

## 2016 Oklahoma Applied Research Awards

Project Number	PI	Organization	Project Title	Award Amount
AR16-003	Dr. Yingmei Liu	Oklahoma State University	A quantum-enhanced precise magnetic scanning microscope	\$89,796
AR16-010	Dr. Richard Kopke	Hough Ear Institute	Prophylactic treatment for cisplatin-induced ototoxicity	\$223,517
AR16-011	Dr. Kedar Pai	Plasma Bionics LLC	Cold atmospheric plasma technology for medical sterilization	\$95,000
AR16-014	Melissa Munroe	Progentec Diagnostics Inc.	An algorithm for predicting lupus flares informed by altered immune mediators	\$240,680
AR16-016	Dr. Jerald Dawkins	True Digital Security	Secure project management through governance risk and compliance	\$300,000
AR16-019	Dr. Lijun Xia	Oklahoma Medical Research Foundation	Antisense-mediated splicing therapy for Mucopolidosis-III	\$90,000
AR16-025	Dr. Saravan Kumar Shanmugavelayudam	MaxQ Research LLC	Energy absorbing structural insulation composite	\$200,000
AR16-026	Dr. Evgueni Kadossov	XploSafe LLC	Commercialization of the next generation of passive dosimeters and air sampling media	\$200,000
AR16-032	Dr. Ranji Vaidyanathan	Oklahoma State University	Cryocel - Lightweight composites for cryogenic fuel storage for transportation	\$292,314
AR16-038	Dr. Raman Singh	Oklahoma State University	Loading-rate and constraint dependent hydraulic fracturing of shale: Optimizing resource extraction	\$89,969
AR16-043	Dr. Robert Taylor	Oklahoma State University	Investigation of an absorption/reflection based chorine sensor	\$89,469
AR16-050	Dr. Hakki Refai	Optecks LLC	Best-in-class resolution and speed 3D DLP printer	\$300,000
AR16-051	Dr. Yanqi Wu	Oklahoma State University	Developing cold hardy and high quality greens-type turf bermudagrasses in Oklahoma	\$297,735
AR16-061	Dr. Michael Santos	The Board of Regents of the University of Oklahoma	Ultra-high performance two-dimensional magnetic field imager	\$250,000
AR16-068	Dr. Hakki Refai	Optecks LLC	Aerial 3D scanner for tower inspection and management	\$300,000
AR16-070	Dr. Xiaoliang Jin	Oklahoma State University	Simulation and optimization system for hard milling with tool edge effect in aerospace manufacturing	\$90,000

## 2016 Health Research Awards

Project Number	PI	Organization	Project Title	Award Amount
HR16-003	Dr. Kenneth Miller	Oklahoma State University Center for Health Sciences	The role of glutamatergic sensory neurons in the initiation of and response to colitis	\$135,000
HR16-005	Dr. Augen Pioszak	The Board of Regents of the University of Oklahoma Health Sciences Center	Rational design of potent and selective peptide ligands for the CGRP and adrenomedullin receptors	\$135,000
HR16-007	Dr. Maria de Lurdes Queimado	The Board of Regents of the University of Oklahoma Health Sciences Center	Studying the effects of tobacco smoking on oral stem cells	\$135,000
HR16-014	Dr. Allan Wiechmann	The Board of Regents of the University of Oklahoma Health Sciences Center	Defense of corneal epithelial barrier integrity in homeostatic cell turnover and disease	\$135,000
HR16-021	Dr. Jongmin Cho	Oklahoma State University	Developing PET-detectable hybrid nanoparticles for radiotherapy and molecular imaging applications	\$45,000
HR16-022	Dr. Randolph Hubach	Oklahoma State University	Mpower Project: Sexual health of peri-urban and rural MSM	\$86,772
HR16-023	Dr. DeMond Grant	Oklahoma State University	Neural mechanisms of chronic worry	\$135,000
HR16-026	Dr. Jialing Lin	The Board of Regents of the University of Oklahoma Health Sciences Center	Structure, function and inhibition of apoptotic Bak oligomers in mitochondria	\$135,000
HR16-028	Dr. Roberto Pezza	Oklahoma Medical Research Foundation	The role of Psmc3 in homologous recombination	\$135,000
HR16-038	Dr. Bruce Noden	Oklahoma State University	Local and landscape-scale drivers of tick distribution and tick-borne pathogen prevalence in rapidly expanding urban and suburban areas	\$135,000
HR16-041	Dr. Jian-xing Ma	The Board of Regents of the University of Oklahoma Health Sciences Center	Podocyte protective effect of neuropilin-1	\$135,000
HR16-048	Dr. Naci Dilekli	The Board of Regents of the University of Oklahoma	Improving geocoding of cancer registry and development of a spatiotemporal database of environmental exposures	\$135,000
HR16-055	Dr. A. Darise Farris	Oklahoma Medical Research Foundation	CD4+ T cells in oral pathogenesis of Sjogren's syndrome	\$45,000
HR16-057	Dr. Han Yuan	The Board of Regents of the University of Oklahoma	Multi-modal imaging of brain networks in middle-aged and older adults	\$90,000
HR16-060	Dr. Winyoo Chohanadisai	Oklahoma State University	ZIP12- a candidate gene for neurodevelopmental disorders	\$135,000
HR16-066	Dr. Matlock Jeffries	The Board of Regents of the University of Oklahoma Health Sciences Center	Differential leukocyte epigenetic and transcriptomic patterns as diagnostic and predictive biomarkers in knee osteoarthritis	\$135,000
HR16-068	Dr. Scott Plafker	Oklahoma Medical Research Foundation	Nrf2-based therapeutics	\$135,000
HR16-074	Dr. Qing Guo	The Board of Regents of the University of Oklahoma Health Sciences Center	Unconventional neuroprotective actions of sAATF in ischemic brain injury	\$135,000
HR16-084	Dr. Charles Rice	The Board of Regents of the University of Oklahoma	Potentiating Beta-Lactams to treat MRSA infections	\$135,000
HR16-085	Dr. Wei Chen	University of Central Oklahoma	Phototherapy for metastatic breast cancer using immunologically modified carbon nanotubes	\$135,000
HR16-095	Dr. Indrajeet Sharma	The Board of Regents of the University of Oklahoma	Design and synthesis of collybolide analogues as probes in kappa-opioid pharmacology	\$135,000

HR16-100	Dr. Michael Keller	University of Tulsa	Interfacial healing in dental restorations	\$134,073
HR16-108	Dr. Christian Lemon	The Board of Regents of the University of Oklahoma	Taste and oral sensory processing in the brain	\$135,000
HR16-109	Dr. Teluguakula Narasaraju	Oklahoma State University	A novel combination therapy for influenza pneumonia	\$135,000
HR16-116	Dr. Mohiuddin Ahmad	The Board of Regents of the University of Oklahoma Health Sciences Center	The role of AMPA receptor-interacting protein Prrt1 in synaptic plasticity	\$135,000
HR16-118	Dr. Carole Johnson	The Board of Regents of the University of Oklahoma Health Sciences Center	Health-related quality of life benefits from advanced digital technology hearing aids	\$113,958
HR16-125	Dr. Si Wu	The Board of Regents of the University of Oklahoma	Sequencing serum autoantibody biomarkers through an antigen-targeted top-down mass spectrometry (ATT-MS) platform	\$135,000
HR16-131	Dr. Fernando Luis Esteban Florez	The Board of Regents of the University of Oklahoma Health Sciences Center	Real-time quantification of cells' viability and 'smart' adhesive resins with antibacterial, bond-promoting and bioactive properties	\$134,142
HR16-142	Dr. Eric Howard	The Board of Regents of the University of Oklahoma Health Sciences Center	Rnd proteins promote a sentinel phenotype in fibroblasts	\$135,000
HR16-144	Dr. Heather Fahlenkamp	Oklahoma State University	Ex vivo generation of dendritic cells from an advanced vascular tissue construct	\$135,000

## 2016 Intern Partnership Awards

Project Number	PI	Organization	Project Title	Award Amount
IP16-005	Dr. Timothy Bowser	Oklahoma State University	Research and development of cocoa bean size reduction process	\$22,524
IP16-006	Dr. Andrea Holgado	Southwestern Oklahoma State University	Creating opportunities for advancing basic research, applied research, and technology development	\$30,000
IP16-009	Dr. Surendra Singh	University of Tulsa	Design and development of winch systems	\$60,000
IP16-012	Mr. Keith Symcox	University of Tulsa	Development of analytical tools to enable Marshall Brewing expansion	\$52,630
IP16-017	Mr. Jeff Muehring	NextThought LLC	NextThought -- OU CS Intern Program	\$58,590
IP16-019	Dr. Ranji Vaidyanathan	Oklahoma State University	RDIP: Interns for liquefied fuel composite tanks	\$29,863
IP16.2-005	Dr. George Risinger	Oklahoma City Community College	Internship for Biotechnology Program students	\$42,420
IP16.2-006	Dr. Surendra Singh	University of Tulsa	Design and development of IED defeat tools	\$18,000
IP16.2-007	Dr. Surendra Singh	University of Tulsa	Design and development of motion control products	\$30,000
IP16.2-008	Dr. Kaveh Ashenayi	University of Tulsa	Development of techniques for reducing the waste and improving quality at Boral Bricks, Inc.	\$46,391
IP16.2-009	Dr. Peter Hawrylak	University of Tulsa	New graphical user interface for flight simulator sub-systems	\$59,855
IP16.2-014	Dr. Bahaeddin Jassemnejad	University of Central Oklahoma	UCO - CNI Aviation student intern partnership	\$58,176

## 2016 Plant Science Awards

Project Number	PI	Organization	Project Title	Award Amount
PS16-003	Dr. William Henley	Oklahoma State University	Enhanced lipid production by diatoms in continuous culture	\$99,568
PS16-005	Dr. Ming Yang	Oklahoma State University	Meiotic suppressors of ask1-1	\$100,000
PS16-009	Dr. Randy Allen	Oklahoma State University	Epigenetic regulation of seed maturation gene expression in seedlings	\$99,530
PS16-012	Dr. Mark Buchheim	University of Tulsa	Sex and RNA	\$57,878
PS16-024	Dr. Ben Holt	The Board of Regents of the University of Oklahoma	NF-Y transcription factor roles in far red light signaling – a first look	\$100,000
PS16-028	Dr. Yun Kang	Noble Research Institute LLC	Genome wide association studies of forage quality traits in Medicago truncatula	\$98,909
PS16-029	Dr. Andrew Mort	EnzymatiX Corp	Efficient and cost effective enzyme functionalized nanoparticles	\$100,000
PS16-034	Dr. Rujin Chen	Noble Research Institute LLC	Dissecting the regulatory mechanisms that underlie plant organ growth for improving seed yield in legumes	\$100,000