



6TH ANNUAL ROSE PROGRAM POSTER SESSION

JULY 10TH | 1PM | SMLC

SCHEDULE OF EVENTS

LUNCH	12:00 – 1:00 PM
POSTER SESSION I	1:00 – 1:45 PM
POSTER SESSION II	1:45 – 2:30 PM
CLOSING CEREMONY	2:30 – 3:00 PM

The ROSE Program (Research Opportunities for Science Educators) is proud to celebrate its 6th year of collaboration between New Mexico science educators and active research groups at the University of New Mexico.

The ROSE Program is supported by the Research and Public Service Program of the NM Higher Education Department (HED), the National Science Foundation (NSF), the New Mexico Science Teachers Association (NMSTA), and the University of New Mexico, including the Office of the Vice President of Research (OVPR).

Special Acknowledgements

We extend our sincere gratitude to all who made the 2026 ROSE Program possible, including: Faculty Organizers Jeff Rack, Steve Cabaniss, Carolyn Hushman, CCB Staff Sarah Rascon, Amanda Munk, and Kasey Hilton, The Vice President of Research Ellen Fisher & Assistant V.P. David Hansen, Program Partners Elsa Castillo, and Denise Driscoll (NSF CISTAR), UNM Residence Life & Student Housing, Faculty & Student Mentors. Thank you for your support and dedication to the ROSE Scholars.

2026 Rose Scholars

Maribel Bernal (Gadsden Middle School) <i>"Catalysts: Small Helpers With Big Impact"</i> mentor Nicholas Jaegers (CBE)
Ana Rosa Carmona (Zuni Middle School) <i>"A Recovering Bosque Seen From Above: Using Google Earth Imagery and Canopy Measurements to Monitor Vegetation Change in the Rio Grande Bosque"</i> mentor Jennifer Rudgers (Biology)
Tomas Diego III (Lynn Middle School) <i>"Bioinspired CO2 Conversion towards Bioactive PLA composite from Upcycled cement and Biomass Waste"</i> mentor Sungjin Kim (CBE)
Florence Fiegalan (Kirtland Central High School) <i>"Microstructure & Mechanical Characterization of High Temperature Alloys"</i> mentor Panakaj Kumar (MechEng)
Judith Guyod (Laguna Acoma High School) <i>"Catalytic RNA Structure-Driven Remodeling of Condensate Architecture"</i> mentor Anisha Shakya (CCB)
Arturo Herrera (Capitan High School) <i>"Evaluating Refractory High Entropy Alloy Properties for Extreme Temperature Applications"</i> mentor Panakaj Kumar (MechEng)
Ana Jacobs (Socorro Middle School) <i>"Earth Abundant Metastable Lithium-ion Cathode via Mechanochemistry"</i> mentor Dongchang Chen (CCB)
Kamala Kilari (Socorro Middle School) <i>"Microplastics- Induced oxidative stress in cancer: cellular Responses"</i> mentor Xiang Xue (CC)
Mirasol Laberinto (Grants High School) <i>"From Bosque to Bench: A ROSE Scholar's Journey in Plant Trait Research Through BEMP"</i> mentor Jen Rudgers (Biology)
Ericson Macapuno (Bernalillo High School) <i>"Tamarisk Leaf Beetle Herbivory: Latitudinal Gradients, Regional Population Volatility, and Ecosystem Impacts Along the Rio Grande Corridor"</i> mentor Jen Rudgers (Biology)
Jahn Clarisse Madlangbayan (Capital High School) <i>"How do Global vs Local Recombination Shape Regulatory Architecture of Phenotypic Plasticity?"</i> mentor Davorka Gulisija (Biology)
Ace Maranan (Carlsbad High School) <i>"Neuroplastics: Learning from real world plastic particles to uncover the bioaccumulated plastics in the human brain."</i> mentor Eliane El Hayek (CoP)
Vania Meetze (Lincoln Middle School) <i>"Chaperone-mediated autophagy is constitutively active in Laron Syndrome model mice, downstream of reduced RTK/AKT/ERK signaling"</i> mentor Joe Endicott (CC)
Jennifer Nilvo (Belen Consolidated Schools) <i>"Engineering Active-Site Geometry in Single-Atom and Nanostructured Copper Catalysts for Ethylene Hydrogenation"</i> mentor Abhaya Dayte (CBE)
Ethel Nunez (Gadsden Middle School) <i>"Fighting Breast Cancer One Gene at a Time"</i> mentor Tae-Hyung Kim (CC)
Ariel Ora (Grants High School) <i>"Investigating prdm3 on the Development of Craniofacial Muscle and Tendon Tissue in Zebrafish"</i> mentor Lomeli Shull (Biology)
Irish Quidet (Coronado Middle & High School) <i>"MMP-Sensitive Peptides for Neural Implant Applications"</i> mentor Jean-Hubert Olivier (CCB)
Reagan Ramirez (Bloomfield High School) <i>"From Electron Microscopy to the Classroom: Development of Scientifically Accurate 3D-Printed Models of Mesoporous Silica Nanoparticles for Nanomedicine Education"</i> mentor Achraf Nouredine (CBE)
Jordan Saner (Bernalillo High School) <i>"From Components to Calibration: Prototyping an Accessible Spectrometer to Pioneer Hands-On Engineering Experiences for Future Students"</i> mentor John King (CBE)
Amanda Simmons (East Mountain High School) <i>"Histological Analysis of the Rainbow Trout Eye Following Exposure to Lactococcus spp."</i> mentor Irene Salinas (Biology)
Romalyn Ubaldo (Santa Rosa High School) <i>"Using Giemsa Stain-Azure II and Eosin Y to detect DNA Damage by Comet Assay (A low-cost Bright-Field method for measuring DNA Damage)"</i> mentor Jennifer Gillette (CC)
Naomi Vijeila (Coral Community Charter School) <i>"Synthesis and Characterization of Ni/CeO₂ Single Atom Catalysts with Varying Nickel Loadings for Sustainable Energy Applications"</i> mentor Abhaya Dayte (CBE)