

Proposal Title	Researchers	PI	Campus
Activating mitochondrial cytochrome oxidase to prevent lipotoxicity and metabolic dysfunction in fatty liver disease	Jaekwon Lee Edward Harris Kusum Kharbanda	PI	UNL UNL UNMC
Advancing miRNA Biosensing Technologies for Improved Cardiac Health Monitoring and Heart Disease Diagnosis	Alexey Krasnostobodtsev Kajari Dhar Brian Lowes	PI	UNO UNMC UNMC
Aquatic Gait Training: Exploring Body Weight Support and Cardiovascular Responses for Cerebral Palsy Rehabilitation	David Kingston Vivek Dutt Brian Knarr	PI	UNO UNMC UNO
Artificial Intelligence (AI)-Driven Predictions of Acute Graft-Versus-Host Disease Outcomes: Combining Histologic, Serologic, and Clinical Data	Erin Barrett Xiaoyue Zoe Cheng Corey Georgesen Michael Haddadin Jesse Hirner Scott Lauer Xin Xing	PI	UNMC UNO UNMC UNMC UNMC UNMC UNO
Assessing the Effects of Complete Thoracic Aorta Restoration on Left Ventricle and Aorta	Anastasia Desyatova Jason MacTaggart Michael Moulton	PI	UNO UNMC UNMC
CLPP Inhibitors for Treatment of Cancer	Paul Trippier Oleh Khalimonchuk	PI	UNMC UNL
Controller Development to Enable Individualized Assistance in Robotic Ankle Exoskeletons	Farahnaz Fallah Tafti Sara Myers Iraklis Pipinos	PI	UNO UNO UNMC
Delivery of surgical care by drone for NATO field exercise	Shane Farritor Nathan Bills Mark Carlson Rachael Wagner	PI	UNL UNMC UNMC UNL
Development of a Swine Model of Abdominal Aortic Aneurysm and Investigation of Endovascular Aneurysm Repair (EVAR) Complications	Jason MacTaggart Majid Jadidi	PI	UNMC UNO
Engineering CCL2-linked Extracellular Vesicles for Targeted Delivery of S100A9 Inhibitor in Acute Lung Injury Treatment	Bo Liu Fanben Meng Hanjun Wang	PI	UNMC UNL UNMC
Evidence-Based Design of Wobble Boards to Enhance Postural Long-Latency Reflexes in Fall-Prone Older Adults	Madhur Mangalam Joseph Siu	PI	UNO UNMC
Exploring the Uses of AI to Improve Intelligence Gathering for Nuclear Deterrence	Deanna House Michelle Black	PI	UNO UNO
Gait retraining in stroke using exosuits with individualized progression algorithms	Philippe Malcolm Pierre Fayad Aaron Likens Mukul Mukherjee	PI	UNO UNMC UNO UNO
Hip versus Ankle Exoskeleton Assistance for Gait Enhancement and Fall Prevention in Older Adults	Sara Myers Iraklis Pipinos Farahnaz Fallah Tafti	PI	UNO UNMC UNO
Impact of Biopsychosocial Psychotherapy Intervention on Maternal Life-Course Trauma and the Gut Microbiome	Ashley Blount Abby Bjornsen-Ramig Tiffany Moore Gurudutt Pendyala Kara Schneider	PI	UNO UNO UNMC UNMC UNO
Impact of cropland conversion to tallgrass prairie on soil and water chemistry	Jeffrey Westrop Ashlee Dere Kelly Deuerling Keeley MacNeill	PI	UNL UNO UNO UNL
Innovative Chiral Plasmonic Metamaterial Platforms for SERS-Based Biomolecular Detection and Characterization	Ufuk Kilic Bin Duan Yongfeng Lu Eva Schubert	PI	UNL UNMC UNL UNL



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Investigating the Role of Gestures in Language Learning with Children with Autism	Alice Shillingsburg Sarah Frampton	PI	UNMC UNO
Leveraging computational biology discovery platforms to identify novel microbial metabolism with impacts on human and animal health	Jennifer Auchtung Peter Mannon Yanbin Yin	PI	UNL UNMC UNL
Localized Chelation Therapy for Removing Peripheral Artery Calcification	Alexey Kamenskiy Jason MacTaggart	PI	UNO UNMC
Magnetic and Electronic Interface Properties in 3D Ferromagnetic Heterostructures with Dielectric and Metallic Tunnel Junctions	Eva Schubert Ufuk Kilic Renat Sabirianov	PI	UNL UNL UNO
Markerless Evaluation of Gait Adaptation: gaining insights from a clinical home intervention	Pieter Van den Berghe Pierre Fayad Aaron Likens Philippe Malcolm Mukul Mukherjee	PI	UNO UNMC UNO UNO UNO
Mechanics of underwater treadmill walking for individuals with subacute stroke	Brian Knarr Brad Dexter David Kingston	PI	UNO UNMC UNO
Naturalistic Social Interaction Analysis Between Dementia Care Recipients and Caregivers with Data-Driven Machine Learning Models	Jong-Hoon Youn Kuan-Hua Chen Joseph Siu Xin Xing	PI	UNO UNMC UNMC UNO
Optimizing Agricultural Efficiency in Nebraska through Advanced IoT Wireless Networks and Federated Learning-Based Rate Adaptation	Tiffany Zhang Peng Jiang Yu Pan	PI	UNO UNO UNL
Plasma-Activated Antibiotics: Chemical Characterization and Biological Evaluation	Barry Cheung Austin Nuxoll	PI	UNL UNK
Quantification of PRRS Virus in Manure and Preliminary Assessment of Manure-borne Transmission Vectors	Amy Schmidt Shaun Cross Benny Mote Hiep Vu	PI	UNL UNMC UNL UNL
Regulation of HIV-Driven Cardiac Dysfunction in Diabetes	Paras Kumar Mishra Siddappa Byrareddy Song-Young Park	PI	UNMC UNMC UNO
The effects of perinatal oxycodone exposure on skeletal muscle development	Ivan Vechetti Gurudutt Pendyala	PI	UNL UNMC
Toward BCI-Mediated Gait Training in Children with CP: Identifying the Neural Correlates of Walking with NMES Assistance	Ahad Behboodi Vivek Dutt David Kingston	PI	UNO UNMC UNO
TRUST-V2X: Enhancing Security and Trustworthiness of AI in Multi-Modal Collaborative Sensing for Autonomous Vehicles to Everything	Peng Jiang Chun-Hsing Ho Pei-Chi Huang Yi Qian	PI	UNO UNL UNO UNL
Vumerity treatment in patients with peripheral arterial disease: leg skeletal muscle and vascular pathology	Song-Young Park Lie Gao Gwenaél Layec Iraklis Pipinos Matthew Zimmerman Irving Zucker	PI	UNO UNMC UNO UNMC UNMC UNMC