

**Agendum
Oakland University
Board of Trustees Formal Session
October 8, 2018**

**ACCEPTANCE OF GRANTS AND CONTRACTS TO OAKLAND UNIVERSITY
FOR THE PERIOD OF JULY 1 – SEPTEMBER 30, 2018**

A Recommendation

1. **Division and Department:** Academic Affairs/Research Office
2. **Introduction:** Oakland University contributes to our national agenda as a contributor to the nation's scientific and technological progress, both through the generation of new knowledge and ideas and the education and training of its students. Grants and contracts awarded to Oakland University play a critical role in the advancement of new research findings, and current research trends gives emphasis to inter-disciplinary, technology-driven, and product-oriented team efforts.

The Board of Trustees (Board) has authorized the President, or his or her designee, to receive and acknowledge grants and contracts to the University, but such grants and contracts must be reported to the Board not less often than quarterly for acceptance on behalf of the University.

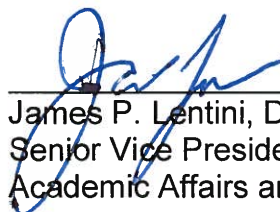
At this time, we request that the Board accept the grants and contracts reported on the attached Grants and Contracts Report, Attachment A, for the period of July 1 through September 30, 2018.

3. **Previous Board Action:** The Board accepts grants and contracts to Oakland University on a regular basis at its Formal Sessions.
4. **Budget Implications:** Grants and contracts contribute to the University through the recovery of direct and indirect expense incurred in support of research projects.
5. **Educational Implications:** Grants and contracts enhance the training and education of students.

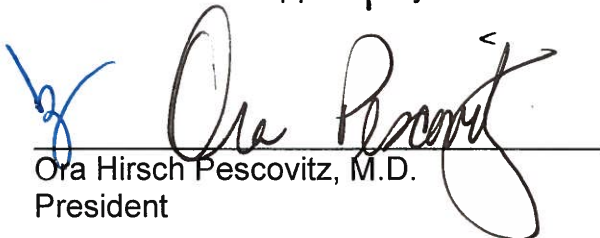
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6. **Personnel Implications:** Grants and contracts awards may provide salary support for faculty, post-doctoral fellows, undergraduate and graduate students, technicians, lab managers, and other personnel, as required by the funded research project or program.
7. **University Reviews/Approvals:** All grants and contracts are reviewed by the Research Office prior to submission to the Board to ensure compliance with federal and state laws and regulations and University policies and procedures, when applicable, and with assistance from the Office of Legal Affairs when requested.
8. **Recommendation:** RESOLVED, that the Board of Trustees accept grants and contracts to Oakland University identified in the attached Grants and Contracts Report, Attachment A, for the period of July 1 – September 30, 2018.
9. **Attachments:** A. Grants and Contracts Report.

Submitted to the President
on 9/30, 2018 by


James P. Lentini, D.M.A.
Senior Vice President for
Academic Affairs and Provost

Recommended on 9/30, 2018
to the Board for approval by


Ora Hirsch Pescovitz, M.D.
President

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Vijitashwa Pandey Department of Industrial and Systems Engineering	University of Michigan / US Army TARDEC	A Decision-Based Mobility Model for Semi and fully Autonomous Vehicles. The goal of this project is to develop a method to define mobility for ground vehicles exhibiting partial to full-autonomy.	\$ 79,550	\$ 79,550
Shailesh Lal Department of Biological Sciences	National Science Foundation	Genetic, Molecular, and Biochemical Dissection of RNA Splicing Factors Critical for Maize Endosperm Development. The object of this project is to understand the role of RNA splicing in maize seed development will advance fundamental molecular biology and identify pathways and proteins for future crop improvement.	\$ 97,722	\$ 897,722
Sanela Martic Department of Chemistry	American Heart Association	Amyloid Disease of the Heart: Mechanism and Treatment. Mechanistic evaluation of amyloidogenic heart proteins towards early detection and drug development.	\$ 161,942	\$ 161,942
Gregory Thrasher Department of Management and Marketing	Hitachi America, Ltd.	Competency Measurement and Implementation: Stage 2. Hitachi has engaged with Oakland University's Management and Marketing department to help build a competency model framework.	\$ 6,420	\$ 6,420

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Mark Navin Department of Philosophy	Southeast Michigan Health Association	Vaccine Mandates and Co-Opted Governance in Southeast Michigan. The primary aim of this study is to identify the extent of conformity of school districts and their front-line staff with their co-opted enforcement role for Michigan school vaccine mandates, and the factors underscoring their conformity or non-conformity.	\$ 8,297	\$ 8,297
Gary Barber Department of Mechanical Engineering	Fiat Chrysler Automobiles	Mechanical Properties of 52100 Steel. Mechanical properties of 52100 steel samples will be measured. This will include sample preparation, tension tests, impact and wear tests.	\$ 40,000	\$ 40,000
Jia Li Department of Electrical and Computer Engineering	Air Force Office of Scientific Research	Dynamic Data Driven Multistatic EO/RF Sensor Fusion. This project will address the problem of information fusion when using multiple, spatially distributed EO and RF sensors for automatic target recognition and tracking.	\$ 68,095	\$ 207,504

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Andrew Goldberg Eye Research Institute	National Institutes of Health	Investigation of the Molecular Basis of Rod and Cone Photoreceptor Structure. This research will improve understanding of healthy rod and cone cell structure and the changes that occur during progressive retinal disease, and may suggest strategies for preserving sight.	\$ 63,677	\$ 1,202,834
Anne Hranchook School of Nursing	Health Resources and Services Administration	Nurse Anesthesia Traineeship Grant. The purpose of this project is to help address the U.S. Department of Health and Human Services and Bureau of Health Workforce funding clinical priorities.	\$ 73,517	\$ 73,517
Mi Hye Song Department of Biological Sciences	National Institutes of Health	Centrosome Regulation and Its Link to the Cell Cycle. Accurate chromosome segregation is essential to maintain genomic integrity. Centrosomes play a critical role in establishing bipolar spindles for the fidelity of cell division. The long-term goal of this project is to elucidate the genetic and molecular network of centrosome assembly and its regulation during the cell cycle.	\$ 442,500	\$ 442,500

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Randall Westrick Department of Biological Sciences	National Institutes of Health	Thrombosuppressive Mechanisms of Novel Mouse Mutants Discovered through an ENU Mutagenesis. This study will seek to identify, validate and functionally characterize two thrombosis suppressor mutations that we previously identified through an ENU mutagenesis screen.	\$ 375,000	\$ 1,875,000
Dao-Qi Zhang Eye Research Institute	National Institutes of Health	Functional Organization of the Dopaminergic Network. The long-term goal of the proposed study is to understand the mechanisms by which dopaminergic amacrine neurons are regulated by light.	\$ 37,500	\$ 1,809,988
Chhabi Govind Department of Biological Sciences	National Institutes of Health	Role of Histone Chaperones in Transcription and Chromatin Structure. The goals for this research is to investigate the role of histone chaperones, FACT and Spt6, in regulating transcription and chromatin structure.	\$ 443,592	\$ 443,592

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Peng Zhao Department of Mechanical Engineering	University of Illinois at Chicago/DOE	MISR: miniature Ignition Screening Rapid Compression Machine for Kinetic Measurements of Novel Fuel. A combined experimental/modelling effort targets high-throughput ignition delay characteristics of candidate fuels in the Co-Optima program, to provide small volume tester for rapid fuel ignition screening and an alternate analysis method for fuel property screening and cross-validation.	\$ 194,622	\$ 194,622
Martha Escobar Department of Psychology	National Science Foundation	An HBCU Alliance - A Model to Promote URM Junior Faculty Advancement in the STEM Professoriate. An alliance between three HBCUs (Tuskegee, Tennessee State, and Jackson State) and Oakland University will determine the barriers that impede academic progress in STEM minority junior faculty at HBCUs, and implement a model to support scholarship and professional development. This model is expected to increase advancement and representation of minority faculty in STEM at HBCUs..	\$ 458,797	\$ 458,797

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Gopalan Srinivasan Department of Physics	National Science Foundation	Hexagonal Ferrite-Ferroelectric Core-Shell Nanofibers, Field-Assisted Assembly of Superstructures. The aim is to synthesize core-shell nano-composites for studies on electromagnetic interactions.	\$ 448,736	\$ 448,736
Nghia Tran Department of Mathematics and Statistics	National Science Foundation	Second-Order Variational Analysis in Structured Optimization Problems and Algorithms. New optimization problems appear everyday from engineering, machine learning, operations research, statistics, but the lack of a universal and effective theory for solving them is a huge challenge. In this project, we propose to develop the advanced theory of second-order variational analysis and use it as a main tool to investigate these problems as well as design new algorithms for solving them.	\$ 108,215	\$ 108,215

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Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Fabia Battistuzzi Department of Biological Sciences	National Aeronautics and Space Administration	Innovative molecular timing applications to obtain accurate histories of life. When reconstructing evolutionary histories of life on Earth, primary sources of information are geologic and molecular data. Timelines inferred from these sources are generally in agreement but major challenges for key evolutionary steps remain. Here we propose a new approach to resolve these differences and obtain an accurate chronology of the evolution of life over the past 4 billions of years.	\$ 98,531	\$ 484,213
Khalid Malik Department of Computer Science and Engineering	National Science Foundation	Forensic Examiner: Testbed for Benchmarking Digital Audio Forensic Algorithms. The goal of the proposed research is to establish reliable signatures for the audio acquisition system (e.g., microphone, codec, etc.) from the evidentiary recording; investigate impact of anti-forensic attacks on existing methods; design attack-aware algorithms robust to anti-forensic attacks; and develop research common platform for benchmarking audio forensics algorithms and tools.	\$ 199,909	\$ 199,909

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Jing Tang Department of Electrical & Computer Engineering	National Science Foundation	Toward Next Generation Positron Emission Tomography/Magnetic Resonance Imaging. This project addresses challenges and explores potentials in the hybrid PET/MRI technology to accelerate its clinical adoption.	\$ 26,178	\$ 526,178
Martha Escobar Department of Psychology	National Science Foundation	Collaborative Research: Strategies: Black Girls from Alabama for Computing (LeGACY). This project will develop and implement a summer residential program for African American girls in high schools across the state of AL. Girls will receive preparation for the AP class offered as part of the curriculum in their schools. A learning community will be created to support these girls through the academic year..	\$ 192,231	\$ 192,231
Sayed Nassar and Lian Yang Department of Mechanical Engineering	National Science Foundation	Planning IUCRC Oakland University: Center for Digital Composite Joining and Repair. This is an invited NSF planning proposal to develop a FULL proposal, which would be part of an NSF-funded IUCRC (Industry University Cooperative Research Center).	\$ 15,000	\$ 15,000

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
David A. Stone Research Office	University of Michigan/MEDC	T3N. A high-priority goal for Oakland University is to leverage the expertise of faculty and students with success in technology commercialization.	\$ 50,000	\$ 50,000
Ka C. Cheok Department of Electrical & Computer Engineering	Great Lakes Systems & Technology LLC/National Advanced Mobility Consortium	Robotics Technology Kernel (RTK) for Logistics Automation Autonomous Driving. The project focuses on developing a tactical robotic material handling equipment system to automate military logistics for improved safety and effectiveness during resupply scenarios. These operations will facilitate supplies to, from and in between storage locations and transportation assets.	\$ 75,000	\$ 75,000
Laila Guessous Department of Mechanical Engineering	Continental Automotive Systems, Inc.	Numerical Analysis and Evaluation of Common Thermal Dissipation Strategies for Electronics Cooling. The primary objectives of this Phase 1 study are to numerically evaluate Continental's electronics module enclosure design, to propose common/scalable design improvements that utilize conventional passive thermal dissipation methods (aluminum fins), and then propose novel ideas for the next generation of enclosures. .	\$ 41,775	\$ 41,775

Grants and Contracts Report for Period July 1 - September 30, 2018

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Joanne Reger Department of Sociology, Anthropology, Social Work and Criminal Justice	Sociologists for Women in Society	Editorship of Gender and Society. This funding will be used for editor, management, and production costs that will occur in the production of the journal Gender and Society for a three-year term.	\$ 133,373	\$ 374,299
Total			\$ 3,940,179	\$ 10,417,841