

University Research Committee 2024 – 2025 Annual Report

1. To encourage and promote scholarship, research, and creative endeavors among all faculty members of Oakland University.
2. Committee responsibilities include, in particular, the evaluation of applications for intramural research funds and the allocation of these funds among bargaining unit faculty members.
3. More generally, they include advising and making recommendations to the Chief Research Officer on practices and policies conducive to scholarly activity.

Membership

2022 – 2025 Faculty Appointments

Lakshmi Raman (CAS) – Co-Chair

Scott Tiegs (CAS)

Hanna Kalmanovich-Cohen (SBA)

Olga Ehrlich (SON) – Co-Chair

Vardan Karamyan (SOM)

Shawn Lombardo (UL)

Note that Drs. Raman and Ehrlich agreed to extend their service term through the 2024 – 2025 AY. Further, Drs. Raman and Ehrlich agreed to serve as Co-Chairs for the 2024 – 2025 AY and requested re-appointment for the 2025-2028 term, agreeing to serve as Co-Chairs for the 2025-2026 AY.

2023 – 2026 Faculty Appointments

Valence Washington (CAS)

Jia Li, Professor, Engineering (SECS)

2024 – 2027 Faculty Appointments

Kwame Sakyi, Associate Professor, (SHS)

Betty Tonui, Assistant Professor, (CAS)

Note that Dr. Sakyi withdrew from the committee and his seat is pending replacement.

Ex-Officio Appointments

David Stone (Chief Research Officer)

Laura Beck (Research Office) Coordinator

Meetings and Actions

- URC business for AY 24-25 was conducted synchronously via Zoom or asynchronously via email on agreement from members. Synchronous meetings took place on September 25, 2024; January 20, 2025; and March 26, 2025.
- The Co-Chairs met on September 17, 2024; October 15, 2024; December 17, 2024; January 16, 2025; January 20, 2025 (with Dr. Sakye); January 28, 2025 (with Dr. Banes-Berceli); February 13, 2025; and March 21, 2025.
- The Co-Chairs delivered two synchronous online workshops about the URC grants, awards and application/review processes on September 9, 2024 and September 12, 2024.

Virtual meetings of the full URC were for member introductions and review of committee responsibilities, reviewing grant and award procedures, and discussing strengths or challenges members encountered when implementing those procedures. Email communication was used to develop consensus on award recipients in the event of tied scores, and to discuss potential policy and procedure changes to better achieve the URC's stated goals. Members were active and contributed thoughtful suggestions at these meetings and via emails.

The external review process which was approved in 2023 for the Faculty Fellowship grant applications was utilized and was discussed for possible revision in the 2025-2026 AY. The funding decisions remained within the committee. Additionally, members reviewed, scored and awarded the following awards: Faculty Research Grant, Research Excellence, New Investigator, President's Colloquium, and Meadowbrook Hall Conference.

The Co-Chairs met to plan communications and instructions for members to utilize when reviewing awards, and to discuss and approve faculty requests for printing costs, as well as how to address situations whereby URC members do not follow committee policy and procedures for grant reviews (with Dr. Baner-Berceli and Dr. Sakye).

Recommendations and Considerations

Members continued to voice challenges encountered with the Faculty Fellowship external review processes and suggestions for how to streamline the processes that involve members, the Research Officer, and experts invited for external review. Members had suggestions about how to address instances of URC member non-compliance with the current grant review procedures. These suggestions were noted by the Co-Chairs and will be put forth for URC full member discussion in the 2025-2026 AY. Another item that is recommended for discussion is selection of a Chair-Elect position early in the academic year in order that this member could be groomed in the responsibilities of the role and effective leadership.

2025 – 2026 URC Leadership

During the winter of 2025, Drs. Raman and Ehrlich asked members to nominate themselves to serve as Chair/Co-Chairs for the 2025-2026 AY. Due to no volunteers, and to maintain consistency and continue efforts begun in the 2024-2025 AY, Drs. Raman and Ehrlich volunteered to serve as the Co-Chairs for the 2025 – 2026 AY.

Notes

The URC is grateful to Laura Beck, who in her first year as Research Officer conducted the bulk of the logistics related to the committee's tasks, and who always did so in a timely and positive manner. Further, the URC is grateful to Sue Willner, who remained available to answer many questions.

Respectfully submitted,

Olga Ehrlich, Assistant Professor, School of Nursing, Co-Chair, URC 2024-2025

Lakshmi Raman, Associate Professor, Psychology, College of Arts & Science, Co-Chair, URC 2024-2025

University Research Committee - FY25

	Amount
FY24 Balance Carried Forward	28,417
Budget FY25	380,000
Total Budget for FY25	\$408,417
Faculty Research Fellowship Awards	-324,405
Stipend Fringe Charge	-6,152
External Reviewer Gift, S&H	-4,457
Faculty Research Grant	-34,000
Faculty Books and Reprints	-3,000
Meadow Brook Hall Conference	-3,000
President Colloquium Series, \$1000 funded by the President	0
Faculty Research Excellence Award, \$2500 funded by the Provost	0
New Investigator Research Excellence Award, \$1500 funded by the Provost	0
URC Awards	-\$128,909
Carried Forward to FY26	\$33,403

Statistics	# Applied	# Awarde d	%
Faculty Research Fellowship Awards	54	33	61%
Faculty Research Grant	18	17	94%
Faculty Books and Reprints	6	6	100%
Meadow Brook Hall Conference	3	1	33%
President Colloquium Series	5	1	20%
Faculty Research Excellence Award	5	1	20%
New Investigator Research Excellence Award	5	1	20%
Total	96	60	63%

Faculty Research Fellowship Awards – \$10,000

Anderson, Robert – English, Creative Writing, and Film, CAS
What is Caesar?

Arzu-Carmichael, Felicita – Writing and Rhetoric, CAS
An Investigation of First-Year Composition Instruction in Two-Year Colleges in Belize, Central America.

Aydas, Osman – Decision and Information Sciences, SBA
Integrating Inventory Management Strategies for Optimizing Electricity Arbitrage in Solar-Plus-Battery System.

Bae, Junhyun – Decision and Information Sciences, SBA
Is Leaking Technology Information to Competitors Always Bad? From the Case of Samsung Electronics and Apple Inc.

Barrak, Amine – Computer Science and Engineering, SECS
Layer-Based Secure Federated Machine Learning with Optimized Homomorphic Encryption in Serverless Environment.

Bianchette, Thomas – Chemistry, CAS
Improving the Detection of Natural Hazard Deposits in Sediment Cores: An Investigation into Machine Learning Techniques.

Chen, Jun – Electrical and Computer Engineering, SECS
Development of a Virtual Reality Environment for Autonomous Vehicle Personalization.

Chen, Yu-Chuan – Art and Art History, CAS
Transformative Bodies: Imagery of Female Herb-Pickers in Medieval China.

Cho, Seong – Accounting and Finance, SBA
The Spillover Effect of ESG Reporting on the Receipt of SEC Comment Letters.

Cooley, Christopher – Mechanical Engineering, SECS
A Computationally Efficient Numerical Solution for the Nonlinear Dynamics of Dielectric Elastomer Membranes and Structure.

Espitia, Nicolaus – Sociology, Anthropology, Criminal Justice, and Social Work, CAS
Our Existence is a Political Issue - Examining the Political Participation.

Figueiredo, Vandre – Biological Sciences, CAS
Role of Pten on Mature Skeletal Muscle.

Gerini Romagnoli, Marco – Mechanical Engineering, SECS
Creep or Fatigue? Investigating the Progressive Damage of Stressed Adhesive Joints.

Greiner, Michael – Management and Marketing, SBA
Local Corporate Political Activity.

Hartsock, Katie – English, Creative Writing, and Film, CAS
Songs of the Iliad.

Heisler, Jeffrey – Music, CAS
ReFRAME: Contemporary Music for Saxophone (album recording).

Hodge, Timothy – Economics, SBA
Unfair Advantage: Assessment Growth Limits and Non-Residential Property.

Insko, Jeffrey – English, CAS

Railroads, Canals, Steamships: Douglass and Infrastructure.

Kalmanovich-Cohen, Hanna – Management and Marketing, SBA

The Dual Impact of CCing Your Boss: When Does It Enhance or Hinder Employee Well-Being?

Kang, Jae – Management and Marketing, SBA

The Domino Effects: Toxic Leadership, Non-Entrepreneurial Mindset, Follower's Mindset, and Unintended Behaviors in Organizations.

Knutson, Andrea – English, CAS

Unmapping Barbados: A Social History of Clay.

Liu, Zijuan – Biological Sciences, CAS

Effects of Ergothioneine in Regulation of Dopamine Pathway in Autistic Mouse Model.

Louis, Steven – Electrical and Computer Engineering, SECS

Spintronic Neuron System Integration with CMOS for Neuromorphic Computing.

McCarty, Susan – English, Creative Writing, and Film, CAS

The Change: A Novel.

Qiang, Yao – Computer Science and Engineering, SECS

Mitigating Memorization Risks in LLMs.

Stanton II, Steven – Management and Marketing, SBA

Testosterone & Consumer Psychology.

Su, Chiaoning – Communication, Journalism, and Public Relations, CAS

Seeing Taiwan through Foreign Eyes: Examining the Geopolitics of International Media Covering Taiwan and Its Policy Implications.

Tomlin, Kasaundra – Economics, SBA

CEO Compensation and Long-Run Trade Protection.

Townsend, Janell – Management and Marketing, SBA

Halo Products: Conceptualization and Performance Implications.

Welling, Lisa – Psychology, CAS

The Influence of Competition, Hormones, and Jealousy on Mate Choice.

Xu, Lanyu – Computer Science and Engineering, SECS

Real-Time AI-Driven Judging System for CrossFit Competitions.

Yang, Ankun – Mechanical Engineering, SECS

In-Situ Observation of Lithium Deposition During Battery Operations.

Zhao, Kaiqi – Computer Science and Engineering, SECS

Compressing AI Models via a Self-Supervised Quantization-Aware Knowledge Distillation Framework.

Faculty Research Grant Awards - \$2,000

Baillargeon, Claude – Art, Art History, and Design, CAS
Memorializing the Hibakusha Experience.

Chaudry, Rasul – Biological Sciences, CAS
Efficacy of Cell Therapy in a Rat Model of Parkinson's Disease.

Chavez, Ferman – Chemistry, CAS
Understanding Oxygen-Activating Enzymes through Small Molecule Models.

Dinda, Sumit – Clinical Diagnostic Sciences, SHS
The Effects of Epigallocatechin-3-Gallate (EGCG) on Steroid Hormone Receptors in MCF-7 Breast Cancer Cells.

Ehrlich, Olga – School of Nursing, SON
Convening A Community Advisory Board for Rural Michigan: Community Engaged Palliative Care Program Capacity Building.

Jiang, Lan – Biological Sciences, CAS
Mechanistic Investigation of Novel CG15887 Gene in Tracheal Tube-Size Regulation.

Jin, Man – Economics, SBA
Unlocking Potential: How Foreign Direct Investment Enhances Productivity.

Jonutz, Thayer – Dance, CAS
Costa Rica 2.0.

Kattner-Ulrich, Elizabeth – Dance, CAS
Guest Lecture and Movement Research Presentation on Avant-Gard Choreographer George Balanchine at Ludwig-Maximilian University, Munchen, Germany.

McDonald, Melissa – Psychology, CAS
An Investment Model Approach to Interracial and Intra-racial Relationship Commitment.

Raman, Lakshmi – Psychology, CAS
Preschoolers Understanding of the Impact of Vaccines on Contagious Illnesses.

VanderKaay, Cody – Art, Art History, and Design, CAS
2025 Sabbatical Research Funding Request - North American Quilt Trail.

Vonk, Jennifer – Psychology, CAS
Flipping the "Tale": Companion Animal Response to the Deaths of Caregivers.

Wang, Yuejian – Physics, CAS
High Pressure Behavior of GaNb₄Se₈.

Wendell, Doug – Biological Sciences, CAS
Michigan at the Crossroads of Invasions by the New Zealand Mudsnail.

Yeddula, Sai Deepthi – Computer Science and Engineering, SECS
A Deep Graph Intelligent Framework for Emergency Medical Services: Forecasting Demand and Optimizing Hospital Routing.

Zeigler-Hill, Virgil – Psychology, CAS
Mate Value Discrepancies and Relational Uncertainty.

Publication Awards

Ehrlich, Olga – School of Nursing, SON

A Nursing Faculty Intervention for Teaching Primary Palliative Care in Baccalaureate Nursing Competency-Based Education in *The Palliative Medicine Reports*, \$1,000

McDonald, Gary – Mathematics and Statistics, CAS

On Performance Characteristics of a Nonparametric Subset Selection Procedure with a Small Randomized Block Experimental Design: A Bayesian Mixture Model Approach to Disparity Testing, \$500

McDonald, Gary – Mathematics and Statistics, CAS

Bootstrap Approach to Disparity Testing with Source Uncertainty in the Data in *Health Services and Outcomes Research Methodology*, \$335.53

McDonald, Gary – Mathematics and Statistics, CAS

Selection Rules for Exponential Population Threshold Parameters in *Applied Mathematics*, \$164.47

Tiegs, Scott – Biological Sciences, CAS

Simultaneously Decontaminating Angling Gear for New Zealand Mudsnailes (Potamopyrgus Antipodarum) and Didymo (Didymosphenia Geminata): A Comparison of Two Chemical Approaches in *North American Journal of Fisheries Management*, \$500

Tiegs, Scott – Biological Sciences, CAS

Human Activities Shape Global Patterns in *Science*, \$500

Research Excellence Award

Liao, Qunfeng – Accounting, SBA \$2,500

New Investigator Research Excellence Award

Yang, Ankun – Mechanical Engineering, SECS \$1,500

OU Conference Award

Brandt, Lindsay – Physical Therapy, Human Movement Science, SHS
Fourth Annual Oakland University Telehealth Symposium, \$3,000

President' Colloquium Award

Papadimitriou, Christina – Interdisciplinary Health Sciences, SHS
Working Where Science Stumbles; A Meaningful Way Forward, \$1,000