



## **Introduction**

This sustainability research and scholarship inventory was developed for Colorado State University's STARS 2.2 submission following the STARS 2.2 Technical Manual criteria for this credit.

## **Methodology**

The Vice President for Research Office utilized the campus-wide research database to calculate the total number of faculty on campus who conduct research, are tenured or tenure-eligible Primary Investigators (PIs) or co-Primary Investigators (co-PIs) or key persons, and have externally funded research. The database was then reviewed with a key word search to identify sustainable projects related to those faculty using the principles outlined in the Earth Charter and/or the targets embedded in the UN Sustainable Development Goals (SDGs). The inventory went through multiple reviews, starting with the keyword search, then a staff review connecting projects to SDGs and formatting for clarity, and a further review by multiple staff and a third-party reviewer to check validity of sustainability research and SDG connection.

Our inventory spans several years as many research projects are long-term. The Vice President for Research Office applied a criteria to the search to ensure that only projects active in 2021, when the data was collected, are included even though the study or research projects itself may have started prior to 2021 and may extend beyond 2021.

The numbers given are a conservative estimate based on keyword searches through the VPUO database, further filtered based on connection to UN Sustainable Development Goals. For faculty with multiple sustainability research projects, additional projects were listed with one highlighted. The actual number of faculty, departments, and individual research projects is likely higher.

Questions regarding the data can be directed to [Anthony.Appleton@colostate.edu](mailto:Anthony.Appleton@colostate.edu)

Faculty Name	Department	Project Title	Additional Projects
Bayham, Jude	Agricultural & Resource Economics	Agricultural Practices & Policies: Particulate Matter and Rural Health	COVID 19: Modelling COVID 19 to support the State Government (3.d)
Berning, Joshua	Agricultural & Resource Economics	Food Insecurity Of US Immigrants	How Older Households Manage Food Insecurity with Food Production Activities
Burkhardt, Jessie Brodie	Agricultural & Resource Economics	Developing multi-sector drought impact models for the Intermountain West DEWS: Towards an impact- and data-driven approach for drought management	
Cleary, Rebecca Leigh Osborne	Agricultural & Resource Economics	What causes SNAP households to improve their diet quality?	
Goemans, Christoper G.	Agricultural & Resource Economics	Assessing the Impacts of Drought on Ecosystem Service-based Sectors, Criminal Activity, and Health Outcomes in Arizona, Colorado, New Mexico, and Utah	Evaluating Alternative Water Institution Performance in Snow-Dominated Basins: Are Food Productions Systems at Risk from Changing Snow Water Availability? (2.4)
Graff, Gregory D.	Agricultural & Resource Economics	Intellectual Property on CRISPR and the Gene Editing of Crops for Sustainable Agriculture	
Haefele, Michelle A	Agricultural & Resource Economics	Economic Value of Ecosystem Services Supported by Dryland & Grassland Environments	
Hill, Alexandra E	Agricultural & Resource Economics	Measuring unmet labor needs, identifying resource gaps, and characterizing recruitment and retention strategies for Colorado's agriculture workforce	
Hill, Rebecca Lynn	Agricultural & Resource Economics	Economic Impacts of Hemp Based Industries on Rural Communities	
Jablonksi, Rebecca BR	Agricultural & Resource Economics	Pathways to Prosperity: Collaborative Local Governing for Rural Wealth Creation	Asset mapping to understand opportunities for agricultural economic development that reduce water consumption
Kroll, Stephan	Agricultural & Resource Economics	Implications of Solar Radiation Management for Strategic Behavior and Climate Governance	
Manning, Dale Thomas	Agricultural & Resource Economics	Rural to Urban Water Transfers, Climate Change, and the Future of Rural Agricultural Economies in the Semi-Arid West: A Comparative Regional Analysis	Inferring the Supply of Greenhouse Gas Abatement from US Commodity Producers in The Corn Belt Using Observed Practice Choices: Implications for Carbon Offset Programs
Mooney, Daniel F	Agricultural & Resource Economics	Arid Climate Water Management Strategies	
Suter, Jordan	Agricultural & Resource Economics	Extending Utilization of the Outputs and Products of National Forest Management to Promote Benefits and Sustainability	Improved crop yield and soil salinity by cost-effective integration of microbial community, hydrology, desalination, and renewable power; Behavioral Interventions to Improve Outcomes in Forest Service Campsites

Thilmany, Dawn D.	Agricultural & Resource Economics	COVID-19: Local and Regional Food Systems COVID-19 Rapid Response	Estimating the Potential Impact of Expanded Healthy Food Incentives Exploring Food System Impacts; Planning & Technical Support to Diversify Colorado Economic Opportunities
Brown, Cynthia	Agricultural Biology	Using Plant Functional Traits to Predict Native and Non-Native Species Success According to Soil Type in Restoration	
Charkowski, Amy	Agricultural Biology	Development of sustainable system-based management strategies for two vector-borne, tuber necrotic viruses in potato	
Fulladolsa Palma, Ana Cristina	Agricultural Biology	Identification of environmental and agronomic factors influencing potato powdery scab disease in the San Luis Valley, Colorado	
Gaines, Todd A.	Agricultural Biology	Workforce Development and Diversification in Agricultural Biosecurity through Experiential Training in Pest Management	Developing non-chemical harvest weed seed control strategies in dryland crops; Linking genomics to improved management (International Weed Genomics Consortium)
Hufbauer, Ruth A.	Agricultural Biology	CESU-RM Understanding food-web connections to support ecosystem resilience and recovery from BTS invasion	
Jahn, Courtney Elaine	Agricultural Biology	Managing potato soil health through crop rotation length and diversity for increased economic gain in Colorado	
Leach, Jan E.	Agricultural Biology	Periodic Table of Food Initiative (PTFI) Sample Management Strategy	
McKay, John K	Agricultural Biology	Root Genetics in the Field to Understand Drought Adaptation and Carbon Sequestration	
Nachappa, Punya	Agricultural Biology	Threatened, Endangered, and Sensitive Species	Developing Innovative IPM strategies for Hemp Russet Mite Control in Industrial Hemp
Nalam, Vamsi	Agricultural Biology	Development of molecular tools to aid in rapid and early detection of resistance to potato tuber necrotic viruses in the Colorado potato breeding program	
Nissen, Scott J	Agricultural Biology	Impact of Esplanade Herbicide on Pollinators and Pollinator Resources	
Ode, Paul James	Agricultural Biology	Performance curves to optimize mass rearing and field release of introduction biological control for Russian knapweed	
Peairs, Frank B	Agricultural Biology	Integration of early harvest with biological control for sustainable alfalfa production	

Stewart, Jane	Agricultural Biology	Development of tools for early detection, monitoring, and management of forest pathogens and microbes associated with diverse forest ecosystems and tree nurseries	The role of cultural methods in the spread and severity of Cytospora canker in Colorado peach orchards; Pine-Fungal Interactions in a Changing Climate
Timm, Alicia Eva	Agricultural Biology	Diagnostic tools to identify exotic Tortricidae that threaten U.S. agriculture	Insect pest detection using Droplet Digital PCR (ddPCR)
Trivedi, Pankaj	Agricultural Biology	Effect of management practices on soil microbiome in sugar beet agroecosystems and its impact on soil health	Impact of herbicide application on the structure and function of soil microbiome
Dillon, Jasmine Ashely	Animal Sciences	Developing a Novel Framework for Operationalizing Social Life Cycle Assessment of Beef Production Systems: A Synthesis of the Literature on Social Life Cycle Assessment, Sociology, Wellbeing, Rangeland	Taking Stock of Social Sustainability Research in the Beef Industry
Metcalf, Jessica Lynne	Animal Sciences	Implications of Zinc Deficiency on Vaginal Microbiome Health and Perinatal Infections by Group B Streptococcus	
Rhoades, Ryan Douglas	Animal Sciences	Training Wicked Problem Solvers to Use Systems Approaches to Address Contemporary Food, Energy, and Water Issues	Expanding Benchmarking and Financial Analysis to Ranches in the West (8)
Wood, Wendy Hower	Animal Sciences	Physiological mechanisms of action relating to immediate and long-term therapeutic horseback riding intervention effects in a psychiatric population of youth with autism spectrum disorder	
Kent, Suzanne Marie	Anthropology & Geography	Our Voices: Bridging the Gap between Conservation and Cultural Heritage on Utila, Honduras	
Pons, Diego Andres	Anthropology & Geography	Market Access for Smallholders in Guatemala (Mas Program)	
Sibold, Jason Scott	Anthropology & Geography	Assessing regeneration in managed and unmanaged western conifer stands	
Snodgrass, Jeffrey G	Anthropology & Geography	COVID-19: RAPID: Digital Social Connection and Immune Biology among Emerging Adults: Assessing Novel Sources of Health Resilience During the COVID-19 Pandemic	Advancing a Norm In/congruity Theory of Health and Healing: New Normal Social Relations and Emotional Experiences in the Pandemic and Beyond
Adams, Melissa Ann Burt	Atmospheric Science	DCL: GOLD-EN EAGER: Cultivating socially Responsible ATmospheric scientists through Education, Leadership, and Action (CURATE)	
Barnes, Elizabeth Adrienne	Atmospheric Science	Explainable AI for Climate Science and Climate Modeling	Identifying Varying Patterns of Combined Change over the 21st Century with Neural Networks

Bell, Michael Monroe	Atmospheric Science	Heating, Cooling, and Rapid Intensity Change in Tropical Cyclones	Collaborative Research: Dynamics, Thermodynamics, and Microphysics of Extreme Rainfall observed during PRECIP
Collett Jr. Jeffrey L.	Atmospheric Science	City and County of Broomfield Community-Scale Air Quality Monitoring Associated with Oil and Gas Operations	TASK 2: National Park Service Air Quality Monitoring Campaigns
Creaman, Jessie	Atmospheric Science	Collaborative Research: Bugs to clouds: Thawing permafrost, its microbes, and their possible role in Arctic climate feedbacks	Collaborative Research: A comprehensive evaluation of the interactions between pollution and hazardous ice fog in Interior Alaska
Demott, Paul J	Atmospheric Science	Understanding the natural sources of aerosols and their impacts on cloud formation and climate across hemispheres	Collaborative Research: Experiment of Sea Breeze Convection, Aerosols, Precipitation and Environment (ESCAPE)
Denning, A Scott	Atmospheric Science	SI2-SSI: Lightweight Infrastructure for Land Atmosphere Coupling (LILAC): A Tool for Easy Integration of the Community Land Model into Multiple Modeling Systems	Atmospheric Carbon Transport- America (ACT-America)
Fischer,Emily V	Atmospheric Science	Follow the photochemistry: Harnessing new observations of PAN to learn how changes in emissions are impacting the global atmosphere	Air Quality Impacts of O&NG Emissions in Boulder County
Kummerow, Christian D	Atmospheric Science	Untangling Changes in the West Pacific Water Cycle	
Maloney, Eric D	Atmospheric Science	Changes to Madden-Julian Oscillation Winds and Convection in a Future Warmer Climate	
Pierce, Jeffrey Robert	Atmospheric Science	Fused Earth Observations of Air Pollution Mixtures for Health Research and Decision Making	Radiative Effects of Biomass Burning Aerosols-Laboratory and Field Measurements and Modeling of Climate and Health Impacts; Collaborative Research: Understanding the chemical and physical variability of smoke using plume spatial gradients: analysis and parameterization for air quality and climate models
Randall, David A	Atmospheric Science	Collaborative research: A teleconnection between the tropical Madden-Julian Oscillation and Arctic Sudden Stratospheric Warming events in warm climates	Collaborative Research: Frameworks: Community-Based Weather and Climate Simulation With a Global Storm-Resolving Model
Rasmussen, Kristen Lani	Atmospheric Science	Collaborative Research: Topographic influences on extreme warm-season precipitation	
Schumacher, Russ Stanley	Atmospheric Science	Collaborative Research: Water in the Four Corners Region: Connecting and Engaging Communities with Their Water Systems	Enhancing the Capacity for Rural Libraries to Engage the Public in Drought Sciences, Monitoring, and Adaptation
Thompson, David	Atmospheric Science	Analyses of large-scale climate variability: Understanding periodicity in the extratropical storm tracks	Collaborative Research: Understanding the role of coupled chemistry-climate interactions in internal climate variability

Van Den Heever, Susan	Atmospheric Science	Collaborative Research: Interactions and Feedbacks between Storms and Bioaerosols	Collaborative Research: Experiment of Sea Breeze Convection, Aerosols, Precipitation and Environment (ESCAPE)
Bamburg, James R	Biochemistry & Molecular Biology	PrPC and NOX-dependent Signaling in Dementia	
Chen, Chaoping	Biochemistry & Molecular Biology	HTS Targeting HIV-1 Protease Autoprocessing for First in Class Drug Discovery	
DeLuca, Jennifer G	Biochemistry & Molecular Biology	Chromosomal Instability as a Therapeutic Target in Anaplastic Thyroid Cancer	
Di Pietro, Santiago	Biochemistry & Molecular Biology	Molecular Mechanisms of Platelet Alpha Granule Biogenesis	
Ho, Pui Shing	Biochemistry & Molecular Biology	Application of hydrogen bond enhanced halogen bond for biomolecular engineering	
Nishimura, Erin Asayo	Biochemistry & Molecular Biology	Deciphering the molecular hallmarks of cellular differentiation in animal and cancer models	Mechanisms and dynamics of gene expression during cellular differentiation and development
Peersen, Olve B	Biochemistry & Molecular Biology	Enterovirus RNA Replication and Recombination	Assembly of Picornaviral Replication Complexes
Yao, Tingting	Biochemistry & Molecular Biology	Regulation of a Deubiquitinating Enzyme in Proteolysis and Chromatin Remodeling	
Antolin, Michael F	Biology	Extending USGS Research on Ecological Impacts of Plague in the Western U.S.	
Balgopal, Meena M	Biology	Place-based education for middle school teachers using camera traps	CSU Noyce Phase II: Empowering Scholars and STEM Teachers
Beck-Johnson,Lindsay McLean	Biology	Ensemble Prediction for Livestock Disease	
Dewey, Tanya Anne	Biology	Case Studies of a Suite of Next Generation Science Instructional, Assessment and Professional Development Materials in Diverse Middle School Settings	Life Right Here and Everywhere
Funk, William Christopher	Biology	RoL: FELS: EAGER: Landscape Phenomics: Predicting vulnerability to climate change by linking environmental heterogeneity to genetic and phenotypic variation	Genomics and the Endangered Species Act
Garrity, Deborah Marie	Biology	CONSORTIA MEMBERSHIP: Hemp phytoremediation and biofortification - Can hemp clean up the earth while producing valuable products?	
Ghalambor, Cameron K	Biology	An Integrative Approach to the Ecological and Evolutionary Causes of Geographic Range Limits	Collaborative Research: Testing Mechanisms of Microgeographic Adaptation
Kanatous, Shane	Biology	Collaborative Research: Foraging Ecology and Physiology of the Leopard Seal	

Knapp, Alan Keith	Biology	LTER: Long-Term Research on Grassland Dynamics - Assessing Mechanisms of Sensitivity and Resilience to Global Change	InSPIRE 2.0: Water Management Opportunities for Solar and Agriculture Co-location
Nishimura, Marc Tad	Biology	Syngenta Postdoctoral Fellowship: Understanding and Improving Crop TIR-Immunity	
Peers, Graham	Biology	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO2 Transfer Membrane and Improved Strain Technologies	Revision: Rewiring Algal Carbon Energetics for Renewables
Poff, Nathan LeRoy	Biology	CESU-RM: Assessing avian responses to riparian restoration in the Colorado River Delta	CESU-RM: Elwha River dam removal vegetation studies; Long-term monitoring of riparian vegetation response to biological control of Tamarix along the lower Virgin River
Reddy, Anireddy Satyanarayana	Biology	Drought tolerance in rice: Role of a stress-responsive calmodulin-binding transcription factor	EAGER: IIBR Informatics: Deep learning tools for the identification of RNA modifications from direct RNA sequencing data
Ruegg, Kristen Camille	Biology	Variation in phenological shifts: How do annual cycles and genetic diversity constrain or enable responses to climate change?	Building a Framework to Genetically Characterize Feather Spots and Understand Demographic Impacts of Solar Energy Sites on Migratory Bird Populations
Salkeld, Daniel Joseph	Biology	Understanding the robustness of spatiotemporal predictions of tick and Borrelia ecology in California	
Slette, Ingrid Jane	Biology	Investigating rangeland responses to altered precipitation variability: can extreme large events sustain forage production during drought?	
Smith, Melinda Diane	Biology	LTER: Long-Term Research on Grassland Dynamics: Assessing Mechanisms of Sensitivity and Resilience to Global Change	Synthesizing the Effects of Multiyear Drought Across a Coordinated Global Experiment
von Fischer, Joseph Charles	Biology	CSU Methane Mapping 2021	Development & Validation of Low-Cost Natural Gas Leak Detection Sensors & Analytics for Mobile & Handheld Deployments. STTR Phase II Proposal.
Webb, Colleen T	Biology	Tool to determine national scale Avian Influenza risks associated with environmental persistence to support risk assessment, risk identification and surveillance planning	Linking Network Models of Swine Movement Patterns with Potential Disease Outbreak Processes Across the United States to Inform Livestock Risk Assessments
Barfield, Jennifer P	Biomedical Sciences	Increasing Production of Bison Calves through Embryo Transfer	USDA Phase I: Improvement of bovine embryo yields: MPTI
Bosco-Lauth, Angela M	Biomedical Sciences	COVID-19: Medgene SARS-CoV-2 Vaccine Study	COVID-19: Effect of vaping on COVID-19 infection
Bowen, Richard A	Biomedical Sciences	COVID-19: Novel risk factors for severe COVID-19 lung disease	COVID-19: Recombinant BCG-based SARS-CoV-2 vaccine

Handa, Robert J	Biomedical Sciences	Project 3: Sex differences in Major Depression: Impact of Prenatal Stress-Immune and Autonomic Dysregulation	
Hentges, Shane	Biomedical Sciences	Hypothalamic Circuits Regulating Energy Balance and Obesity: Synaptic Physiology	
Kim, Seonil	Biomedical Sciences	Combination treatment of selective nicotinic acetylcholine receptor agonists for beta amyloid-induced hyperexcitation and cognitive impairment in Alzheimer's disease	
Myers, Brent	Biomedical Sciences	Cortical-Medullary Circuitry Preventing the Cardiovascular Consequences of Chronic Stress	Investigating sex differences in cortical-hypothalamic circuitry mediating cardiovascular disease risk
Ragan, Izabela Katarzyna	Biomedical Sciences	Evaluating Efficacy of Singletto System to Sterilize Virus-Laden Air and Prevent Transmission	
Stone-Roy, Leslie M	Biomedical Sciences	Audio-Lingual Device (Smart Mouthware)	
Tesfaye, Dawit	Biomedical Sciences	NNF - Reproductive Biotechnology for Sustainable Animal Production: A Multidisciplinary Graduate Fellowship Program	
Tobet, Stuart A	Biomedical Sciences	Sex Differences in Major Depression: Impact of Prenatal Stress-Immune and Autonomic Dysregulation (Career Enhancement Core)	
Vigh, Jozsef	Biomedical Sciences	Opioid Modulation of Retinal Ganglion Cells Providing Photoentrainment of the Circadian Clock	
Anderson, Jennie Adale	Center for Environmental Management of Military Lands	Hill Air Force Base, UT Bald and Golden Eagle Data Coordination	
Bagley, Calvin F	Center for Environmental Management of Military Lands	Cultural Resources Management Study and Support, Fort Wainwright, Alaska	Natural Resources Support, Enhance Ecosystem and Longleaf Management Support, Fort Stewart, Georgia
Beavers, Andrew M	Center for Environmental Management of Military Lands	CESU-CP: Climate Change Induced Wildfire Hazard Analysis for AFCEC Wildland Fire Branch Installations	
Bern, Christine M	Center for Environmental Management of Military Lands	Ecosystem and Heritage Resource Management	
Caldwell, Elizabeth D	Center for Environmental Management of Military Lands	CESU-CP: Land Management and Environmental Services Spill Prevention, Controls, and Countermeasures (SPCC)_ Schofield Barracks	
Clarke, Melinda	Center for Environmental Management of Military Lands	CESU-CP: Rare, Threatened and Endangered Plant Surveys and Invasive Plant Management for Natural Resources Branch, Fort Drum, New York	



Herron, Christopher Michael	Center for Environmental Management of Military Lands	CESU-GP: Fort Polk Conservation Program Maneuver Damage Coordination and Infrastructure Maintenance, Inspection, and Environmental Analysis Support	
Jacobson, Peter A	Center for Environmental Management of Military Lands	Environmental Support-UIC Inventory and Wastewater Joint Base Pearl Harbor-Hickam, Oahu, Hawaii	
Jones, David A	Center for Environmental Management of Military Lands	CESU-RM: Natural Resources Ecosystem Management Activities at Pohakuloa Training Area & Keamuku Land Parcel Management Area Activities for the US Army Garrison, Hawaii	
Mathies, Tom Crosby	Center for Environmental Management of Military Lands	Native Plant Seed Collection, Salvage, Storage and Nursery Propagation for Forest Enhancement at Naval Base Guam Telecommunications Site	
Sherman, Stephen A	Center for Environmental Management of Military Lands	Fort Drum Conservation Education	
Ritter Jr, August W	Center for the New Energy Economy	Net Zero Working Group	
Tegen, Suzanne Isabel	Center for the New Energy Economy	Repowering the Western Economy-Clean Energy Legislative Academy	
Bailey, Travis S	Chemical & Biological Engineering	Fighting Fatigue and Fracture with Morphologically Tuned Energy Dissipation in Highly Swollen Elastomer Networks	
Chan, Siu Hung Joshua	Chemical & Biological Engineering	Electro-Enhanced Conversion of Wet Waste to Products Beyond Methane	
Munsky, Brian	Chemical & Biological Engineering	Microbial Carbon Cycling in Terrestrial Ecosystems	
Reardon, Kenneth F	Chemical & Biological Engineering	Rewiring Algal Carbon Energetics for Renewables	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO2 Transfer Membrane and Improved Strain Technologies; Effects of coal-derived soil amendments on plant growth and soil health
Reisfeld, Bradley	Chemical & Biological Engineering	MAP-HABS: An innovative platform for the early and ongoing detection of harmful algal blooms	
Snow, Christopher Davis	Chemical & Biological Engineering	Designed Expanded Co-Crystals for Guest Structure Determination	Surveillance of mosquito and arbovirus dispersal using smart microcrystals
Chen, Eugene Y	Chemistry	Redesign Tomorrow's Circular Plastics Using Bio-based or Waste-plastic-derived Feedstocks	Bio-based Polymers with Performance Advantages and Chemical Recyclability; Infinitely Recyclable Bioplastics; CAS: Diastereoselective Polymerization Catalysis for Stereo-sequenced Polymers with Biodegradability and Chemical Circularity

Farmer, Delphine Kasimara	Chemistry	Collaborative Research: Forest-Atmosphere VOC Exchange for a Coniferous Ecosystem - Closing the Flux Budget	Size-resolved particle and black carbon deposition over the cryosphere; Addressing the community building and data infrastructure needs of the Chemistry of Indoor Environments program through the HOMEChem experiment (House Observations of Microbial and Environmental Chem)
Finke, Richard G	Chemistry	Photoelectrochemically Driven Water-Oxidation Catalysis by Perylene Diimide Plus Cobalt-Oxide Based Photoanodes: Fundamental Studies En Route to Second-Generation Systems	
Fisher, Ellen R	Chemistry	Unraveling Plasma-Assisted Catalysis: Toward Understanding Fundamental Molecule-Surface Interactions and Energy Partitioning Synergisms	
Henry, Charles S	Chemistry	COVID-19: COVID Advanced Microfluidic Devices for Point-of-Care COVID-19 Serological Testing	AST: On Target Cards for Monitoring Superfund Sites; Composite carbon electrodes for sensing and energy storage applications; HICAHS- AI-Enabled Sensing of PFAS in Agricultural Waters
Kim, Seonah	Chemistry	Application of Theoretical Chemistry to Low-Carbon Fuel Autoignition and Soot Precursor Formation Mechanism Development	Machine learning predictive tool development for Process Monitoring and Predictions Task
Levinger, Nancy E	Chemistry	The Chemistry and Effectiveness of Plant Vitrification Solutions for Use in Cryopreservation	A mechanistic approach improving cryopreservation technologies to preserve and protect American agriculture
Miyake, Garret Morgan	Chemistry	Paintable Heat-Reflective Coatings for Low-Cost Energy Efficient Windows	Organic Polymerization Catalysis: Precision Macromolecules for Recognition in Biological Systems
Neilson, James Richmond	Chemistry	Informed Materials Design Principles From Local Structures and Dynamics In Hybrid Inorganic-Organic Perovskite Halides	Materials Design Principles for Effective Light-Induced Charge Separation in Revolutionary Photovoltaics
Paton, Robert Scott	Chemistry	End-to-end Optimization for Battery Materials and Molecules by Combining Graph Neural Networks and Reinforcement Learning	
Ravishankara, Akkihebbal Ramaiah	Chemistry	COVID-19: Are there connections between PM2.5 and COVID-19 outcomes?	How much and where will trifluoroacetic acid be deposited due to use of HFO-1234yf in China, India, and the Middle East
Arabi, Mazdak	Civil & Environmental Engineering	SRN: Urban Water Innovation Network (U-WIN): Transitioning Toward Sustainable Urban Water Systems	Hydrological modeling to assess vulnerability of water supply in the contiguous US; Geospatial Flood Prediction Tool for Infrastructure Resilience
Atadero, Rebecca A	Civil & Environmental Engineering	MPC: Use of Lifecycle Cost Analysis to Enhance inspection planning for transportation infrastructure	Investigating the Applicability of Multi-Fidelity Modeling to Condition Evaluation of Transportation Infrastructure

Bailey, Ryan T	Civil & Environmental Engineering	Improved crop yield and soil salinity by cost-effective integration of microbial community, hydrology, desalination, and renewable power	Selenium Characterization and Modeling for the Lower Arkansas River Basin
Baker, Daniel W	Civil & Environmental Engineering	Upper Arkansas River Stream Rehabilitation Habitat Comparison and Vegetation Monitoring	CESU-RM: Answering Ecological Management Questions for Aquatic Resources in National Parks using GIS and Remote Sensing Tools (continuation of 5300699)
Bareither, Christopher Alan	Civil & Environmental Engineering	Implications of Solid and Liquid Waste Co-Disposal on Organic Stability and Biochemical Compatibility	
Bhaskar, Aditi	Civil & Environmental Engineering	CAREER: Science and Education for Connecting Urban Irrigation Efficiency to Streamflow in Semi-Arid Cities	Collaborative Research: Connecting local stormwater decision-making to environmental outcomes
Carter, Ellison	Civil & Environmental Engineering	A feasibility study of the potential to reduce environmental exposures through energy efficiency improvements in low-income rental homes	Investigating Impacts of Energy Efficiency Upgrades in Renter- and Owner-Occupied Housing on Indoor Air Quality and Environmental Exposures
Casper, Anne Marie K	Civil & Environmental Engineering	RCN-UBE Incubator: Creating a more gender-inclusive undergraduate biology curriculum	
Chavez, Jose L	Civil & Environmental Engineering	FFAR Theme Project #7: Satellite and UAS Imagery Use to Implement Timely Irrigation Strategies	
Chen, Suren	Civil & Environmental Engineering	Resilience-based recovery planning of transportation network following earthquakes	MPC: Traffic performance modeling and planning of emergency medical response in rural areas
David, Olaf	Civil & Environmental Engineering	Soil Organic Carbon Modeling for Microsoft Carbon Dioxide Removal Project	CESU-GP: Design, Implement, and Support Erosion and Water Quality Model and Data Services for Conservation Reserve Program (CRP) Ranking Process
De Long, Susan K	Civil & Environmental Engineering	Food Waste to Bioplastics Precursors via Genetic Engineering of Waste Conversion Microbiomes	Electro-Enhanced Conversion of Wet Waste to Products Beyond Methane; Review of Detection and Quantification for SARs-CoV-2 in Wastewater
Dell, Tyler Adam	Civil & Environmental Engineering	Stormwater Research Services for the City of Fort Collins	E.Coli Sampling in the Cache la Poudre River
Ellingwood, Bruce	Civil & Environmental Engineering	CRISP Type 2: Collaborative Research: Scalable Decision Model to Achieve Local and Regional Resilience of Interdependent Critical Infrastructure	
Jia, Gaofeng	Civil & Environmental Engineering	Probabilistic performance assessment and control co-design of wave farms	
Julien, Pierre Y	Civil & Environmental Engineering	Linking Morpho-dynamic and Biological-habitat Conditions on the Middle Rio Grande	

Morrison, Ryan Richard	Civil & Environmental Engineering	Assessing Status of Water Quality and Environmental Health of our Nation's Rivers	CESU-RM: Ecological Impacts of Hydroscape Modifications
Nelson, Peter August	Civil & Environmental Engineering	MPC: Probabilistic Modeling of Landslide Hazards to Improve the Resilience of Transportation Infrastructure	CAREER: Experimental and Theoretical Investigation of Sediment Supply and Sorting in Meandering Rivers
Sale, Thomas C	Civil & Environmental Engineering	Remote Monitoring of Natural Source Zone Depletion Using Temperature Data to Support Long-Term Passive Management Strategies	
Scalia IV, Joseph	Civil & Environmental Engineering	Assessment of High-Moisture Waste on the Hydro-Mechanical Behavior of Municipal Solid Waste and Impacts of Landfill Management	
Sharvelle, Sybil E	Civil & Environmental Engineering	NRT-INFEWS: Interdisciplinary Training, Education and Research for Food-Energy-Water Systems (InTERFEWS) in Semi-Arid Regions	Life Cycle Costs of Water Infrastructure Alternatives; Assessing the Microbial Risks and Potential Impacts From Stormwater Collection and Uses to Establish Appropriate Best Management Practices
Tong, Tiezhang	Civil & Environmental Engineering	Developing Relationships Between Mineral Scaling and Membrane Surface Chemistry to Improve Water Recovery of Inland Brackish Water Desalination	
van de Lindt, John W	Civil & Environmental Engineering	SCC-CIVIC-PG Track B: Community Resilience Micro-Bonds to Balance Cost and Social Equity among Stakeholders	Collaborative Research: EAGER: CoPe: Coastal Community Resilience Bonds to Enable Coupled Socio-Physical Recovery; RSB: Performance based decision support system for resilient and sustainable multi-hazard building design; Cooperative Research to Enable Mass Timber Multi-Family Housing Technologies
Adams, Mary Ragan	Clinical Sciences	Capacity building and using Train-the Trainer approach to improve biosecurity and reduce disease spread in small scale and backyard livestock and poultry premises	
Dow, Steven W	Clinical Sciences	COVID-19: Immune Activation Antiviral Activity induced by Liposome-TLR Complexes induced in a Relevant in Vitro and In Vivo Models	
Easley, Jeremiah T	Clinical Sciences	Development of a Dynamic compression fusion device for lower extremity salvage of the diabetic foot	Integration and Recellularization of Microparticles for the Repair of Tissue Defects; Evaluating the Safety and Efficacy of Cartilage Regeneration with Tunable Inflammation Resistance
Ehrhart, Nicole P	Clinical Sciences	Therapeutic Muscle Derived Stem Cells for Healing of Cardiac Muscle Injury During Pregnancy	Therapeutic Muscle Derived Stem Cells for Prevention of Fibrosis in Skeletal and Cardiac Muscle

Goodrich, Laurie R	Clinical Sciences	Development of Diagnostic and Treatment Strategies for Post Traumatic Osteoarthritis (PTOA)	
Guth, Amanda M	Clinical Sciences	Proof of concept of a novel, autologous cancer vaccine	
Rao, Sangeeta	Clinical Sciences	Occupational exposure of dairy farm workers and dairy working environment to antimicrobial resistant Salmonella enterica	High Plains Intermountain Center for Agricultural Health and Safety; Borlaug Program for Algeria Veterinary Inspector: Development of Animal Disease Eradication plan and Protecting Animal Health: Role of Government
Thamm, Douglas H	Clinical Sciences	Testing a universal, Preventative Cancer Vaccine	Vaccine Studies in Melanoma and Lymphoma
Wotman, Kathryn L	Clinical Sciences	Development of a Novel Topical Ocular Immunotherapy for Treatment of Viral and Neoplastic Diseases of the Cornea	
Davidson, Ana	Colorado Natural Heritage Program	Understanding How to Manage Prairie Dog Population Dynamics in the Context of Plague, Climate, and Livestock Forage Production	CESU-GP Identifying potential landscapes for conservation across the grasslands of N Amer: Integrating keystone species, land use patterns, and climate change to enhance current and future grassland
Decker, Karin L	Colorado Natural Heritage Program	Risk of ecological transformation across the US West and Pinyon woodlands	
Greenwell, Amy E	Colorado Natural Heritage Program	Colorado Conservation Data Explorer and Dataset Development	
Granau, Lee	Colorado Natural Heritage Program	Roaring Fork Watershed Biodiversity and Connectivity	
Handwerk, Jill E	Colorado Natural Heritage Program	Assessment of Urban Wetlands in the City of Aurora,CO	Surveys, Monitoring and Data Development for Plant Species of Greatest Conservation Need in Colorado
Lemly, Joanna	Colorado Natural Heritage Program	CESU-RM: Synthesizing Long Term Ecological Monitoring of Rocky Mountain Wetlands to Prioritize and Inform Restoration and Mitigation; Florissant Fossil Beds National Monument Case Study	
Marshall, Sarah	Colorado Natural Heritage Program	Revised Survey and Assessment of Critical Wetlands in the Roaring Fork Watershed , Colorado	
Miller, Janet	Colorado Natural Heritage Program	Evaluating the effects of piscicide use on aquatic insects for greenback cutthroat recovery	
Panjabi, Susan Spackman	Colorado Natural Heritage Program	Review of Habitat Suitability Models for the Map of Biodiversity Importance	
Schorr, Robert	Colorado Natural Heritage Program	CESU RM: Preble's meadow jumping mouse populations at the U.S. Air Force Academy 2020	

Siemers, Jeremy	Colorado Natural Heritage Program	CESU-RM: Identify Bat Diversity, Use of Habitat and Roosts and White-Nose Syndrome Presence in Rocky Mountain National Park	Wildlife surveys associated with priority timber sales on the White River National Forest
Smith, Jessica Peterson	Colorado Natural Heritage Program	Distribution Modeling for Colorado State Wildlife Action Plan, Plants of Greatest Conservation Need	
Sovell, John Raymond	Colorado Natural Heritage Program	Biodiversity Survey of the Crazy French/Fisher's Peak Conservation Area	
Beveridge, Daniel T	Colorado State Forest Service	20CPG CG5 BO Boulder Mountain Fire	2020 CAFA GO Bristlecone Ranch Fuels Reduction
Castello, Erik Zigmond	Colorado State Forest Service	2021 Forest Management Planning- Fishers Peak State Park	20CPG Forest Stewardship - Forest Atlas
Coelho, Dana Lucille	Colorado State Forest Service	16CPG Urban & Community Forestry	18CPG Urban Waters
Edwards, Richard M	Colorado State Forest Service	Capacity and Capability Effort - GNA SPA (Colorado Cooperative Forest and Timber Management Expanded Capacity and Capability Effort)	Overland Timber Sale and Fuels Reduction, GMUG North Zone SPA - 2020- Good Neighbor Supplemental Project Agreement - FRS
Fordham, Amanda West	Colorado State Forest Service	Cultivating networks for forest science innovation and discovery through the development of sustainable data infrastructure at the Colorado State Forest Service	
Garrison, Kristin L	Colorado State Forest Service	2019 CAFA Upper Colorado River Headwaters Watershed and Community Protection	Peekaboo and McNassar Gulch Native Shrubs Project
Selby, Diana C	Colorado State Forest Service	BLM-CO: Forests & Woodlands Resource Management - San Luis Valley Expansion	BLM-CO Statewide Forest Health Resilience Good Neighbor Project
Gimbel, Jennifer	Colorado Water Center	Upper Colorado River Contingency Planning and Policy	
Kallenberger, Julie A	Colorado Water Center	SUBAWARD TO CSM: FY 17 WRRRI 104g: Hydrodynamic-enhancement of nitrate attenuation by integrating reactive biobarriers into shallow, open water treatment wetlands	
Carcasson, Martin	Communication Studies	Impact of Developing Increased Deliberative Capacity in U.S. Cities	
Anderson, Charles W	Computer Science	AI Institute: Artificial Intelligence for Environmental Sciences (AI2ES)	Bringing Historic Seed Test Data Alive Through Machine Learning Algorithms: Proof of Concept
Ortega, Francisco Raul	Computer Science	N202-090 -- Single Amphibious Integrated Precision Augmented Reality Navigation (SAIPAN) System via Fused Augmented Realities- User Interface (FAR-UI)	Fused Augmented Realities with Synthetic Vision (FAR/SV) Systems for Ground Forces
Pallickara, Sangmi Lee	Computer Science	FACT: A Scalable Infrastructure for High-precision Evapotranspiration Estimations and Effective Farm-level Decision Making	

Pallickara, Shrideep	Computer Science	Frameworks: Collaborative Proposal: Software Infrastructure for Transformative Urban Sustainability Research	
Ray, Indrajit	Computer Science	CyberSim: A Flexible Simulation Environment for the Evaluation of Cyber Risk in Nuclear Power Plants in Support of the Design of Cyber Protection Architectures	
Ray, Indrakshi	Computer Science	COVID-19: RAPID: ENSURING INTEGRITY OF COVID-19 DATA AND NEWS ACROSS REGIONS	
Elliot, Jonathan Weston	Construction Management	Modular Construction: Integration of Advanced Energy Efficient Technologies Through Offsite Prefabrication	
Mehany, Mohammed Said Hashem	Construction Management	Developing the Main Framework for LEED for Infrastructure Sustainability and Resilience	
Bailey, Larissa	Cooperative Fish & Wildlife Research	Understanding the Behavior and Spatial Ecology of Translocated Brown Treesnakes to Inform Interdiction and Rapid Response Efforts in the Pacific Region	
Hooten, Mevin B	Cooperative Fish & Wildlife Research	Collaborative research: RoL: Using reaction norms to link genomic and phenotypic variation with regional-scale population responses to environmental change	RWO123 Modeling brook trout population responses to climate variation in the Southeast USA
Kendall, William L	Cooperative Fish & Wildlife Research	Estimating population size and demographic parameters for Rio Grande Sucker and Rio Grande Chub at Baca National Wildlife Refuge	
Winkelman, Dana	Cooperative Fish & Wildlife Research	TO 2002 Field examination of wastewater treatment effluent thermal regimes and effects on reproduction of Johnny Darter <i>Etheostoma nigrum</i>	
Back, Amanda	Cooperative Institute for Research in the Atmosphere	WF-2 Advance FV3-CAM to improve wildfire detection and prediction	
Baker, David A	Cooperative Institute for Research in the Atmosphere	An Intercomparison of Global Flux Inversions of OCO-2 and OCO-3 CO2 Data for Carbon Cycle Science and Bias Correction	Atmospheric Carbon and Transport Study - America
Baker, Ian T	Cooperative Institute for Research in the Atmosphere	Advancing understanding of drought prediction from environmental stressors	
Bolinger, Rebecca Anne	Cooperative Institute for Research in the Atmosphere	Identifying Drought-related Triggers and Impacts on Decision Calendars for the Ski Industry	Enhancing NIDIS drought monitoring and early warning in the Intermountain West
Brammer, Alan	Cooperative Institute for Research in the Atmosphere	Extending the Tropical Cyclone Genesis Index to Global Ensemble Forecasts	
Chirokova, Galina Yurievna	Cooperative Institute for Research in the Atmosphere	Use of Ocean Stability Data and Machine Learning to Improve Tropical Cyclone Situational Awareness and NHC Statistical-Dynamical Intensity Guidance	



Demott, Charlotte A	Cooperative Institute for Research in the Atmosphere	Understanding Bulk Surface Flux Algorithm Contributions to Climate Projection Uncertainties	
Dostalek, John Francis	Cooperative Institute for Research in the Atmosphere	JPSS-PGRR NUCAPS Data Fusion CIRA Support to Proving Ground Risk Reduction	
Farmer, Delphine Kasimara	Cooperative Institute for Research in the Atmosphere	Near-field Characterization of Biomass Burning Plumes	Fluxes of Reactive Organic Gases in New York (FROG-NY): Direct quantification by multi-instrument eddy covariance
Forsythe, John M	Cooperative Institute for Research in the Atmosphere	GOESR Water Vapor Products CIRA Support for Research and Development for GOES-R Risk Reduction for Mesoscale Weather Analysis and Forecasting	
Hilburn, Kyle	Cooperative Institute for Research in the Atmosphere	Coupled Interactive Forecasting of Weather, Fire Behavior, and Smoke Impact for Improved Wildland Fire Decision Making	
Jones, Andrew S	Cooperative Institute for Research in the Atmosphere	CESU-CP: Climate Change Induced Wildfire Hazard Analysis for AFCEC Wildland Fire Branch Installations	
Liston, Glen E	Cooperative Institute for Research in the Atmosphere	Collaborative Research: Working with Inuit Elders and Youth to Identify, Document, Quantify, and Share Human-Relevant Environmental Variables (HREVs) in Clyde River, Nunavut	Quantifying socioecological consequences of changing snow and icescapes: A data-model fusion approach
Lu, Lixin	Cooperative Institute for Research in the Atmosphere	Investigating Feedbacks between Vegetation, Aerosol and Cloud Processes using Observations and a Unified Regional Climate Model	Collecting and Compiling Time-Critical Wind and Rainfall Data for Forensic Analysis of Flood-Wind-Rainfall Interactions during Hurricanes Florence and Michael
Miller, Steven D	Cooperative Institute for Research in the Atmosphere	CIRA/NESDIS Support for Discrimination of Flaming and Smoldering Biomass Burning with VIIRS Nighttime Data	
Musgrave, Kate D	Cooperative Institute for Research in the Atmosphere	Accelerate Improvements in National Hurricane Center Forecast Techniques - Statistical Techniques and Advanced Model Diagnostic Tools	
Pierce, Jeffrey Robert	Cooperative Institute for Research in the Atmosphere	Aerosol Size Distribution and Composition Evolution during FIREX Activities: Closure Analyses and Climate Impacts	
Schuh, Andrew	Cooperative Institute for Research in the Atmosphere	Satellite-based monitoring of urban emissions in support of greenhouse gas emission mitigation policies	
Schumacher, Russ Stanley	Cooperative Institute for Research in the Atmosphere	Multi-disciplinary investigation of concurrent tornado and flash flood threats in landfalling tropical cyclones	
Zupanski, Milija	Cooperative Institute for Research in the Atmosphere	Increasing satellite data use and impacts in hurricane analysis and precision leveraging artificial intelligence applications	



Duggan, Jerry	CSU Energy Institute	Methane detector network for monitoring natural gas leaks from buried pipelines in rural and urban environments	
Francisco, Pual William	CSU Energy Institute	Evaluation of Radon Resistant New Construction Performance	
Muhs, Jeffrey David	CSU Energy Institute	Cleantech Entrepreneurship and Startup Development at Colorado State University	
Zimmerle, Daniel	CSU Energy Institute	SRN: Integrated Urban Infrastructure Solutions for Environmentally Sustainable, Healthy and Livable Cities	Tools for Predicting the Development of Underground Leaks with Significant Flow Rates and Mitigating its Occurrence/Consequence
Barnes, Katelyn McCulloch	CSU Extension	Creating a Customized Market Analysis Training Program to Serve the Commodity Outlook Program	
Bruegger, Margaretta A	CSU Extension	Compost for Carbon Sequestration on Irrigated Pasture	
Cabot, Perry Edmund	CSU Extension	Evaluating Conserved Consumptive Use in the Upper Colorado River	
Carter, Susan Lynn	CSU Extension	CESU-RM BLM-CO Preserving Cultural and Paleontological Resources on Colorado's Public Lands - Ute Learning/Ethnobotany Garden	
Christensen, Elizabeth O'Sullivan	CSU Extension	CO CSU Community-Based Social Media Vaccine Promotion Project	
Christensen, Kyle	CSU Extension	Temporary Assistance for Needy Families (TANF) Colorado Works Community Services	
Osborn, Blake Justin	CSU Extension	Nonpoint Source Program Project Implementation Plan (PIP) Template for Post-Wildfire Implementation Projects	Groundwater & Surface-Water Interactions and Potential for Underwater Storage - Phase 2
Schneekloth,Joel	CSU Extension	Accelerating Adoption of Water Conservation Technologies and Management Practices through Innovative Engagement Programming	Precision Farming for Development of Sustainable Dryland Cropping Systems of the Central Great Plains Region
Schneider, Suzanne D	CSU Extension	Senior Access Points of Larimer County: Improving Information Access for Rural and Isolated Residents	
Sullins, Martha J	CSU Extension	Building a Collaborative and Outreach Framework to Support Produce Growers in Achieving Produce Safety in Colorado	
Sanderson, Jon Scott	Dean of Natural Resources	Halligan Water Supply Project, Development of Adaptive Management Plan, Phase 1: Internal Alignment	
Diddi, Sonali	Design & Merchandising	Initiating a Fiber, Textiles and Clothing Curriculum Enhancement Program to Advance Circular Economy Competencies in Baccalaureate Education	

Malinin, Laura H	Design & Merchandising	B Sharp Art Works: Evaluating performing arts enrichment programming for older adults with cognitive impairment and their caregivers	
Morris, Kristen Deanne	Design & Merchandising	Value-added: Challenging students to solve clothing-related problems for people with disabilities using cotton performance technologies	
Mayo, Christie E	Diagnostic Lab - Fort Collins	NAHLN Enhancement: Novel Approach to Diagnose Characterize High Consequence Pathogens	
Pabilonia, Kristy L	Diagnostic Lab - Fort Collins	COVID-19: CHSCHA: COVID-19 Surveillance Testing in Colorado Skilled Nursing and Senior Group Living Facilities	CDPHE - SARS-CoV-2 Testing
Barbier, Edward	Economics	Belmont Forum Collaborative Research: Land to Sea	
Fremstad, Anders F	Economics	Teaching with CORE and Evaluating Women Student Retention at Colorado State University	
Shulman, Steven J	Economics	Faculty Diversity and Minority Student Outcomes: An Analysis of Institutional Factors	
Weiler, Stephan A	Economics	Economic Impacts of Invasive Feral Swine Damage to Natural Resources	Damage Assessment of Resources Under WS Protection
Covino, Timothy P	Ecosystem Science & Sustainability	CAREER: From the forest to the stream: Exploring forest land cover controls on dissolved organic matter character and aquatic ecosystem respiration in headwater streams	Post Wildfire Watershed Nitrogen Retention Processes; Evaluating hillslope soil erosion and forest recovery after tethered logging on steep slopes
Cusack, Daniela Francis	Ecosystem Science & Sustainability	Consequences of Altered Roof Nutrient Uptake for Soil Carbon Stabilization	
Fassnacht, Steven	Ecosystem Science & Sustainability	CESU-RM: Supporting states clean water act integrated reporting	CESU-RM: Make Federal Water Data Available to States and the Public
Kampf, Stephanie K	Ecosystem Science & Sustainability	Assessing impacts on ecosystem services provision and wildfire risk in the context of urban expansion and climate change in San Martin de los Andes, Argentina	RAPID: Wildfire impacts on snowpack, flow paths, and sediment dynamics across an elevation gradient
Klein, Julia Anne	Ecosystem Science & Sustainability	CNH-RCN: Bridging Communities and Scales through a Transdisciplinary Mountain Sustainability Network	The Moving Mountains Summit: Collaboratively Redefining the Future of Mountain Environments and Society; Doctoral Dissertation Research: Collaborative social-ecological models for conservation in the Ethiopian highlands

Lefsky, Michael A	Ecosystem Science & Sustainability	Mapping 80 years of Historic Forest Cover	Increasing the temporal density of an 80 year time series of historic forest cover for Puerto Rico, Phase I
McHale, Melissa	Ecosystem Science & Sustainability	Front Range Urban Areas Study	
Mueller, Nathaniel Dean	Ecosystem Science & Sustainability	Vulnerabilities of snowmelt-dependent irrigated agriculture	Productivity, animal welfare, and environmental implications of weather variability for US dairy systems
Ross,Matthew Richard Voss	Ecosystem Science & Sustainability	Distributed sensor networks and data fusion to improve watershed resilience in the Cache La Poudre watershed	Identifying, predicting, and managing the occurrence of harmful algal blooms in Wyoming reservoirs; COVID-19: RAPID: Collaborative Research: Increased access to infrastructure for distance education in hydrologic science
Vogeler, Jody	Ecosystem Science & Sustainability	Roles of pre-fire vegetation, soil, and climate in Great Basin ecosystem recovery	
Warnock, Andrew C	Education & Outreach Center	CAREER: Illuminating structure-property relationships in energy storage materials via quantitative light microscopy	
Ebert-Uphoff, Imme Ruth	Electrical & Computer Engineering	AI Institute: Artificial Intelligence for Environmental Sciences (AI2ES)	Collaborative Research: Knowledge Guided Machine Learning: A Framework to accelerate Scientific Discovery
Notaros, Branislav M	Electrical & Computer Engineering	Novel Integrated Characterization of Microphysical Properties of Ice Particles Using In-Situ Field Measurements and Polarimetric Radar Observations	A Telemedicine Approach for Monitoring Fracture Healing via Direct Electromagnetic Coupling
Parischa, Sudeep	Electrical & Computer Engineering	SHF: Small: Energy-Efficient and Reliable Communication with Silicon Photonics for Terascale Datacenters-on-Chip	Collaborative Research: Workshop Series on Sustainable Computing
Reising, Steven C	Electrical & Computer Engineering	Proposal for TEMPEST-D Continued Operations for Renewal of NASA Grant NNX15AP56G	Miniaturized Microwave Absolute Calibration (MiniMAC) for Sounders and Imagers on SmallSat and CubeSat Platforms
Venkatachalam,Chandra sekaran	Electrical & Computer Engineering	Constraining microphysical processes of warm rain formation using advanced spectral separations, an ensemble framework and machine learning techniques	Design and development of AQPI system; Radar Deployment for Surface Atmosphere Integrated Laboratory; GPM Observations and Precipitation; Dual Polarization of Radar Observations, Analysis and Retrievals of Convective Lifecycle during RELAMPAGO
Young, Peter	Electrical & Computer Engineering	Advanced Power Supply Control: Trajectory Following for Periodic Waveforms	
Amidon, Timothy	English	Evaluating the Usability of the AvidCor Physiological Monitoring Platform through Laboratory and Fireground Trials	

Beachy-Quick, Dan J	English	Green & Gold Initiative	
Alexander, Bruce J	Environmental & Radiological Health Sciences	Assessing and Preventing Injuries in Animal Agriculture	
Anderson, Georgiana Brooke	Environmental & Radiological Health Sciences	EAGER: Establishing Interface Standards for Physical Exposure and Human Impacts Data Collection and Publication in Rapid Response to Coastal Hazards	
Bailey, Susan M	Environmental & Radiological Health Sciences	Directional Genomic Hybridization (dGH): inversion discovery for improving diagnosis of rare diseases	
Brazile, William J	Environmental & Radiological Health Sciences	The Measurement of Ambient and Task-Generate Silica Concentrations During OSHA Table 1 Construction Tasks to Derive a Concentration Model Adjustment	Mountain and Plains Education Research Center - Industrial Hygiene
Clark, Maggie Lynn	Environmental & Radiological Health Sciences	Household Air Pollution and Health: A Multi-Country LPG Intervention Trial	Stackable clean cooking in rural Rwanda: Enhancing a solar micro-grid LPG stove intervention; Pilots: High Plains Intermountain Center for Agricultural Health and Safety (HICAHS)
Elf, Jessica L	Environmental & Radiological Health Sciences	Pilot/Feasibility Program: High Plains Intermountain Center for Agricultural Health and Safety (HICAHS)	
Fisher, Gwenith G	Environmental & Radiological Health Sciences	Mountain and Plains Education Research Center - Occ Health Psychology	
Johnson, Thomas E	Environmental & Radiological Health Sciences	Mountain and Plains Education Research Center - Health Physics	The Pseudo Pelger Huet Cell Anomaly as a rapid measure of radiation dose
Magzamen, Sherry	Environmental & Radiological Health Sciences	COVID-19: Examining Prevention Locally Through Research on Environmental Factors for COVID-19 (ExPLoRE-CO)	Southeast Wisconsin Interdisciplinary Study of Children's Health, Ecological Exposures and Social Environment (SWISCHEESE); The Early Life Exposome and Childhood Health - The Colorado Healthy Start 3 Cohort Study; Evaluation of California's 2020 chlorpyrifos cancellation on health and exposure in agricultural communities
Moreno, Julie Ann	Environmental & Radiological Health Sciences	Stem cell therapies for neurodegenerative diseases	

Neophytou, Andreas	Environmental & Radiological Health Sciences	Air pollution exposures and children's health: mediation and interaction in a counterfactual framework	Prenatal secondhand smoke and chemical exposures and offspring markers of obesity in the ECHO consortium; Transportability of effect estimates across ECHO cohorts; Reducing Risk of Chronic Heart and Lung Disease Mortality in the Extended Diesel Exhaust and Miners Study (DEMS)
Peel, Jennifer L	Environmental & Radiological Health Sciences	Household Air Pollution and Health: A Multi-Country LPG Intervention Trial	Cookstove Air Pollution: Emission Profiles and Subclinical Effects of Exposure
Reynolds, Stephen J	Environmental & Radiological Health Sciences	Emerging Issues High Plains Intermountain Center for Agricultural Health and Safety (HICAHS)	Agricultural Safety: High Plains Intermountain Center for Agricultural Health and Safety (HICAHS); Evaluation of effectiveness of a nasal rinse intervention to reduce the pro-inflammatory response in dairy workers exposed to bioaerosols
Rojas Rueda, David	Environmental & Radiological Health Sciences	Health Impacts of urban interventions in Moffett Park	
Rosecrance, John C	Environmental & Radiological Health Sciences	Mountain and Plains Education Research Center - Ergonomics	
Schaeffer, Joshua William	Environmental & Radiological Health Sciences	After the flood: Investigating the health consequences of mold growth in homes damaged during Hurricane Harvey	Antimicrobial Resistant Bacteria: Exposures and Health of Cattle Workers
Sudowe, Ralf	Environmental & Radiological Health Sciences	Establishing a Radioanalytical Measurements Laboratory (RAM LAB) for Food Monitoring at Colorado State University	
Tjalkens, Ronald B	Environmental & Radiological Health Sciences	Pesticide-Mediated Generation of a Toxic Neurotransmitter Metabolite	Neuroinflammation and Developmental Vulnerability to Manganese Toxicity; Encephalitic viral infection and susceptibility to dopaminergic neurotoxins
Tsai, Su-Jung	Environmental & Radiological Health Sciences	Development of direct sensing sampler for submicron mining particles including coal, silica and nano-sized diesel particulates	
Weil, Michael	Environmental & Radiological Health Sciences	Effects of chronic high LET radiation on the human heart	gamma-Tocotrienol as a countermeasure against high-energy charged particle-induced carcinogenesis, cardiovascular disease and nervous system effects
Ishiwata, Eric	Ethnic Studies	Raices-Xidid-Roots (RXR): Self-empowerment for Colorado's Immigrant and Refugee Communities through Knowledge Justice	
Aubry, Lise M	Fish, Wildlife & Conservation Biology	The Interplay Between Host Diet, Immunity Reproduction and the microbiome across an anthropogenic-disturbed landscape	

Bailey, Larissa	Fish, Wildlife & Conservation Biology	CESU-RM: Linking demographic and genomic information to inform conservation decisions for amphibians challenged by disease	Wildfire Effects on Wood Frog Breeding Success
Berger, Joel	Fish, Wildlife & Conservation Biology	CESU-CP: Public Land Recreation and Desert Bighorn Sheep - Blending Empiricism with Bio-Energetic Models to Predict Disturbance Costs during Late Gestation Critical Periods	CESU-RM: Sentinel Sites of the Western Hemisphere: Connecting the Conservation Dots along the Mountains of the Americas to Improve Protected Area Resiliency & Biological Diversity; Novelty in a Predator-Prey System Facilitated by Humans and Climate: Polar Bears, Grizzly Bears and Muskoxen
Bombaci, Sara Petrita	Fish, Wildlife & Conservation Biology	Harnessing bioacoustic monitoring and artificial intelligence to discover and conserve Africas remarkable biodiversity	
Clements, William H	Fish, Wildlife & Conservation Biology	Post-Restoration Assessment of the Upper Arkansas River: A Watershed-Level Analysis of Responses to Improvements in Habitat and Water Quality	Post-Restoration Assessment of Macroinvertebrates and Terrestrial Subsidies to Brown Trout Populations in the Arkansas River, Colorado
Crooks, Kevin	Fish, Wildlife & Conservation Biology	Evaluating Impacts from Human-Carnivore Conflict Management	
Fleishman, Erica	Fish, Wildlife & Conservation Biology	Development, Delivery and Application of Data on Climate Extremes for the Southwestern United States	Adaptive conservation for the Grandpark Habitat Conservation Plan
Goldstein, Liba Pejchar	Fish, Wildlife & Conservation Biology	Habitat use by Ferruginous Hawks in a landscape undergoing energy development	CESU-RM: Temporal changes in invader abundance in relation to land use and land cover; Spatial patterns of invasive songbird abundance across the conterminous United States
Horton, Kyle	Fish, Wildlife & Conservation Biology	Collaborative Research: MRA: Insectivore Response to Environmental Change	Aeroecology, an emerging ecological frontier for addressing modern conservation challenges
Jon, Jacob R	Fish, Wildlife & Conservation Biology	Documenting avian community response to wildfire in Rocky Mountain National Park using bioacoustics	
Kanno, Yoichiro	Fish, Wildlife & Conservation Biology	Sustaining plains aquatic ecosystems using an integrated ecological and social approach	
Koons, David N	Fish, Wildlife & Conservation Biology	Productivity of Breeding Waterfowl on Working Lands in a Flood-irrigated System	
Myrick, Christopher A	Fish, Wildlife & Conservation Biology	CESU-RM: Developing Rock Ramp Fishway Design Parameters for Fish Species of Conservation Concern	

Wittemyer, George	Fish, Wildlife & Conservation Biology	Impact of ecological park restoration on health in low income neighborhoods: A natural experiment	CESU-RM: Quantifying the effects of noise and stray light on wildlife and ecosystems in units of the national park system.
Baker, Susan S	Food Science & Human Nutrition	Core Competencies for Land Grant Nutrition Education	
Bellows, Laura L	Food Science & Human Nutrition	Community-based youth obesity initiatives in Colorado and Iowa	
Cunningham-Sabo, Leslie	Food Science & Human Nutrition	Bridging Home and Preschool Environments to Promote Healthy Eating and Activity Behaviors and Prevent Obesity in Early Childhood	
Mueller, Megan Paige	Food Science & Human Nutrition	Restaurant corporate social responsibility and association with business practices relevant to cardiovascular health	
Cheng, Anthony S	Forest & Rangeland Stewardship	Monitoring Ecological, Social, and Economic Effects of the Uncompahgre Plateau Collaborative Forest Landscape Restoration Project	Collaborative adaptive management to support wildfire-resilient forests, watersheds, and communities on the Colorado Front Range
Cooper, David Jonathan	Forest & Rangeland Stewardship	CESU-RM: Restore an Abandoned Wastewater Treatment Pond to Wetland Habitat in Morefield Canyon	Connect Visitors to the Historic Landscape through Restoration of the Core Battlefield at Palo Alto Battlefield NHP
Davis, Thomas Seth	Forest & Rangeland Stewardship	Effects of prescribed burns on wild bee communities in the Colorado Front Range	Seeing the forest for the bees: effects of forest restoration on native pollinators
Fernandez-Gimenez,Maria E	Forest & Rangeland Stewardship	Using Sound to Advance Conceptual Frameworks of Resilience in Integrated Human-Natural Grassland Systems.	Perceived Benefits, Barriers, and Enabling Conditions of Integrated Ranch Management Planning Across the Northern Great Plains
Nagel, Linda	Forest & Rangeland Stewardship	The USDA ARS Climate Hubs, Increasing Agricultural Productivity and Sustainability by Impactful Development and Communication of Climate Smart Agricultural Research and Practices, Las Cruces, NM	
Paschke,Mark W	Forest & Rangeland Stewardship	Revegetation of oil and gas pads, roads, and pipelines	Vegetation Monitoring: Additional Studies Summitville Mine Superfund Site
Redmond, Miranda D	Forest & Rangeland Stewardship	Managing for Rangeland Resilience to Drought: Dominant Controls on Understory Vegetation Response to Overstory Tree Mortality	CESU-RM: Vegetation change across Bryce Canyon National Park: Interacting effects of disturbances and drought on vegetation dynamics over the past 50+ years
Schultz, Courtney Allison	Forest & Rangeland Stewardship	A National Review of the Shared Stewardship Strategy's Implementation	Incorporating Climate Change Considerations into Forest Service Planning and Activities; Collaborative Proposal: MSB-FRA: The Future of US Forest Function under Changing Climate, Disturbance and Forest Management

Shaw, Jeremy Robert	Forest & Rangeland Stewardship	Ecohydrological Impacts of Roads in Arid Environments: Interruption of Sheetflow Pathways	
Wei, Yu	Forest & Rangeland Stewardship	MASBio 2.4: Multi-feedstock biomass supply chain modeling to expand the bioeconomy	
Wolk, Brett H	Forest & Rangeland Stewardship	Science-Based Support for a Comprehensive Update of the Jefferson County Open Space Forest Management Plan	Developing and Applying Outcome Based Measures With U.S. Forest Service Region 2 Watershed Partnerships
Aster, Richard C	Geosciences	Collaborative Research: Investigating Ice Sheet - Solid Earth Feedbacks in West Antarctica: Implications for Ice Sheet Evolution and Stability	
McGrath, Daniel	Geosciences	Glacial lake outburst flood hazard assessment and forecast system (GLOF-HAFS): A tool for science-based decision making in High Mountain Asia	CESU-RM: Resolving spatial and temporal variability of snow accumulation in mountain and glacier environments
Ronayne, Michael J	Geosciences	Studies Supporting Sustainable Use of the Denver Basin Aquifers in the Vicinity of Castle Rock	
Sanford, William E	Geosciences	CESU-RM: Evaluate NPS geohydrology and sustainable groundwater management, including a focus on the Cottonwood / Smoke Tree sub-basin in Joshua Tree National Park	
Broussard, Josiane Laure	Health & Exercise Sciences	Impact of insufficient sleep on cardiovascular fitness and insulin action	Rocky Mountain Center for Total Worker Health
Dinenno, Frank A	Health & Exercise Sciences	Assessing Cardiovascular Effect of Wildland Fire Smoke Exposure Using Lipid Biomarkers, Vascular Function, Hemodynamics, and Atherosclerotic Progression	
Hamilton, Karyn L	Health & Exercise Sciences	A role for NRF1 and Nrf2 Activation in Promoting Stress Resistance, Proteostasis, and Mitochondrial Function	
Lark, Daniel Stephen	Health & Exercise Sciences	A Novel Strategy to Study Cell-Specific Exosomes Secreted In Vivo - Dan Lark PI	
LaRocca, Thomas J	Health & Exercise Sciences	Inclusive Transcriptomics to Uncover Molecular Mechanisms Underlying Healthspan	
Leach, Heather J	Health & Exercise Sciences	Social and Environmental Predictors of Physical Activity Maintenance in Colorectal Cancer Survivors	A group-based virtual PA intervention for cancer survivors
Nelson-Ceschin, Tracy L	Health & Exercise Sciences	Evaluation of HPP Interventions to Improve Outcomes in the Human, Psychological, Social and Spiritual Domains of the POTFF Program	



Tracy, Brian L	Health & Exercise Sciences	Observational Approaches to the Influence of Cannabis and its Constituent Cannabinoids on Pain, Inflammation, and Cognition	Cannabis use among older adults: Potential risks and benefits to an aging population
Wahl, Devin	Health & Exercise Sciences	Wahl: Role of repetitive element transcripts in brain aging and Alzheimer's disease	
Orsi, Jared P	History	Telling the Untold Stories of Public Lands: A Community-Engaged Public History Program	
Bauerle, William L	Horticulture & Landscape Architecture	Measurement and Modeling Physiological Processes to Determine Optimal Seasonal Cycle Metrics for Deficit Irrigation	
Craver, Joshua Ken	Horticulture & Landscape Architecture	FFAR Theme Project 12: Multi-environment vertical agricultural technologies: Innovative irrigation and monitoring solutions with machine learning integration	Carbon Dioxide Enrichment for Horticultural Crop Production in Controlled Environments
Klett, James E	Horticulture & Landscape Architecture	Enhancing Sustainable Herbaceous Perennial Production	
Minas, Ioannis	Horticulture & Landscape Architecture	Developing sustainable peach orchard soil microbiome management practices to control replant disease syndrome	Peach cold hardiness monitoring and management for improved grower frost control
Prenni, Jessica E	Horticulture & Landscape Architecture	Investigating The Relationship Between Cover Crop Species Diversity, The Composition And Function Of The Soil Microbiome, And Soil Health	The role of plant root exudates in shaping soil microbial community composition and function and crop nitrogen use efficiency
Qian, Yaling	Horticulture & Landscape Architecture	Turfgrass under effluent water irrigation: long-term data collection and model simulation to predict management effectiveness for minimizing salinization and sodificaion risks	Development of Stress Tolerant, Turf-Type Saltgrass Varieties
Rhodes, Davina Hope	Horticulture & Landscape Architecture	An Integrative Approach to Biofortification of Staple Crops	
Thompson, Henry J	Horticulture & Landscape Architecture	Pulse Consumption, The Gut Microbiome, And Human Health: Using Preclinical Models To Conduct A Proof-In-Concept Investigation	Comparative Analysis of Chickpea, Dry Pea, Lentil and Dry Bean for Human Health Traits
Vivanco, Jorge M	Horticulture & Landscape Architecture	New Approaches to Facilitate Non-chemical Control of Plant Pathogenic Nematodes in Potato Systems, and Improvement of Nitrogen Management	
Barrett, Karen C	Human Development & Family Studies	TAPT-in Parenting (Teaching Adoptive Parents Trauma-Informed Parenting)	
Coatsworth, James Douglas	Human Development & Family Studies	County-level Evidence-based Policymaking Project - workshop	Assessing and Changing the Culture of Concussion Reporting in Middle and High School Youth: A Community Collaborative Approach

Diehl, Manfred	Human Development & Family Studies	Testing Psychological Mechanisms to Promote Physical Activity in Adults (assisting agriculture and ranch workers in managing stress)	Western Region FRSAN (Farm & Ranch Stress Assistance Network)
Fidler, Deborah	Human Development & Family Studies	Evaluating Cognitive Outcome Measures in School-Age Children with Down Syndrome	Early childhood communication outcome measures in Down syndrome; Early risk for ADHD symptoms in young children with Down syndrome; Executive Function Outcome Measures for Young Children with Down Syndrome
George, Melissa Renee Ward	Human Development & Family Studies	Addressing Opioid Prevention in Rural Colorado through building Family, Youth and Community Strengths	Empowering Youth and Families in Rural Colorado: Implementing SFP 10-14 to Prevent Opioid Misuse
Graham, Rachel Lucas-Thompson	Human Development & Family Studies	Decreasing Stress and Anxiety in Youth from High-Conflict Homes: Exploring a Mindfulness Group + Ecological Momentary Intervention	Seiter F31: Mindful partnering: Does this novel theoretical construct predict reduced stress, mental and physical health, as well as mortality risk?
Gulley, Lauren Darlene	Human Development & Family Studies	Implementing a mental health intervention for depression and disordered eating in girls with polycystic ovary syndrome in a pediatric healthcare setting: A hybrid effectiveness-implementation pilot tr	
Krafchick, Jennifer Lynn	Human Development & Family Studies	Campus Connections Youth Mentoring (Community Impact: Kids on Track)	
Luong, Gloria	Human Development & Family Studies	Testing a compassionate community actively living mindfulness (CCALM) intervention	Elucidating Age Differences in Stressor-Health Links
MacPhee, David	Human Development & Family Studies	Civic Capacity Index Development	
Quirk, Kelley Marie	Human Development & Family Studies	BREATHE-Q: Adaptation of a Mindfulness-Based Intervention for LGBTQ Adolescents	
Rieker, Julie Margaret	Human Development & Family Studies	Rieker sub: Intervening during the Prenatal Period with Women Exposed to Intimate Partner Violence to Improve Maternal Functioning and Infant Adjustment	Efficacy of Family Programs for Improving Child and Family Health and Development
Riggs, Nathaniel	Human Development & Family Studies	Year 1: Treating Young Adult Cannabis Use Disorder with Text Message-Delivered Peer Network Counseling	
Shomaker, Lauren	Human Development & Family Studies	Family-Based Intervention for Adolescent Depression and Diabetes Prevention in Rural Colorado	CCTSI: Comparative Effectiveness Pilot Study for Type 2 Diabetes Prevention in Hispanic/Latino Adolescents; Military Cardiovascular Outcomes Research: Preventing Obesity, Eating Disorders, and Cardiovascular Disease in Adolescents: Pilot Study

Bright, Alan D	Human Dimensions of Natural Resources	Human dimensions of non-lethal predator management and assessing long term research needs	Human Dimensions of Feral Swine Damage to Natural Resources
Finchum, Ryan T	Human Dimensions of Natural Resources	Strengthening Gender Equality Strategies and Supporting Women Leadership in the Environmental Sector in Latin America & the Caribbean	Fostering the Development of Community-Level Conservation in Latin America
Gavin, Michael	Human Dimensions of Natural Resources	The Effects of Social Transmission Biases on Human Cultural Evolution	Discovering the Processes of Language Diversification with Process-Based Simulation Models
Gruby, Rebecca L	Human Dimensions of Natural Resources	Philanthropic Legacies: Understanding the Role of Foundations in Marine Conservation	
Manfredo, Michael J	Human Dimensions of Natural Resources	Different Futures, Different Strategies for Increasing State Fish and Wildlife Agency Relevance	
Niemiec, Rebecca M	Human Dimensions of Natural Resources	Interventions for Motivating Residents to Recruit and Coordinate with their Neighbors for Environmental Conservation	A Longitudinal Investigation of the Social Outcomes of Participatory Stakeholder Engagement Processes
Salerno, Jonathan	Human Dimensions of Natural Resources	Adaptive Human Migration in Changing Environments: Leveraging Geographic Sciences to Advance New Models of Migration Decision Making	Collaborative Research: Cognitive, social, and institutional dynamics of decision-making in complex hazard-prone environments
Goodrich, Raymond Paul	Infectious Disease Research Center	COVID-19: Development of a Rapid Vaccine Production Platform for Emerging Diseases	Randomized Trial to Evaluate Mirasol Whole Blood Pathogen Reduction Technology System to Reduce Malaria and Other Transfusion Transmitted Infections in Africa
Hartson, Lindsay	Infectious Disease Research Center	COVID-19: Perform standard PRNT assay results, TO-1	
Wyckoff III, John Henry	Infectious Disease Research Center	Further Development of the YF MAC-HD Kit (Kit Production, Test Method Verification, Lot-to-Lot Comparison Study, Stability Testing Study and Positive Control Manufacturing)	Task Order 2015-6, SAV001-H (HIV) Killed Whole-Virus HIV Vaccine Engineering Batch Study - BioMARC
Cross, Jennifer Eileen	Institute for Research in Social Sciences	BII-Implementation: The EMERGE Institute, integrating research and training to characterize EMergent Ecosystem Response to ChanGE	
Abrams, Katherine M	Journalism & Media Communication	CESU:GP Social Marketing Approach to Mitigate Harmful Human Interactions with Protected Marine Species	Adaptable communication strategies and messages to prevent unintentional wildlife feeding in national parks
Anderson, Ashley A	Journalism & Media Communication	CESU-RM: Provide Effective Communication of Natural Resource Conditions in Parks for Public and Managers	

Champ, Joseph	Journalism & Media Communication	CESU-RM: Vulnerable Communities and Organizational Systems	Science Communication through Mass Media
Long, Marilee	Journalism & Media Communication	Citizen-Enabled Aerosol Measurements for Satellites (CEAMS): A network for high-resolution measurements of PM2.5 and aerosol optical depth	
Baer, Helen	Libraries	Project Ceres Preservation of Colorado Agriculture Literature, Trade and Commercial Publications	
Brown-Sica, Margaret Sinclair	Libraries	Open Educational Resources at Colorado State University Fort Collins: Increasing Impact, Expanding Access, and Diversifying Voices	
Macdonald, John R	Management	ISN2: Detecting & Interdicting Illicit Wildlife Trafficking Supply Chains	
Adams, Henry Hugh	Mathematics	Descriptors of Energy Landscape by Topological Analysis	
Bangerth, Wolfgang	Mathematics	Collaborative Research: Frameworks: Software: Future proofing the finite element library deal.II - development and community building	Collaborative Research: Development and Application of a Framework for Integrated Geodynamic Earth Models
Mueller, Jennifer L	Mathematics	Real-Time Assessment of Lung Structure and Function in CF Patients using Electrical Impedance Tomography	
Bandhauer, Todd M	Mechanical Engineering	LOW COST AND EFFICIENT DISTRIBUTED POWER AND CO2 SEQUESTRATION REFORMER-ENGINE SYSTEM	Power Dense Turbo-Compression Cooling Driven by Waste Heat; Synergistic Heat Pumped Thermal Storage and Flexible Carbon Capture
Bradley, Thomas Heenan	Mechanical Engineering	Mobility and Energy Improvements Realized through Prediction-based Vehicle Powertrain Control and Traffic Management	Prediction Signal Quality Influences on Acceleration Event Prediction Control's Benefit to Fuel Economy for a Hybrid Vehicle and Next Steps
Cale, James	Mechanical Engineering	Energy Design and Scoping Tool for DC Distribution Systems and Zero Energy Buildings Initiatives	Hybrid Microgrid System Evaluation
Jathar, Shantanu	Mechanical Engineering	Developing mechanisms for secondary organic aerosol from oxygenated volatile organic compounds in biomass burning and volatile chemical product emissions	Understanding the emerging contribution of volatile chemical products and food cooking to air quality, the aerosol size distribution, and climate-relevant properties over urban to regional scales
Marchese, Anthony	Mechanical Engineering	Solar Cooling for Horticulture Preservation	Ultra-Low Sulfur Winterized Diesel: Analysis and Testing of Ethanol to Diesel Blendstock
Prawel, David Alois	Mechanical Engineering	COVID-19: Additive Manufacturing of Certified PPE: A Path Towards Mass Production	

Quinn, Jason Charles	Mechanical Engineering	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO2 Transfer Membrane and Improved Strain Technologies	NSF Engineering Research Center for Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE); Sustainable Bioeconomy for Arid Regions
Sampath, Walajabad S	Mechanical Engineering	Diagnosing and overcoming recombination and resistive losses in non- silicon solar cells using a silicon-inspired characterization platform	
Volckens, John	Mechanical Engineering	Sustainable Household Energy Adoption in Rwanda	(SHEAR): Promoting Rural Health with Solar and Gas
Windom, Bret Colin	Mechanical Engineering	CSA(5364001 - 5301923) Poly(oxymethylene) Ethers as a High Cetane, Low Sooting Biofuel Blendstock for Use in Medium to Heavy Duty Mixing Controlled Compression Ignition Engines	
Basaraba, Randall J	Microbiology, Immunology, & Pathology	Metabolic Factors that Control the Spectrum of Human Tuberculosis	Impact of Vitamin A Deficiency on TB Progression and Immunity
Belisle, John T	Microbiology, Immunology, & Pathology	The Role of Tregs and Lipid Mediators in the Progression from Infection to Disease in Leprosy	The Role of Schwann Cell Lipid Droplets in Neuropathology of Leprosy
Borlee, Bradley Robert	Microbiology, Immunology, & Pathology	Bioactive molecules from bacterial endosymbionts to combat microbial infections: Drugs from good bugs to kill bad bugs	
Chatterjee, Delphi	Microbiology, Immunology, & Pathology	Role of Gamma/Delta T Cells in Vaccine Induced Immunity	
Crick, Dean C	Microbiology, Immunology, & Pathology	Biochemical assessment of M. tuberculosis menaquinone biosynthesis inhibition	Novel TB Drug Candidates via the Inhibition of Lipid I Biosynthesis
Dean, Gregg Alan	Microbiology, Immunology, & Pathology	COVID-19: Recombinant BCG-based SARS-CoV-2 vaccine	
Ebel, Gregory David	Microbiology, Immunology, & Pathology	COVID-19: CHSCHA: COVID-19 Surveillance Testing in Colorado Skilled Nursing and Senior Group Living Facilities	COVID-19: Determining asymptomatic transmission of SARS-CoV-2 in the context of super spreader situations
Foy, Brian D	Microbiology, Immunology, & Pathology	Repeat Ivermectin Mass Drug Administrations for Malaria control II (RIMDAMAL II): a double-blind cluster randomized crossover trial for integrated control of malaria	TRANSMIT: Tracking Antimalarial Resistance in Mosquito Populations
Geiss, Brian J	Microbiology, Immunology, & Pathology	Electrochemical capillary-driven immunoassay (eCaDI) for multiplexed detection of COVID-19 and influenza infections	
Jackson, Mary C	Microbiology, Immunology, & Pathology	COVID-19: Recombinant BCG-based SARS-CoV-2 vaccine	
Kading, Rebekah	Microbiology, Immunology, & Pathology	Ecology, Epidemiology, and Biosurveillance for emerging viral pathogens of bats in Uganda	Vaccination on the Fly: The Use of Mosquitoes to Vaccinate Bat Populations that Harbor Human Pathogens
Kruh - Garcia, Nicole Ann	Microbiology, Immunology, & Pathology	COVID-19: SARS-CoV2 Diagnostic POC assay testing	Definition of neuron-derived surface protein markers indicative of dementia

Perera, Rushika Michelle	Microbiology, Immunology, & Pathology	Exploiting Vulnerabilities in Mosquito Metabolism for Prevention of Human Arboviral Transmissions	
Schountz, William A	Microbiology, Immunology, & Pathology	COVID-19: MERS coronavirus: antagonism of double-stranded RNA induced host response by accessory proteins	
VandeWoude, Susan	Microbiology, Immunology, & Pathology	Impacts of Landscape Structure, Host Demography, and Management Interventions on Disease Dynamics	
Wilusz, Carol J	Microbiology, Immunology, & Pathology	COVID-19: Wastewater Testing for State of Colorado	
Wilusz, Jeffrey	Microbiology, Immunology, & Pathology	COVID-19: Mechanisms and functional implications of SARS-CoV-2 mRNA capping and modification	
Boone, Randall B	Natural Resource Ecology Laboratory	CNH2-L: Social, Ecological, and Institutional Dynamics of Human-Wildlife Relations	Community-Based Conservancies in Kenya: Investigating the Prospects for Cooperation and Conflict
Bowser, Gillian	Natural Resource Ecology Laboratory	Collaborative Research: EAGER: Voices Of Integrating Culture in the Earth Sciences (VOICES)	CNH-RCN: Andes Bofedales and Cattle: The impacts of Changing Hydrology and Glacial Retreat on Community Livelihoods in Peru's Cordillera Blanca
Boyack, Ty W	Natural Resource Ecology Laboratory	Design and Maintenance of the National Diversity Information Source	
Conant, Richard T	Natural Resource Ecology Laboratory	Improved analysis and extrapolation of nitrous oxide emissions from field measurements for improved N2O estimates and comparison to N2O methodologies	Exploring a blue ocean strategy for terrestrial C sequestration
Evangelista, Paul H	Natural Resource Ecology Laboratory	CESU-RM: Developing, Evaluating and Refinding a Multiscale Iterative Habitat Modeling Approach for Multiple High Priority Invasive Species	Mapping Illicit Trafficking Networks and Strengthening Law Enforcement Capacity to Combat Cheetah Trade in East Africa and the Arabian Peninsula
Gao, Wei	Natural Resource Ecology Laboratory	Improving Agricultural Water Use and Nutrient Management to Sustain Food and Energy Crops Production in the Corn Belt	Global Change, Ultraviolet Radiation Monitoring and Research Program
Hall, Ed K	Natural Resource Ecology Laboratory	RAPID: IMPACT OF HURRICANES ETA AND IOTA ON LAKE YOJOA	
Heinrichs, Julie A	Natural Resource Ecology Laboratory	CESU-RM: Simulation of soil moisture budgets for refined projections of growing conditions for habitat restoration and management	CESU-RM: A climate vulnerability assessment framework for data-poor species

King, Sarah R	Natural Resource Ecology Laboratory	CESU-RM: Bison Spatial Ecology in Grand Canyon National Park	
Lynn, Stacy Joy	Natural Resource Ecology Laboratory	Cattle as Partners in Conservation: Environmental, Economic, and Social Outcomes of Public-Private Partnerships on Colorado Landscapes	Formal education, indigenous knowledge and culture in a Maasai community in Tanzania
Newman, Gregory J	Natural Resource Ecology Laboratory	Collaborative Research: Framework: Software: Harnessing the Data Revolution: Enabling Scientific Discovery through Citizen Science across the Disciplines	CESU-RM: Using citizen science and crowdsourcing to monitor progress of terrestrial and riparian restoration projects
Ogle, Stephen M	Natural Resource Ecology Laboratory	Base Year-Updating Science-Based Methods and Technical Guidelines for Quantifying Greenhouse Gas Sources and Sinks in the Forest and Agriculture Sectors	Seasonal and interannual variability in agricultural greenhouse gas emissions informed by SMAP soil moisture and freeze-thaw status
Parton, William J	Natural Resource Ecology Laboratory	USDA Agriculture and Forestry Greenhouse Gas Inventory and the Agricultural Collaborative Research Outcomes System (AgCROS)	Grass-Cast: Decision Support to Enhance Ecosystem Services in rangelands
Paustian, Keith J	Natural Resource Ecology Laboratory	SCC-PG: Connecting communities through smart tools and sensors to deliver enhanced ecosystem services and economic returns from regenerative farmland management	
Vogeler, Jody	Natural Resource Ecology Laboratory	The last urban frontier: Assessing drivers of urbanization and tradeoffs among social and ecosystem services associated with LCLUC in Africa	Trade-offs in GEDI based data fusions for characterizing forest wildlife habitat across a range of species traits and forest types
Graham, James E	Occupational Therapy	CHOICES: Creating Higher-education Opportunities for Individualized Career and Employment Success	
Malcolm, Matthew Paul	Occupational Therapy	Relating Occupational Therapy (OT) Intervention Type, Outcomes, and Disparities in Acute Care	Applying the Behavioral Model of Health Services Use to OT and PT Utilization, Outcomes, and Disparities in the Acute Care Setting
Persch, Andrew Charles	Occupational Therapy	Vocational Fit Assessment and Employment Status in People with Intellectual Disabilities	
Schmid, Arlene	Occupational Therapy	Merging Yoga and Occupational Therapy for Individuals with Parkinson Disease (MY-OT for PD)	
Sites, James Russell	Physics	Back-Contact Interface Engineering for Higher Efficiency CdTe PV	
McIvor, David W	Political Science	Communities through Deliberation: Citizen Dialogues on the Fort Collins Climate Action Plan	



Aloise-Young, Patricia A	Psychology	2018 Hurricane Season: Social and Engineering Constructs for Uniquely Re-Energizing (SECURE) Hurricane-affected Grids: A Post-Hurricane Michael Effort on Designing Resilient Microgrids	
Conner, Bradley Thomas	Psychology	Enhancing Substance Use Disorder Identification and Treatment in Mental Health Treatment Education	
Davalos, Deana Beth	Psychology	COVID-19: CHSCHA: Interdisciplinary Outreach for Older Adults Affected by COVID-19	
Fisher, Gwenith G	Psychology	Telework, work ability, and well-being among workers with chronic health conditions	
Graham, Daniel John	Psychology	A Level Playing Field: Union Member-Informed Research for Health Equity in K-12 Schools	
Gutierrez, Crystal Delilah	Psychology	COVID-19: Emergency Expansion of Multisystemic Suicide Prevention and Treatment across Colorado in Response to COVID-19	
Henry, Kimberly L	Psychology	The intergenerational effects of Get Tough on Crime: The stain of the criminal justice system and its impact on the transition to adulthood among offspring in the 21st Century	Intergenerational Studies Consortium: Understanding Mechanisms of Family Substance Use Transmission and Effects of Marijuana Legalization
Karoly, Hollis Catherine	Psychology	CCTSI: Exploring the Effects of Acute Cannabidiol Administration on Blood Alcohol Level and Intoxication in Adult Human Subjects	
Prince, Mark Anthony	Psychology	Oral Chemotherapy Adherence in Children with Cancer: The Role of Social Support Networks in Overcoming SES-related Barriers to Adherence	
Stanley, Linda R	Psychology	Substance Use Among American Indian Youth: Epidemiology and Etiology	
Thomas, Michael L	Psychology	HICAHS: Impact of Occupational Exposures and Hazards on Brain and Cognitive Health Among Aging Agricultural Workers	
Witt, Jessica K	Psychology	COVID-19: RAPID: COVID-19 Information Visualizations: A RAPID Proposal	
Mattupalli, Chakradhar	San Luis Valley Research Center	Evaluate microbe viability in bio-pesticides during field application	
Munoz, Susana Maria	School of Education	Understanding Undocumented and DACA Community College Students' Experiences During Turbulent Political Times	
Poon, OiYan Anita	School of Education	Inside the Black Box: Selective College Admission, Holistic Review, and Affirmative Action	
Backlund, Peter William	School of Global Environmental Sustainability	Indicators of Climate Change Impacts on Agriculture - Revision	Collaborative Research: Maintenance of the U.S. Hub of Future Earth Secretariat



Keys, Patrick	School of Global Environmental Sustainability	Research Proposal Type A - Cross-scale Impacts of SDG15-Achievement: Household decisions, ecosystem change, and atmospheric water recycling	
Wall, Diana H	School of Global Environmental Sustainability	Collaborative Research: The Role of Glacial History on the Structure and Functioning of Ecological Communities in the Shackleton Glacier Region of the Transarctic Mountains	
LaGasse, Ashley Blythe	School of Music, Theatre & Dance	Impact of Music Therapy Treatment on Auditory Processing in Children with Autism	
Wilhelm, Lindsey Anne	School of Music, Theatre & Dance	Pilot Study of an At-Home Music-Based Intervention Implemented During Companionship Visits with Persons with Cognitive Impairment	
Brown, Samantha M	School of Social Work	Parent-Infant Co-Regulation of Sleep and Physiology in Families with Neglect	
Currin-McCulloch, Jennifer	School of Social Work	Photographs of Meaning: An Online Photovoice Group Intervention for Individuals Living with Cancer	
Winokur, Marc A	School of Social Work	Community Collaboration to Strengthen and Preserve Families	
Cross, Jennifer Aileen	Sociology	Iowa: Increasing Cover Crop Adoption Through Better Understanding of Social Context as a Driver of Change	
Andales, Allan A	Soil & Crop Sciences	Understanding Water Use and Plant Responses of Crops Due to Deficit Irrigation	
Borch, Thomas	Soil & Crop Sciences	Redox and Sorption Controlled Organic Carbon Sequestration at Soil Mineral Interfaces	Oilfield-produced water as alternative source for agricultural irrigation: Impact on soil and crop health
Brummer, Joe	Soil & Crop Sciences	Nitrogen Limitation in High-Elevation Hay Meadows: Understanding Processes for Improved Agroecosystem Health, Function, and Management	
Byrne, Patrick F	Soil & Crop Sciences	Enhancing Educational Outcomes for Plant Genetic Resources Conservation and Use	Development of Genebanking Training Materials and Seed Germination Studies
Cortufo, Maria Francesca	Soil & Crop Sciences	A Novel Theoretical and Quantitative Framework to Understand and Predict Soil Carbon Storage and Nitrogen Recycling	Drivers and Indicators of Soil Health in Semi-Arid Agroecosystems: Addressing the Soil Carbon Dilemma through the Lens of Microbes and Soil Physical Structure
Fonte, Steven John	Soil & Crop Sciences	Expanding the Impact of Improved Fallows, Soil Fertility Innovations, and Landscape Management in the Andean Highlands	Examining Cover Crops for Soil Health Restoration in Dryland Cropping Systems in SW Colorado and SE Utah
Ham, Jay M	Soil & Crop Sciences	Monitoring Edge-of-Field (EOF) Water Quality in Surface-Irrigated Sugarbeets: Identifying BMPs for Reducing Nutrient Runoff	

Ippolito, Jim	Soil & Crop Sciences	Water Quality, Soil Health and Regenerative Agriculture: A Nexus for Sustainability	Development of Long-term Best Management Practices to Adapt to a Changing Climate
Kremen, Amy E	Soil & Crop Sciences	Organizing and synthesizing Ogallala Aquifer data to facilitate research and resource management	
Lavallee, Jocelyn M	Soil & Crop Sciences	The functional nature of soil organic matter pools: identifying mechanistic indicators for soil health and agronomic outcomes	
Morris, Geoffrey Preston	Soil & Crop Sciences	Durable adaptation to aphid and drought for smallholder sorghum in the Americas	
Paustian, Keith H	Soil & Crop Sciences	Developing Remote Sensing and LCA Capabilities for the Greenhouse Gas Inventory Tool	COMET-Explorer: A state and regional-scale assessment and planning tool for agricultural soil C sequestration
Schipanski, Meagan Erin	Soil & Crop Sciences	Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer under a Changing Climate	Understanding Soil and Environmental Effects on Crop Species and Rangeland Ecosystems Under Water Limitation; Quantify GHG Mitigation and Ecosystem Services from Organic Production Systems
Seshadri, Arathi	Soil & Crop Sciences	Phytochemicals as management tool for sustainable honeybee colony health and productivity (Year 3 + 4)	
Wardle, Erik M	Soil & Crop Sciences	Farmer Driven Evaluation of agricultural non-point source pollution control - Best Management Practices (BMPs) in an Impaired Watershed	
Wilkins, Michael James	Soil & Crop Sciences	Microbiome drivers of altered soil nutrient cycling in post-fire forest ecosystems	New Roles for Reactive Oxygen Species in Mediating Carbon Fluxes at the Terrestrial-Aquatic Interface; Leveraging microbial metabolisms to influence production chemistry and well longevity during energy extraction
Wrighton, Kelly Catherine	Soil & Crop Sciences	Microbial ecology of the inflamed intestine	Functional-type modeling approach and data-driven parameterization of methane emissions in wetlands
Estep, Donald J	Statistics	Collaborative Research: Construction and analysis of numerical methods for stochastic inverse problems with application to coastal hydrodynamics	
Hoeting, Jennifer A	Statistics	Bayesian models and methods to improve understanding of disease risk at the wildlife-livestock interface	
Kokoszka,Piotr S	Statistics	Spectral functional principal components on Abelian groups with applications to spatial functional data	

Wang, Haonan	Statistics	Development of Statistical Fault Detection Algorithms for Modern Power Grid Networks	
Wilson, Thomas Ander	Statistics	Air Pollution and Pregnancy Loss	Methods for data integration and risk assessment for environmental mixtures
Gorzelsky, Gwendolen A	The Institute for Teaching & Learning	Integrating Adaptive Courseware to Support High-Impact Educational Practices	
James, Susan Patricia	VP Faculty Affairs	Development of a Silica Dust Direct Reading Sampler with Selectivity for Dust Components and Size	
Maertens, Julie Ann	VP Faculty Affairs	Developing the Environmental Literacy Concept Inventory	
Sample McMeeking, Laura B	VP Faculty Affairs	ADVANCE Partnership: From the Classroom to the Field: Intervention Training to Address Harassment in the Geosciences	
Ehrhart, Nicole P	VP Faculty Affairs	CHSCHA: Senior Access Points of Larimer County: Program Planning, Capacity-Building Support, and Outreach	COVID-19: CHSCHA: COVID-19 Surveillance Testing in Colorado Skilled Nursing and Senior Group Living Facilities
Fisher, Ellen R	VP Faculty Affairs	COVID-19: Inspection and Testing of PPE Including Surgical N-95 and KN95 Masks and Gowns for Quality Assurance.	
Keshavarz Afshar, Reza	Western Colorado Research Center	Developing best management practices for organic chickpea production	