

# **CO-WY AMP Commentary**

### SPRING 2018



### **RESEARCH PARTICIPATION KEY TO RETENTION SUCCESS**

Increasing research participation continues to be an overall goal of CO-WY AMP. Building students' scientific identities increases academic engagement, and developing both summer and early research experiences is one of the most effective avenues for attracting and retaining talented students in science and engineering careers. These programs attract students to STEM majors, lead to transformative educational experiences, increase knowledge and positive attitudes toward STEM careers, increase academic preparedness, and increase the likelihood that students will remain in the education pipeline. Research participation in the first or second year of college also increases graduation rates.

As part of this overall goal, five CO-WY AMP students from Adams State, Colorado State University, and University of Colorado Boulder completed REUs on the Colorado School of Mines and CSU campuses during summer 2017. A freshman student from CU Boulder completed a Science Undergraduate Laboratory Internship (SULI) at the U.S. Department of Energy's National Renewable Energy Laboratory (NREL in Golden, CO). Seventeen additional students completed summer research at partner institutions with financial support from CO-WY AMP.

Also in 2017, CO-WY AMP expanded its development of International Research Experiences (IRE) by emphasizing field/laboratory experiences, obtaining structured support for international research activities, and increasing current collaboration with other programs such as, Engineers Without Borders and the Humanitarian Engineering Program at Colorado School of Mines.

CO-WY AMP sponsored twenty-two students at international locations including Nicaragua, Myanmar, Peru, Brazil, Mexico, Guatemala, and Spain during summer 2017. Examples of these IRE student projects include:

Twelve students from Fort Lewis College participated in international field projects in Nicaragua and Myanmar; one student from University of Colorado Boulder participated in field work on a solar powered pump in Peru; one University of Colorado Boulder student participated in a field experience in Brazil; four Colorado State University students participated in field work at CSU's Todos Santos Center in Mexico; one Colorado State University student traveled to Spain to collect river data; two Colorado School of Mines students worked on landslide risk management projects in Guatemala; one Colorado School of Mines student traveled to Peru on a Humanitarian Engineering project to replace mercury in local mining.

Gaining this sort of hands-on experience shows students how science can make a difference in their lives, while, at the same time, impacting the lives of people from other countries and cultures.

### **CO-WY AMP LEADERSHIP**





Dr. Rick Miranda Principal Investigator

Dr. Ernest Chavez Co-Principal Investigator and Program Director

#### CO-WY AMP STAFF







Dr. Cheryl Beseler Research Coordinator

Dr. Beverly Marquart Program r Manager

Dr. Don May Data Manager





Dr. Rose Shaw External Evaluator

Erin Whipple Program Support

Colorado - Wyoming Alliance for Minority Participation http://cowyamp.colostate.edu/

Dr. Beverly Marquart Program Manager Colorado State University beverly.marquart@colostate.edu Phone: (970) 491-6686

CO-WY AMP is funded through the NSF Louis Stokes Alliance for Minority Participation (HRD 1619673). Page 2

## CO-WY AMP COMMENTARY



### **BRIDGE TO THE DOCTORATE 2016–2018**

### **BD6 at Colorado State University**

Colorado State University (was awarded funding from the National Science Foundation to support The Louis Stokes Alliance for Minority Participation Bridge to the Doctorate (LSAMP BD) Fellowship program. The award supports 12 graduate students from underrepresented minority backgrounds who are pursuing studies in STEM disciplines. Dr. Greg Florant (right), professor of biology, serves as the director of the Graduate Center for Diversity and Access, director of the LSAMP BD Program, and is a member of the CO-WY AMP Advisory Board.

The following Bridge to the Doctorate Fellows presented posters at the Graduate Student Showcase: Celebrating Research and Creativity (November 2017):

- **Original States of Contract States and Stat**
- Matthew Cackovic: "Droplet Manipulation on a Surface Using the Triboelectric Effect"
- Iasmin Hicks: "Bridging the Ultrastructural Gap at the Neuromuscular Junction"
- Arielle Howell: "Are Changes in Dietary Arginine Detectable in Feline Muscle/ Hair?"
- Oominique Montano: "New Depths: Lipid Influences on Aerobic Capacity in Marine Mammals"
- **Gerardo Narez: "Efficacy of P188 in Saving Meniscal Chondrocytes Following Impact"**
- Marina Rogriguez: "The Cost of Reproduction: Telomere Shortening in Nesting Tree Swallows"
- **Sydney Turner: "The Evolution from Conventional to Emerging Wastewater Management Approaches"**

The following research is being conducted by Bridge to the Doctorate Fellows:

- Ashley Budde: research focus on mineral supplementation for feedlot cattle, while being a teaching assistant for Introduction to Food Animal Science, Principles of Nutrition, and Feedlot System courses.
- Eric Lopez: leader of a project to develop a prototype near-field surface spectroscopy and imaging instrument; fluorescence correlation spectroscopy to study DNA reaction dynamics.
- **b** Jonathan Martinez: research focus on understanding the mesoscale dynamics and evolution of tropical cyclones undergoing rapid intensification.
- Robert Williams: currently working in the Osborne Nishimura Lab with a research interest in histones, chromatin, gene regulation, and epigenetics.



NSF Bridge to the Doctorate Program Fellows (L to R): Eric Lopez, Gerardo Narez, Dominique Montano, Jasmin Hicks, Matthew Cackovic, Sydney Turner, Dr. Greg Florant (Director), Diane Aceveda, Ashley Budde, Arielle Howell, Marina Rodriguez, Robert Williams, Jonathan Martinez



Dr. Greg Florant BD Program Director Professor, Biology Director, Graduate Center for Diversity and Access Colorado State University





Page 3

### **CO-WY AMP STUDENT NEWS**

### SOLAR SPRING BREAK

In March 2018, Fort Lewis College students participated in "Solar Spring Break" by installing thirty-two solar panels on the Ojo Encino Chapter House, the main community-gathering place. Ojo Encino is a small "chapter," which is similar to a township, with a dispersed population of about 700 people in the southeastern corner of the Navajo Nation in New Mexico. For CO-WY students at FLC, the project blended a variety of academic majors by taking into consideration cultural, political, and land/resource aspects.

CO-WY student James Sumpter, a junior in engineering who grew up on the Navajo Nation said, "The project shows Navajos don't have to leave behind their culture to further themselves as people. Growing up, you always talk about getting an education and coming back and giving to our people. Since college, I've really thought about how to do that, and then this opportunity came up."

Originally published in The Durango Herald on March 24, 2018. To read the full story, visit: <u>https://durangoherald.com/articles/215255-fort-lewis-college-students-bring-solar-energy-to-navajo-nation</u>



On the left, from front to back are Fort Lewis College students Gwendolyn Tsosie, Harrisetta Sandoval, Roxanne Sandoval, Professor Clausen, and KeNeda Randall. On the right, Grid Alternative technician Cassandra Valandra, Grid Alternatives Coordinator Tim Willink, Professor Laurie Williams, and Fort Lewis College student Autumn Morris. Photo courtesy of James Sumpter.



#### NASA ROBOT TEAM CHALLENGE

Trinidad State Junior College Robotics team participated in a competition called the RASC-AL Robo-OPS (<u>http://robo-ops.nianet.org/</u>. This is a nationwide challenge sponsored by NASA requiring a group of students to build a rover that will perform at Johnson Space Center's Mars Yard in Houston, TX. This rover was remotely controlled by students at 'Mission Control' at Trinidad State Junior College, and was expected to utilize an arm for picking up various rocks and other objects while navigating the different terrains at the Mars Yard. TSJC students also maintain a project blog for the team. <u>https://tsjcrobotics.tech.blog/</u>



## COMMUNITY COLLEGE UNDERGRADUATE RESEARCH INITIATIVE

Trindad State Junior College sophomore, Andrew MacErnie, presented a research project titled, "Digestive Fitness Parameters of the Housefly" at the Community College Undergraduate Research Initiative in Minneapolis, MN. MacErnie is continuing his education at the University of New Mexico in bio-chemistry.

Photos courtesy of Trinidad State Junior College

TRINIDAD STATE

UNIOR COLLEGE



## Page 4 CO-WY AMP COMMENTARY



### **CO-WY AMP STUDENT NEWS (continued)**

### INTERDISCIPLINARY CLIMATE CHANGE EXPEDITION

CO-WY students at Central Wyoming College, Bailey Lewis (far left), and Sara Bales (3rd from left), participated in high elevation Geographic Information Sys-

tems-based field expeditions (also called ICCE or Interdisciplinary Climate Change Expedition on the CWC campus) where they applied skills in Geospatial Information Science & Technology, including a 3-day pre-field training in GPS data collection, GIS use and cartography. Both students presented at the University of Wyoming Undergrad Research Day conference in April 2017, and the Wyoming Association of Professional Archaeologists where the pair received Best Paper Award.

Bailey Lewis , Sara Bales, and CWC students during high elevation Archaeology and GIS mapping trip to the Fitzpatrick Wilderness July 2017.

Photo courtesy of Jacki Klancher / Central Wyoming College





UCCES University of Colorado Colorado Springs

#### **INTERNSHIP EXPERIENCES**

At the University of Colorado Colorado Springs, five CO-WY students were placed in paid internships at the US Army Aviation and Missile Research, Development, and Engineering Center, and at Titan Robotics. At AMRDEC, three students learned analyzing aviation big data sets from ingesting data into a Hadoop cluster, data cleansing to some basic calculation (velocity, etc.), and characterization to advanced analysis (stretch goals). At Titan Robotics, two students worked on all phases and components related to industrial scale 3D design and replication. Projects included producing case study papers on the role 3D technologies can have on high performance materials and metals. Additionally, students worked on AutoCAD projects related to testing the constraints of current Titan 3D platforms and devices.



#### AIAA ANNUAL TECHNICAL SYMPOSIUM PARTICIPANTS

CO-WY student Marcus Wolfram from Otero Junior College (OJC) and Colorado State University-Pueblo student Julian Fierro, a former OJC student, participated in a poster presentation at the American Institute of Aeronautics and Astronautics' (AIAA) Annual Technical Symposium in Golden, CO. AIAA is comprised of many of the entities, both corporate and governmental, that make up Colorado's aerospace industry. Their poster covered the design, build, and programming of an autonomous robot they created for the 2016 Colorado Space Grant Consortium's





Robotics Challenge. Both students attended industry presentations on topics including Unmanned Ariel Systems, the international collaboration in Aerospace, and the status of Mars exploration, which includes the efforts of human travel to Mars, exploration of the surface and subsurface, and returning safely to Earth.

Photo courtesy of Otero Junior College



Page 5

### **CO-WY AMP STUDENT NEWS (continued)**

#### **METRO STATE STUDENT SCHOLARS**

Ten CO-WY students from Metropolitan State University of Denver (MSUD) were placed in the following internships through locations such as, the National Renewable Energy Laboratory (Golden, Colorado), the Environmental Protection Agency (EPA), and the I Have a Dream Foundation:

METROPOLITAN STATE UNIVERSITY<sup>®</sup> of denver

Patricia Ramirez, EyasSat, LLC; Aimee Leyva, ARCpoint Labs; Jessica Olivas, National Jewish Health Biomedical Research; Rebekah Smith, UnCommon Schools; Cetan Christensen, EPA Aquatic Resources Department; Kenya Arroyo, Neon Colorado Mosquito Control; Shauna Kay Gray, Place Bridge Academy; Delilah DeWilde, Anschutz Campus in Neurology working on Varicella Zoster Virus; Leticia Anaya, Watershed 2017 at the Botanic Gardens; Brunno Putnam, SRS ACQUIOM (IT Analyst).

MSUD sponsors two endowed scholarships that are specific to CO-WY AMP students: The Larry Johnson STEM Opportunity and the Ching-Chen, Shi-Kuei and Jeff Wu Scholarships. The Urban League Guild of Denver also awards two scholarships each year to CO-WY students, along with the Dean and the Provost scholarships. The following twenty-six CO-WY AMP students were awarded scholarships:

Rebekah Smith and James Curry: \$1,000 Urban League Guild Scholarship; Chanda Lowrance, awarded \$23,000 stipend as a teaching assistant at the University of Maryland, Baltimore County; Maria Rangel awarded the Martin Luther King Peace Award; Kevin McQuirk and Harold Ayala awarded the Larry Johnson Scholarship; Alena Kelleher, Alexandra Fontes, Cetan Christensen, Jacqueline Russell, and Jessica Olivas were awarded Dean Scholarships; Alicia Payne, Kevin McQuirk, Oscar Solis, Jessica Montano, Delilah DeWilde, and Jessica Olivas awarded Ching-Chen, Shi-Kuei and Jeff Wu Scholarships; Jessica Olivas, Delilah DeWilde, Rebekah Smith, Jessica Montano, Shara Espinoza, Oscar Solis, Lane Hines, Alicia Payne, and Kevin McQuirk awarded Provost Scholarships.

### COLORADOSCHOOLOFMINES.

#### **MINES STUDENTS TAKE FIRST PLACE**

Colorado School of Mines petroleum engineering students took first place in the Student Challenge Contest held as part of the 2017 Society of Petroleum Engineers Health, Safety, Security, Environment, and Social Responsibility (HSSE-SR)—North America Conference, held in New Orleans, LA. The quiz-style contest tested university students' knowledge in HSSE-SR topics, with teams competing in thought-provoking challenges as well as light-

ning-round-style questions. Mines students excelled in all three categories where points were awarded, beating the second-place team from Oklahoma State University 180 to 158 in the final score. This was the third year of the Student Challenge Contest, sponsored this year by ExxonMobil.



Members of the Mines team with Laura Johnson, training and development manager for safety, security, health, and environment at ExxonMobil (far right). Students from left: Zak Hartman, Danika Ahoor, Connally Reid, Emilio Gonzalez, James Blaney, Joe Brady. Photo credit: Adam Wilson, SPE.

#### SUMMER REUS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY AT COLORADO STATE UNIVERSITY



Chandler Bridges (second from left) received the People's Choice Award for best summer REU poster in Biochemistry and Molecular Biology research titled, "Recovery and Characterization of Human Exosomes." Valentine Matongoh (third from left) presented summer REU research titled, "Detection of Tuberculostearic acid Methyl Ester as Structural Surrogate of Mycobacterial Lipoarabinomannan in Buffer and Urine by GC/MS: Development and Optimization." Dr. Paul Laybourn (far left) is the PI for the NSF Summer Research Experience for Undergraduates (REU) in Molecular Biosciences. Heather

Matthews (far right) is the REU Grant Program Coordinator.



Photo courtesy of Heather Matthews / Colorado State University

## Page 6 CO-WY AMP COMMENTARY



### **CO-WY AMP STUDENT NEWS (continued)**

#### ADAMS STATE SACNAS CHAPTER GOES TO LONG BEACH

The SACNAS chapter at Adams State University has been increasing participation since it was established four years ago with CO-WY funding support. Now it is the most active STEM club on the ASU campus. Ten members (pictured) had the opportunity to attend the 2016 SACNAS National Diversity in STEM Conference at Long Beach, California where there were over 100 scientific symposia and professional & leadership development sessions. One of the students, Alex Mullins (pictured below), presented his research at the undergraduate poster session titled, "Anti-Predator Avoidance Strategies in the Wolf Spider Pardosa valens."







🖾 SACNAS

Photos provided by Renee Beeton / Adams State University

#### NASA INTERNSHIP

Aimee Johnson, an enrolled member of the Navajo (Dine) Nation from Mancos, CO, is currently a senior at University of Colorado Denver. During the past few years, CO-WY AMP has supported her conference attendance at Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS), as well as at the Society for Gravitational and Space Research (ASGSR) where she presented her research on the effects of hyper gravity on the skeletal system. Johnson was an intern at the NASA Ames Research Center, and is passionate about the future of space research and the International Space Station. Her dream is to become a flight surgeon for NASA. Until then, she's focusing on researching the effects of micro-gravity on astronauts—specifically, how to combat the loss of bone mass and bone density, as well as muscle mass. Johnson says these opportunities allowed her to network and set up potential collaborations with professors working on artificial gravity projects throughout the world.





Segments of this article originally published at STEM For Women Magazine, January 2018: https://www.stemmagazine.com



#### **TRUMAN SCHOLARSHIP FINALIST**

Kiloaulani Kaawa-Gonzales, a Colorado State University junior majoring in Fish, Wildlife and Conservation Biology, was recently named a finalist for a Truman Scholarship, a nationally competitive award for undergraduates. Kaawa-Gonzales was among 199 finalists selected from 136 institutions across the country. Only 50 to 60 outstanding undergraduates—approximately one from each state—will receive a \$30,000 scholarship to the graduate school of their choice, attend a weeklong leadership training session with other winners, and have the opportunity to complete an internship in Washington, D.C.

Photo courtesy of Colorado State University



Page 7

### **INTERNATIONAL RESEARCH EXPERIENCES**

#### NAZARÉ PAULISTA – BRAZIL

Elise Martinez traveled to Nazaré Paulista, a city just outside São Paulo, Brazil, for the 2017 University of Colorado Boulder Global Seminar on Conservation Biology. Martinez spent two weeks with intense field



courses, classroom sessions, guest lectures, and wildlife spotting opportunities. Her daily journal reflected activities on the agroforestry systems and the quilombos (runaway slave plantations), animals and birds in the rainforest canopies, and different models of conservation. A highlight of her experience was talking to many elder leaders of the quilombos about their way of life and how they have adjusted to the modern world, while still maintaining their traditional cultures. Martinez says of her CO-WY AMP International Research Experience, "The subject of conservation biology had made a complete 180 degree shift in my mind—from being something that sounded like an abstract environmental ideal to an incredibly authentic and legitimate way of thinking about the way that we interact with our local and global ecologies every day."



University of Colorado Boulder



#### TODOS SANTOS, BAJA CALIFORNIA SUR, MEXICO

First generation Native American student Ashley Carlisle traveled to Colorado State University's international extension center in Todos Santos, Baja California Sur, Mexico. Carlisle participated in field sampling, conducted research, and explored different marine





ecosystems. Carlisle was challenged to apply knowledge from lectures and labs to real-world conservation issues and explanations for different biological processes and results. The CO-WY AMP International Research Experience confirmed her passion for environmental education and outreach. Carlisle said, "Developing a research experiment and presenting the overall results to professors aided my presentation skills, critical thinking and reasoning, data analysis and interpretation, and scientific communication. It helped me gain confidence in my own intellect and professional research development."

Photo courtesy of Ashley Carlisle

#### **AYAVIRI, PERU**

Dudley Ortecho traveled to Ayaviri, Peru, a city of 10,000, where he devised a system for a local farm using solar panels to power a 1.5 HP pump. Previously, the farm had used energy from the grid to power their pump to fill a tank of water from a well for





both irrigation and cheese production, yet the issue was that grid-energy was too expensive and the pump too inefficient. Ortecho created the entire wiring diagram for each battery, controller, inverter, and pump to save the farm energy and money. Ortecho overcame project challenges that included water contamination from illegal mining, unusually cloudy days, and a language barrier. According to Ortecho, "Seeing the process of developing, assessing, and then implementing the project allowed me to see what it truly means to grow an idea. By allowing myself to open up, I have learned to not only become a better engineer, but a better participant in this world."

Photo courtesy of Dudley Ortecho



University of Colorado Boulder

Page 8

## **CO-WY AMP COMMENTARY**



### **CO-WY AMP KICKOFF MEETING**

### National Renewable Energy Laborator (NREL) Golden, CO

In 2017, the National Renewable Energy Laboratory (NREL) in Golden hosted the Colorado-Wyoming Alliance for Minority Participation (CO-WY AMP) Kickoff Meeting, bringing site coordinators from sixteen colleges and universities together to discuss opportunities for minority students pursuing careers in STEM fields.

Representatives from the sixteen Alliances made connections and learned about innovative CO-WY AMP programs, like the Summer Research Initiative (SRI) and International Research Experiences (IRE). The event included opening remarks from Dr. Ernie Chavez and Dr. Matthew Rhodes, an IRE panel featured Dr. Christopher Bareither from CSU, Dr. Juan Lucena from Colorado School of Mines, Dr. Don May from Fort Lewis, Jessica Harig from the Posner Center, and Robyn Sandekian from the University of Colorado Boulder that highlighted international research experience opportunities; and words on NREL's student research projects from director, Dr. Martin Keller.



After a tour of the NREL facility, CO-WY site coordinators spoke about programming highlights from their partner institutions, while students displayed research posters and were available for questions. The event also included a SRI panel that featured Dr. Paul Laybourn from CSU, Dr. Eric Toberer and Dr. Chuck Stone from Mines, Linda Lung from NREL, Dr. Claire Raftery from the National Solar Observatory, and Dr. Donna Charlevoix from UNAVCO that highlighted summer research at their respective institutions. Dr. Dominic Martinez from CU Denver presented information on the Impact Program and participant tracking initiatives. Luke Banaszak, director of Information Technology at the Colorado Department of Higher Education, presented information on how education data is compiled for the State of Colorado.







Dr. Juan Lucena presenting on the Humanitarian Engineering Program at Colorado School of Mines



Page 9

### CO-WY AMP PARTNERS: Serving Colorado and Wyoming



## Page 10 CO-WY AMP COMMENTARY

![](_page_9_Picture_2.jpeg)

### **CO-WY AMP SITE COORDINATORS**

![](_page_9_Picture_4.jpeg)

Adams State University Dr. Renee Beeton Professor Chemistry (719) 587-7383 rbeeton@adams.edu

![](_page_9_Picture_6.jpeg)

Colorado State University — Pueblo Sendi Estrada Assistant Director, CBASE (719) 549-2758 sendi.estrada@colostatepueblo.edu

![](_page_9_Picture_8.jpeg)

Northeastern Junior College Cyndi Hofmeister Grant Coordinator (970) 521-6830 cyndi.hofmeister@njc.edu

![](_page_9_Picture_10.jpeg)

University of Colorado Colorado Springs Dr. Dave Khaliqi Executive Director, Pre-Collegiate Support and Success Center (719) 225-3595 dkhaliqi@uccs.edu

![](_page_9_Picture_12.jpeg)

Central Wyoming College Jacki Klancher Associate Professor Environmental Health (307) 855-2205 jklanche@cwc.edu

![](_page_9_Picture_14.jpeg)

Community College of Denver Dawn Cummings Associate Professor, Biology & Environmental Science (303) 352-6933 dawn.cummings@ccd.edu

![](_page_9_Picture_16.jpeg)

Otero Junior College Pat Malott Vice President of Administrative Services (719) 384-6823 Pat.Malott@ojc.edu

![](_page_9_Picture_18.jpeg)

University of Colorado Denver Dr. Dominic Martinez Senior Director, Office of Inclusion and Outreach (303) 724-8004 dominic.martinez@ucdenver.edu

![](_page_9_Picture_20.jpeg)

Colorado School of Mines Andrea Salazar Morgan Executive Director Minority Engineering Program (303) 273-3223 asalazar@mines.edu

![](_page_9_Picture_22.jpeg)

Fort Lewis College Jessica Rupe NBS Grant Assistant (970) 247-7015 jmrupe@fortlewis.edu

![](_page_9_Picture_24.jpeg)

Trinidad State Junior College Judy MacLaren Director, Upward Bound M/S (719) 846-5602 judy.maclaren@trinidadstate.edu

![](_page_9_Picture_26.jpeg)

University of Denver Anthea Johnson Rooen Director, College Access and Pipeline Programs, Center for Multicultural Excellence (719) 225-3595 anthea.johnson@du.edu

![](_page_9_Picture_28.jpeg)

<u>Colorado State University –</u> <u>Fort Collins</u> Arlene Nededog Director of Inclusion College of Natural Sciences (970) 491-2036 arlene.nededog@colostate.edu

![](_page_9_Picture_30.jpeg)

Metropolitan State University of Denver Dr. Hsiu-Ping Liu Associate Professor, Biology (303) 352-7013 hliu 1@msudenver.edu

![](_page_9_Picture_32.jpeg)

University of Colorado-Boulder Vanessa Dunn Dir, Student Engagement & Community Building (303) 492-8809 vanessa.dunn@colorado.edu

![](_page_9_Picture_34.jpeg)

University of Wyoming Dr. Doug Wachob Director of Academic Programs Haub School of Environmental & Natural Resources (307) 766-5081 wachob@uwyo.edu

![](_page_10_Picture_1.jpeg)

Page 11

### **CO-WY AMP ADVISORY BOARD**

![](_page_10_Picture_5.jpeg)

Mr. Dave Aragon Assistant Vice Chancellor for Diversity, Learning and Student Success

University of Colorado—Boulder

![](_page_10_Picture_8.jpeg)

**Dr. Daniel Bush** Vice Provost for Faculty Affairs

**Colorado State University** 

![](_page_10_Picture_11.jpeg)

Dr. Gregory Florant Professor, Biology Director, Graduate Center for Diversity and Access

**Colorado State University** 

![](_page_10_Picture_14.jpeg)

Dr. Kim Henry Associate Professor, Applied Social and Health Psychology

**Colorado State University** 

![](_page_10_Picture_17.jpeg)

Dr. Juan Lucena Professor, Liberal Arts and International Studies Director, Humanitarian Engineering

**Colorado School of Mines** 

![](_page_10_Picture_20.jpeg)

Ms. Linda Lung Workforce Development and Education Programs

National Renewable Energy Laboratory

![](_page_10_Picture_23.jpeg)

Dr. Eric Toberer Assistant Professor, Physics

Colorado School of Mines

### **CO-WY AMP INDUSTRY PARTNERS**

![](_page_10_Picture_27.jpeg)

## Announcements

![](_page_11_Picture_1.jpeg)

# Note from the Co-Principal Investigator:

Dear CO-WY AMP Colleagues and Friends,

In October 2018, the Colorado-Wyoming Alliance will celebrate twenty-three years of funding in order to help increase the number of underrepresented students in STEM. It is at our sixteen Colorado-Wyoming Alliance partner schools that our site coordinators facilitate the recruitment, retention and graduation of traditionally underrepresented students. Because of the site coordinators' dedication to students over the Alliance's twenty-two years, we have seen dramatic increases in the number of students majoring and graduating in STEM. In 2017, the Alliance placed six of our students in REU programs across our two Alliance states, and in the summer of 2018, we will place eight more. In 2017, CO-WY was also able to facilitate the placement of twenty-two students in international re-

![](_page_11_Picture_5.jpeg)

Dr. Ernie Chavez CO-Principal Investigator and Program Director of CO-WY AMP

search and service learning projects, and this summer we hope to exceed that achievement.

With our goal of inclusive excellence in STEM, it is with great pleasure that we share our Spring 2018 Newsletter, which highlights these and other accomplishments. Our site coordinators remind me of a quote from Margaret Mead: "Never forget that it takes only a few people to change the world, indeed it has always been so."

Dr. Ernie Chavez