | Honorable Mention J1031 <br> Split group: B | Water On The Go: Creating an Emergency Water Filter |
| Maliyah Bass | Ross Academy of Creative and Media Arts Middle School Oscar Espinoza | Honorable Mention J1050 <br> Split group: B | Dealing with Diabetes: The Process Of Developing an Artificial Pancreas |
| Leila Boles | Incarnation Parish School <br> Anna Anderson | Honorable Mention J1032 <br> Split group: B | Amazing Origami: Fold into Function |
| Liam OBrient | Turning Point School Matthew KLine | Honorable Mention J1042 <br> Split group: B | A shocking solution to the drought: a foolproof timer circuit for greywater systems |
| Davit Abgaryan | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J1012 <br> Split group: A | Rc blimp |
| Yanar Akoshali | New Horizon School Kavitha Satya | Recognition J1009 Split group: A | Constructing a Solar Water Heater and Testing its Efficiency in Heating Water From a Hose. |
| Christopher Avila Giovany Santos Eduardo Sanchez | Montebello Intermediate School <br> Karina Aragon | Recognition J1010 <br> Split group: A | ZA Bullet |
| Vienna Carlin | Montebello Intermediate School <br> Karina Aragon | Recognition J1023 <br> Split group: A | The Handy Hand |


| 2023 Los Angeles Cou | y Science Fair Cate | y Winners | Page 10 |
| :---: | :---: | :---: | :---: |
| Harley Carmona-Gonzalez Moises Escobar | Montebello Intermediate School <br> Karina Aragon | Recognition J1022 <br> Split group: A | Magnetos GLove |
| John Erikson | Miraleste Intermediate School <br> Julie Munoz | Recognition J1020 <br> Split group: A | Device for Efficient Measuring of Solar Power |
| Darett Estrada | Montebello Intermediate School <br> Karina Aragon | Recognition J1004 <br> Split group: A | Need A Leg? |
| Michelle Garcia | Montebello Intermediate School <br> Karina Aragon | Recognition J1024 <br> Split group: A | Bicycle Ice Cream |
| Irene Kwon Noreen Ahmed Heather Choi | Rudecinda Sepulveda Dodson Gifted Magnet Middle School Teresa Aki | Recognition J1019 <br> Split group: A | Oil Filtering from Water |
| Bilal Mala | Islamic Center of Claremont School (ICCS) <br> Samraa Smadi | Recognition J1026 <br> Split group: A | If More Light is Concentrated on a Solar Light Will it Produce More Electricity and Allow Items to Charge Faster? |
| Jonathan Nunez | Montebello Intermediate School <br> Karina Aragon | Recognition J1015 <br> Split group: A | Space cleaners |
| Valeri Petrosyan | The Science Academy STEM Magnet Flavia DiMonaco | Recognition J1021 <br> Split group: A | The Fuel of the Future: Harvesting Biofuel from Algae |
| Elise Sarmiento Joshua Park Kayla Wang | Rudecinda Sepulveda Dodson Middle School <br> Wilmer Sarmiento | Recognition J1005 <br> Split group: A | The Auto-Crate |
| Sara Schneider | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J1008 <br> Split group: A | Robot Arm |
| Ibrahim Shawky | New Horizon School <br> Kavitha Satya | Recognition J1006 <br> Split group: A | Designing a Comfortable Bike Seat |
| Cody Smith | The Science Academy STEM Magnet <br> Flavia DiMonaco | Recognition J1014 <br> Split group: A | Changing Concrete: A Resourceful Approach to Construction by Using Different Materials |


| 2023 Los Angeles | ty Science Fair Categ | y Winners | Page 11 |
| :---: | :---: | :---: | :---: |
| Charles Wittnebel | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J1025 <br> Split group: A | Better Living Through DIY Air Filtration |
| Travis Bader Doviel Lugo | Miraleste Intermediate School <br> Julie Munoz | Recognition J1029 Split group: B | Using Modularity to Make Everyday Items More Efficient |
| Meryem Bellabouah | Rudecinda Sepulveda Dodson Middle School <br> Wilmer Sarmiento | Recognition J1036 <br> Split group: B | The Pi Plant |
| Nathaniel Carnow | Ross Academy of Creative and Media Arts Middle School Oscar Espinoza | Recognition J1051 <br> Split group: B | Hand Washing Timer |
| Natalie Conde Osorio | Magnolia Science Academy 6 <br> Sarah Kim | Recognition J1046 <br> Split group: B | Cue the Signal |
| Kenneth Diaz | Magnolia Science Academy 6 <br> Sarah Kim | Recognition J1039 <br> Split group: B | The Rotor Rivalry |
| Noah Eisner Noah Revzen | New Roads School <br> Daniel Figueroa | Recognition J1043 <br> Split group: B | Portable Self-Powered Induction Stove |
| Donovan fuentes | Montebello Intermediate School <br> Karina Aragon | Recognition J1034 <br> Split group: B | Solar panel car |
| Ruben Lavi Lilit Manvelyan | St. Gregory A. \& M. Hovsepian School <br> Shakeh Haroutiounian | Recognition J1047 <br> Split group: B | Railroad Trash Vacuum |
| Nathan Loza | Montebello Intermediate School <br> Karina Aragon | Recognition J1038 Split group: B | Hydro-Power! |
| Emma Melgoza | Montebello Intermediate School <br> Karina Aragon | Recognition J1035 <br> Split group: B | Fiddler Prevention Team |
| David Melkonyan | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J1030 <br> Split group: B | Point of a Parabola |

Samuel Menashe

Itzel Narez
Sophia Apolinar
Colin Sweeney

Ma'Kyla Whitaker
Vinayan Tiruvellore Gautham Korrapati Daniel Garcia

## Temple Beth Am Pressman Recognition Academy <br> Monica Hall

Rudecinda Sepulveda
Dodson Gifted Magnet Middle School
Teresa Aki
Sierra Madre Middle
School
Ravi Dev Anandhan
Rio Norte Junior High School

Stephanie Madrid
Los Angeles Academy Middle School

Cynthia Moss

## ENGINEERING RESEARCH - JR J11

| Julietta Hutt | Sierra Madre Middle School |
| :---: | :---: |
|  | Ravi Dev Anandhan |
| Andreas Eitel | Oak Hills Elementary |
|  | Jarrod Henry |
| Braden Chou | Pomona Unified School District Junior Division bridget gardea |
| Ismael Abdul-Matin | New Horizon School |
|  | Kavitha Satya |
| Nolan Vuong <br> Vikraant Gianchandani | Palos Verdes Intermediate School |
|  | Julie Munoz |
| Justin Baek | Palos Verdes Intermediate School |
|  | Julie Munoz |
| David Diaz | Mark Twain Middle School |
|  | Jenny Burman |

Recognition
J1045
Split group: B

Split group: -
Honorable Mention

J1113

Split group: -
Honorable Mention Building Better Bridges.
J1102
Split group: -
Recognition
J1114
Split group: -
Recognition
J1106
Split group: -

First Place
J1107
Split group: -
Second Place J1105 Split group: -

## Third Place

 J1109What Effect Does Speaker Enclosure Size Have on Bass Frequency Response?

Retrofitting Existing Bridges to Enhance their Earthquake Resistance

What Materials Block WiFi?
What mask best blocks a sneeze?
J1027 Split group: B

Recognition
J1044
Split group: B
Recognition J1037 Split group: B

## Recognition

Self Sufficient Garden: A Green Dream Come True

Solar-powered Kart Fi? Determining the Viability of Using Recycled Bottles to Make Trash Cans

| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
|  | Institute of Knowledge | Recognition | The Girl Who Harnessed <br> Eshal Janjua <br> Middle School |
|  | Selena Khan | J1108 <br> the Wind: Which Blade |  |
|  | Split group: - | Design in Windmill <br> Effectively Produces the <br> Most Electricity? |  |
| Benjamin Ramirez | District Junior Division | Recognition <br> J1103 | Fantastic Cars |


| Zohra Alam | Sierra Vista Junior High School <br> Shauna Davis | Honorable Mention J1218 <br> Split group: A | Protecting Plants from Acid Rain |
| :---: | :---: | :---: | :---: |
| Asha Parry | Archer School for Girls Junior Division Jerilyn Neshek | Honorable Mention J1205 <br> Split group: A | Arsenic in Drinking Water: Comparing Arsenic Levels in Different Socioeconomic Neighborhoods of Los Angeles |
| Stella Tesoriero | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Honorable Mention J1209 <br> Split group: A | Drip Irrigation Systems: <br> Which One Works Best? |
| Prateek Dorepally | Hale Charter Academy STEAM Magnet Joanne Ramirez | Honorable Mention J1235 <br> Split group: B | Is Water Powered Energy the Future of Fuel? |
| Amy Jackson | Sierra Vista Junior High School <br> Shauna Davis | Honorable Mention J1231 <br> Split group: B | Worms, Worms are Everywhere : A study of Solutions To our Planets Plastic Problems. |
| Elijah Lee | St. Timothy School <br> Christy Novak | Honorable Mention J1223 <br> Split group: B | SOS- Save Our Soil! |
| Jonathan Svilik Ethan Kang | The Science Academy STEM Magnet <br> Flavia DiMonaco | Honorable Mention J1234 <br> Split group: B | Water Works: A Solar Desalination Chamber |
| Yuvanah Vignesh Sathvi Reddy | Rosemont Middle School <br> Suzanne Risse | Honorable Mention J1229 <br> Split group: B | Increasing the life span of solar panels |
| Melina Ajami | Palos Verdes Intermediate School <br> Julie Munoz | Recognition J1215 <br> Split group: A | Prevention of Carbon Dioxide in Our Atmosphere |
| Ari Armenian | Chamlian Armenian School <br> lida Gevorkian | Recognition J1213 <br> Split group: A | Methods of Desalination |
| Dean Choi | Ridgecrest Intermediate School <br> Julie Munoz | Recognition $J 1202$ <br> Split group: A | Aquifire |
| Colton Engle | St. Timothy School Christy Novak | Recognition J1216 <br> Split group: A | Magnet Power |


| Samantha Glasgow | Sierra Vista Junior High | Recognition | Washing Machines And <br> School |
| :--- | :--- | :--- | :--- |
|  | Shauna Davis | Split group: A |  |
|  | Shair Impact On Oceans. |  |  |


| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
| Noah Figueroa <br> Jordin Luciano <br> Mariella Rosalado | Rudecinda Sepulveda <br> Dodson Middle School | Recognition <br> J1225 | Cleaning Schools and <br> Pools |
|  | Wilmer Sarmiento | Split group: B |  |
| Daniel Kim | Incarnation Parish School | Recognition | Making your own water <br> filter |
|  | Anna Anderson | Split group: B |  |
| James Kinsella | New Roads School | Recognition <br> J1233 | Desalinating water |


| Natalie Adeva |
| :--- |
| Nishita Bhakta |
| Corey Dehlinger |
| Orion Gainsforth |
| Luca Jarjoura |
| Emmalynn Mounivong |


| Ross Academy of Creative | Recognition |
| :--- | :--- |
| and Media Arts Middle | J1309 |
| School | Split group: - |
| Oscar Espinoza |  |

Ross Academy of Creative Recognition and Media Arts Middle J1304 School

Split group: -
Oscar Espinoza
Ross Academy of Creative
and Media Arts Middle
School
Oscar Espinoza

Delphi Academy of Los Recognition Angeles

J1305
Cindy Gainsforth
New Roads School
Recognition J1303
Split group: -
How Does The Sun Affect Paint?

Split group: -
Recognition J1313 Split group: -

## Daniel Figueroa

| Ross Academy of Creative | Recognition |
| :--- | :--- |
| and Media Arts Middle | J1312 |
| School | Split group: - |
| Oscar Espinoza |  |


| Antonio Navarro | St. Timothy School | Recognition <br> J1314 |
| :--- | :--- | :--- |
|  | Christy Novak | Split group: - |
| Amielle Jubilee Niere | Rudecinda Sepulveda <br> Dodson Gifted Magnet <br> Middle School | Recognition <br> J1316 |
|  | Teresa Aki | Split group: - |
| Tvisha Premjith | Oak Hills Elementary | Recognition <br> J1306 |
|  |  | Split group: - |
| Zoe Silberstein | Jarrod Henry | Temple Beth Am Pressman Recognition |
|  | Academy | J1302 |
|  | Monica Hall | Split group: - |

## MATHEMATICS \& COMPUTER SCIENCES - JR J14

| Pranav Arunachalam | Rosemont Middle School | First Place <br> J1403 |
| :--- | :--- | :--- |
|  | Suzanne Risse | Split group: - |
| Henry Huang | Ridgecrest Intermediate | Second Place |
|  | School | J1402 |
|  | Julie Munoz | Split group: - |

Glowstick Mania

Radiation Shield

Measuring The Quality Of Different Fabrics

How does color affect heating by light absorption

Which Brand of Bottled Water is "Purest"

Pneumonia and Covid Detection on CXR Images using Deep Learning

| Minghao Guo | Portola Highly Gifted Magnet <br> Ruth Gramajo | Third Place J1408 Split group: - | Development of a Smart Traffic Light Algorithm for Traffic Control |
| :---: | :---: | :---: | :---: |
| Daniel Hong | Palos Verdes Intermediate School <br> Julie Munoz | Honorable Mention J1409 <br> Split group: - | Vex Robotics Autonomous Code |
| Evelyn Gelman | Hale Charter Academy STEAM Magnet Joanne Ramirez | Recognition J1401 Split group: - | How Accurate Is Artificial Intelligence? |
| Anderson Gomez | Magnolia Science Academy 6 <br> Sarah Kim | Recognition $J 1410$ <br> Split group: - | Speeding Surface Area! |
| Youcef Hafid | Al-Huda Islamic School <br> Rula Alshanableh | Recognition J1404 <br> Split group: - | Identifying Dog Breeds |
| Viggo Magunna | New Roads School <br> Daniel Figueroa | Recognition J1406 <br> Split group: - | The limits of Al's human voice recognition |
| Aditya Velusamy | Sierra Madre Middle School <br> Ravi Dev Anandhan | Recognition J1405 Split group: - | What is the most efficient YOLOv5 Al model when detecting vehicles? |
| Tianqi Wu | Palos Verdes Intermediate School <br> Julie Munoz | Recognition J1407 Split group: - | Testing Neural Networks |

MICROBIOLOGY - JR J15

| Madeleine Martinez Park | Portola Highly Gifted <br> Magnet |
| :--- | :--- |
|  | Ruth Gramajo |
| Mirsolih Agzamov | New Horizon School |


| farah Sandoval | Archer School for Girls - <br> Junior Division | Third Place <br> J1503 |
| :--- | :--- | :--- |
|  | Jerilyn Neshek | Split group: - |
| Noor Ahmad | Al-Huda Islamic School | Recognition |
|  |  | J1510 |
|  | Rula Alshanableh | Split group: - |

Can Noctiluca Scintillans Be Used To Make An Affordable, Eco-Friendly, Non-Electric Lamp?

The Effect of Different Temperatures on Yeast Fermentation

You cannot B. Cereus: Bacteria growth at school

Identifying the Limits to the Growth of Bacteria under Various Temperatures.

| Alex Charette | Hale Charter Academy <br> STEAM Magnet | Recognition <br> J1501 <br> Split group: - | Does a toothbrush cap <br> really limit bacteria growth <br> on a toothbrush head? |
| :--- | :--- | :--- | :--- |
| Coanne Ramirez | Saint Martin of Tours <br> Elementary School | Recognition <br> J1502 <br> Split group: - | Testing Bacteria Levels in <br> Different Water <br> Environments |
|  | Mohammad Ashas | Al-Huda Islamic School | Recognition |

## PHARMACOLOGY - JR J16

Ella Tulloch

Charlotte Kamdar

## Hana Cho

Talia Boghossian

## Yasmine Labesh

| Archer School for Girls - <br> Junior Division | First Place <br> J1611 |
| :--- | :--- |
| Serilyn Neshek | Split group: - |
| Archer School for Girls - <br> Junior Division | Second Place <br> J1608 |
| Jerilyn Neshek | Split group: - |
| Archer School for Girls - <br> Junior Division | Third Place |
| Jerilyn Neshek | J1604 |
| Split group: - |  |

Battling with Broccoli: The effects of sulforaphane on oxidative stress in $C$. elegans

## Saffron VS Cancer: How Saffron affects the Regeneration of Neoblasts in Planaria

Effect of common antibiotics (Penicillin, ampicillin, and neomycin) on gram-positive (Bacillus subtilis) and gram-negative (E. coli) bacteria

Can Resveratrol and Drosophila Melanogaster Help Us Live Healthier and Longer?

Honorable Mention J1602
Split group: -

Which Cramp Medication Dissolves the Fastest in White Vinegar?

| 2023 Los Angeles C | ty Science Fair Categ | y Winners | Page 20 |
| :---: | :---: | :---: | :---: |
| Makana Vega | Miraleste Intermediate School <br> Julie Munoz | Honorable Mention J1601 <br> Split group: - | The Affect of Solubility on Painkillers |
| Arhum Mirza | Institute of Knowledge Middle School <br> Selena Khan | Recognition J1606 Split group: - | Defeat the Unseen: Developing a Pathway to Help the Blind Navigate |
| Abigail Moeller | Ross Academy of Creative and Media Arts Middle School Oscar Espinoza | Recognition J1610 <br> Split group: - | pH with Pills |
| Samuel Paik-Heintz Prianna Singhania | Mark Twain Middle School Jenny Burman | Recognition J1609 Split group: - | The Viability of Bacteriophage Treatment for E. Coli |
| Yaser Syed | New Horizon School <br> Kavitha Satya | Recognition J1607 <br> Split group: - | Comparing the Dissolution Rate of Tylenol |
| PHYSICS - AERODY | MICS/HYDRODYNAMIC | S-JR J17 |  |
| Maximus Piersol | Hale Charter Academy STEAM Magnet Joanne Ramirez | First Place J1709 Split group: - | What is the Effect of Weather On The Stall Point of a Wing? |
| Zach Matise | St. Timothy School <br> Christy Novak | Second Place J1714 <br> Split group: - | Set Sail: Which Weirdly Shaped Sail Will Be the Best? |
| Nikolas Navarro | Rudecinda Sepulveda Dodson Gifted Magnet Middle School Teresa Aki | Third Place J1701 Split group: - | Rocket Aerodynamics |
| Anthony Bangayan | Chaminade Middle School <br> Robert Jones | Honorable Mention J1702 <br> Split group: - | Nerf Blasting Barrels: Do Nerf Barrels Actually Work? |
| Natalie Lopez-Martinez | Magnolia Science Academy 6 <br> Sarah Kim | Honorable Mention J1710 <br> Split group: - | Hydraulic Lifts |
| Aditi Mahajan | Portola Highly Gifted Magnet <br> Ruth Gramajo | Honorable Mention J1704 <br> Split group: - | How Does the Diameter of an Artery and Plaque Build-up Affect the Rate of Blood Flow in an Artery? |
| Grecia Bonilla Emilia Gonzales | Pomona Unified School District Junior Division <br> bridget gardea | Recognition J1705 Split group: - | Parachute Drop Bomb |


| Janelle Elias | Magnolia Science Academy 6 <br> Sarah Kim | $\begin{aligned} & \text { Recognition } \\ & \text { J1703 } \\ & \text { Split group: - } \end{aligned}$ | Flight C |
| :---: | :---: | :---: | :---: |
| Ethan Gallegos | Pomona Unified School District Junior Division bridget gardea | Recognition J1713 <br> Split group: | Air Resistance Fabrics |
| Lev Marmer Jadon Geer | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J1707 <br> Split group: - | The Grand Splash |
| Namya Mehra | Sierra Madre Middle School <br> Ravi Dev Anandhan | Recognition J1706 <br> Split group: | How Do Air Pressure and Speed Impact the Collision of Two Objects? |
| Adam Naseer | Institute of Knowledge Middle School <br> Selena Khan | Recognition J1715 <br> Split group: - | Heaving the Limit: <br> Designing Boats to Bear the Load - An Investigation into the Key Factors that Support Maximum Cargo Weight |
| Kc Pagaduan | Ross Academy of Creative and Media Arts Middle School Oscar Espinoza | Recognition J1708 <br> Split group: - | Tornado in a Box |
| lago Parry | New Roads School <br> Daniel Figueroa | Recognition J1716 <br> Split group: | Parachutes to the Rescue: Investigating the relationship between area of parachute, payload mass and terminal velocity |
| Leo Powell | Walter Reed Middle School Joyann Sofio | Recognition J1711 <br> Split group: | Music: Making Waves in Science |
| Owen Yeh | Ridgecrest Intermediate School <br> Julie Munoz | Recognition J1712 <br> Split group: | Comparing Paper Airplane Designs for the Best Aerodynamics |

## PHYSICS - ELECTRICITY \& MAGNETISM - JR J18

Sophia Martin

Elenka Odorczuk
$\begin{array}{ll}\text { Chamlian Armenian School } & \text { First Place } \\ & \text { J1809 } \\ \text { lida Gevorkian } & \text { Split group: - }\end{array}$
Pomona Unified School District Junior Division

Comparison of
Electromagnetic Fields Emitted from Various Objects

Electric Energy from Household Items
Yasmeen Haw

Elle Hong
Emmanuel Morales
Joseph Cru

|  | Araceli Galvez |
| :--- | :--- |
| Arsha Farkhondeh | Hale Charter Academy <br> STEAM Magnet |
| Kamala Karimova | New Horizon School |
| Seter Shanoian | Kavitha Satya |
|  | C. \& E. Merdinian <br> Armenian Evangelical <br> School <br> Fredrick Sayadian |

PHYSICS - GENERAL - JR J19
Aude Ste-Croix Hamazaki Oak Hills Elementary

Jarrod Henry

| Charles Huang | Portola Highly Gifted <br> Magnet |
| :--- | :--- |
| Walker Ehrich | Ruth Gramajo <br> Saint Martin of Tours <br> Elementary School |

Ashalina Bholat
Islamic Center of
Claremont School (ICCS)

## Samraa Smadi

Magnolia Science Academy 6

Sarah Kim
Walter Reed Middle School

Joyann Sofio
Magnolia Science
Academy 6
Sarah Kim
Holy Angels School

Araceli Galvez
Hale Charter Academy STEAM Magnet

Joanne Ramirez

Kavitha Satya
C. \& E. Merdinian Armenian Evangelical School
Fredrick Sayadian

First Place
J1906
Split group: -
Second Place The Relativistic Kinematics J1910
Split group: -
Third Place J1901
Split group: -
Honorable Mention It's Free, Free Falling! J1905
Split group: -
s-ICE-mulator of Muon Decay: A Measurement of Muon Lifetime and Speed

To bounce or not to Bounce Does the Mass of an Object Affect the Speed by Which it Falls?

| Lyric Rivera | Pomona Unified School District Junior Division bridget gardea | Honorable Mention J1903 <br> Split group: | LEGO Drop Experimant |
| :---: | :---: | :---: | :---: |
| Raadiya Sabah | Rudecinda Sepulveda Dodson Middle School <br> Wilmer Sarmiento | Honorable Mention J1911 <br> Split group: | Automatic Street Light |
| Anabelle Viljoen Avery Yu | Ridgecrest Intermediate School <br> Julie Munoz | Honorable Mention J1912 <br> Split group: - | Analyzing the Refraction and Reflection of Light |
| Joseph Agustin | Magnolia Science Academy 6 <br> Sarah Kim | Recognition J1909 <br> Split group: | Catapult Power |
| Emma Dishoyan | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J1904 <br> Split group: - | What Ever Floats My Boat |
| Evan Grady | St. Timothy School <br> Christy Novak | Recognition J1907 <br> Split group: - | Temperatures impact on how far a ball travels |
| Karen Ter-Arsenyan | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J1908 <br> Split group: | What makes ice melt faster |

## PLANT BIOLOGY \& PHYSIOLOGY - JR J20

Gaia Bhavsar Archer School for Girls Junior Division

Jerilyn Neshek

Sahel Munshi

Oliva Matheny

## Sophie Audu

Portola Highly Gifted Magnet

Ruth Gramajo
St. Timothy School

Christy Novak
Rudecinda Sepulveda Dodson Gifted Magnet Middle School
Teresa Aki

First Place
J2003 Split group: A

First Place J2023 Split group: B

Second Place J2007 Split group: A

## Second Place

 J2032Split group: B

Fueled by algae:
Determining which type of algae produces the most oil that can be used for biodiesel to power modes of transportation
Heavy Metals Alter Plant Development and Physiology

How does your garden grow?

Plants to the Rescue: Do plants have an effect on noise pollution?

| Nikolai Robin | Walter Reed Middle School Joyann Sofio | Third Place J2015 <br> Split group: A | From Gravel to Moss: What hydroponic growth stone grows tomato plants best? |
| :---: | :---: | :---: | :---: |
| Nicholas Brown | Hale Charter Academy STEAM Magnet Joanne Ramirez | Third Place J2028 Split group: B | Which Plant Grows Best in Microgravity? |
| Savanna Dizon | Rudecinda Sepulveda Dodson Middle School <br> Wilmer Sarmiento | Honorable Mention J2009 <br> Split group: A | How does compost affect the growth of Glycine Max |
| Alex Ghazarian Christopher Hagobian | Chamlian Armenian School <br> lida Gevorkian | Honorable Mention J2001 <br> Split group: A | Antimicrobials and Radish Growth |
| Moses Kaplan | Portola Highly Gifted Magnet <br> Ruth Gramajo | Honorable Mention J2034 <br> Split group: B | Polluted vs Pure Microgreens |
| Ibraheem Mulla | New Horizon School Kavitha Satya | Honorable Mention J2031 <br> Split group: B | Testing the Effect of Earthworms and Peanut Shell Powder on String Bean (Phaseolus vulgaris) Growth and Soil Moisture Content |
| Hiromi Ouchi | Ridgecrest Intermediate School <br> Julie Munoz | Honorable Mention J2029 <br> Split group: B | Using RuBisCO to Enhance the Growth Rate of Wheatgrass |
| Fatimah Alameddine | Institute of Knowledge Middle School <br> Selena Khan | Recognition J2018 <br> Split group: A | Plants in Peril: Examining the Effects of Global Warming on California's Flora |
| Emily Alejandro | Holy Angels School <br> Araceli Galvez | Recognition J2002 <br> Split group: A | Does Artificial Light Affect the Growth of Plants? |
| Claire Desrosiers | Archer School for Girls Junior Division Jerilyn Neshek | Recognition J2010 <br> Split group: A | The effect of sunscreen on different types of freshwater plants |
| Malak Hawa | Islamic Center of Claremont School (ICCS) <br> Samraa Smadi | Recognition J2005 <br> Split group: A | Which Caffeine will Grow the Plant the Tallest and the Fastest? |
| Natalie Khatchadourian | C. \& E. Merdinian Armenian Evangelical School Fredrick Sayadian | Recognition J2012 <br> Split group: A | DNA extraction from strawberries |

Nathan Nguyen
Satyajith Payasam

| Ness Rosner |
| :--- |
| Maral Shahnaza |
| Samuel Sun |
| Ananya Balaji <br> Sofia Luong |

Bella Cho Walter Reed Middle School

Joyann Sofio

| Penelope Ehrich | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J2035 <br> Split group: B | BE WISE WHEN YOU FERTILIZE! |
| :---: | :---: | :---: | :---: |
| Josiah Himsl | Sierra Madre Middle School <br> Ravi Dev Anandhan | Recognition J2019 <br> Split group: B | Can I Reduce My Carbon Footprint by Growing Phytoplankton? |
| Kendelyn Kay | Pomona Unified School District Junior Division bridget gardea | Recognition J2020 <br> Split group: B | Can It Grow? |
| Anson Lee | Pomona Unified School District Junior Division bridget gardea | Recognition J2030 <br> Split group: B | Do Temperatures of Water Affect Plant Growth? |
| Sophia Perez | Rudecinda Sepulveda Dodson Gifted Magnet Middle School Teresa Aki | Recognition J2022 <br> Split group: B | Do Lemon, Orange, and Apple Infused Water Affect the Growth of a Centuarea Cyanus? |


| 2023 Los Ange | Sy Science Fair Categor | y Winners | Page 26 |
| :---: | :---: | :---: | :---: |
| Eloise Schaeffer | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J2026 <br> Split group: B | Lights on Lima beans |
| Ayden Tashman | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J2027 <br> Split group: B | Musical Plants: Does Music Affect the way your Plants Grow? |
| PRODUCT SCI | J22 |  |  |
| Yahia Qasem <br> Yomna Qasem | Al-Huda Islamic School <br> Rula Alshanableh | First Place J2218 <br> Split group: - | How Safe are Child Proof Medicine Bottles? |
| Aliyah Husaini | New Horizon School <br> Kavitha Satya | Second Place J2219 <br> Split group: - | Testing the Amount of Glucose Produced by Different Lactase Supplements |
| Chirsten Gloria Juliana Ko Allison Lee | Rudecinda Sepulveda Dodson Middle School <br> Wilmer Sarmiento | Third Place J2204 <br> Split group: - | Soundproofing Door Hanger |
| Maryam Ahmed | Institute of Knowledge Middle School <br> Selena Khan | Honorable Mention J2203 <br> Split group: - | Color Coded: Examining the Interplay of Age and Color in Shaping Our Perception of Flavor |
| Luke Dymtrow Justin Jung | St. Timothy School <br> Christy Novak | Honorable Mention J2215 <br> Split group: - | Candle Scandal: Are You Getting The Best Bang For Your Buck? |
| Sana Khan | AI-Huda Islamic School Rula Alshanableh | Honorable Mention J2205 <br> Split group: - | Dis Dis Away! Which Disinfectant Works Best at Killing Bacteria? |
| Belicia Califano | Pomona Unified School District Junior Division bridget gardea | Recognition J2201 <br> Split group: - | Most Absorbent Paper Towel Brand |
| Emilie Gabrielyan | Chamlian Armenian School <br> lida Gevorkian | Recognition J2222 <br> Split group: - | Synthetic Vs. Natural Antacids |
| Samia Halari | New Horizon School <br> Kavitha Satya | Recognition J2206 <br> Split group: - | The Effectiveness of PlantBased Detergent and Chemical-Based Detergent on Stained Pieces of Cloth. |
| Sydney Lem | Archer School for Girls Junior Division Jerilyn Neshek | Recognition J2223 <br> Split group: - | Chemical vs. Natural: Which key ingredient works best at preventing ants? |


| 2023 Los Angeles C | ty Science Fair Categ | y Winners | Page 27 |
| :---: | :---: | :---: | :---: |
| Matteo Magnano | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J2211 <br> Split group: - | The Race Against Pain |
| Clarissa Mata | Montebello Intermediate School <br> Karina Aragon | Recognition J2207 <br> Split group: - | Botany in Distress |
| Angelique Matavosian | Chamlian Armenian School <br> lida Gevorkian | Recognition J2209 <br> Split group: - | What Materials Are Good Sound Insulators |
| Caleb Polk Shepard Meister Thomas Yoseph | Turning Point School <br> Matthew KLine | Recognition J2212 <br> Split group: - | Evaluating Solar Ovens |
| Kai Quan | Mark Twain Middle School Jenny Burman | Recognition J2214 <br> Split group: - | The Science of Trendy Insulated Water Bottles: Do They Deliver? |
| Vinay Rao | Sierra Madre Middle School <br> Ravi Dev Anandhan | Recognition J2217 <br> Split group: - | Sun Smart |
| Halo Ruiz Chloe Martir | Pomona Unified School District Junior Division bridget gardea | Recognition J2210 <br> Split group: - | Which of Shampoo is Healthiest for your Hair and Which is the Best? |
| Liam Sacino Jace Gibson | Incarnation Parish School <br> Anna Anderson | Recognition J2224 <br> Split group: - | Is What UV What You Get? |
| Celia Sasamoto | St. Timothy School Christy Novak | Recognition J2202 <br> Split group: - | Which Color Leaves the Most Unpopped Kernels? |
| Max Sinanian | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J2220 <br> Split group: - | Paper Towel vs Sweidsh Dishcloth |
| Ben Waterman | Saint Martin of Tours Elementary School <br> Mohammad Ashas | Recognition J2225 <br> Split group: - | Does Your Straw Suck? |
| Noah Weissman | Temple Beth Am Pressman Academy <br> Monica Hall | Recognition J2208 <br> Split group: - | Which is better? Powder or granular carbon |

Saint Martin of Tours
Elementary School
Mohammad Ashas
ANIMAL BIOLOGY - SR S01

| William Boyd | Flintridge Preparatory <br> School |
| :--- | :--- |
|  | Shane Frewen |
|  | Crescenta Valley High <br> School |
| Justin Jeong | Orenda Tuason |
| Katharina Zirn | Flintridge Preparatory <br> School <br> Silas Siebel <br> Ellie Sohn |
| Shane Frewen |  |
| Hannah DeMerit | Flintridge Preparatory <br> School |
| Jordan Lari | Shane Frewen |
|  | Brentwood School - Senior <br> Division |
|  | Aidyl Gonzalez-Serricchio |

Layan Mustafa

Usman Salman

Institute of Knowledge High School

Crescenta Valley High
School
Orenda Tuason

Selena Khan

First Place
S0104
Split group: -
Second Place
S0105
Split group: -
Third Place
S0103
Split group: -

Honorable Mention
S0108
Split group: -
Honorable Mention
S0102
Split group: -
Honorable Mention
S0101
Split group: -

Recognition
S0106
Split group: -
Recognition
S0107
Split group: -

## First Place

 S0209 Split group: -
## Second Place

 S0210 Split group: -Chemical Sensing in Aurelia Aurita Studied by Al-Enhanced Image Analysis: Jellyfish Can Smell
DETERMINING THE PHYLOGENETIC POSITION OF THE SAUNDERS'S GULL

The Percent Uptake of
Polyethylene After Three
Trophic Levels, From
Rotifera to Artemia to Medusa

In Vivo Study of Uptake and Accumulation of Polyethylene Microplastics in Artemia and A. Aurita

The effect of caffeine on high school students' cardiovascular health and their genetic makeup
It's About Bloody Time! Examining the Health Impacts of Conventional Pad Components on Women's Menstruation
Decreasing the Excretion of Microplastics in Polystyrene-Consuming Mealworms

Toxic Trespass: Assessing the Impact of Copper Sulfate Pentahydrate on Marine Ecosystems

Effect of Paeonia Lactiflora Pall (White Peony) Roots on the Alleviation in Primary Dysmenorrhea

Effect of Neurotransmitters on Planarian Flatworm Regeneration

Westridge School for Girls

Daniel Perahya
Petrina Ong

The Webb Schools

Lisa Nacionales

| Javeria Kashif | Institute of Knowledge High Third Place | Robo Roach to the <br> Rescue! Evaluating the |
| :--- | :--- | :--- |
|  | School | S0212 | | Efficiency and Viability of |
| :--- |

Angelina Lin

Benjamin Woodward
Yang Peng
Jonathan Chen Diamond Bar High School

|  | ERIC SORENSEN |
| :--- | :--- |
| Lauren Cheng | Diamond Bar High School |


|  | ERIC SORENSEN |
| :--- | :--- |
| Annika Gruettemann | Palos Verdes High School |

Hania Kashif
Zimal Amir

Justin Kung

Ty Sorenson
Christopher Lachowicz Cole Vranich

Ashley Viveros<br>Timothy Price Ruby Reyes

BEHAVIORAL/SOCIAL SCIENCES - SR S03

## Julie Munoz

Julie Munoz
Discovery Charter
Preparatory High School
Ashkhen Bagoyan

Palos Verdes Peninsula High School

Mark Greenberg

Brentwood School - Senior Honorable Mention Division

Aidyl Gonzalez-Serricchio
Brentwood School-Senior
Division
Aidyl Gonzalez-Serricchio
Diamond Bar High School

Institute of Knowledge High School

Selena Khan
Diamond Bar High School

ERIC SORENSEN
Palos Verdes High School

S0201
Split group: -
Are all controls interchangeable? (in Caenorhabditis elegans)

Honorable Mention S0206 Split group: -

Recognition S0207
Split group: -
Recognition S0211
Split group: -

Recognition S0208
Split group: -
Recognition S0205 Split group: -

Recognition S0214
Split group: -
Recognition S0213
Split group: -

## Recognition

 S0202Split group: -

First Place

Combating the Spread of Deepfake Videos with Labels

| 2023 Los Angeles C | y Science Fair Categ | y Winners | Page 30 |
| :---: | :---: | :---: | :---: |
| Ashley Deng | Palos Verdes Peninsula High School <br> Mark Greenberg | Second Place <br> S0303 <br> Split group: - | Modeling Depression and Antidepressant Treatment Accurately in Drosophila Melanogaster |
| Kimberly Liang | Diamond Bar High School <br> ERIC SORENSEN | Third Place S0305 <br> Split group: - | Quantifying Happiness |
| Chloe Chen | Brentwood School - Senior Division <br> Aidyl Gonzalez-Serricchio | Honorable Mention S0308 <br> Split group: - | The Power of Music: Do frequencies impact nematodes with dementia? |
| Naomi Kao | Palos Verdes High School <br> Julie Munoz | Honorable Mention S0304 <br> Split group: - | The Effect of a Simulation Game on Students' Handwashing Knowledge and Skills |
| Meera Mahidhara | Archer School for Girls Senior division <br> Jerilyn Neshek | Honorable Mention S0310 <br> Split group: - | Less Stress for the Homeless |
| Grace Cha | National Youth Community Center <br> Wonjong Kim | Recognition S0307 <br> Split group: - | Effects of Magnesium on Fruit Fly Memory |
| Hannah Cho | North Hollywood Senior High School <br> Altair Maine | Recognition <br> S0311 <br> Split group: - | Cortical Thicknesses of the Insula and Prefrontal Regions Are Significantly Correlated with SocialEmotional Processing |
| Zeena Hajhamid Samiya Ali Salma Azzaz | Institute of Knowledge High School <br> Selena Khan | Recognition S0301 <br> Split group: - | Just Beat It: Examining the Gender Gap in MathInduced Stress and Heart Rate Responses |
| Rana Kapadia | Da Vinci Science High School <br> Alex Creencia | Recognition S0306 <br> Split group: - | Public Health Awareness Survey |
| Gabriel Morales | Don Bosco Technical Institute Jomaquai Jenkins | Recognition S0302 <br> Split group: - | Big City Rats |
| Kaitlyn Sulivan-Pascual | Flintridge Preparatory School <br> Shane Frewen | Recognition S0312 <br> Split group: - | How the Placebo Effect Alters Cognitive Performance |


| 2023 Los Angeles County Science Fair Category Winners |  |  | Page 31 |
| :---: | :---: | :---: | :---: |
| BIOCHEMISTRY \& MOLECULAR BIOLOGY - SR S04 |  |  |  |
| Claire Dokko | Palos Verdes Peninsula High School <br> Mark Greenberg | First Place <br> S0410 <br> Split group: - | Comparing the CancerInhibiting Abilities of Photosynthetic Pigments in Algae on Breast and Testicular Cancer Cell Lines |
| Kate Chiang Anjali Mani | Whitney High School <br> Nitta Song | Second Place S0405 <br> Split group: - | Protective effects of omega -3 fatty acids against oxidative stress-induced collagen degradation of Tilapia fish scales |
| Anna Peti-Peterdi Lena Peresztegi Daniel Peresztegi | Palos Verdes High School Julie Munoz | Second Place S0402 <br> Split group: - | The Development of the C2F Seawater to Freshwater Converting Bioplant |
| Danny Wang | The Webb Schools <br> Lisa Nacionales | Third Place SO403 <br> Split group: - | Pinpointing Drug Targets on Influenza by Analyzing RNA Sequencing Data |
| Long Hei (Ryan) Ho | The Webb Schools <br> Lisa Nacionales | Honorable Mention S0413 <br> Split group: - | Identifying the Pollen Composition of Local Honeys by DNA Barcoding |
| Elyse Hwang | La Canada High School James Cartnal | Honorable Mention S0412 <br> Split group: - | Investigating the OpenClosed Transition of cpSRP43 Using NMR Spectroscopy and a DE3NQ Mutant |
| Ava Simpson | Palos Verdes High School Julie Munoz | Honorable Mention S0409 <br> Split group: - | Determining the Collagen Content and Concentration of Nanofat and Microfat Using SDS-PAGE and Sirius Red Dye Assay Analysis |
| Mariyah Ahmed | Institute of Knowledge High School <br> Selena Khan | Recognition S0401 <br> Split group: - | That's a Wrap! Investigating Plastic Wrap Brands to Determine their Effectiveness in Preventing Oxidation |
| Ray Chung | Institute for Educational Advancement <br> Monica Barsever | Recognition S0407 <br> Split group: - | A new design for photovoltaic proteins in biohybrids with an aim to improve thermal stability and electric output |
| Derick Ghadimi | Crescenta Valley High School <br> Orenda Tuason | Recognition S0411 <br> Split group: - | Path To Understand and Cure the Mechanics of Phantom Limb Pain |


| Zachary Jones | Hart High School | Recognition <br> S0408 |
| :--- | :--- | :--- |
|  | Jenni Jones | Split group: - |

Recombinant Synthesis of Ovomucoid Protein, an Allergen in Eggs

Slow Your Flow: Examining the Effects of Sodium Citrate on Coagulation in the Human Body

Investigating the
Hybridization of Phage Tail
Proteins for use in the
Treatment of Multi-
Antibiotic-Resistant Bacteria

Milk into plastic

Sweetening the Deal: Examining the Effects of Sucrose, Fructose, and Glucose on Hypoglycemic Recovery

Plastic Eating PETase (Year 2 with Procedure Modifications)

First Place
S0511
Split group: -
Second Place
S0516
Split group: -

Third Place
S0508
Split group: -
Honorable Mention
S0504
Split group: -
Recognition
S0507
Split group: -

Conversion of Carbon Dioxide into a Versatile Green Solvent with Isoreticular Metal-Organic Frameworks

Improving the Ductility and Overall Usability of Milk Based Plastic Through the Implementation of a Plasticizer

Fading Famines: Reducing world hunger by innovating upon ancient meat preservation techniques

Flex Charge

Division

Aidyl Gonzalez-Serricchio
Institute for Educational Advancement

Monica Barsever
The Webb Schools

Lisa Nacionales
Whitney High School

Nitta Song
Beverly Hills High School

Michael Sherman
Brentwood School-Senior

CHEMISTRY - SR S05

## Victoria Adams <br> Victor

Sehoon Kang
Zhehao Zhang

Sarah Zhang

Jonah Nazarian
Isabella Contreras
Aimee Acevedo
Leonel Torres

Leonel Torres

Marcel Contreras Ariana Ruiz

|  | Matthew Murray |
| :--- | :--- |
| Christine Kim | Crescenta Valley High <br> School |
|  | Orenda Tuason |
| Katelyn Mak | Whitney High School |
|  | Nitta Song |
|  | Pioneer High School |
| Karen Marin | Matthew Murray |
|  | Schurr High School |
| Lori Terjimanian | Myriam Islas |
| Angela Karapetyan | Granada Hills Charter High <br> School |
| Jeffery Yu | Tripti Shah |

## EARTH / SPACE SCIENCES - SR S06

David Agekyan
Emily Mardirousi
Sean Canlas

## ECOLOGY - SR S07

\(\left.$$
\begin{array}{ll}\text { Mia Moore-Walker } & \begin{array}{l}\text { Flintridge Preparatory } \\
\text { School }\end{array} \\
& \text { Shane Frewen }\end{array}
$$ \begin{array}{ll}Crescenta Valley High <br>

School\end{array}\right\}\)| Orenda Tuason |
| :--- |

Anderson Clark Magnet High School

Dominique Evans-Bye

Flintridge Preparatory School

Shane Frewen
Crescenta Valley High School

Orenda Tuason
Archer School for Girls Senior division

Jerilyn Neshek

Recognition
S0510
Split group: -
Recognition S0501
Split group: -
Recognition S0512
Split group: -
Recognition
S0514
Split group: -

Recognition
S0505
Split group: -
Recognition S0506
Split group: -
Recognition S0513
Split group: -

## Second Place

 S0603Split group: -

## First Place

S0706
Split group: -
Second Place S0705 Split group: -

Third Place S0707 Split group: -

Look no further for a grease stain remover

Kevlar's against water

Understanding the Relative Efficiency of Antibodies Generated in Response to Infection by Covid Variants

Comparing the Influences of Stevia Rebaudiana Extract and Butylated Hydroxytoluene on the Degradation of Biodiesel Derived from Brassica napus L. Oil

How do different variations of additives to coffee affect its acidity?

Tooth Decay Eggsperiment

How To Eliminate The "Swimming Pool Smell"

Investigating Methane Emissions in Local Communities

Assessing the nutritional impact of decomposers (isopods) on soil fertility

Lowering the Harmful Impact of Invasive Species

Global Worm-ing: Climate Change and Lumbriculus Variegatus

| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
| Ann Huang | Whitney High School | Recognition | The Effect of Different <br> Fertilizers on Levels of <br> Rissolved Oxygen |
|  | Nitta Song | S0702 | Split group: - |


| Dohyun Ju | Palisades Charter High School Jane Curren | Recognition <br> S0808 <br> Split group: - | The Development of an Automated, Modular Method for Medical Image Registration in the Creation of a Volumetric Prostate Atlas |
| :---: | :---: | :---: | :---: |
| Shreyas Kulkarni | Whitney High School <br> Nitta Song | Recognition S0801 <br> Split group: - | The Affordable Lockbox |
| Elan Lonstein | Delphi Academy of Los Angeles (Senior Division) <br> Cindy Gainsforth | Recognition S0804 <br> Split group: - | Alternate Center Airbag Gas Release System |
| Roshini Muppana Sara Donato | Palos Verdes Peninsula High School <br> Mark Greenberg | Recognition <br> S0809 <br> Split group: - | The Discrepancy Between Pebbles and Lava Rock in the Growth of Mint Within an Aquaponic System |
| Jiselle Rivas | Pioneer High School <br> Matthew Murray | Recognition S0818 <br> Split group: - | Hydraulic Robotic Arm |
| Shreyas Sakharkar | West Ranch High School <br> William Hughes | Recognition S0811 <br> Split group: - | Alzheimer's Disease Patient Chatbot |
| Athreya Sriram | Whitney High School Nitta Song | Recognition S0820 <br> Split group: - | Temperature Scanning Station |


| Anish Anand | Palos Verdes Peninsula <br> High School <br> Mark Greenberg |
| :--- | :--- |
| Christine Xie | Palos Verdes High Schoo |
|  | Julie Munoz |
| Andreas Tempereau | Julie Munoz Verdes High Schoo |
| Sanjith Cherumandanda <br> Warren Lam <br> Chowon Kim | La Canada High School |
|  | James Cartnal |

Sanjith Cherumandanda La Canada High School

## First Place

 S0908Split group: -
Second Place
S0902
Split group: -

Third Place
S0901
Split group: -

Honorable Mention S0903
Split group: -

A Novel Control System for Autonomous Quadcopter Navigation

Hydrogel-assisted brain transplantation of НОХАЗexpressing endothelial progenitor cells for brain repair after stroke
Designing and Constructing an Automatic, Non-Electrical Cardiopulmonary Resuscitation Machine Gen 2.0

Designing and Evaluating the Effectiveness of a Quartic Spline Interpolation within Engineering Simulations

| 2023 Los Angeles County Science Fair Category Winners |  |  |  |
| :--- | :--- | :--- | :--- |
| Caroline Collis | Archer School for Girls - | Honorable Mention | Textiles Reaching Out |
|  | Senior division | Tiles: How Washing your <br> Mila |  |
|  | Jerilyn Neshek | Split group: - | Clothes Pollutes the <br> Environment with |
|  |  | Microfibers |  |


| Debayon Roy |
| :--- |
|  |
| Ruby Rose Carlson <br> Max Weene |

Bill Sun
Annalia Henderson

Joyce Luo

| Yvette Shu | The Webb Schools |
| :--- | :--- |
|  | Lisa Nacionales |
| Ashley Song | Whitney High School |

Adam Azzaz
Umar Khan
Ihsan Musallet

Raffi Boghossian

Charlie Clayton

Esther Hwang

## Kate Park

Kayleen Yang
Crescenta Valley High
School

Orenda Tuason
Brentwood School-Senior Division

Aidyl Gonzalez-Serricchio
The Webb Schools

Lisa Nacionales
Palos Verdes High School

Julie Munoz
Pomona Unified School District Senior Division
bridget gardea
The Webb Schools

Nitta Song
Institute of Knowledge High School

Selena Khan
Rose and Alex Pilibos Armenian High School

Jacque Mishler
Archer School for Girls Senior division

Jerilyn Neshek
Crescenta Valley High School

Orenda Tuason

First Place
S1019
Split group: -

Second Place
S1007
Split group: -
Second Place
S1017
Split group: -
Third Place S1021
Split group: -

Third Place
S1002
Split group: -
Third Place
S1010
Split group: -
Third Place S1013
Split group: -
Recognition S1008
Split group: -

## Recognition

 S1015 Split group: -Recognition
S1011

Split group: -

## Recognition

 S1004Split group: -

Predicting Sewer Pipe Longevity Through DeepLearning Methods: A Novel Way To Prevent Sanitary Sewer Overflow

## Caenorhabditis elegans

 Soil RejuvenationHybrid Photobioreactor System for Economical Biofuel Production with Upcycled Plastic Bottles

Ballona Wetlands Remove Contaminants from Municipal Runoff: An Ecological Sink for Enterococcus

Cooked By Soot

Microplastic Fallout Density of Polyester Fabrics from Fast Fashion Companies under UV Light

All It Takes is a Switch of Chemicals: A Safer Approach to Extracting Hydrophobic Plant Wax

Fighting Fire with Science: A Comparative Study of Flame Retardant Effectiveness

Do Not Worry about Plastic, We Have Worms!

The Health Implications of Recent Bacterial Waves Along the Coast of Southern California

Water Contamination in La Crescenta Schools

| Daron Kasparian | Rose and Alex Pilibos Armenian High School Jacque Mishler | Recognition S1009 Split group: - | "The Fuel of the Next Generation" <br> Transesterification of Biodiesel Using Recycled Cooking Oils |
| :---: | :---: | :---: | :---: |
| Ethan Lee | Crescenta Valley High School <br> Orenda Tuason | Recognition <br> S1003 <br> Split group: | Landfill Coverage Through the Utilization of Charcoal |
| Aiden Park | North Hollywood Senior High School <br> Altair Maine | Recognition S1006 <br> Split group: | The Effect of Temperature on the Shedding of Microplastics |
| Erica Ro | Palos Verdes Peninsula High School <br> Mark Greenberg | Recognition S1020 <br> Split group: | Measuring the Effectiveness of Thermochromic Roofs for Urban Heat Island Mitigation |
| Skylar Roberts | Archer School for Girls Senior division Jerilyn Neshek | Recognition S1012 <br> Split group: | Using Homemade Magnetite Ferrofluid to Extract Microplastics From Water |
| Ruhini Saha | Granada Hills Charter High School <br> Tripti Shah | Recognition S1016 <br> Split group: | Pyrolysis of plastic waste to fuel |
| Alishba Salman | Institute of Knowledge High School <br> Selena Khan | Recognition S1014 <br> Split group: | A Magnetically Attractive Solution: Comparing the Efficiency of Ferromagnetic Nanoparticles for the Purpose of Oil Remediation |
| Vana Scorza | Rose and Alex Pilibos Armenian High School Jacque Mishler | Recognition S1018 <br> Split group: | Photovoltaic (PV) Solar Cells' Output (watts) vs. the Ambient Temperature (F) |
| Scarlett Tinajero | Pioneer High School Matthew Murray | Recognition S1005 <br> Split group: | How detergent affects our environment |

## MATHEMATICS \& COMPUTER SCIENCES - SR S11

| Justin Liu | Palos Verdes Peninsula <br> High School | First Place <br> S1108 |
| :--- | :--- | :--- |
|  | Mark Greenberg | Split group: - |
| Zexin Bi | The Webb Schools | Second Place |
|  | Sisa Nacionales | Split group: - |


| 2023 Los Angele | ty Science Fair Categ | y Winners | Page 39 |
| :---: | :---: | :---: | :---: |
| Anthony Yoon | Palos Verdes High School <br> Julie Munoz | Third Place S1107 <br> Split group: | Machine Learning Ensemble for Operational Variables and Prediction of Truck Turntime at the Port of Los Angeles |
| Jenna Chow | Palos Verdes High School <br> Julie Munoz | Honorable Mention S1101 <br> Split group: - | BerthaBot: A Student Interface with Realistic Communication Through Artificial Intelligence Knowledge Bases |
| Gabriel Fergesen | Institute for Educational Advancement <br> Monica Barsever | Honorable Mention S1115 <br> Split group: - | Watching the Death-Clock: Simulating Prion Infection of Human Cells |
| Michael Dalva Isabel Huh | Granada Hills Charter High School <br> Tripti Shah | Recognition <br> S1106 <br> Split group: - | Crush Guard |
| Rachel DeMerit | Flintridge Preparatory School <br> Shane Frewen | Recognition <br> S1103 <br> Split group: - | Predictive Data Model for Diabetic Recommendations |
| Tejaswi Krishna Hrishikesh Krishna | Mira Costa High School <br> Ernesto Nodado | Recognition S1111 <br> Split group: - | Analysis of Rising Interest Rates on Student Loans from a Macro and Microeconomic Perspective |
| Matteo Paz | Institute for Educational Advancement <br> Monica Barsever | Recognition <br> S1114 <br> Split group: - | Long-Short Term Memory Recurrent Neural Networks as a Stock Market Prediction Tool |
| Emily Ren | Diamond Bar High School <br> ERIC SORENSEN | Recognition <br> S1109 <br> Split group: - | Intersection of Longest Cycle and Largest Bond in 3-Connected Graphs |
| Harris Song | Walnut High School Garrett Lim | Recognition S1104 <br> Split group: - | Algorithmic Generation and Implementation of the Protein Universe |
| Xiangzhou Sun | The Webb Schools <br> Lisa Nacionales | Recognition <br> S1113 <br> Split group: - | Communication Reduction via Compression-Aware Training for Efficient EdgeCloud Computing on AR/VR Systems |
| Angelina Tsuboi | Chadwick School <br> Dijanna Figueroa | Recognition S1102 <br> Split group: - | ADS-B Plane Spoofing Detection using Neural Networks and RF Fingerprinting |


| Kevin Wang | The Webb Schools |
| :--- | :--- |
| John Xu | Lisa Nacionales |
|  | Harvard- Westlake High <br> School |
| Tripp Reed |  |

Recognition
S1110
Split group: -
Recognition
S1105
Split group: -

Effects of Using Neural Networks to Generate Music

Procedural Generation in 2D Metroidvania Game with Answer Set Programming

## MICROBIOLOGY - SR S12

| Mark Lin | Cabrillo Marine Aquarium |
| :--- | :--- |
|  | Brenton Spies |
| Mason Hong | La Salle College <br> Preparatory <br> Elizabeth Parga |
| Katherine Le | Palos Verdes Peninsula <br> High School |
| Milbert Shen | Wark Greenberg |
| Abira Dost | Garrett Lim School <br> Institute of Knowledge High <br> School |
| Selena Khan |  |
| Lingyi Tang | The Webb Schools |
| Chelsea Wei | Lisa Nacionales |

## First Place

 S1209Split group: -
Sustaining Spacecraft: Application of Novel Photobioreactor System in Aerospace Oxygen Exchange Systems

| Second Place | Spectral Autofluorescence: |
| :--- | :--- |
| S1202 | Towards Quantitative |
| Split group: - | Pathology |

Third Place
S1207
Split group: -

## Efficacy of Bacteriophage Cocktails on E. Coli K-12 in HEK Cells

Honorable Mention
S1205
Split group: -
Recognition
S1208
Split group: -

Recognition
S1206
Split group: -

First Place
S1305
Split group: -

Second Place
S1301
Split group: -

New Generation Drug Development Pipeline From in-silico Identification to Preclinical Evaluation for Novel Drug Candidates in Glioblastoma

OpenBook: A Novel Machine Learning Tool for Prescription and
Pharmacologic Management of Drug Dosage for Patients with Depression and Anxiety

| Ruotong Gao | The Webb Schools | Third Place | Investigation of controlled <br> underexpression of |
| :--- | :--- | :--- | :--- |
|  |  | S1312 | IGFBP7 on geriatric |
|  | Lisa Nacionales | Split group: - | diseases using a Bayesian <br> Network and Protein- |
|  |  |  | Ligand complex |
|  |  | models/simulations |  |

Helen Yang
PHYSICS - SR S14

| Madelyn Li | Mira Costa High School |
| :--- | :--- |
|  | Ernesto Nodado |
| Madeline Gross | New West Charter High <br> School |
|  | Maurice Stephenson |
| Nicolas Revolorio | Pioneer High School |
| Gerardo Cordova | Matthew Murray <br> Institute |
| Brindha Srivatsav | Jomaquai Jenkins <br> Palos Verdes Peninsula <br> High School |
|  | Mark Greenberg |

## PLANT BIOLOGY \& PHYSIOLOGY - SR S15

Arman Omidvar
Chris Yang
Andrew Kim
Sydney Wynn
Maryam Soliman

Nicholas Dominguez
Ryan Tanada
Andrei De La Cruz

Valentina Mancilla Rowan Schaeffer Nicholas Dermovsesian

Palos Verdes Peninsula High School

Mark Greenberg
Flintridge Preparatory School

Shane Frewen
Palos Verdes High School

## Julie Munoz

Don Bosco Technical Institute

Jomaquai Jenkins
Flintridge Preparatory
School
Shane Frewen

Recognition
S1310
Split group: -

Association of genetic polymorphisms with pancreatic adenocarcinoma progression

First Place
S1405
Split group: -
Second Place
S1402
Split group: -
Third Place S1401
Split group: -

Electrical Wire Heating with Portable Battery for Preventive Masks

Using Conservation of Energy to Optimize Results of Women Pole Vaulters

Honorable Mention Magnets Matter
S1404
Split group: -
Honorable Mention ERND (Electromagnetic
S1403
Split group: -

S1512
Split group: -
Second Place
S1510
Split group: -

Third Place
S1508
Split group: -

S1509
Split group: -

| Honorable Mention | How Temperature Affects <br> The Rate of |
| :--- | :--- |
| S1515 | Photosynthesis |
| Split group: - |  |


| Xiomara Zamacona | Pioneer High School | Honorable Mention <br> S1506 | How does the temperature <br> affect plant growth? |
| :--- | :--- | :--- | :--- |
|  | Matthew Murray | Split group: - |  |
| Anai Duenas Padilla | Magnolia Science <br> Academy 4 Venice | Recognition <br> S1502 | Drip Drip Sprinkle |

