Agendum
Oakland University
Board of Trustees Formal Session
December 5, 2022

ACCEPTANCE OF GRANTS AND CONTRACTS TO OAKLAND UNIVERSITY FOR THE PERIOD OF SEPTEMBER 1 – OCTOBER 31, 2022 A Recommendation

- 1. <u>Division and Department:</u> Academic Affairs/Research Office
- 2. <u>Introduction:</u> 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, 2022.

- **3.** <u>Previous Board Action:</u> 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. <u>University Reviews/Approvals:</u> 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.

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- **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, 2022.
- **9.** Attachments: A. Grants and Contracts Report.

Submitted to the President on /2//____, 2022 by

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

Recommended on 12 , 2022 to the Board for approval by

Ora Hirsch Pescovitz, M.D.

President

Reviewed by

Joshua D. Merchant, Ph.D.

Chief of Staff and

Secretary to the Board of Trustees

ATTACHMENT A

| Principal Investigator | Awarding Agency | Title and Project Abstract | Award Amount | | Total Award All Years | |
|--|----------------------------------|--|-----------------|---------|--------------------------|---------|
| Chhabi Govind Department of Biological Sciences | National Institutes of Health | Roles for Chromatin Remodeler RSC and Histone Acetyltransferases in Regulating Chromatin Structure and Transcription. This research will examine the role of RSC regulatory domains and histone modifications in organizing chromatin, and promoting gene expression. | \$ | 429,835 | \$ | 429,835 |
| Gerard Madlambayan Department of Biological Sciences | National Institutes of Health | The Role of Hematopoietic Stem and Progenitor Cells (HSPCs) in Solid Tumor Growth and Response to Radiation Therapy. The objective of this research is to determine how HSPCs are maintained in tumors and how HSPCs promote tumor regrowth post-radiation therapy. | \$ | 449,795 | \$ | 449,795 |
| Ziming Yang Department of Chemistry | National Science Foundation | CAREER: Mechanistic Understanding of Organic Carbon and Nitrogen Transformations in Hydrothermal Systems. The goal of this research is to understand organic carbon and nitrogen formation and transformations in deep ocean hydrothermal systems. This research will also innovatively merge hydrothermal geochemistry with green chemistry to address current challenges in industry and chemical synthesis. | \$ | 59,207 | \$ | 592,632 |

| Principal Investigator | Awarding Agency | Title and Project Abstract | | | Total Award All Years | |
|--|----------------------------------|---|----|---------|--------------------------|---------|
| Xiangqun Zeng Department of Chemistry | National Institutes of Health | Biosensors for Determination of Multiple Neurotransmitters in Vertebrate Retina. This project aims to develop a paradigm-shifting neurosensing technology for direct, simultaneous monitoring of the activity of multiple neurotransmitters in the vertebrate retina. | \$ | 178,435 | \$ | 408,659 |
| 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. | \$ | 93,464 | \$ | 198,305 |
| 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 |

| Principal Investigator | Awarding Agency | Title and Project Abstract | Award Amount | Total Award All Years |
|---|--|--|-----------------|--------------------------|
| Caress Dean Department of Public and Environmental Wellness | Health Resources and Services Administration | Geriatric Training Programs for Physicians, Dentists, and Behavioral/Mental Health Professions. Oakland University's (OU) Master of Public Health (MPH) program aims to increase the public health workforce capacity and prepare future public health professionals to diminish health disparities and inequities experienced by communities. To achieve this aim, OU's MPH program, accredited by the Council on Education for Public Health, has devised the Public Health Scholarship (PHS) program. | \$ 1,251,258 | \$ 1,251,258 |
| Linda Schweitzer Amitava Adhikary Department of Chemistry | Ripcord Energy Solutions, LLC | Analysis and Mechanistic Studies of Oxidative Processes of Environmental Contaminants. Analysis and mechanistic studies of oxidative processes and other chemical transformations in environmental remediation. | \$ 884,360 | \$ 884,360 |
| Joshua Yax Lowry Center for Early Childhood | Michigan Department of Education | Child Care Stabilization Grant. The Child Care Stabilization Grant provides financial relief to child care providers. These funds will be administered by the Michigan Department of Education and will be used to stabilize operations, cover unexpected costs due to the pandemic, and provide bonuses to child care professionals. | \$ 157,000 | \$ 358,000 |

| Principal Investigator | Awarding Agency | Title and Project Abstract | Award Amount | | Total Award All Years | |
|--|-------------------------------|---|-----------------|--------|--------------------------|---------|
| Virgil Zeigler-Hill Department of Psychology | Mental Research Institute | Narcissism and Romantic Relationship Functioning: The Mediating Roles of Coercive and Collaborative Theories of Power. The goal for this project is to provide a clearer and more nuanced understanding of the role that issues surrounding power play in the romantic relationships of individuals with narcissistic personality features. | \$ | 25,000 | \$ | 25,000 |
| Mark Manning Department of Psychology | National Institutes of Health | Colorectal Screening Fear-Reduction and Racially-targeted Norm Messaging Entreaties to Increase Colorectal Cancer Screening Rates among African Americans. Colorectal cancer (CRC) is one of the leading causes of cancer mortality in the United States, and African Americans (AfAms) still fare worse in CRC incidence and mortality compared to European Americans (EuAms). Interventions to increase CRC screening rates among AfAms are instrumental to address the disparities in CRC incidence and mortality. This study is significant because it directly addresses documented CRC screening deficits among an underserved population, and is innovative given its design of a theory-based and literature informed intervention to address previously unaddressed barriers to CRC screening among AfAms. | \$ | 20,005 | \$ | 416,356 |

| Principal Investigator | Awarding Agency | Title and Project Abstract | Award Amount | | Total Award All Years | |
|---|-----------------------------------|--|-----------------|---------|--------------------------|---------|
| Jennifer Lucarelli Laurel Stevenson Department of Interdisciplinary Health Sciences | Michigan Health Endowment Fund | Tech Rx: Increasing Produce Prescription Program Efficacy. Produce prescription programs (PPRs) have been shown to improve health behaviors and health outcomes for low-income residents at risk for chronic disease. Management of these programs is often labor intensive, requiring staff to oversee client enrollment, participation, health education, voucher utilization, and program evaluation, but also to track client spending and vendor reimbursements. Here we propose building a technology platform to streamline program management and evaluation that will improve the cost effectiveness of PPRs, provide better evaluation data across programs, and improve the sustainability and reach of these programs. | \$ 4 | 499,996 | \$ | 499,996 |
| Jennifer Lucarelli Department of Interdisciplinary Health Sciences | Michigan Health Endowment Fund | Pontiac STEPS that Support Active Living. The Pontiac STEPS that Support Active Living project will address policy, systems, and environmental strategies that support physical activity. Building upon existing local needs assessment and collaborative strategic planning and partnership building, we aim to address the most immediate needs around youth recreation program collaboration, communication, and capacity building. | \$ 2 | 250,000 | \$ | 250,000 |

| Principal Awarding Title and Investigator Agency Project Abstract | | Title and Project Abstract | Award Amount | | | Total Award All Years | | |
|---|--------------------------------|--|-----------------|-----------|----|--------------------------|--|--|
| Sergey Golovashchenko Department of Mechanical Engineering | General Motors Holdings LLC | Coefficient of Friction Evaluation for Forming-Phase 2 & 3. 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. | \$ | 50,652 | \$ | 50,652 | | |
| | | Total Awards | \$ | 4,389,007 | \$ | 5,974,848 | | |