

**Agendum
Oakland University
Board of Trustees Formal Session
August 12, 2021**

**ACCEPTANCE OF GRANTS AND CONTRACTS TO OAKLAND UNIVERSITY
FOR THE PERIOD OF MAY 1 – JUNE 30, 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 May 1 through June 30, 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.

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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 May 1 – June 30, 2021.
9. **Attachments:** A. Grants and Contracts Report.

Submitted to the Provost
on 8/4, 2021 by



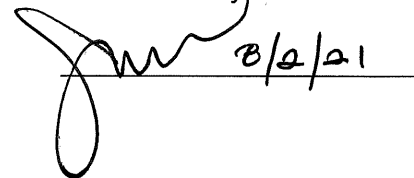
Britt Rios-Ellis, M.S., Ph.D.
Executive Vice President for Academic
Affairs and Provost

Recommended on 8/9, 2021
to the Board for approval by



Ora Hirsch Pescovitz, M.D.
President

Reviewed by



Grants and Contracts Report for Period May 1 - June 30, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Khalid Mahmood Malik Department of Computer Science and Engineering	National Science Foundation	Forensic Examiner: Testbed for Benchmarking Digital Audio Forensic Algorithms. The goal of this 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.	8,000	231,909
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.	410,554	1,967,042
Deidre Hurse School of Medicine	University of Michigan / Department of Health and Human Services	Gaining Perspective on Substance Use Disorder (SUD) Treatment and Recovery Services for Foster Care Youth in Michigan. The goal of this project is to illuminate opportunities and barriers for enhancing SUD services for Medicaid eligible youth and adolescents in foster care, documenting the participants' lived experiences and perspectives of the key informants.	89,549	89,549

Grants and Contracts Report for Period May 1 - June 30, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Deana Hays School of Nursing	University of Illinois / Health Resources and Services Administration	Midwest Integration of the National HIV Curriculum. The focus of this project is the integration of the National HIV Curriculum (NHC) e-Learning Platform into the education and training curricula of multiple health professions and institutions with an emphasis on medical, nursing, and pharmacy programs, including graduate education/residency programs.	10,000	10,000
Elizabeth Delorme-Axford Department of Biological Sciences	Sapphire North America	Investigation into Autophagy Regulation by Pseudouridylation. This project will investigate post-transcriptional mechanisms regulating autophagy-related (ATG) gene expression and autophagy activity.	2,000	2,000
Albert Meehan Department of Sociology, Anthropology, Social Work and Criminal Justice	Wilfrid Laurier University / Social Sciences and Humanities Research Council	Charting the "Reasonable Officer". The goal of this research is to better understand how police and citizens view police actions as "(un)reasonable" at different stages of a violent incident: leading up to, during, and in the immediate aftermath of the incident, and during the oversight process.	6,754	6,754
Andrei Slavin Department of Physics	Air Force Office of Scientific Research / University of Central Florida	Terahertz Spintronics with Antiferromagnetic Insulators. The goal of this research is to develop new materials and techniques, leveraging the unique properties of antiferromagnets to transform methods of generation, transmission, and processing of THz signals.	180,000	887,749

Grants and Contracts Report for Period May 1 - June 30, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Jia Li Department of Electrical and Computer Engineering	Air Force Office of Scientific Research	Interpretable Multimodal Sensor Fusion. This investigation will reveal the link between sensor behaviors and decision making, increase the fusion system's resilience to adversarial attack, and enable domain adaptation when sensors are deployed in a new environment.	149,206	461,078
Deidre Hurse School of Medicine	Oakland County Health Division	Evaluation Plan for OCHD. The goal of this project is to develop data collection tools and conduct data analysis for the Oakland County Health Division.	3,500	3,500
Laura Pittiglio School of Nursing	Daisy Foundation	The Use of Simulation to Increases Nursing Student Competency in Caring for LGBTQ Individuals. The simulation scenario will be designed to facilitate the delivery of healthcare to LGBTQ identifying individuals. Results will be used to inform continual educational interventions for the promotion of nursing knowledge and the delivery of culturally-sensitive LGBTQ healthcare.	7,500	7,500

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Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Zhe Wang Department of Chemistry	Xavier University of Louisiana/NSF	Excellence in Research: Investigation of Small Molecule Adsorption and Conversion on the Semiconductor/ Ionic-Liquid Interface and Application to Sensing and Catalysis. This project entails both theoretical and experimental studies aimed at investigating the structures of semiconductor-ionic liquid interfaces, effective selective adsorption on these interfaces, effects of adsorption on adsorbent bond strength, and understanding of the molecular mechanisms involved therein.	68,493	68,493
Yang Xia Department of Physics	Henry Ford Health System	Prabhu Acharya: MRI Signatures of Response to High-Dose Radiotherapy in Rat Models of Cerebral Tumor. This project aims to improve the effectiveness of radiation therapy for treatment of cerebral tumors.	35,448	35,448
Anne Hranchook School of Nursing	HRSA	Oakland University Nurse Anesthetist Traineeship Program. The purpose of the Nurse Anesthetist Traineeship (NAT) project is to help address the Health Resources & Service Administration's objectives and clinical priorities. The intent of the NAT project is to provide full time graduate nurse anesthesia students enrolled in the Oakland University-Beaumont Graduate Program of Nurse Anesthesia with traineeship support needed.	32,721	32,721

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David Szlag Department of Chemistry	National Science Foundation	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.	419,560	2,483,851
Gwendolyn McMillon Department of Reading and Language Arts	Michigan Institute for Clinical & Health Research (MICHR)	Wolverine State Missionary Baptist Convention I Read, I Lead, I Succeed. The goal of this project is to engage K-5 students and their parents in authentic, culturally responsive, reading, writing, and oral language activities that will: 1) help students develop an intrinsic motivation to read; 2) teach foundational reading skills that reinforce in-school, standards-based requirements using cutting-edge, evidence-based practices; and 3) provide opportunities for mentorship from community role models to build healthy relationships with students and share practical, real-life examples that emphasize the importance of reading in their personal and professional lives.	10,000	10,000
Geraldine Graham Upward Bound	U.S. Department of Education	Project Upward Bound College Prep Academy. Our mission is to generate skills and motivation in participants necessary to succeed in secondary and post-secondary education, as well as to increase access and success in higher education for low-income and potential first-generation college students.	710,970	3,396,764

Grants and Contracts Report for Period May 1 - June 30, 2021

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Ken Elder Department of Physics	National Science Foundation	Collaborative Research: Nanoscale Heterostructures and Defects in Two-Dimensional Materials. The search for materials with applications in electronics is driven by the need to increase speed and reduce power consumption. Recently attention has moved to more complex 2D materials such as hexagonal-boron nitride and transition metal dichalcogenides. The goal of the proposal is to develop computationally efficient models of such 2D materials and use the models to study the growth and properties in such systems.	190,373	388,000
Nelia Afonso School of Medicine	Merck	Promoting Vaccine Confidence in Medical and Dental Students: Development and Evaluation of an Educational intervention. The overarching goal for this project is to develop an educational program to improve vaccine education, promote vaccine confidence, and improve vaccine counseling skills for dental and medical students.	178,616	178,616
Stephen Kent Smart Zone Business OU Incubator	Grand Valley State University	Business Accelerator Fund-Client Engagement, GryphoneHR2. 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.	10,160	10,160

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Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Lan Jiang Department of Biological Sciences	National Institutes of Health	Osiris Genes as Novel Coordinators of Protein Trafficking in Drosophila Trachea. The goal of this research is to determine the function of Osi genes on apical secretion of the apical luminal matrix during tube expansion, the function of Osi genes as coordinators to increase numbers, volumes, activities of secretion-related trafficking components at the expense of degradation-related trafficking components in trachea, and how Osi proteins coordinate changes in trafficking components by identifying Osi-interacting proteins.	438,957	438,957
Julie Kruse School of Nursing	Health Resources and Services Administration	ASPIRE: Achieving Success through Professionalism, Integrity, Resilience, and Engagement. The purpose of the Oakland University Nursing Workforce Diversity project, Achieving Success through Professionalism, Integrity, Resilience, and Engagement, is to increase nursing progression and graduation rates and retention in practice for students who are from diverse and/or disadvantaged backgrounds-- specifically those from racial and ethnic minorities underrepresented among RNs.	552,691	2,195,252
Adam Avery Department of Chemistry	Univ. of Minnesota	Drug Discovery for Spinocerebellar Ataxia, Using Novel Fluorescence Technology Targeting Beta-III-Spectrin. This project will address drug discovery for spinocerebellar ataxia, using novel fluorescence technology targeting Beta-III-spectrin.	84,150	294,986

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Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Aycil Cesmelioglu Department of Mathematics and Statistics	National Science Foundation	Collaborative Research: Development of Reduced Order Models for Poroelasticity and Related Problems. This research will address a significant barrier to finding numerical solutions of large scale poroelasticity problems. Some of these problems are related to hydrocarbon extraction in petroleum engineering, physiological processes, and modeling magma and mantle migration in geophysics. We will develop certified reduced basis methods for parametric poroelasticity and related problems and create exponentially fast numerical algorithms that can be applied to such problems.	17,199	198,305
Martha Escobar Department of Psychology	National Science Foundation	Preparing Interdisciplinary Minority Material Scientist and Engineers of the Future. The HBCU-UP Implementation project will develop, implement, study and evaluate a program for underrepresented minority undergraduate students at Tuskegee University, the largest producer of African American Ph.D.'s in Materials Science and Engineering.	88,883	220,294

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Margaret Harris School of Nursing	Health Resources & Services Administration (HRSA)	Nurse Faculty Loan Program. The purpose of this funding is to offer financial support to graduate student registered nurses who desire to pursue advanced degrees in nursing with the goal of becoming nurse educators in academic positions following graduation from a Doctor of Philosophy (PhD) in Nursing, Doctor of Nursing Practice (DNP) or MSN Forensic Nursing Track (FN).	234,901	521,433
Xiangqun Zeng Department of Chemistry	4D Maker/DOE	A Novel Low-Cost, Miniaturized Hydrogen Sensor with High Robustness and Reliability for Continuous Hydrogen Monitoring. This Phase I project will develop a new type of hydrogen sensor that allows monitoring of hydrogen leak in a broad range of conditions (e.g., inert condition without presence of oxygen and ambient conditions at a wide range of hydrogen concentration).	99,999	99,999
Sang Hoon Rhee Department of Biological Sciences	National Institutes of Health	Studying the Gut-Brain Inflammatory Interaction. Emerging evidence indicates that the risk of neurodegenerative diseases such as Parkinson's disease and Alzheimer's disease is substantially increased in inflammatory bowel diseases patients. The goal of this application is to demonstrate that chronic gut inflammation alters the brain function and to uncover its underlying mechanism.	430,646	430,646
			Total Awards \$	\$ 4,470,830 \$ 14,671,006

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Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
John Beaghan Finance and Administration	U.S. Department of Education	Oakland University Emergency Institutional Grants. Oakland University received government funding as part of the CARES Act to cover institutional expenses resulting from the coronavirus pandemic.	15,449,315	15,449,315
John Beaghan Finance and Administration	U.S. Department of Education	Oakland University Emergency Financial Aid Grants under the CARES Act-COVID-19. Oakland University received government funding as part of the CARES Act to be distributed directly to students in the form of emergency grants to cover expenses related to unexpected financial needs due to the coronavirus pandemic.	26,681,922	26,681,922
John Beaghan Finance and Administration	U.S. Department of Education	Oakland University Emergency Institutional Grants. Oakland University received government funding as part of the CARES Act to cover institutional expenses resulting from the coronavirus pandemic.	19,630,269	19,630,269
Total Awards w/CARES Funding			\$ 66,232,336	\$ 76,432,512