

# Seed Grant Award Recipients

July 1, 2018



| Project Title   | PI Name             | Co-PI Name   | Participating Campuses/<br>Institutions          |
|---|---------------------|--|--|
| Cellular Fidelity   | Donald Becker, UNL  | Rodrigo Franco<br>Oleh Khalimonchuk<br>Matthew Van Hook<br>Mark Wilson   | UNL<br>UNL<br>UNMC<br>UNL                        |
| Critical Infrastructure and Sustainable Livelihoods for Experiential Reconnaissance Research (CLERR)                            | DeeDee Bennett, UNO | Terri Norton<br>Hans Louis-Charles   | UNL<br>UNO                                       |
| Targeting APE1 and FACT Complex to Overcome 5-Fluorouracil Resistance in Colan Cancer   | Kishor Bhakat, UNMC | Forrest Kievit<br>Jing (Jenny) Wang  | UNL<br>UNMC                                      |
| Batteries for Transportation: Stimuli-responsive Binary Metal Alloy for High Power and High Capacity Energy Storage             | Florin Bobaru, UNL  | Li Tan<br>Wai-Ning Mei   | UNL<br>UNO                                       |
| Development of a portable episcleral venomanometer for future use as a non-invasive biomarker for intracranial pressure changes | Deepta Ghate, UNMC  | Vikas Gulati<br>Carol Toris<br>Sachin Kedar<br>Carl Nelson<br>Deepak Khazanchi                                       | UNMC<br>UNMC<br>UNMC<br>UNL<br>UNO               |
| Translating Efficacious Childhood Obesity Treatment for Rural Micropolitan Practice   | Jennie Hill, UNMC   | Kate Heelan<br>Paul Estabrooks<br>Todd Bartee<br>Bryce Abbey<br>Christopher Wichman<br>Changmin Yan<br>Tzeyu Michaud | UNK<br>UNMC<br>UNK<br>UNK<br>UNMC<br>UNL<br>UNMC |

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July 1, 2018

UNIVERSITY OF  
**Nebraska**



| Project Title  | PI Name                      | Co-PI Name  | Participating Campuses/<br>Institutions  |
|--|------------------------------|---|--|
| Strengthening the Trans Collaborations Research Team: Testing Affirmative Principles of Behavioral Health Care and Building Capacity in Preparation for a Clinical Trial | Debra Hope, UNL              | Richard Mocarski<br>Nathan Woodruff<br>Jane Meza<br>Joshua Eyer<br>Jae Puckett  | UNK<br>Community Partner<br>UNMC<br>University of Alabama<br>Univeristy of South<br>Dakota |
| Growth Factor Dynamics and Regenerative Capacity of Gustatory and Somatosensory Systems Using Microfluidics  | Sung-Ho Huh, UNMC            | Suzanne Sollars<br>Hyung Kim  | UNO<br>UNMC  |
| Biomimetic Liver Models to Investigate the Role of Matrix Rigidity for Promoting Liver Injury Induced by HIV and Alcohol   | Srivatsan Kidambi, UNL       | Natalia Osna<br>Larisa Poluektova<br>Murali Ganesan<br>Senthilkumar Thulasingam | UNMC<br>UNMC<br>UNMC<br>UNL  |
| Multiscale-Multiphysics Modeling of Corrosion-Induced Damage in Structural Tendons   | Yong Rak Kim, UNL            | Chungwook Sim<br>Florin Bobaru<br>Mahmoud Shakouri                              | UNL<br>UNL<br>UNK  |
| Splice variants as biomarkers and therapeutic targets in pancreatic cancer   | Sushil Kumar, UNMC           | Dario Gherzi<br>Hesham Ali  | UNO<br>UNO   |
| Understanding the molecular mechanism of dietary $\gamma$ -glutamyl peptides in the prevention of low-grade inflammation-induced chronic disorders                       | Kaustav Majumder, UNL        | Matthew Zimmerman<br>Regis Moreau   | UNMC<br>UNL  |
| Understanding the role of BMX-001 in acute radiation syndrome  | Rebecca Oberley-Deegan, UNMC | Jered Garrison<br>Robert Powers   | UNMC<br>UNL  |
| Artificial Intelligence for Telesurgical Robots  | Dmitry Oleynikov, UNMC       | Shane Farritor<br>Eric Psota  | UNL<br>UNL   |

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| Phosphatase 1 nuclear targeting subunit in Poly(ADP-ribose) polymerase-mediated DNA repair and cancer therapy                    | Aimin Peng, UNMC             | Srivatsan Kidambi  | UNL                                     |
| Microbial and dietary control of cardiomyopathy: proof of principle studies in mouse models                                      | Amanda Ramer-Tait, UNL       | Brian Lowes<br>Andrew Benson                                 | UNMC<br>UNL                             |
| Capturing Archaeal Biochemistry to Build Bigger Botanical Biomass  | Rebecca Roston, UNL          | Nicole Buan<br>Nate Bickford                                 | UNL<br>UNK                              |
| Site-Specific Glyphosate-Resistant Weed Management Using Unmanned Aircraft System, Deep Learning, and Novel Herbicide Applicator | Yeyin Shi, UNL               | Eric Psota<br>Hendrik Viljoen<br>Amit Jhala<br>Annette Moser | UNL<br>UNL<br>UNL<br>UNK                |
| Systemic analysis of humoral immune responses in survivors of Ebola virus disease  | Kaihong Su, UNMC             | Chi Zhang<br>St. Patrick Reid<br>Steven Hinrichs             | UNL<br>UNMC<br>UNMC                     |
| The Role of TP-R in the pathogenesis of alcoholic and non-alcoholic fatty liver disease  | Saraswathi Viswanathan, UNMC | Carol Casey<br>Robert Powers<br>Edward Harris<br>James Eudy  | UNMC<br>UNL<br>UNL<br>UNMC              |
| Molecular Basis of Ligand-Regulated Proteostasis   | Mark Wilson, UNL             | Jaekwon Lee<br>Michael Moxley                                | UNL<br>UNK                              |
| 3D Data Fusion and Visualization for Bridge Deck Evaluation Using Multi-Sensor NDE Techniques                                    | Jinying Zhu, UNL             | Chungwook Sim<br>Qiuming Zhu<br>Zhengxin Chen                | UNL<br>UNO<br>UNO                       |