Agendum
Oakland University
Board of Trustees Formal Session
October 16, 2017

ACCEPTANCE OF GRANTS AND CONTRACTS TO OAKLAND UNIVERSITY FOR THE PERIOD OF JULY 1 – AUGUST 31, 2017

A Recommendation

1. **Division and Department:** Academic Affairs/Office of Research Administration

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 August 31, 2017.

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 Office of Research Administration 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 – August 31, 2017.

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

Submitted to the President
on 10/04, 2017 by

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

Recommended on 10/4/, 2017
to the Board for approval by

Ora Hirsch Pescovitz, M.D.
President

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Sergey Golovashchenko Department of Mechanical Engineering	Pacific Northwest National Laboratory	**Enhancing Sheared Edge Stretchability of AHSS/UHSS through Integrated Manufacturing Process.** The purpose of this project is to enhance the sheared edge stretchability of AHSS/UHSS by developing quantitative and predictive understanding of the role of microstructure on sheared edge fracture and stretch ability.	$ 71,000	$ 153,999
Bradley Roth Department of Physics	Vanderbilt University and Medical Center	**Optimal Design of Challenge-Response Experiments in Cardiac Electrophysiology.** The objective of this project is to use new statistical methods to investigate challenge-response behavior in experiments. The methods will be tested using simulations and experiments in cardiac electrophysiology.	$ 87,120	$ 397,472
Ken Elder Department of Physics	National Science Foundation	**Ordering of Two-Dimensional Strained Films.** The plans for this research is to investigate the ordering of two-dimensional or quasi two-dimensional films, which have been a topic of considerable interest for many reasons and years.	$ 100,000	$ 300,000
Xiangqun Zeng Department of Chemistry	Alpha Foundation	**Wearable and Real Time Electrochemical Gas Sensors for Mine Safety and Health**. The goal of this research is to advance the IL-EG sensor technology for its use, adoption and adaption into mine practice.	$ 175,000	$ 175,000

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Lawrence Herriman Macomb-OU INCubator	Grand Valley State University/ MEDC	**Business Accelerator Fund-Client Engagement, Templar.** 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.	$ 5,500	$ 5,500
Gregory Thrasher Department of Management and Marketing	Hitachi	**Competency Model Development and Validation.** The goal of this research is to develop a competency model. A competency model is a set of observable skills and tasks that are deemed necessary for the performance of employees at various levels.	$ 16,350	$ 16,350
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.	$ 86,637	$ 220,294

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Anne Hranchook School of Nursing	Health Resources and Services Administration	**Nurse Anesthesia Traineeship (NAT).** The purpose of the NAT project is to provide student anesthetists with traineeship support to pay for the cost of tuition, with the intent to improve the quality, quantity and diversity of graduates able to enter advanced practice nursing roles.	$ 24,192	$ 24,192
Michael Sevilla Department of Chemistry	National Institutes of Health	**Mechanisms of Radiation Damage to DNA: LET Effects.** The goal of this project is to study free radical mechanisms of radiation damage to DNA.	$ 78,000	$ 1,284,339
Sheldon Gordon Department of Biological Sciences	Eversight	**Investigations into the Nature of the Corneal Endothelial Cell Surface SBA-Binding Protein.** The nature of the corneal endothelial SBA-binding cell surface protein will be examined by histological and biochemical approaches.	$ 15,000	$ 15,000
Lawrence Herriman Macomb-OU INCubator	Grand Valley State University/ MEDC	**Business Accelerator Fund-Client Engagement, Commander Innovations.** 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.	$ 16,500	$ 16,500

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Stephen Kent OU INCubator	Grand Valley State University/ MEDC	**Business Accelerator Fund-Client Engagement, Commander Innovations.** The objective for 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.	$ 16,500	$ 16,500
Frank Giblin Eye Research Institute	National Institutes of Health	**Proteins of Normal and Cataractous Lenses.** The broad objective of this project is to better understand the role of oxidative stress in the development of human nuclear cataract, the most common type of lens opacity in older adults, and the type most likely to require surgery.	$ 375,507	$ 1,485,196
Anne Hranchook School of Nursing	Health Resources and Services Administration	**Nurse Anesthesia Traineeship (NAT).** The purpose of the NAT project is to provide student anesthetists with traineeship support to pay for the cost of tuition, with the intent to improve the quality, quantity and diversity of graduates able to enter advanced practice nursing roles.	$ 2,800	$ 26,992

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Vasyl Tyberkevych Department of Physics	Raytheon BBN Technologies Corporation	**Magnetic Miniaturized and Monolithically Integrated Components (M3IC).** The goal of this research program is to develop a hybrid analytical/numerical formalism for analysis of nonlinear magnetization dynamics.	$ 749,803	$ 749,803
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.	$ 37,585	$ 1,514,157
Brian Sangeorzan Department of Mechanical Engineering	Fiat Chrysler Automobiles LLC	**Powertrain PREP Programs.** This funding will be used for an FCA-sponsored supplemental learning program in the area of automotive powertrain development for junior and senior SECS students.	$ 9,000	$ 36,509
Sergey Golovaschenko Department of Mechanical Engineering	Fiat Chrysler Automobiles LLC	**CLIC Form.** This funding will provide support for CLIC Form educational and research programs on sheet metal forming and will include special instruction by invited lecturers.	$ 110,264	$ 220,528
Gary Barber Department of Mechanical Engineering	Fiat Chrysler Automobiles LLC	**Low Friction Material Treatment.** The objective of this research is to obtain washers with various low friction coatings and then test them in the Tribology laboratory at Oakland University.	$ 40,000	$ 40,000

Principal Investigator	Awarding Agency	Title and Project Abstract	Award Amount	Total Award All Years
Bradley Roth Department of Physics	Henry Ford Health System	**Graduate Student Support for Medical Physics Research at Henry Ford Hospital.** The objective of this funding is to support Biomedical Sciences. This support allows many of our best and brightest graduate students to work in the world-class laboratory of Distinguished Professor Michael Chopp and his colleagues, many of whom are adjunct faculty in our Physics department.	$ 15,027	$ 399,538
Randal Westrick Department of Biological Sciences	National Institutes of Health	**Thrombosuppressive Mechanisms of Novel Mouse Mutants Discovered through an ENU Mutagenesis.** The goal of this research is to 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
		Total	**$ 2,406,785**	**$ 8,972,869**