

Oklahoma Center for the Advancement of Science and Technology (OCAST) Program Awards 2018 - June 30, 2021

OCAST Program	Project #	Principal Investigator's Title	Principal Investigator's First Name	Principal Investigator's LastName	Primary Organization	Project Title	Project Start	Additional Applicant Organization
Oklahoma Applied Research Support (OARS)	AR18-008	Dr.	Bayrammurad	Saparov	The Board of Regents of the University of Oklahoma	Solution-processable halides for radiation detection	7/1/2018	Amethyst Research Inc.
Oklahoma Applied Research Support (OARS)	AR18-009	Mr.	Dave	King	Exaptive, Inc.	Data Model and Algorithms for Data-Driven Team Building with Quantifiable Exaptation Potential	4/1/2019	University of Oklahoma
Oklahoma Applied Research Support (OARS)	AR18-015	Dr.	Erwin	Platvoet	XRG Technologies LLC	Development of a Fluid Turbulator for use in Fired Heaters to Reduce Fouling	7/1/2018	Oklahoma State University
Oklahoma Applied Research Support (OARS)	AR18-019	Dr.	Eldon	Jupe	Progentec Diagnostics, Inc.	Translation of a diagnostic test for Lupus flare prediction from bench to clinic	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-022	Dr.	Khalid	Hossain	Amethyst Research, Inc.	Natural Gas-Water Mixture as an Alternate Fracturing Fluid to Enhance Oil	8/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-023	Dr.	Machhad	Fahs	The Board of Regents of the University of Oklahoma	A Novel Method for Enhancing Artificial Lift Performance	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-025	Dr.	Ranjith	Ramanathan	Oklahoma State University	Novel nitrite embedded packaging to increase value of dark-cutting beef	8/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-026	Dr.	Ram	Mohan	University of Tulsa	Novel Compact Separators for Fine Separation of Water and Oil	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-028	Dr.	Kurt	Rouser	Oklahoma State University	Turboelectric unmanned aircraft sensor system for oil and gas pipeline	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-033	Dr.	Eduardo	Pereyra	University of Tulsa	Downhole separator design for pumping systems in horizontal wells	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-035	Dr.	Joshua	Ramsey	Oklahoma State University	Commercialization of a novel single-use bioreactor	8/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-037	Dr.	Mohamed	Soliman	Oklahoma State University	New Steel Connections for Seismic Retrofit and Strengthening of Bridges and Buildings	7/1/2018	W&W/AFCO Steel
Oklahoma Applied Research Support (OARS)	AR18-042	Dr.	Mark	Krzmarzick	Oklahoma State University	Aeration process controls to reduce energy costs in wastewater treatment plants	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-045	Dr.	Hakki	Refai	Optecks, LLC	Intra-operative 3D scanning system for minimally invasive surgery	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-050	Dr.	Yul	Shaffer	GasTech Engineering LLC	Low-NOx and Low-Noise Burner Final Development	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-052	Dr.	Ian	Sellers	The Board of Regents of the University of Oklahoma	Deployable CIGS Solar Cells for "SmallSat" Deep Space Missions	7/1/2018	Amethyst Research, Inc.
Oklahoma Applied Research Support (OARS)	AR18-056	Mr.	Ross	Faith	SpectrumFX, Inc.	Optimization of flow and disbursement for a green fire suppression agent	7/1/2018	Oklahoma State University
Oklahoma Applied Research Support (OARS)	AR18-063	Dr.	Michael	Santos	The Board of Regents of the University of Oklahoma	Infrared detectors with narrow tunable linewidths	7/1/2018	Amethyst Research, Inc.
Oklahoma Applied Research Support (OARS)	AR18-069	Dr.	Jiayi	Shao	Amethyst Research, Inc.	eSWIR	8/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-070	Dr.	S. Ali	Shojaee	Amethyst Research, Inc.	A new class of miniaturized lightweight highly efficient solid state cryogenic cooler	8/1/2018	

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Oklahoma Applied Research Support (OARS)	AR18-073	Dr.	Paul	Moses	The Board of Regents of the University of Oklahoma	Development of intelligent protection systems for mitigating dynamic disturbances in remote distribution feeders with microgrids	7/1/2018	
Oklahoma Applied Research Support (OARS)	AR18-078	Dr.	James	Manimala	Oklahoma State University	Acoustic metastructures for next generation aircraft liners	12/1/2018	
Oklahoma Applied Research Support (OARS)	AR19-011	Dr.	Bhishma	Sedai	MITO Material Solutions LLC	Marine composites with improved toughness and thermal stability	8/1/2019	Oklahoma State University
Oklahoma Applied Research Support (OARS)	AR19-012	Dr.	Bhishma	Sedai	MITO Material Solutions LLC	Novel hybrid nano-additives with improved compatibility for thermosetting resins	7/1/2019	
Oklahoma Applied Research Support (OARS)	AR19-018	Dr.	Yu	Mao	Oklahoma State University	Omniphobic Nanocoatings for Liquid Repellent Fabrics	9/1/2019	
Oklahoma Applied Research Support (OARS)	AR19-027	Dr.	Guolong	Zhang	Oklahoma State University	Small-Molecule Compounds as Novel Antibiotic Alternatives	7/1/2019	
Oklahoma Applied Research Support (OARS)	AR19-036	Dr.	Arif	Rahman	MaxQ Research LLC	Development of nano-porous recyclable cellulose thermal insulation	7/1/2019	
Oklahoma Applied Research Support (OARS)	AR19-053	Dr.	Ashish	Ranjan	Oklahoma State University	Minimally Invasive Animal Sterilization	9/1/2019	New Product Development Center
Oklahoma Applied Research Support (OARS)	AR19-063	Dr.	Jamey	Jacob	Oklahoma State University	Validation of Radar-Based Detect-and-Avoid System	8/1/2019	Vigilant Aerospace Systems, Inc.
Oklahoma Applied Research Support (OARS)	AR19-073	Dr.	Kedar	Pai	Plasma Bionics, LLC	Cold Atmospheric Plasma Device For Sterilization of Laparoscopic Instruments	7/1/2019	
Oklahoma Applied Research Support (OARS)	AR20-014	Dr.	Richard	Kopke	Hough Ear Institute	Advancement of a novel therapeutic for reversing clinical indicators of cochlear synaptopathy and tinnitus	9/1/2020	Oblato, Inc.
Oklahoma Applied Research Support (OARS)	AR20-016	Mr.	Justin	Presley	Ram Jack Systems Distribution, LLC	Accelerating the development and commercialization of a novel helical sign post	7/1/2020	Oklahoma State University
Oklahoma Applied Research Support (OARS)	AR20-020	Dr.	Hitesh	Vora	Oklahoma State University	Next generation smart heatsinks	7/1/2020	Casey Corp Defense, LLC
Oklahoma Applied Research Support (OARS)	AR20-024	Dr.	Do Young	Kim	Oklahoma State University	OLED-based infrared image sensor	7/1/2020	Ghost Display Technologies
Oklahoma Applied Research Support (OARS)	AR20-037	Dr.	Stephen	Fransen	Retinal Care Inc	Analytics-based platform for diabetic retinopathy care management	7/1/2020	
Oklahoma Applied Research Support (OARS)	AR20-041	Dr.	Clint	Aichele	Oklahoma State University	Produced water treatment fueled by high value product extraction	7/1/2020	D&B Oilfield Services
Oklahoma Applied Research Support (OARS)	AR20-043	Dr.	Prem	Bikkina	Oklahoma State University	Screening Reservoirs in Oklahoma and Beyond for Enhanced Oil & Gas Recovery Using Novel Nitrogen-Assisted Nanofluid Systems	8/1/2020	Nitro-Lift Technologies, LLC
Oklahoma Applied Research Support (OARS)	AR20-045	Dr.	Ram	Mohan	University of Tulsa	Produced water polishing utilizing integrated compact separator system	7/1/2020	
Oklahoma Applied Research Support (OARS)	AR20-046	Dr.	Hamidreza	Shabgard	The Board of Regents of the University of Oklahoma	High efficiency dry cooling method with passive cold storage	7/1/2020	Baker Hughes
Oklahoma Applied Research Support (OARS)	AR20-052	Dr.	Jerry	Dawkins	True Digital Security	CMC TrueSpeed Supply Chain Cyber Security Management	7/1/2020	
Oklahoma Applied Research Support (OARS)	AR20-060	Mr.	Michael	Teicheira	XploSafe, LLC	Commercialization of inorganic sorbents for the recovery of excess plant nutrients from water and their reuse as fertilizer	7/1/2020	

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Oklahoma Applied Research Support (OARS)	AR20-063	Dr.	Li	Song	The Board of Regents of the University of Oklahoma	Smart networked home energy management system for homes (home-EMS)	7/1/2020	
Oklahoma Health Research Fellowship (HF)	HF18-008	Dr.	Michael	Elliott	The Board of Regents of the University of Oklahoma Health Sciences Center	The Role of TRAF3 in Retinal Function and Inflammation	7/1/2018	
Oklahoma Health Research Fellowship (HF)	HF18-014	Dr.	Courtney	Griffin	Oklahoma Medical Research Foundation	Investigation of the role of hypoxia in initiating hyaloid vessel regression	7/1/2018	
Oklahoma Health Research Fellowship (HF)	HF18-022	Dr.	Timothy	Griffin	Oklahoma Medical Research Foundation	Role of Lysine Malonylation in Chondrocyte Metabolic Stress and Osteoarthritis	8/1/2018	
Oklahoma Health Research Fellowship (HF)	HF19-028	Dr.	Zoltan	Ungvari	Board of Regents of the University of Oklahoma Health Sciences Center	Irradiation-induced cognitive decline: role of endothelial senescence	10/1/2019	
Oklahoma Health Research Fellowship (HF)	HF20-006	Dr.	Susan	Kovats	Oklahoma Medical Research Foundation	Age-related changes in the myeloid immune response to RSV in a tissue-engineered human model	10/1/2020	
Oklahoma Health Research Fellowship (HF)	HF20-019	Dr.	Wei	Chen	University of Central Oklahoma	Laser Immunotherapy, a novel way to stimulate antitumor immunity	12/1/2020	
Oklahoma Health Research Fellowship (HF)	HF20-032	Dr.	Cecil	Lewis	The Board of Regents of the University of Oklahoma	Genomic Determinants of Tetracycline Resistance in a Non-Industrial Population	6/1/2021	
Oklahoma Health Research (HR)	HR18-002	Dr.	Chung-Hao	Lee	The Board of Regents of the University of Oklahoma	Novel Shape Memory Polymer Devices for Optimal Endovascular Embolization of Intracranial Aneurysms	9/1/2018	
Oklahoma Health Research (HR)	HR18-005	Dr.	Yu	Mao	Oklahoma State University	Nanocoatings for Controlled Drug Release and Improved Biocompatibility	8/1/2018	
Oklahoma Health Research (HR)	HR18-013	Dr.	Angus	Lamar	University of Tulsa	Late-Stage C-N Incorporation to Bioactive Cores	7/1/2018	
Oklahoma Health Research (HR)	HR18-033	Dr.	Randall	Davis	Oklahoma State University Center for Health Sciences	Advancing therapeutic options for treating mood and anxiety disorders using a novel anti-inflammatory agent	9/1/2018	
Oklahoma Health Research (HR)	HR18-034	Dr.	Hongwu	Wang	The Board of Regents of the University of Oklahoma Health Sciences Center	Development and Evaluation of Vibration-based Wearable Upper Limb Rehabilitation Device	11/1/2018	
Oklahoma Health Research (HR)	HR18-037	Dr.	Maria	Ruiz-Echevarria	The Board of Regents of the University of Oklahoma Health Sciences Center	Defining the role of the TMEFF2 transcript in androgen signaling in prostate cancer	7/1/2018	
Oklahoma Health Research (HR)	HR18-039	Dr.	Jamie	Rhudy	University of Tulsa	Does Glucose Dysmetabolism Contribute to Native American Pain Disparities?: A Pilot Study	8/1/2018	
Oklahoma Health Research (HR)	HR18-040	Dr.	Tijs	Louwies	The Board of Regents of the University of Oklahoma Health Sciences Center	Central Epigenetic Reprogramming of Amygdala Receptor Expression in Stress-Induced Chronic Pain	7/1/2018	
Oklahoma Health Research (HR)	HR18-046	Dr.	Victoria	Christiansen	The Board of Regents of the University of Oklahoma Health Sciences Center	Does Prolyl oligopeptidase Inhibitor Suppress Tumor Growth?	8/1/2018	
Oklahoma Health Research (HR)	HR18-049	Dr.	Syed Raziullah	Hussaini	University of Tulsa	Discovery of Indolizidine (-)-237D Analogs as Selective a6* Receptor Antagonists	8/1/2018	University of Oklahoma Health Sciences Center
Oklahoma Health Research (HR)	HR18-053	Dr.	Deepa	Sathyaseelan	The Board of Regents of the University of Oklahoma Health Sciences Center	Testing the Role of Inflammation in Aging and Age-related Diseases	9/1/2018	
Oklahoma Health Research (HR)	HR18-054	Dr.	Roger	Kollock	University of Tulsa	Fit-for-duty: An Examination of the Efficacy of the Physical Abilities Test in Determining Physical Readiness	8/1/2018	Tulsa Fire Department
Oklahoma Health Research (HR)	HR18-069	Dr.	Guoliang	Fan	Oklahoma State University	A Mobile Platform for Clinical Gait Analysis	8/1/2018	
Oklahoma Health Research (HR)	HR18-072	Dr.	Karla	Rodgers	The Board of Regents of the University of Oklahoma Health Sciences Center	Regulation of RAG2-chromatin interactions during V(D)J recombination	7/1/2018	
Oklahoma Health Research (HR)	HR18-077	Dr.	Joe	Cecil	Oklahoma State University	Investigation of Impact of Virtual Reality based cyber learning approaches	9/1/2018	
Oklahoma Health Research (HR)	HR18-079	Dr.	Stephanie	Sweatt	Oklahoma State University	Identifying a Direct Path to Emotion Dysregulation in Borderline Personality	7/1/2018	
Oklahoma Health Research (HR)	HR18-085	Dr.	Shuodao	Wang	Oklahoma State University	Non-contact, in vivo Measurement of Hyper-Elastic Response of Bio-membranes for Predicting Traumatic Injuries	7/1/2018	
Oklahoma Health Research (HR)	HR18-087	Dr.	Tieming	Liu	Oklahoma State University	Validating a clinical decision support algorithm developed with big data to diagnose, state, prevent, and monitor a patient's diabetic retinopathy	8/1/2018	
Oklahoma Health Research (HR)	HR18-088	Dr.	Rajagopal	Ramesh	The Board of Regents of the University of Oklahoma Health Sciences Center	Non-invasive liquid biopsy approach for using exosomes as a surrogate	8/1/2018	

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Oklahoma Health Research (HR)	HR18-089	Dr.	Kathleen	Curtis	Oklahoma State University Center for Health Sciences	Neuroimmune activation and weight gain in a rat model of post-menopausal obesity	7/1/2018	
Oklahoma Health Research (HR)	HR18-092	Dr.	Anna	Csizar	The Board of Regents of the University of Oklahoma Health Sciences Center	NOVEL MECHANISM OF AGE-RELATED CEREBROMICROVASCULAR DYSFUNCTION	9/1/2018	
Oklahoma Health Research (HR)	HR18-093	Dr.	Mari	Andiappan	Oklahoma State University	Copper Nanocatalyst as Efficient Heterogeneous Photocatalyst for Continuous Syntheses of Pharmaceuticals through Cross-Coupling Reactions	7/1/2018	
Oklahoma Health Research (HR)	HR18-097	Dr.	Antonius	Oomens	Oklahoma State University	A novel virus-like-particle based RSV vaccine to generate broad and durable protection	10/1/2018	
Oklahoma Health Research (HR)	HR18-104	Dr.	Paul	DeAngelis	The Board of Regents of the University of Oklahoma Health Sciences Center	Tetherable Glycosaminoglycan Polymers for Insights into Matrix/Cell/Protein Interactions	7/1/2018	
Oklahoma Health Research (HR)	HR18-110	Dr.	Ann	West	The Board of Regents of the University of Oklahoma	Two-component signal transduction in the human bacterial pathogen Clostridioides difficile	7/1/2018	
Oklahoma Health Research (HR)	HR18-113	Dr.	Zhizhuang Joe	Zhao	The Board of Regents of the University of Oklahoma Health Sciences Center	Define the role of Mpl in myelofibrosis	9/1/2018	
Oklahoma Health Research (HR)	HR18-118	Dr.	Shannon	Conley	The Board of Regents of the University of Oklahoma Health Sciences Center	The role of vascular smooth muscle cell plasticity in age-related cognitive decline	8/1/2018	
Oklahoma Health Research (HR)	HR18-119	Dr.	Ben Matthew	Vassar	Oklahoma State University Center for Health Sciences	Factors Influencing the Reproducibility of Clinical Trials and Systematic Reviews in Addiction Research	7/1/2018	
Oklahoma Health Research (HR)	HR18-120	Dr.	William	Sonntag	The Board of Regents of the University of Oklahoma Health Sciences Center	Susceptibility to Amyloid Oligomers in Response to Aging and Insulin/IGF-1 Resistance	8/1/2018	
Oklahoma Health Research (HR)	HR18-130	Dr.	Yihan	Shao	The Board of Regents of the University of Oklahoma	Rational Development of Selective and Potent Inhibitors to Pro-apoptotic Bax Protein	7/1/2018	
Oklahoma Health Research (HR)	HR18-139	Dr.	Robin	Aupperle	Laureate Institute for Brain Research	Neurocognitive Empowerment for Addiction Treatment (NEAT): A Randomized Controlled Trial for Opioid Addiction.	7/1/2018	
Oklahoma Health Research (HR)	HR19-026	Dr.	Jie	Wu	The Board of Regents of the University of Oklahoma Health Sciences Center	Deciphering bypass mechanisms of resistance to SHP2 inhibition	7/1/2019	
Oklahoma Health Research (HR)	HR19-028	Dr.	Nathaniel	Jenkins	Oklahoma State University	The role of genetic polymorphisms on the pharmacokinetics and pharmacodynamics of caffeine: implications for cardiometabolic function	8/1/2019	
Oklahoma Health Research (HR)	HR19-045	Dr.	Natarajan	Aravindan	The Board of Regents of the University of Oklahoma Health Sciences Center	Cre-conditional RD3-loss driven neuroblastoma mouse model: Novel tool for preclinical studies on disease evolution	9/1/2019	
Oklahoma Health Research (HR)	HR19-062	Dr.	Qinggong	Tang	The Board of Regents of the University of Oklahoma	Real-time Epidural Anesthesia Guidance Using Multi-contrast Optical Coherence Tomography Needle Probe	10/1/2019	University of Oklahoma Health Sciences Center
Oklahoma Health Research (HR)	HR19-080	Dr.	Shanteri	Singh	The Board of Regents of the University of Oklahoma	The development of daptomycin analogs	8/1/2019	
Oklahoma Health Research (HR)	HR19-104	Dr.	Josh	Ramsey	Oklahoma State University	Targeted Delivery of a Reactive Oxygen Species Generator for Treatment of Hormone Refractory Prostate Cancer	9/1/2019	
Oklahoma Health Research (HR)	HR19-106	Dr.	Yu	Feng	Oklahoma State University	Understanding the Effects of Sphero-Cylinder Drug Particle Shape to Enhance Small-Airway Drug Delivery for Better Emphysema Treatment Outcomes	10/1/2019	University of Oklahoma Health Sciences Center
Oklahoma Health Research (HR)	HR19-111	Dr.	Calin	Prodan	The Board of Regents of the University of Oklahoma Health Sciences Center	Thrombotic and inflammatory mechanisms in traumatic brain injury	9/1/2019	
Oklahoma Health Research (HR)	HR19-129	Dr.	Karina	Shreffler	Oklahoma State University	Enhancing Maternal-Fetal Bonding to Promote Healthy Pregnancies and Reduce Adverse Perinatal Outcomes	7/1/2019	University of Oklahoma Health Sciences Center - Tulsa
Oklahoma Health Research (HR)	HR19-131	Dr.	Yong	Chen	The Board of Regents of the University of Oklahoma Health Sciences Center	Real-Time Dosimetry in External Beam Radiation Therapy with X-Ray Acoustic Computed Tomography	7/1/2019	University of Oklahoma Health Sciences Center
Oklahoma Health Research (HR)	HR19-133	Dr.	Shaoning	Jiang	The Board of Regents of the University of Oklahoma Health Sciences Center	Fetal epigenetic programming of mitochondrial biogenesis in diabetes during pregnancy: the role of AMPK and microRNA-130b	9/1/2019	
Oklahoma Health Research (HR)	HR19-148	Dr.	Roger	Harrison	The Board of Regents of the University of Oklahoma	Novel targeted protein-drug conjugates for treating metastatic breast cancer combined with immunostimulation and mTOR inhibition	8/1/2019	
Oklahoma Health Research (HR)	HR20-002	Dr.	Blaine	Mooers	The Board of Regents of the University of Oklahoma Health Sciences Center	Role of a Lysine Hydroxylase in Breast Cancer	10/1/2020	
Oklahoma Health Research (HR)	HR20-011	Dr.	Roberto	Pezza	Oklahoma Medical Research Foundation	The Role of Chd4-NURD and Chd3-NURD chromatin remodelers in Mouse Gametogenesis	10/1/2020	
Oklahoma Health Research (HR)	HR20-013	Dr.	Tony	Wells	Oklahoma State University	Identifying Concealed Suicide Risk via Implicit Cognition	1/1/2021	
Oklahoma Health Research (HR)	HR20-016	Dr.	Erika	Lutter	Oklahoma State University	Manipulation of host kinases by Chlamydia trachomatis	10/1/2020	
Oklahoma Health Research (HR)	HR20-017	Dr.	Ramesh	Kaipa	Oklahoma State University	Role of Altered Auditory Feedback and Principles of Motor Learning in Improving Speech Intelligibility in People With Parkinson's Disease	1/1/2021	
Oklahoma Health Research (HR)	HR20-019	Dr.	Randolph	Hubach	Oklahoma State University-Center for Health Sciences	Ending the Epidemic: Reducing the HIV/STI Burden among Rural Oklahoma Men	10/1/2020	
Oklahoma Health Research (HR)	HR20-024	Dr.	Michael	Stout	The Board of Regents of the University of Oklahoma Health Sciences Center	Role of hypothalamic estrogen receptor- α in 17 α -estradiol-mediated metabolic benefits	10/1/2020	

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Oklahoma Health Research (HR)	HR20-027	Dr.	Sam	Emerson	Oklahoma State University	Validity and Reproducibility of Clinically Feasible Postprandial Testing	10/1/2020	
Oklahoma Health Research (HR)	HR20-038	Dr.	Tim	Hubin	Southwestern Oklahoma State University	Novel dual CXCR4/CXCR7 chemokine receptor antagonists: targeting secondary disease progression in cancer	10/1/2020	
Oklahoma Health Research (HR)	HR20-045	Dr.	Xi-Qin	Ding	Board of Regents of the University of Oklahoma Health Sciences Center	Exploration of the mechanisms underlying the thyroid hormone signaling-induced cone photoreceptor degeneration	10/1/2020	
Oklahoma Health Research (HR)	HR20-048	Dr.	Matthew	Cabeen	Oklahoma State University	Regulation of P. aeruginosa biofilm formation by a DNA-binding protein	10/1/2020	
Oklahoma Health Research (HR)	HR20-050	Dr.	Lin	Liu	Oklahoma State University	Role of Tankyase 2 in Lung Innate Immunity	10/1/2020	
Oklahoma Health Research (HR)	HR20-055	Dr.	Xin	Zhang	The Board of Regents of the University of Oklahoma Health Sciences Center	How KAI1 inhibits cancer	10/1/2020	
Oklahoma Health Research (HR)	HR20-056	Dr.	Tabitha	Garwe	The Board of Regents of the University of Oklahoma Health Sciences Center	Geriatric Trauma Secondary Triage: Development and Validation of a Risk Score to Identify Patients Requiring Transfer to a Level I/II Trauma Facility	1/1/2021	
Oklahoma Health Research (HR)	HR20-065	Dr.	Yun	Le	The Board of Regents of the University of Oklahoma Health Sciences Center	Function of VEGF in the retina	10/1/2020	
Oklahoma Health Research (HR)	HR20-067	Dr.	Michael	Morgan	Northeastern State University	Improving Chemotherapy by Potentiation of Necroptosis in AML	10/1/2020	
Oklahoma Health Research (HR)	HR20-078	Dr.	Indrajeet	Sharma	The Board of Regents of the University of Oklahoma	Iron Catalyzed Carbene Annulations to Access Medium-Sized Heterocycles for Drug Discovery	10/1/2020	
Oklahoma Health Research (HR)	HR20-086	Dr.	Aurelie	Azoug	Oklahoma State University	A Smart Skin to Treat and Prevent Pressure Ulcers	11/1/2020	
Oklahoma Health Research (HR)	HR20-100	Dr.	Veronique	Lacombe	Oklahoma State University	The Sarcoplasmic Reticulum Calcium ATPase Pump as a Major Regulator of Glucose Metabolism: A Novel Target for Diabetic Patients	10/1/2020	
Oklahoma Health Research (HR)	HR20-103	Dr.	Rakhi	Rajan	The Board of Regents of the University of Oklahoma	Protein engineering to develop stringent CRISPR-Cas genome tools	10/1/2020	
Oklahoma Health Research (HR)	HR20-105	Dr.	Wei-Qun	Ding	The Board of Regents of the University of Oklahoma Health Sciences Center	Exosome Mediated Transfer of Metastasis Associated Protein 1 in Metastatic Breast Cancer	10/1/2020	
Oklahoma Health Research (HR)	HR20-106	Dr.	Stefan	Wilhelm	The Board of Regents of the University of Oklahoma	Engineering a novel surface coating platform for nanomedicines	12/1/2020	
Oklahoma Health Research (HR)	HR20-107	Dr.	Evan	Floyd	The Board of Regents of the University of Oklahoma Health Sciences Center	A Novel Desorption Technology to Increase Exposure Assessment Sensitivity and Simplicity	1/1/2021	
Oklahoma Health Research (HR)	HR20-119	Dr.	Arpan	Sinha	The Board of Regents of the University of Oklahoma Health Sciences Center	Defining Leukemia Stem Cells in MYC-Driven Cancers to Understand Resistance and Relapse	12/1/2020	
Oklahoma Health Research (HR)	HR20-121	Dr.	Fernando Luis	Esteban Florez	The Board of Regents of the University of Oklahoma Health Sciences Center	Ultra-bright high throughput quantification of cells' viability and 'smart' adhesive resins with long-term antibacterial properties	10/1/2020	
Oklahoma Health Research (HR)	HR20-122	Dr.	Pavan	Parikh	The Board of Regents of the University of Oklahoma Health Sciences Center	Towards Enhanced Recovery After Cesarean: Scheduled Post-Operative Medication—a Randomized Controlled Trial	10/1/2020	
Oklahoma Health Research (HR)	HR20-129	Dr.	Patrick	McCann	The Board of Regents of the University of Oklahoma	A Sensor Technology for Real-Time Metabolic Monitoring — A New Way to Detect Cancer	1/1/2021	
Oklahoma Health Research (HR)	HR20-131	Dr.	William	Berry	The Board of Regents of the University of Oklahoma Health Sciences Center	THE ROLE OF PDGF SIGNALING MECHANOTRANSDUCTION NEXUS IN THE DEVELOPMENT OF PERITONEAL ADHESIONS	10/1/2020	
Oklahoma Health Research (HR)	HR20-142	Dr.	Warren	Booth	University of Tulsa	Does Socio-economic Status Influence the Genetic Structure, Diversity, and Gene flow, of a Resurging Urban Pest Insect of Public Health Significance	1/1/2021	
Intern Partnership	IP17.2-017	Mr.	Keith	Symcox	University of Tulsa	Developing Analytical Tools for Marshall Brewing Expansion, Phase II	1/1/2018	Marshall Brewing Company, LLC
Intern Partnership	IP18-005	Dr.	Kaveh	Ashenayi	University of Tulsa	Switchgear Simulator Graphics Upgrade	9/1/2018	Russelectric, Inc.
Intern Partnership	IP18-008	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Process Plant Components	7/1/2018	GasTech Engineering LLC
Intern Partnership	IP18-013	Dr.	Peter	Hawrylak	University of Tulsa	Updating Legacy Downhole Equipment Tools for Compliance to API 11D1 Certification	8/1/2018	D&L Oil Tools
Intern Partnership	IP18-014	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Robotic Positioning Systems	7/1/2018	Preston-Eastin, Inc.
Intern Partnership	IP18-015	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Aircraft Components	9/1/2018	Triumph Aerostructures - Tulsa, LLC
Intern Partnership	IP18-016	Dr.	Peter	Hawrylak	University of Tulsa	Ensuring Project Compliance with American Petroleum Industry (API) Standards 520 and 521	8/1/2018	Ross Engineering LLC
Intern Partnership	IP18-017	Dr.	Kaveh	Ashenayi	University of Tulsa	Design, Development and Use of a Gear Fatigue Test Rig	9/1/2018	Muncie Power Products, Inc.
Intern Partnership	IP18-023	Dr.	Musharraf	Zaman	The Board of Regents of the University of Oklahoma	Improved Relationships Between Properties of High Strength Concrete for Better Quality Control and Forensic Investigations	9/1/2018	ROCA Engineering, Inc.

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Intern Partnership	IP18-025	Mr.	Chris	Utz	NextThought LLC	NextThought -- OU CS Intern Program	7/1/2018	University of Oklahoma
Intern Partnership	IP18-026	Dr.	Jolly	Salehy	True Digital Security	True Digital Security Platform Module Integration and Development	7/1/2018	
Intern Partnership	IP19.2-007	Dr.	Peter	Hawrylak	University of Tulsa	Building an Enterprise Resource Planning (ERP) System and SolidWorks Finite Element Analysis (FEA) of Tools for Tank Head Manufacturing	9/1/2019	Prescor, LLC
Intern Partnership	IP19.2-010	Mr.	Keith	Symcox	University of Tulsa	Development of Analytical Methods for Marshall Brewery	1/1/2020	Marshall Brewing Company
Intern Partnership	IP19.2-011	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Composite Pressure Vessels	7/1/2019	Infinite Composites Technologies
Intern Partnership	IP19.2-015	Dr.	Keisha	Walters	The Board of Regents of the University of Oklahoma	ENGINEERING INTERNSHIPS TO IMPROVE QUALITY CONTROLS WITHIN MICHELIN'S NORTH AMERICAN PLANT IN ARDMORE, OK	9/1/2019	Michelin North America Inc.
Intern Partnership	IP19.2-019	Mr.	Michael	Teicheira	XploSafe, LLC	Commercial scale production of XploSafe's new biodegradable sorbents for consumer, industrial and municipal water treatment	7/1/2019	
Intern Partnership	IP19-002	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Aircraft Components	1/1/2019	American Airlines
Intern Partnership	IP19-007	Dr.	Marc Christopher	Moore	The Board of Regents of the University of Oklahoma	Low-Cost Disposable Point of Care Interferon Gamma Release Assay	1/1/2019	IMMY, Inc.
Intern Partnership	IP19-009	Dr.	Jason	Wickham	Northwestern Oklahoma State University	Distribution and Quantity of Iodine with Relationship to Oilfield Brine Waters in Central and Western Oklahoma	7/1/2019	Iofina Resources LLC
Intern Partnership	IP19-010	Dr.	Arif	Rahman	MaxQ Research LLC	Thermal package design and web development intern	1/1/2019	
Intern Partnership	IP19-015	Dr.	Kaveh	Ashenayi	University of Tulsa	Applications of Data Analytics in Simulation Industry	1/1/2019	CymSTAR, LLC
Intern Partnership	IP19-019	Dr.	Thomas	Henderson	Tulsa Community College	TCC and XWorks: Student Intern Partnership Program	1/1/2019	XWorks Technologies, LLC
Intern Partnership	IP19-022	Dr.	Michael	Teicheira	XploSafe, LLC	Assist in the commercial scale production and fulfillment of XploSafe's XCel+ vapor sampling badges and XploTrain – explosive training / testing aids	1/1/2019	
Intern Partnership	IP19-024	Dr.	Musharraf	Zaman	The Board of Regents of the University of Oklahoma	Implementation of Innovative Technologies for Improved Performance and Service Life of Asphalt Pavements	3/1/2019	Silver Star Construction Company, Inc.
Intern Partnership	IP20-002	Dr.	Kaveh	Ashenayi	University of Tulsa	Object Detection and Surface Modeling in Marine and Off-Road Displays	9/1/2020	Enovation Controls
Intern Partnership	IP20-003	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Aircraft Components	9/1/2020	Triumph Aerostructures Group
Intern Partnership	IP20-004	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Process Plant Components	7/1/2020	Gastech Engineering
Intern Partnership	IP20-006	Dr.	Laura	Ford	University of Tulsa	Fired Heaters Internship with XRG Technologies	10/1/2020	XRG Technologies
Intern Partnership	IP20-007	Dr.	Timothy	Bowser	Oklahoma State University	Internship for Development of Healthy Snacks	8/1/2020	KIZE Concepts, LLC
Intern Partnership	IP20-009	Dr.	Craig	Bradshaw	Oklahoma State University	INTERN Support for the Center for Integrated Building Systems at Oklahoma State University	8/1/2020	
Intern Partnership	IP20-011	Mr.	Chris	Utz	NextThought LLC	NextThought - OU CS Intern Program	7/1/2020	
Intern Partnership	IP20-012	Dr.	William	Paiva	Oklahoma Life Science Fund Ventures	Venture Capital Professional Development Program	7/1/2020	
Intern Partnership	IP20-014	Dr.	Peter	Hawrylak	University of Tulsa	Development of Homi Software Application	10/1/2020	Momentum3, LLC
Intern Partnership	IP20-019	Mr.	Steven	Anderson	True Digital Security	Jupyter Notebook to support Cyber Security Analysis	7/1/2020	
Intern Partnership	IP20-021	Dr.	Musharraf	Zaman	The Board of Regents of the University of Oklahoma	An Improved Approach to Estimate Bearing Capacity of Soil Using Laboratory and Field Data and Artificial Intelligence-Based Models	9/1/2020	Engineering Services and Testing (EST), Inc.
Intern Partnership	IP21-005	Dr.	Kaveh	Ashenayi	University of Tulsa	E-4B & C-5 Simulators Development	6/1/2021	Cymstar, LLC
Intern Partnership	IP21-006	Dr.	Kaveh	Ashenayi	University of Tulsa	Touch Screen RTU Controller Project	6/1/2021	AAON, Inc.
Intern Partnership	IP21-008	Dr.	Surendra	Singh	University of Tulsa	Design and Development of Solar Powered Flight Vehicles	5/1/2021	Skydweller Aero
Intern Partnership	IP21-012	Dr.	Arif	Rahman	MaxQ Research LLC	Integrating temperature monitoring and predictive capabilities to cold chain solutions Internships	5/1/2021	
Intern Partnership	IP21-016	Mr.	Jonathan	Torkelson	Embeddetch, Inc.	IP Network And Linux Application Hosting In A Low-Code Virtual Environment	5/1/2021	University of Tulsa

Oklahoma Center for the Advancement of Science and Technology (OCAST) Program Awards 2018 - June 30, 2021

OCAST Program	Project #	Principal Investigator's Title	Principal Investigator's First Name	Principal Investigator's LastName	Primary Organization	Project Title	Project Start	Additional Applicant Organization
Intern Partnership	IP21-017	Mr.	Robert	Koch	CSI Aerospace, Inc.	Summer Intern 2021	5/1/2021	
Intern Partnership	IP21-023	Mr.	Michael	Basch	Atento Capital LLC	Build and Invest in Startups Internship Program	5/1/2021	
Intern Partnership	IP21-024	Ms.	Catherine	Ha	Babel Analytics LLC	Babel Analytics AI Internship Program	5/1/2021	
Intern Partnership	IP21-029	Mr.	Andrew	Noland	Alias	Alias SOC and Cyber Security Internship	5/1/2021	
Plant Science (PS)	PS18-012	Dr.	Patrick Xuechun	Zhao	Noble Research Institute, LLC.	Development of PSSPGD Server - a Web Server for Plant Small Signaling Peptide-encoding Gene Discovery	7/1/2018	
Plant Science (PS)	PS18-014	Dr.	Ramanjulu	Sunkar	Oklahoma State University	Elucidating the role of microRNAs in photosynthesis by using closely related C3, C3-C4, and C4 Flaveria species	8/1/2018	
Plant Science (PS)	PS18-016	Dr.	Babu	Fathepure	Oklahoma State University	Pretreatment of switchgrass by fungi-bacteria co-culture for effective saccharification and butanol production	7/1/2018	
Plant Science (PS)	PS18-018	Dr.	Randy	Allen	Oklahoma State University	Forward Genetic Analysis Of Cotton Fiber Development	7/1/2018	
Plant Science (PS)	PS18-025	Dr.	Randy	Allen	Oklahoma State University	Stress tolerant cotton	7/1/2018	
Plant Science (PS)	PS18-026	Dr.	Heather	McCarthy	The Board of Regents of the University of Oklahoma	The Physiological Basis of Drought Stress Responsiveness of Switchgrass Genotypes with Altered Cell Wall Metabolism	8/1/2018	
Plant Science (PS)	PS18-027	Dr.	Abigail	Moore	The Board of Regents of the University of Oklahoma	Preliminary study of genetic diversity in Grindelia ciliata, a promising biofuel crop native to Oklahoma	7/1/2018	
Plant Science (PS)	PS18-028	Dr.	Xuefeng	Ma	Noble Research Institute, LLC.	Unraveling genes underlying dual-purpose wheat seedling drought and heat tolerance using automated phenotyping platforms	9/1/2018	
Plant Science (PS)	PS19-003	Dr.	Ming	Yang	Oklahoma State University	A new leucine-rich repeat receptor-like kinase in stomatal lineage regulation	7/1/2019	
Plant Science (PS)	PS19-004	Dr.	Charles	Chen	Oklahoma State University	Drought induced global changes of chromatin structure in bread wheat	7/1/2019	
Plant Science (PS)	PS19-006	Dr.	Kristen	Baum	Oklahoma State University	Assessing Honey Bee Health and Crop Productivity Across a Gradient of Land Uses	10/1/2019	
Plant Science (PS)	PS19-007	Dr.	Niels	Maness	Oklahoma State University	A System for Podophyllotoxin Production to Extract Value from Eastern Red Cedar	7/1/2019	
Plant Science (PS)	PS19-009	Dr.	Gail	Wilson	Oklahoma State University	Managing microbial interactions for more efficient and resilient bermudagrass	7/1/2019	Northern Arizona University
Plant Science (PS)	PS20-002	Dr.	Andrew	Doust	Oklahoma State University	Dissecting the effect of photoperiod on architecture and flowering time in locally adapted populations of the C4 model grass, Setaria viridis	7/1/2020	
Plant Science (PS)	PS20-004	Dr.	Hamed	Gholizadeh	Oklahoma State University	Mapping invasive Lespedeza cuneata using airborne imaging to detect its spread and determine its ecological and economic impacts	7/1/2020	
Plant Science (PS)	PS20-007	Dr.	Brian	Murray	Oklahoma State University	The effect of drought on wildfire in Oklahoma: an improved quantification of the role of vegetation for forecasting wildfire risk.	7/1/2020	
Plant Science (PS)	PS20-009	Mr.	Michael	Trammell	Noble Research Institute, LLC.	Deciphering the soft leaf trait to improve tall fescue forage nutritive value and palatability	7/1/2020	
Plant Science (PS)	PS20-011	Dr.	Million	Tadege	Oklahoma State University	Understanding the molecular mechanism of copper transport and detoxification during vegetative growth and grain filling.	10/1/2020	
Plant Science (PS)	PS20-014	Dr.	Carolyn	Young	Noble Research Institute, LLC.	Understanding a newly discovered pecan scab-like pathogen using population genomics	7/1/2020	
Plant Science (PS)	PS20-015	Dr.	Chris	Zou	Oklahoma State University	Comparing switchgrass vs. native prairie as alternatives following redcedar removal	7/1/2020	
Plant Science (PS)	PS20-021	Dr.	Mark	Buchheim	University of Tulsa	Bioprospecting Oklahoma's Algal Diversity For High Value Products	1/1/2021	
Plant Science (PS)	PS20-023	Dr.	Kirankumar	Mysore	Noble Research Institute, LLC.	Genome wide identification and characterization of small signaling peptides (SSPs) involved in plant defense responses against pathogens	8/1/2020	
Plant Science (PS)	PS20-024	Dr.	Jennifer	Messick	University of Central Oklahoma	Identification of Candidate Loci Associated with Gypsum Soil Adaptation in Two Species of Nama and Phacelia Using Next-Generation Sequencing	7/1/2020	
Plant Science (PS)	PS20-025	Dr.	Malay	Saha	Noble Research Institute, LLC.	Can Nitrogen Use Efficient Switchgrass Genotypes Preferentially Recruit Microbiomes for Sustainable Biomass Production?	7/1/2020	