

ARTS:

1A: Emma Reheis

- *Trailing Woodrats*

1B: Trevvor Tenma

- *Design for Scientific Communication: Exclosures in Svalbard*

BIOCHEMISTRY:

40A: Kevin Amaya, Natalie

Salome, Melinda

Maldonado, Brianna

Galaviz, Aubrey Lopez, Itzel Sandoval

- *Hemp Based Shoe Soles*

40B: Maxwell Fales, Ron Jay

Torres, Eduardo Reyes,

Ryland Del Calzo, Carlos

Morales

- *Energy Sustainability on Campus*

BIOTECHNOLOGY:

2A: Alexis Canseco & Mac

West

- *Is CJD8-120 from cow rumen a good contender for biofuel production?*

2B: Antoinette Jane Dizon, Cesar De La Torre, Casandra Nguyen, Katherine Hill

- *Cow Wow!: ME8-His gene powers up Green Revolution in the cellulose crunch*

3A: Areli Salgado & Madina Farooqi

- *Analyzing CJD5-146 through Metagenomics*

3B: Audrey Street, Ella

Tremblay, Jeremy Benjamin

- *ME8-His gene from cow rumen microbes encodes for a cellulolytic enzyme that might be useful in biofuel production*

4A: Charalynn Smith &

Divonte Carty

- *"Rumen Revolution: Harnessing Bovine Biology for Next-Gen Biotechnology with Cellulase 5133-AP2*

4B: Henry Basila Rabamad,

Jonathan Hinrichs, Asher

Fernandez, Isabel camacho

- *CJD5-133 is a highly active cellulase gene for biofuel production*

5A: Joshua Alvarez, Bianca Asper, Hazel Hardman-Groff, Michael Cullen

- *Cellulase Enhancement through Gene CJD5-143: Unraveling the Mechanisms*

5B: Keely Berner & Yannik Lichtenfels

- *Examining the Potential of Cellulose Breakdown in the CJD8-120 Gene for Bioethanol Production*

6A: Laytha Shamsan & Ana Barnes

- *Expressing Cellulase (glycosyl hydrolase family 5) for Cellulosic Bioethanol Production*

6B: Maya Garcia, Yutzil Zavala, Katie Buckner, Rachel Bond

- *Cloning of a Cellulase Gene CJD5-110 in pET-101 TOPO-D Expression Vector*

7A: Jordan Nefalar, Jared

Melendrez, Abdullah Alotaibi,

RJ Lugtu

- *Unleashing the Potential: Expression and Optimization of a Novel Cellulase Gene from Cow Rumen*

7B: Michelle Zoza Veloz & Erubey Martinez

- *"Bioprospecting DNA from cow rumen microbiome to increase efficiency of cellulosic biofuel production"*

8A: Neila Serumaga & DeAsia Mckenzie

- *Cellulase gene for degradation of lignocellulosic*

8B: Osvaldo Moreno & Stephanie Cabrera

- *Is CJD5-146 a Cellulose Degrading Enzyme?*

BIOLOGICAL SCIENCE:

9A: Abigail Weatherly, Isabel Nevarez, Wendolee Pilar-Alonso, Kaitlin White

- *Ocean Pollution*

9B: Adamari Ramos & Sara Taghezighan

- *Constructing Supramolecular Chelate for Sequestration of Heavy Metal Toxins*

10A: Aiden Volk, Kaitlyn Gates, Jeremy Erikson, Kenneth Parrilla, Reem Baho

- *Cerebral Degeneration in Humans and Dogs*

10B: Ally Carbajal, Gabriela Salsameda, Jordyn Warn, Nikki Cashman

- *How the melting of glaciers affects climate change and the causes of that*

11A: Anneliese De La Rosa, Danielle Wright, Tiara Wilkinson, Adrielle Lumingkewas

- *CT Scan Helmet*

11B: Bela-Artin Tamadon, Destiny Rivera, Ohm Shah, Brody Swearngin

- *Industrial Pollution*

12A: Bienvenido Jr Bulosan, Nathan Garcia, Diego Ayala, Angel Garcia Sanchez

- *Deforestation*

12B: Brendan Boyd, Nancy Ramirez, Jocelyne Dates, Dexter Hayes, Veronica Useche, Kira Halley

- *Exploring the Role of Sodium Channels in Osmoregulation Within the Excretory System of Larval Trichoplusia ni*

13A: Bryan Dela Cruz, Rosalia Vega, Jada Cacy, Kylie Danis

- *Horrors of Animal Cruelty*

13B: Brynn Trias, Talia Azzam, Rylie Dodge, Nicole Mikhail

- *Mental and Financial Wellbeing in the Elderly*

14A: Cara Broadhead, Emily Ayala, Melody Ziari, Emmanuel Koahou

- *Water Conservation on CSUSM Campus*

14B: Chantelle Waters-Jackson, Jake Busser, Emma Massey, Toby Roth

- *An Alternative to the Cancer causing Microplastics in Cigarette Filters*

15A: Daniela Meraz, Ryan Romualdo, Theodore Thomas, Joseph Lopez, Anthony Martinez

- *Obesity: A Simple Solution to a Complex Problem*

15B: David Nunez, Jastine Icasas, Alejandro Cuevas, Sebastian Guzman, Caden Wilson

- *UV free*

21A: Davin Porto, Coral Nava, Chelsea Galindo, Emilia Hernandez, Aidan Zabayle, David Lazaro

- *E.Coli Filtration System*

21B: Hannah Williamson, Sara Robles, Natalie Licosati, Kiara Stephenson, Adrian Moreno

- *Smart Fashion*

20B: Isabel Green, Arleth Saldivar, Scarlett Moon, Daviana Flores

- *United States Healthcare*

19B: Isabella Williamson, Eileen Quinteros, Adara Kananicat, Cadence Simental, Noemi Razo Cabrera, Justin Arevalo

- *Biodegradable cigarettes*

19A: Jacqueline Amy Sanchez, Grace Sharma, Jasmine Jones, Victoria Ross

- *Environmental Impact and Human Involvement On Pinnipeds*

BIOLOGICAL SCIENCE:

18A: Jassmin Cerda, Zohe Balverde, Brianna Rivera, Tatianna Vasquez Morales

- *Effects of Micro plastics on Marine Life & Ecosystems*

18B: Joanna Andrade, Alexandra Morales, Soraya Ortiz, Zahraa Asheer

- *HIV Prevention*

20A: Jocelyne Dates, Morgan Marcue, Brendan Boyd, Dexter Hayes

- *Voltage-gated TRP/Painless Regulates Ion and Fluid Transport in Larval Cabbage Looper Malpighian Tubules*

22B: Josue Navarrete, Brendan Boyd, Nick Smithson, Natalie Campos

- *Microbial Community Shifts Across Gradients of Urbanization*

22A: Juvie Cruz, Fabian Delfin, Natalie Canto, Sierra Vail

- *Accessibility to Healthcare in Lower-Income Neighborhoods*

23B: Kasandra Barrera, Ryland Stoeckel, Alex Suva, Lianna Biscocho

- *Research by design overpopulation*

23A: Kennedy Vagts, Isaac Madrigal, Cassidy Allen, Neveah Quitarian

- *Long-Term Living with Crohn's Disease*

24B: Lana Perez, Jake Bruner, Logan Hill, Arnav Thapa

- *Canine Communication*

24A: Lucy Mccardell, Leonel Lam, Moises Diaz, Damian Herrera, Conner Macia

- *Irrigation System to Prevent Wildfires and Save Ecosystems*

25B: Manjolla Bylykbashi, Isabella Viramontes Noivo, Rachel Ragasa, Audrey Cox, Alejandro Herrera

- *West Nile Virus: Mosquitos*

25A: Michelle Rodriguez, Autumn Potter, Samantha Lazarte, Abigail Perez, Bri Lopez, Monse Germann

- *Pills to Fertilizer and Plastic to Bamboo: A Green Revolution in Medication Waste Management.*

34B: Milan McLaurin, Viviana Lopez, Isabella Abrena, Jonathan Abdulkarim, Jaqsin Goforth

- *Organic Seaweed Sunscreen*

34A: Morgan Marcue, Jocelyne Dates, Alexis Castaneda, Nancy Ramirez

- *Voltage-gated ion channel KCNH8 Aids in Regulating Ion and Fluid Transport During Osmoregulatory Disturbance in Malpighian Tubules Epithelium of Larval Trichoplusia ni.*

33B: Nautica Welch

- *Comparing growth and virus damage of native and non-native Humulus lupulus varieties*

33A: Nicky Tram, Jackson Jeremiah, Mia Pierce, Ruth Avila, Julissa Jimenez, Kayleigh Wright

- *Rethinking Energy: Exploring Alternatives to Lithium Batteries*

32A: Nova Desso, Kimberly Le, Jennie Gonzalez, Francine Tandinco

- *The Pfizer Vaccine and its Business Contributions*

32B: Perla Ochoa

- *Effects of embryonic incubation and exposure to cycling temperatures on rainbow trout (Oncorhynchus mykiss) metabolism*

31A: Priscilla Cruz, Brisel Lopez, Merielle Lanna Decano, Alexia Hosein

- *Humor as a Coping Mechanism*

BIOLOGICAL SCIENCE:

31B: Salona Landrum, Chaz Despain, Yeroni Rubio, Jonathan Valenzuela, David Nestozo Villanueva

- *Natural Ways to Treat Cancer*

30B: Savannah Paxia, Ciara Valladolid, Niya Baskerville, Maria Antunes

- *College Students and Their Vulnerability to Contract COVID-19*

30A: Sharon O'Connor, Dulce Robles Martinez, Arianna Ramirez, Diego Sustaita

- *Mice in motion: climbing vs. swimming kinematics in the salt marsh harvest mouse*

29B: Siaje Gideon, Brandon Ramirez, Anabella Shepherd

- *Voltage-gated ion channels in cultured gill epithelia of rainbow trout *Oncorhynchus mykiss* alter in abundance following freshwater exposure*

29A: Trinity Docter, Joselito Bello, Joshua Caballero, Emiliano Diaz, Edgar Pineda, Madison Hernandez

- *Trash to Treasure*

CHEMISTRY

41B: Mayra Reyes

- *Synthesizing a thiophenol precursor for thiol-bridging mix-valent metal complexes*

41A: Olivia Blauer

- *Developing Mixed-valent Diiron Complexes to Engender Large Electron Spins Through Magnetic Coupling*

42B: Dakota Heisel

- *Development of Porous Ionic Liquids for Selective Gas Adsorption*

COMMUNICATION

27A: Emilio Serrano

- *Howard the Duck vs Comic Books*

CRIMINAL JUSTICE

27B: Rachel Waldrep

- *Cougar Journal of Undergraduate Research*

ENVIRONMENTAL STUDIES

28A: Shyane Masters

- *Organic Seaweed Sunscreen*

HUMAN DEVELOPMENT

26A: Alyson Portillo

- *Association of Acculturative Stress & Income Levels with Postpartum Mental Health among Racially and Ethnically Minoritized Women*

26B: Cruz Guadalupe

- *Effects of Familism on Latinx College Students' Choice Major*

MATHEMATICS

42A: Haley Lorenz

- *"That; that's Chaos Theory": Stabilization of Periodic Orbits of the Stochastic Logistic Map*

PHYSIOLOGY

16A: Danielle Murphy, Kennedy Davidson, Alanie Garcia, Nikki Vinciguerra, Summer Robinson

- *Innovative Veterinary Microchip*

PSYCHOLOGY

16B: Alex Leon, Jennifer Lozano, Dustin P. Calvillo

- *Illusory Truth Occurs with Headlines from Reliable Sources but Not from Unreliable Sources*

POLITICAL SCIENCE

17A: Elvis Williams

- *Integrated Threat Theory of Prejudice: The case of Refugees in the United States*

KINESIOLOGY:

35A: Angelo Madlambayan, Kian Foote, Maya Vega

- *Hydration knowledge in cyclists competing in gravel cycling*

35B: Carly Schuerger

- *Identifying Maximal Fat Oxidation during Arm Ergometry*

36A: Harrison Thomas & Allen Mickayla

- *Oxygen Consumption When Utilizing Open Water Lifeguard Fins*

36B: Harrison Thomas & Derek Solenberger

- *Sun Protection Utilization Among Recreational Surfers With & Without Skin Cancer*

37A: Jayla Rogers, Jose Rivera, Kayla Wilson, Mikaela Carino

- *Vaccine and Healthcare Accessibility For Rural Communities in U.S. America*

37B: Marissa Flannery

- *The relationship between sleep quality, sleep duration, and arterial stiffness in Hispanic women.*

38A: Miranda Grzywaczewski

- *The relationship between ejection duration, QTc intervals, and QRS complex in women.*

38B: Mitchell Machuca

- *Subendocardial Viability Ratio (SEVR) Changes with Acute Exercise in Females*

39A: Natalya Tasevski

- *Comparing Cardiovascular Risk Factors in Pre- vs Post-menopausal Women*

39B: Samantha Terauds

- *Prior Exercise Influences Triglyceride Metabolism and Fat Oxidation in Active Cannabis Users*

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