Agendum
Oakland University
Board of Trustees Formal Session
December 13, 2021

ACCEPTANCE OF GRANTS AND CONTRACTS TO OAKLAND UNIVERSITY FOR THE PERIOD OF SEPTEMBER 1 – OCTOBER 31, 2021

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 September 1 through October 31, 2021.

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.

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 September 1 – October 31, 2021.

9. **Attachments:** A. Grants and Contracts Report.

Submitted to the Provost
on 12/07, 2021 by

Britt Rios-Ellis, M.S., Ph.D.
Executive Vice President for Academic Affairs and Provost

Recommended on 12/8, 2021
to the Board for approval by

Ora Hirsch Pescovitz, M.D.
President

Reviewed by

12/02/2021

Grants and Contracts Report for Period September 1 - October 31, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Huirong Fu Department of Computer Science and Engineering	National Security Agency	**Oakland University GenCyber Teacher Program 2021-2023.** A comprehensive, hands-on, activity-based, learner-centered teacher program will be hosted by Oakland University (designated as National Center of Academic Excellence in Cybersecurity (NCAE-C) by the NSA and DHS), Michigan, to deliver substantive cybersecurity training to twenty-five (25) K-12 teachers in the Detroit Urban Area.	$ 147,958	$ 147,958
Mary Lewis Department of Psychology	Alliance of Coalitions for Healthy Communities	**Social Norms Intervention Assessment.** This study will assess the effectiveness of a social norms intervention to reduce drinking, drug use, and vaping in the college populations. An additional goal is to apply campaign social norm messages to awareness of mental health resources, student organizations, and the provision of peer socio-emotional support through social norm campaigns.	$ 16,582	$ 16,582
Edward Rohn Department of Interdisciplinary Health Sciences	United States Department of Defense, University of Michigan	**Neurogenic Bowel and Bladder Management after Spinal Cord Injury: Examining Factors Involved in Successful Decision Making Processes.** This research is designed to explore how people with spinal cord injuries make decisions about their bladder and bowel management, including things they take into consideration in selecting management methods, factors in their lives that might influence their decisions, and the outcomes of those decisions.	$ 23,432	$ 127,836

Grants and Contracts Report for Period September 1 - October 31, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Yang Xia Department of Physics	Binational Science Foundation	**Investigation of Microstructure of Neuronal and Collagenous Tissues by NMR and MRI Techniques.** The goal of this project is to develop new MRI techniques that provide accurate microstructural information in tissues that the current MRI tools cannot, without harmful radiation. New MRI modalities will offer powerful tools in diagnostics of bone, brain, joint, and lung diseases and will be beneficial to the entire society.	$ 40,000	$ 160,000
Anthony Valance Washington Department of Biological Sciences	National Institutes of Health	**Translation Studies of the Planet Specific Receptor Trem Like Transcript (TLT) - Supplement.** We hypothesize that Triggering receptor expressed in myeloid cells (TLT-1's) interaction with fibrinogen is a major pathway by which the immune system commandeers the hemostatic system for immune function. In this application we will mechanistically define this interaction and demonstrate its usefulness as a therapeutic target.	$ 74,500	$ 810,247
Anthony Valance Washington Department of Biological Sciences	National Institutes of Health	**Clinical Analysis of Trem-Like Transcript-1 (TLT-1) in Large Cohorts of Patients from the NHLBI Biorepository.** The goal of this research is to measure levels of TLT-1 in patients with Acute Respiratory Distress Syndrome (ARDS) to confirm our in vivo studies that suggest TLT-1 is protective during ARDS. This project will broaden our understanding of TLT-1 and platelet function in CVD, and ARDS.	$ 90,120	$ 90,120

Grants and Contracts Report for Period September 1 - October 31, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Khalid Mahmood Malik Department of Computer Science and Engineering	Brain Aneurysm Foundation	**Stroke predictor: A Fully Automated AI-based Personalized Subarachnoid Hemorrhage Prediction Tool.** The main objective of this project is to design a novel CDS tool, Personalized Stroke predictor, that will predict the individualized rupture probability of unruptured intracranial aneurysm using machine learning and knowledge graph techniques.	$ 25,000	$ 25,000
Amitava Adhikary Department of Chemistry	Ripcord Energy Solutions, LLC	**Analysis and Mechanistic Studies of Oxidative Processes of Environmental Contaminants.** Oakland University faculty and technician will perform analysis and mechanistic studies of oxidative processes and other chemical transformations in environmental remediation for Ripcord Energy Solutions, LLC.	$ 658,122	$ 658,122
David Szlag Department of Chemistry	Michigan Department of Health and Human Services	**Detecting COVID-19 in Sewage Runoff.** The goal of this research is to continue our existing actionable COVID-19 wastewater surveillance program at two universities including residential halls, apartments, and campus surveillance points over the next four semesters.	$ 1,362,846	$ 2,483,851
Sergey Golovashchenko Department of Mechanical Engineering	General Motors Corporation	**Coefficient of Friction Evaluation for Forming.** Oakland University will evaluate the coefficient of friction for forming through a series of testing services, to be conducted by Dr. Golovashchenko and two Ph.D. students.	$ 86,478	$ 117,545
Sergey Golovashchenko Department of Mechanical Engineering	Lubrizol Corporation	**Lubrizol Testing and Evaluation Services.** This project will use physical testing techniques to screen lubricants. The anticipated technical outcome is the demonstration of the strip draw method using a brief DOE.	$ 30,000	$ 30,000

Grants and Contracts Report for Period September 1 - October 31, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Xiangqun Zeng Department of Chemistry	National Institutes of Health	**Real-Time Biosensor for in situ Monitoring of Reactive Carbonyl Species (RCS).** The long term goal of this research is to establish powerful electrochemical biosensors that can provide real-time, continuous, multi-analytic detection with high spatial and temporal resolution in vitro and in vivo enabling groundbreaking research on oxidative stress.	$ 230,504	$ 419,965
Kristen Munyan School of Nursing	American Association of Colleges of Nursing	**Enhancing Laboratory Infrastructure to Support At-Risk Students.** The purpose of this project is to enhance existing laboratory support infrastructure to better meet the needs of at-risk nursing students, particularly ESL students.	$ 25,000	$ 25,000
Sujoy Roy Foundational Medicine	William Beaumont Hospital	**Pre-Diabetes Work with Beaumont Hospital.** Clinical data from Beaumont Hospital was used in a trajectory analysis to determine the clusters of patients with distinct HbA1c trajectories over a five-year time-frame.	$ 4,501	$ 4,501
Stephen Kent OU Incubator	Grand Valley State University	**Business Accelerator Fund-Client engagement Fund, Gekot.** The objective of this project is to make accelerator services available statewide, make services available to high priority companies in regions, share accelerator best practices statewide, build lasting collaborations, and create jobs to catalyze multiplier effect.	$ 11,400	$ 11,400

Grants and Contracts Report for Period September 1 - October 31, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Tomoko Wakabayashi Department of Human Development and Child Study	Pontiac Regional Chamber	**Building a Culture of Learners in Pontiac: A Community-University Partnership Project.** The objective of this project is to identify an international PhD student in Early Childhood from one of the African countries or countries with a large proportion of people of African descent; provide assistance to the Chamber's work to build a culture of learners in Pontiac, starting at/before birth; and provide research support directly related to this work.	$ 22,500	$ 112,500
		Total Awards	**$ 2,848,943**	**$ 5,240,627**