

2017 Oklahoma Applied Research Awards

Project Number	PI	Organization	Project Title	Award Amount
AR17-007	Dr. Timothy Bowser	Oklahoma State University	Commercialization of a mini, cloud-enabled Revelation roaster	\$300,000
AR17-016	Dr. Raj Singh	Oklahoma State University	Nanostructured materials for Li-Ion batteries with high capacity and performance	\$90,000
AR17-018	Dr. Kedar Pai	Plasma Bionics LLC	Cold plasma device for medical instrument sterilization	\$113,000
AR17-020	Dr. Liuling Yan	Oklahoma State University	Accelerating deployment of a major gene for grain yield in winter wheat	\$237,668
AR17-029	Dr. Badia Koudsi	Optecks LLC	Augmented reality near-eye display	\$300,000
AR17-039	Dr. Siamack Shirazi	University of Tulsa	Development of erosion resistant severe service valves for oil and gas industry applications	\$300,000
AR17-040	Dr. Christian Bach	Oklahoma State University	Reducing time to market for commercial AC equipment through development of a simulation platform for multi-circuit evaporator coil performance	\$279,999
AR17-043	Dr. Jay Martin	Martin Bionics Innovations LLC	Modular fabric-based transtibial prosthetic socket	\$123,200
AR17-045	Dr. Aaron Dossey	All Things Bugs LLC	Streamlining production and development of new farmed insect protein extract ingredients for the food industry	\$250,000
AR17-047	Dr. Mark Yeary	The Board of Regents of the University of Oklahoma	Development and commercialization of a ground-based radar to enable the next generation of atmospheric measurements via unmanned aircraft systems	\$299,712

2017 Health Research Awards

Project Number	PI	Organization	Project Title	Award Amount
HR17-018	Dr. Ann Louise Olson	The Board of Regents of the University of Oklahoma Health Sciences Center	Mechanisms regulating Glut4 expression in obesity	\$135,000
HR17-022	Dr. Shaorong Liu	The Board of Regents of the University of Oklahoma	Open tubular nanocapillary chromatography for trace sample and single cell analysis	\$135,000
HR17-033	Dr. Jennifer Craven	Oklahoma State University	Family hormonal profiles of resilience: Defining fathers' roles in infant biosocial development	\$120,617
HR17-041	Dr. Kelly Standifer	The Board of Regents of the University of Oklahoma Health Sciences Center	Post-traumatic stress disorder and co-morbid chronic pain: Evidence that TNF initiates a sequelae involving Nociceptin/Orphanin FQ	\$135,000
HR17-043	Dr. Binrui Cao	The Board of Regents of the University of Oklahoma	Cancer immunotherapy by tumor-homing immune checkpoint-blocking dual-functional peptide	\$135,000
HR17-045	Dr. Shitao Li	Oklahoma State University	Role of Plakophilin 2 in limiting Influenza A virus infection	\$135,000
HR17-046	Dr. Jian Xu	The Board of Regents of the University of Oklahoma Health Sciences Center	Endothelial regulation of high-fat diet-induced obesity	\$135,000
HR17-051	Dr. Matt Alderson	Oklahoma State University	Neurocognitive deficits underlie ADHD	\$135,000
HR17-052	Dr. Bethany Hannafon	The Board of Regents of the University of Oklahoma Health Sciences Center	The role of exosomes in breast ductal carcinoma in situ progression	\$135,000
HR17-054	Dr. Vibhudutta Awasthi	The Board of Regents of the University of Oklahoma Health Sciences Center	Immunokinetics of superhydrophilic polymer-modified liposome encapsulated hemoglobin	\$135,000
HR17-057	Dr. Ashlee Ford Versypt	Oklahoma State University	Computational modeling of the onset of diabetic kidney disease	\$135,000
HR17-060	Dr. Ashish Ranjan	Oklahoma State University	Magnetic hyperthermia combined antimicrobial targeting of bone pathogens	\$135,000
HR17-067	Dr. Sangphil Oh	The Board of Regents of the University of Oklahoma Health Sciences Center	Role of JMJD4 in redox regulation and pancreatic cancer	\$135,000
HR17-070	Dr. Andriy Yabluchanskiy	The Board of Regents of the University of Oklahoma Health Sciences Center	Prevention of sepsis-induced multiple organ failure in old age	\$135,000
HR17-083	Dr. Lynn Jeffries	The Board of Regents of the University of Oklahoma Health Sciences Center	Exploring knowledge translation in school based physical therapy	\$43,581
HR17-087	Dr. Joanne Davis	University of Tulsa	CBT-I versus ERRT: Impact on sleep, nightmares, and suicidal ideation	\$134,932
HR17-094	Dr. Kenneth Humphries	Oklahoma Medical Research Foundation	A novel mechanism of diabetic cardiomyopathy	\$135,000
HR17-097	Dr. Weidong Wang	The Board of Regents of the University of Oklahoma Health Sciences Center	Pancreatic beta cell protection of natural product khellin and its mechanism of action	\$135,000
HR17-098	Dr. Archana Unnikrishnan	The Board of Regents of the University of Oklahoma Health Sciences Center	Role of DNA methylation in dietary restriction mediated cellular memory	\$135,000

HR17-099	Dr. Christina Bourne	The Board of Regents of the University of Oklahoma	Targeting bacterial cell metabolism by manipulating toxin-antitoxen systems	\$135,000
HR17-114	Dr. Dingbo Lin	Oklahoma State University	β , β -carotene 9', 10'-oxygenase 2 in acute respiratory distress syndrome	\$135,000
HR17-115	Dr. Dean Lawson	Oklahoma Medical Research Foundation	Orienting chromosomes on the meiotic spindle	\$135,000
HR17-116	Dr. Anthony Burgett	The Board of Regents of the University of Oklahoma	Synthesis and drug development of ORP4 protein inhibitors: A new route to precision anti-cancer therapeutics	\$135,000
HR17-123	Dr. Hongliang Li	The Board of Regents of the University of Oklahoma Health Sciences Center	An autoimmune pathophysiological and molecular mechanism in Polycystic Ovarian Syndrome	\$135,000
HR17-124	Dr. Rakhi Rajan	The Board of Regents of the University of Oklahoma	Characterizing the protein-DNA interactions essential for type IIA CRISPR-Cas adaptation	\$135,000

2017 Intern Partnership Awards

Project Number	PI	Organization	Project Title	Award Amount
IP17-002	Dr. Kaveh Ashenayi	University of Tulsa	Project to implement MTconnect based communication software for controlling and optimizing operation of material handling hardware	\$50,718
IP17-006	Dr. Peter Hawrylak	University of Tulsa	Development of a prototype sensor cluster for a smart CNG tank	\$17,948
IP17-012	Dr. Surendra Singh	University of Tulsa	Design and development of aircraft engineering components	\$60,000
IP17-017	Dr. Hakki Refai	Optecks LLC	Modular DLP electronic board to succeed in emerging markets	\$60,000
IP17-018	Dr. Jerald Dawkins	True Digital Security	Actionable shared cyber threat intelligence	\$60,000
IP17-021	Dr. Nancy Paiva	Southeastern Oklahoma State University	Research to improve the reproducibility, profitability and performance of EM-absorbing foam products at ETS Lindgren, Durant, OK.	\$20,460
IP17-022	Mr. Bryan Schultz	Spiers New Technologies Inc.	Wifi battery management system for energy as a service	\$28,800
IP17-025	Dr. Saravan Kumar Shanmugavelayudam	MaxQ Research LLC	Thermal packaging and electronics sensing internships	\$60,000
IP17.2-004	Dr. Kaveh Ashenayi	University of Tulsa	Proposal to develop "Admiral Controller"	\$31,700
IP17.2-005	Dr. Kaveh Ashenayi	University of Tulsa	Efficacy analysis of dental products using MicroCT	\$15,800
IP17.2-006	Dr. Surendra Singh	University of Tulsa	Design and development of pressure management solutions	\$60,000
IP17.2-007	Dr. Peter Hawrylak	University of Tulsa	Design of a software interface for a weather display unit for flight simulators	\$59,410
IP17.2-008	Dr. Kaveh Ashenayi	University of Tulsa	Development of documentation for redesign of HyPower EnergyMate	\$51,114
IP17.2-012	Dr. Jason Wickham	Northwestern Oklahoma State University	Distribution and quantity of iodine with relationship to different oilfield brine water reservoirs in the western half of Oklahoma	\$23,720
IP17.2-014	Dr. Badia Koudsi	Optecks LLC	Application Programming Interface (API) developments	\$60,000
IP17.2-016	Dr. Evgueni Kadossov	XploSafe LLC	XploSafe applied research internships	\$60,000
IP17.2-017	Mr. Keith Symcox	University of Tulsa	Developing analytical tools for Marshall Brewing Expansion, Phase II	\$60,000
IP17.2-018	Mr. Jacob Henderson	Spiers New Technologies Inc.	Cost effective battery to battery fast charge system	\$29,800

2017 Plant Science Awards

Project Number	PI	Organization	Project Title	Award Amount
PS17-004	Dr. Ellie Phuong Nguyen	Oklahoma State University	The molecular mechanism of herbivory defence regulation by SRFR1 in the Arabidopsis thaliana to Spodoptera exigua and Pieris rapae herbivores	\$100,000
PS17-005	Dr. Million Tadege	Oklahoma State University	Development of sorghum deletion mutant resources for C4 grass functional genomics	\$100,000
PS17-006	Dr. Henry Adams	Oklahoma State University	A burning question for catastrophic wildfire in Oklahoma: How much drought causes eastern redcedar to switch from suppressing fire to promoting fire?	\$78,970
PS17-010	Dr. Omkar Joshi	Oklahoma State University	Quantification, potential utilization, economic impact analysis of eastern redcedar in Oklahoma	\$67,010
PS17-014	Dr. Jianqi Wen	Noble Research Institute LLC	Enabling full usage of Tnt1 mutants	\$100,000
PS17-015	Dr. Hani Girgis	University of Tulsa	An intelligent tool for characterizing transposon families in plant genomes	\$100,000