# University Research Committee 2020-2021 Annual Report

#### Charge

- 1. To encourage and promote scholarship, research, and creative endeavors among all faculty members of the University.
- 2. The Committee's 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.

#### <u>Membership</u>

2019-2021 Faculty Appointments Chen Jingshu (SECS) CO-CHAIR Dallo, Flora (SHS) Hanna, Darrin (SECS/Graduate Council Representative) McEneaney, John (SEHS) CO-CHAIR

2020-2022 Faculty Appointments Chaudhuri, Ranadeb (SBA) Fails, Matthew (CAS) Kauric-Klein, Zorica (SON) Nugent, James (CAS, Winter 2021) Shackelford, Todd (CAS) Sidelinger, Rob (CAS) Van Kooten, Crystal (CAS, Fall, 2020)

2020-2021 Ex-Officio Appointments Stone, Dave (Vice President for Research) Willner, Susan (Research Office) Coordinator

#### Meetings and actions

Due to the ongoing COVID pandemic, all URC business during the 2020-2021 academic year was conducted online. Three synchronous meetings took place on September 28, 2020, November 19, 2020, and April 8, 2021.

#### Recommendations

At our April 8, 2021 meeting the URC voted to approve two recommendations related to the URC Fellowship application process and a second related to the URC Fellowship award process.

1) Our first recommendation is that the online application process be revised to include certification by applicants that they will not accept a formal teaching assignment if the fellowship is awarded and that, if a formal teaching assignment is accepted, the fellowship will be forfeited. If an applicant believes extraordinary circumstances warrant an exception to this or any other Fellowship policy, applicants must communicate with the URC Chair/Co-Chairs prior to submission of the application and the application itself must make the case to the URC indicating how the circumstances specific to the proposal warrant an exception to policy.

2) Our second recommendation is to revise the award process so that the letter notifying applicants of a Fellowship award is explicit about the terms related to teaching and setting a date for returning the award acceptance letter so that fellowships can be reallocated if an award is declined.

#### Notes

We are grateful for both the expertise and diligence of Sue Willner, the URC administrative coordinator, who managed our submission and review systems and provided other essential support.

John E. McEneaney, Professor, Reading and Language Arts Co-Chair, URC 2020-2021

Jingshu Chen, Assistant Professor, Computer Science and Engineering Co-Chair, URC 2020-2021

#### University Research Committee Budget and Statistics – FY21

#### 2020-2021 Budget Summary

Carried-over from FY20 \$46,630 Budget FY21 \$340,000 TOTAL BUDGET FY21 \$386,630

AWARDS	Actual	
Faculty Research Fellowship	\$320,00	0 32 Awards
Faculty Research Fellowship (delayed payment from 2020)	\$10,00	0 1 Award
Stipend Fringe	\$6,60	0 (2.45% of stipend)
Faculty Research Grant	\$40,00	0 20 awards
Meadow Brook Hall Conference	0	No FY 2021 award
Faculty Books and Reprints	\$5,00	0 10-15 awards
President Colloquium Series	0	1 award, funded by President
Faculty Research Excellence Award	0	1 award, funded by Provost
New Investigator Research Excellence Award	0	1 award, funded by Provost

Total URC Funds Awarded \$381,600 Fund balance, to be carried-over to FY2022 \$5,030

#### **Application and Award Statistics**

	Awarded	Denied	Total
Faculty Research Fellowship Award	32	15	47
Faculty Research Award	20	0	20
Meadow Brook Hall Conference	0	0	0
Faculty Books and Reprints	5	0	5
President Colloquium Series*	1	5	6
Faculty Research Excellence Award*	1	0	1
New Investigator Research Excellence Award <sup>3</sup>	* 1	1	2

<sup>\*</sup>Not funded by the URC

#### 2020-2021 Research Excellence Award

Randal Westrick, Biological Sciences/Bioengineering

#### 2020-2021 New Investigator Research Excellence Award

Julian Rrushi, Computer Science and Engineering

#### 2021 President's Colloquium Award

Timothy Donahue, English
Sarah Winnemucca's Sovereignty: What a Nineteenth-Century Indigenous
Translator Can Teach Us about the American West

## 2020-2021 URC Faculty Fellowships

Alawneh, Shadi	Electrical and Computer Engineering	GPU-Based Artificial Intelligence System for Lane Tracking in Self-Driving Cars
Aydas, Osman	Decision and Information Sciences	A Machine Learning Approach to Colorectal Cancer Survivability Predictions
Battistuzzi, Fabia	Biological Sciences	Understanding the Correlation between Genome Complexity and Pathogenicity in the Agent of Malaria
Beyeh, Ngong	Chemistry	A supramolecular Approach to Disrupt the Aggregation of α66–80 Crystalline Peptide related to Cataracts
Chaudhuri, Malika	Management and Marketing	Does Incumbent's Promotion Mix Strategies Deter Competition? Insights from the U.S. Pharmaceutical Industry
Chen, Jun	Electrical and Computer Engineering	Model Predictive Control Algorithm and Tool Development for Embedded Automotive Control
Dantzler, Alta	Music	American Optimism- American Operetta
Deng, Xiaodong	Decision and Information Sciences	The Contributing Factors and Impacts of Major Data Breaches over the Last Decade
Ghoreishi, Setareh	Art and Art History	Langs (Language plays)
Golovashchenko, Sergey	Mechanical Engineering	Monitoring of Fracture Initiation in Sheet Metal Forming
Greiner, Michael	Management and Marketing	CEO Personality and Firm Outcomes
Insko, Jeffrey	English	The Norton Library Edition of Moby-Dick
Jiang, Joy Ruihua	Management and Marketing	A Socio-Ecological Model of Social Entrepreneurship Effectiveness: A Study in the Rust Belt of U.S.

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Jin, Man	Economics	Underreporting and Tax Avoidance: A Spatial Stochastic Frontier Analysis
Kattner-Ulrich, Elizabeth	Dance	Floating Heavily - German to English Translation of Book Schweres Schweben: Qualitäten der gravitas in Pina Bauschs Orpheus und Eurydike (Floating Heavily: Qualities of Gravitas in Pina Bausch's Orpheus and Eurydice) on Choreographer Pina Bausch
Kredell, Brendan	English	Completion of Manuscript "Routledge Companion to Media and the City"
Li, Yan	History	A People to People Diplomacy: Chinese Ping-pong Team, Meadow Brook Hall, and Oakland University
Ling, Yan	Management and Marketing	Governments' Policymaking Speed and Firm Performance in Emerging Industries: The Difference between Family and Non-Family Firms
Maisonneuve, Jonathan	Mechanical Engineering	Using Fertilizer as a Liquid Desiccant for Greenhouse Dehumidification and Water Recovery
McCarty, Susan	English	Desire: An Accounting, An Essay Collection
Peiser, Megan	English	A Study in 54 Novels: Data Trouble, Gender, and Lost Narratives in the History of the Novel
Raman, Lakshmi	Psychology	Children and Adults' Understanding of the Transmission and Prevention of the SARS-CoV-2 (coronavirus)
Roumani, Yaman	Decision and Information Sciences	The Effects of Firm's Partnership Transactions on Data Breach Risk
Sullivan, Annie	English	Broadcasting Black Detroit: The Struggle for Local Radio in a Racially Divided City
Tian, Tian	Music	Musical Snapshots: Longing, Admiring, Homage
Trivedi, Evan	Chemistry	New Bimetallic Cd(II) 'Salen' Complexes for Homogeneous Catalysis

Van Wasshenova, Emily	Interdisciplinary Health Science	Unleashing the Potential of Dog Walking: A Cross- Sectional Study of the Correlates of Infrequent Dog Walking among Michigan Dog Owners
Wang, Zhe	Chemistry	Attachable Sensor Technique for Opioid Drugs Monitoring
Wenz, Andrea	History	Bernardino Ochino and the Composition of an International Reformation
Woods, Dawn	Teacher Development and Educational Studies	Leveraging Number Talks as a Mechanism to Recontextualize Learning to Instructional Practice
Wu, Colin	Chemistry	Impact of DNA Damage on Heart Contractile Function
Yang, Ankun	Mechanical Engineering	Building an Optical Workstation to Establish Correlation Between Material Properties and Battery Performances

### 2020-2021 URC Faculty Research Grant Awards

Bianchette, Thomas	Chemistry	Paleoenvironmental Reconstructions from Cedar Point National Wildlife Refuge and Magee Marsh, Northwestern Ohio: Understanding Flood and Climate Histories from the Wetland Margins of Lake Erie
Brown, Elise	Public and Environmental Wellness	Prevalence of Meeting Physical Activity and Resistance Training Guidelines during the COVID- 19 Pandemic and Correlates in Adults with type 2 Diabetes
Cameron, Patricia	Undergraduate Education	Accuracy of Respiratory Distress Assessment in the Virtual Realm
Chen, Yu-chuan	Art and Art History	Human Ecology and Yu Peng's Ink Landscape
Dinda, Sumit	Clinical Diagnostic Sciences	The Effects of Bazedoxifene Acetate (BZA) on Steroid Hormone Receptors in Breast Cancer Cells.
Jiang, Lan	Biological Sciences	Mechanistic Investigation of Novel CG1169 Gene in Tracheal Tube-size Regulation
Jonutz, Thayer	Dance	Hammer and Nail
Kalmanovich- Cohen, Hanna	Management and Marketing	Voice Visibility: When and Why does Employee Voice Lead to Managerial Responsiveness
Liu, Zijuan	Biological Sciences	Role of ZIP8 Manganese Transport in Brain

Ma, Zexin	Communication, Journalism, and Public Relations	The Effects of Narrative versus Non-Narrative Pictorial Warning Labels on Alcohol Users' Attention, Reactance, and Cancer Risk Perceptions
Mitton, Kenneth	Eye Research Institute	Distribution of Plasmalemma Vesicle Associated Protein in Primary Human Retinal Endothelial Cells
Nezamoddini, Nasim	Industrial and Systems Engineering	Distributed Monitoring & Control of Multi-Agent IoT Systems Using Cognitive Networks
Oliverio, Jennifer	Music	Commissioning and Recording: Solo Literature for Cornet/Flugelhorn in the British Brass Band Style
Powell, Alison	English	The Missing Files
Reifert, Justin	English	Never Again (Working Title)
Vonk, Jennifer	Psychology	Ideological and Contextual Predictors of Situational Empathy
Yang, Guolan	Communication, Journalism, and Public Relations	How Do You Know This Post is Sponsored? Effects of Promotional Intent and Disclosure Prominence on Influencer Advertising Recognition and Persuasion
Yezbick, Julia	English (Film)	Marratein, Marratein: An Exploration of the Uncertainty of Belonging through Experimental Film
Yoon, Yongsoon	Mechanical Engineering	Adaptive Look-up Table and Its Application to Automotive Powertrain Control Systems
Zeigler-Hill, Virgil	Psychology	Narcissus in an Echo Chamber: Narcissistic Personality Features and the Lack of Receptiveness to Opposing Views

## 2020-2021 URC Books, Reprints, and Page Charge Reimbursements

Liu, Zijuan	Biological Sciences	Selenite Inhibits Notch Signaling in Cells and Mice
Kattner, Elizabeth	Dance	Finding Balanchine's Lost Ballets
Tiegs, Scott	Biological Sciences	Artificial Light at Night at the Terrestrial-Aquatic Interface Effects on Predators and Fluxes of Insect Prey
Kredell, Brendan	English (Film)	Structural Damage: The Future of American Film Festivals in the Post-COVID Era
Sevilla, Michael	Chemistry	Ne-22 Ion-Beam Radiation Damage to DNA: From Initial Free Radical Formation to Resulting DNA-Base Damage