

SUBMITTED BY:

**STEPHEN M. LANIER, PH.D.
VICE PRESIDENT FOR RESEARCH**

**NEW RESEARCH AWARDS
FOURTH QUARTER – FY 2019**

**COLLEGE OF EDUCATION
Dean's Office of Education**

Principal Investigator: Nathan Andrew McCaughtry
Sponsor: Michigan Health Endowment Fund
Title: Building Healthy Communities
Anticipated Total: \$500,000
Effective Dates: 8/15/2019 – 8/14/2021

Administration & Organization

Principal Investigator: Sarah Winchell Lenhoff
Sponsor: Skillman Foundation
Title: Detroit Education Research Partnership
Anticipated Total: \$200,000
Effective Dates: 8/1/2019 – 8/31/2020

Kinesiology, Health, and Sports Studies

Principal Investigator: Jeanne M. Barcelona
Sponsor: Michigan Health Endowment Fund
Title: Dearborn SHINES - School Health through Integrated Nutrition & Exercise Strategies (D-SHINES)
Healthy Kids – Wave 2
Anticipated Total: \$500,000
Effective Dates: 8/15/2019 – 1/30/2021

**COLLEGE OF ENGINEERING
Biomedical Engineering**

Principal Investigator: Kamran Avanaki
Sponsor: National Institute of Biomedical Imaging & Bioengineering - NIBIB
Title: 3D Neonatal Photoacoustic Tomography (3D-nPAT) to Detect Hypoxic-Ischemic Brain Injury in Preterm Neonates
Anticipated Total: \$725,314
Effective Dates: 9/16/2019 – 9/15/2021

Chemical Engineering

Principal Investigator: Zhiqiang Cao

Sponsor: National Institute of Diabetes Digestive & Kidney Disease - NIDDK

Title: A Novel Oral Insulin Enabling Safe and Efficient Gastrointestinal Transport and Absorption

Anticipated Total: \$1,700,444

Effective Dates: 9/25/2019 – 5/31/2023

Principal Investigator: Helen Elaine Durand

Sponsor: National Science Foundation – NSF

Title: CPS Small Enhancing Cybersecurity of Chemical Process Control Systems

Anticipated Total: \$499,968

Effective Dates: 10/1/2019 – 9/30/2022

Principal Investigator: Eranda Nikolla

Sponsor: National Science Foundation

Title: Collaborative Research Controlling the Properties of Oxide Encapsulated Metals for Interfacial Catalysis

Anticipated Total: \$284,975

Effective Dates: 8/15/2019 – 7/31/2023

Principal Investigator: Eranda Nikolla

Sponsor: National Science Foundation

Title: Collaborative Research Elucidating the Roles of Electric Fields Within Mixed Ionic and Electric Conducting Oxides Under Electrochemical Reducing Conditions

Anticipated Total: \$346,513

Effective Dates: 8/15/2019 – 7/31/2023

Principal Investigator: Yingxi Zhu

Sponsor: National Science Foundation

Title: Scalable Nanomanufacturing of Hierarchical Scale Colloidal Assemblies Using Integrated Electro spray and Microfluidics

Anticipated Total: \$404,182

Effective Dates: 7/1/2019 – 6/30/2022

Civil Engineering

Principal Investigator: Christopher Douglas Eamon

Sponsor: State of Michigan Department of Transportation - MDOT

Title: Development of Guidelines for the Use of Intermediate Diaphragms on Precast Concrete Beam Superstructures

Anticipated Total: \$189,384

Effective Dates: 10/1/2019 – 9/30/2021

Principal Investigator: Esref Emrah Kazan
Sponsor: U.S. Department of Labor
Title: Construction Noise Exposure and Hearing Conservation Training
Anticipated Total: \$118,112
Effective Dates: 9/30/2019 – 9/30/2020

Computer Science

Principal Investigator: Abu Sayeed Muhammad Saifullah
Sponsor: National Science Foundation
Title: CAREER: Protocols for Low-Power Wide-Area Networks in White Spaces
Anticipated Total: \$550,531
Effective Dates: 10/1/2019 – 9/30/2024

Principal Investigator: Fengwei Zhang
Sponsor: National Science Foundation
Title: NSF SaTC Collaboration: Hardware-assisted Plausibly Deniable System for Mobile Devices
Anticipated Total: \$250,000
Effective Dates: 10/1/2019 – 9/30/2022

Principal Investigator: Zichun Zhong, Ph.D.
Sponsor: National Science Foundation
Title: CHS: Small: High-Dimensional Euclidean Embedding for 4D Volumetric Shape with Multi-Tensor Field
Anticipated Total: \$499,985
Effective Dates: 8/15/2018 – 7/31/2021

Dean's Office of Engineering

Principal Investigator: Guangzhao Mao
Sponsor: National Institute of Neurological Disorders and Stroke – NINDS
Title: Targeted Drug Delivery for Spinal Cord Injury Using Retrograde Transport of a Nanoconjugate
Anticipated Total: \$683,913
Effective Dates: 8/15/2019 – 7/31/2021

Engineering Technology

Principal Investigator: Yeau-Jian Liao
Sponsor: Macomb Community College
Title: Resource Center for Advanced Automotive Technology (CAAT) - II
Anticipated Total: \$158,563
Effective Dates: 7/1/2019 – 6/30/2022

COLLEGE OF LIBERAL ARTS AND SCIENCES

Biological Sciences

Principal Investigator: Donna Rebecca Kashian

Sponsor: U.S. Geological Survey

Title: Characterization of Spawning Inhibiting Cues to Control Dreissenid Mussels

Anticipated Total: \$120,000

Effective Dates: 10/1/2019 – 9/30/2020

Chemistry

Principal Investigator: Matthew J. Allen

Sponsor: American Chemical Society

Title: Electrochemical Stabilization of U(III) Using Coordination Chemistry

Anticipated Total: \$110,000

Effective Dates: 9/1/2019 – 8/31/2021

Principal Investigator: Eduard Yurjevich Chekmen

Sponsor: National Science Foundation – NSF

Title: Collaborative Research: Exploiting Spin Networks and Efficient Catalyst/Substrate Separations for NMR

Anticipated Total: \$282,000

Effective Dates: 8/1/2019 – 7/31/2022

Principal Investigator: Hien M. Nguyen

Sponsor: National Institute of General Medical Sciences

Title: Tailoring Structures of Sulfated Oligosaccharides for Modulating Heparanase Activity

Anticipated Total: \$1,399,876

Effective Dates: 9/1/2019 – 5/31/2023

Principal Investigator: Mary Kay Hamm Pflum

Sponsor: National Science Foundation – NSF

Title: ATP Analogs to Study Human Histidine Kinases

Anticipated Total: \$501,000

Effective Dates: 8/1/2019 – 7/31/2022

Principal Investigator: Aaron Stephen Rury

Sponsor: American Chemical Society

Title: Unraveling the Structural Basis for Cavity Controlled Molecular Photo-physics

Anticipated Total: \$110,000

Effective Dates: 9/1/2019 – 8/31/2021

Principal Investigator: Jennifer Lynn Stockdill

Sponsor: National Institute of General Medical Sciences – NIGMS

Title: Strategies for N to C solid-phase peptide synthesis

Anticipated Total: \$1,152,273

Effective Dates: 8/15/2019 – 5/31/2023

Principal Investigator: Jennifer Lynn Stockdill

Sponsor: Eli Lilly and Company

Title: Slimming the 'Waste'-line in Large Peptide Assembly: Alternatives for Peptide Ligation and Desulfurization

Anticipated Total: \$265,000

Effective Dates: 9/11/2019 – 9/10/2021

Principal Investigator: Claudio Nazari Verani

Sponsor: National Science Foundation

Title: Attaining Configuration and Ligand Field Control over the SOMO/Fermi Gap in Molecular LB Films for Current Rectification

Anticipated Total: \$475,000

Effective Dates: 8/15/2019 – 7/31/2022

Mathematics

Principal Investigator: Daniel Isaken

Sponsor: National Science Foundation

Title: Motivic and Equivariant Stable Homotopy Groups

Anticipated Total: \$116,818

Effective Dates: 9/1/2019 – 9/30/2024

Physics

Principal Investigator: Edward Michael Cackett

Sponsor: National Science Foundation

Title: Are AGN accretion disks too big?

Anticipated Total: \$266,107

Effective Dates: 7/1/2019 – 6/30/2022

Principal Investigator: David Anthony Cinabro

Sponsor: National Science Foundation

Title: CC*: Campus Computing and the Computing Continuum: Campus Cluster Resource Expanded High Performance Computing at Wayne State

Anticipated Total: \$399,944

Effective Dates: 7/1/2019 – 6/30/2020

COLLEGE OF NURSING

Adult Health/Administration

Principal Investigator: Leanne M. Nantais-Smith

Sponsor: Health Resources & Services Administration

Title: Expanding Clinical Immersion Program Site Education in the D: ECLIPSE in the D

Anticipated Total: \$2,635,852

Effective Dates: 7/1/2019 – 6/30/2023

Principal Investigator: Umeika M. Stephens
Sponsor: Health Resources & Services Administration – HRSA
Title: Wayne State University Opioid Inter-Professional Clinical Collaborative (WOICC) Program
Anticipated Total: \$1,339,297
Effective Dates: 9/1/2019 – 8/31/2022

Dean’s Office of Nursing

Principal Investigator: Donald M. Neal
Sponsor: State of Michigan Department of Education – MDOE
Title: C2 Pipeline – Cohort J
Anticipated Total: \$540,000
Effective Dates: 7/1/2019 – 6/30/2020

**THE COLLEGE OF FINE, PERFORMING, AND COMMUNICATION ARTS
COMMUNICATION**

Principal Investigator: Pradeep Sopory
Sponsor: National Academy of Sciences
Title: Public Health Emergency Preparedness and Response Practice: Synthesis of Evidence from Qualitative Data
Anticipated Total: \$99,235
Effective Dates: 8/5/2019 – 8/5/2020

**EUGENE APPLEBAUM COLLEGE OF PHARMACY AND HEALTH SCIENCES
Pharmaceutical Science**

Principal Investigator: Jiemei Wang
Sponsor: National Institutes of Health
Title: Alleviating Reactive Carbonyl Species-Induced Progenitor Cell Dysfunction in Diabetic Wound Healing
Anticipated Total: \$1,474,708
Effective Dates: 8/2/2019 – 7/31/2023

Pharmacy Practice

Principal Investigator: Hilary Ann Marusak
Sponsor: National Institute of Mental Health
Title: Endocannabinoids and the Development of Extinction Recall Neural Circuitry in Adolescents
Anticipated Total: \$871,180
Effective Dates: 7/1/2019 – 6/30/2024

PROVOST & VICE PRESIDENT FOR ACADEMIC AFFAIRS
Center for Urban Studies

Principal Investigator: Thomas Lyke Thompson, Ph.D.

Sponsor: State of Michigan Department of Education

Title: Qualitative Compliance Information Project (QCIP) Early on Mandated Activities Project

Anticipated Total: \$340,076

Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Sara M. Thornton

Sponsor: State of Michigan Department of Health & Human Services

Title: VOCA Resources for Victim Assistance Programs 2020

Anticipated Total: \$240,381

Effective Dates: 10/1/2019 – 9/30/2020

Developmental Disabilities

Principal Investigator: Angela Marie Martin

Sponsor: State of Michigan Department of Health & Human Services

Title: Home and Community Based Services Quality Assessment

Anticipated Total: \$300,000

Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Angela Marie Martin

Sponsor: State of Michigan Department of Health & Human Services

Title: HCBS Ruling Implementation Project

Anticipated Total: \$335,546

Effective Dates: 10/1/2019 – 9/30/2020

DIVISION OF RESEARCH

Institute of Environmental Health Sciences

Principal Investigator: Douglas Mark Ruden

Sponsor: Michigan State University

Title: Prenatal Exposures and Child Health Outcomes: A Statewide Study

Anticipated Total: \$121,003

Effective Dates: 9/1/2019 – 8/31/2020

Institute of Gerontology

Principal Investigator: Peter Alexander Lichtenberg

Sponsor: University of Michigan

Title: Michigan Center for African American Aging Research

Anticipated Total: \$228,566

Effective Dates: 7/1/2019 – 6/30/2020

Merrill Palmer Skillman Institute

Principal Investigator: Valerie Ann Simon
Sponsor: National Institute of Child Health and Human Development
Title: The Interpersonal Dynamics of Violence Exposure and Adolescents' Autonomic Regulation
Anticipated Total: \$179,215
Effective Dates: 8/5/2019 – 7/31/2021

Office of the Vice President for Research

Principal Investigator: Antonio Earl Yancey
Sponsor: State of Michigan Department of Health & Human Services
Title: Biobank Management- Newborn Screening Residual Sample Dried Blood
Anticipated Total: \$154,000
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Robert Russell Ehrman
Sponsor: CNA Diagnostics Inc.
Title: Prospective Sample Collection of Sepsis Development (ProSep)
Anticipated Total: \$787,446
Effective Dates: 7/23/2019 – 7/23/2020

SCHOOL OF MEDICINE
Emergency Medicine

Principal Investigator: Claire Pearson
Sponsor: State of Michigan Department of Health & Human Services
Title: HIV Prevention – Emergency Room Testing
Anticipated Total: \$212,030
Effective Dates: 10/1/2019 – 9/30/2020

Family Medicine and Public Health Sciences

Principal Investigator: Angulique Yvette Outlaw
Sponsor: State of Michigan Department of Health & Human Services
Title: Tobacco Use Reduction for People Living with HIV 2020
Anticipated Total: \$110,767
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Angulique Yvette Outlaw
Sponsor: State of Michigan Department of Health & Human Services
Title: HIV Prevention Horizon Project
Anticipated Total: \$120,470
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Jinping Xu
Sponsor: Patient-Centered Outcomes Research Institute
Title: Best Practices to Engage Black Men in the Development of a Cancer Health Equity Research Agenda
Anticipated Total: \$249,997
Effective Dates: 8/1/2019 – 7/31/2021

Principal Investigator: Jinping Xu
Sponsor: U.S. Army Medical Research Acquisition Activity
Title: Racial Disparities in Active Surveillance Adherence and Quality of Life in a Population Based Prospective Cohort of Men with Low Risk Prostate Cancer
Anticipated Total: \$1,305,085
Effective Dates: 9/15/2019 – 9/30/2022

Internal Medicine

Principal Investigator: M. Safwan Badr
Sponsor: National Institutes of Health
Title: Improving Outcomes for Patients with SDB and Insufficient Sleep
Anticipated Total: \$727,246
Effective Dates: 9/1/2019 – 6/30/2024

Principal Investigator: Dana G. Kissner
Sponsor: State of Michigan Dept. of Health & Human Services
Title: Detroit TB Project
Anticipated Total: \$575,563
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Lobelia Samavati
Sponsor: National Institutes of Health
Title: Diagnostic classifiers for sarcoidosis using a novel T7 phage display technology
Anticipated Total: \$231,000
Effective Dates: 7/1/2019 – 6/30/2021

Obstetrics and Gynecology

Principal Investigator: ChaurDong Hsu
Sponsor: National Institutes of Health
Title: Continuation of Wayne State University's Successful Development of Physician-Scientists as Independent Researchers in the Area of Women's Reproductive Health
Anticipated Total: \$327,689
Effective Dates: 7/1/2019 – 6/30/2020

Principal Investigator: Gil Mor
Sponsor: National Institutes of Health
Title: Discovery to Cure Summer Program
Anticipated Total: \$103,840
Effective Dates: 7/1/2019 – 6/30/2022

Principal Investigator: Gil Mor
Sponsor: National Cancer Institute
Title: Targeting the Vascularity for Delivery of Inhibitors of Metastasis in Ovarian Cancer
Anticipated Total: \$607,847.60
Effective Dates: 7/1/2019 – 6/30/2020

Oncology

Principal Investigator: Jennifer L. Beebe-Dimmer
Sponsor: University of California
Title: Core B: Recruitment and Sample Collection Core
Anticipated Total: \$129,146
Effective Dates: 7/1/2019 – 11/30/2022

Principal Investigator: Michele Lynn Cote
Sponsor: Susan G. Komen for The Cure
Title: Multidisciplinary training in the biology of breast cancer disparities
Anticipated Total: \$100,000
Effective Dates: 8/26/2019 – 8/25/2019

Principal Investigator: Michele Lynn Cote
Sponsor: State of Michigan Department of Health & Human Services
Title: Lung Cancer Screening and Tobacco Cessation
Anticipated Total: \$110,000
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Larry H. Matherly
Sponsor: National Institute of Health
Title: Training Program in the Biology of Cancer
Anticipated Total: \$261,272
Effective Dates: 9/1/2019 – 8/31/2019

Principal Investigator: Ann Grossbart- Schwartz
Sponsor: Information Management Services Inc.
Title: Cancer Registry Consultation with IMS
Anticipated Total: \$1,700,964
Effective Dates: 8/15/2019 – 6/1/2020

Ophthalmology, Visual and Anatomical Sciences

Principal Investigator: Linda D. Hazlett
Sponsor: National Institute of Health
Title: Core Grant for Vision Research
Anticipated Total: \$2,799,140
Effective Dates: 9/1/2019 – 8/31/2024

Principal Investigator: Linda D. Hazlett
Sponsor: National Institutes of Health
Title: Killing Multi-Drug Resistant Pseudomonas Aeruginosa
Anticipated Total: \$385,000
Effective Dates: 9/30/2019 – 9/29/2020

Principal Investigator: Ashok Kumar
Sponsor: National Institute for Allergy and Infectious Diseases
Title: Genomic Evidences Based Novel Therapy for Staphylococcal Infections
Anticipated Total: \$455,667
Effective Dates: 7/5/2019 – 6/30/2021

Pathology

Principal Investigator: Hyeong-Reh C. Kim
Sponsor: U.S. Department of Defense
Title: A Novel Regulator for the Exit of Bone Resident Prostate Cancer Cells
Anticipated Total: \$924,000
Effective Dates: 8/15/2019 – 8/14/2022

Principal Investigator: Jian Wang
Sponsor: National Institutes of Health
Title: Role of Serine Catabolism in Age-Related Metabolic Diseases
Anticipated Total: \$231,000
Effective Dates: 8/15/2019 – 6/30/2021

Pediatrics

Principal Investigator: Alan Anthony Dombkowski
Sponsor: National Institutes of Health
Title: The Role of Non-Coding RNAs in Epilepsy of Tuberous Sclerosis Complex and Focal Cortical Dysplasia Type 2B
Anticipated Total: \$539,000
Effective Dates: 8/15/2019 – 3/31/2024

Physiology

Principal Investigator: Jason H. Mateika
Sponsor: National Institutes of Health
Title: Mild Intermittent Hypoxia and CPAP: A Multi-Pronged Approach to Treat Sleep Apnea in Intact and Spinal Cord Injured Humans
Anticipated Total: \$1,540,000
Effective Dates: 9/1/2019 – 6/30/2023

Psychiatry and Behavioral Sciences

Principal Investigator: Lana Ruvolo Grasser
Sponsor: National Institute of Mental Health
Title: Biomarkers of Risk and Resilience to Trauma in Syrian Refugee Youth
Anticipated Total: \$126,969
Effective Dates: 8/12/2019 – 8/11/2022

Principal Investigator: Mark K. Greenwald
Sponsor: National Heart, Lung, and Blood Institute
Title: Dual-Orexin Antagonism as a Mechanism for Improving Sleep and Drug Abstinence in Opioid Use Disorder
Anticipated Total: \$4,021,723
Effective Dates: 9/23/2019 – 8/31/2023

Principal Investigator: Tanja Jovanovic
Sponsor: National Institute of Mental Health
Title: Impact of Trauma Exposure on Critical Periods in Brain Development and Fear Processing in Children
Anticipated Total: \$1,317,661
Effective Dates: 9/1/2019 – 6/30/2021

Principal Investigator: Donald M. Kuhn
Sponsor: U.S. Army Medical Research Acquisition Activity
Title: Gulf War Illness and Gut Microbiome Dysbiosis Treatment with Probiotics and Microbiota Transfer Therapy
Anticipated Total: \$379,684
Effective Dates: 8/1/2019 – 7/31/2021

Principal Investigator: David Rolf Rosenberg
Sponsor: State of Michigan Department of Health & Human Services
Title: Psychiatry Program 2020
Anticipated Total: \$5,605,900
Effective Dates: 10/1/2019 – 9/30/2020

SCHOOL OF SOCIAL WORK **Deans Office Social Work - Social Work Instruction Un**

Principal Investigator: Elizabeth J. Agius
Sponsor: State of Michigan Department of Health & Human Services
Title: Strategic Prevention Framework Partnership for Success 2019-2020
Anticipated Total: \$114,000
Effective Dates: 10/1/2019 – 9/30/2020

Principal Investigator: Sheryl Marie Pimlott-Kubiak, Ph.D.

Sponsor: Supreme Court of Ohio

Title: Regional Judicial Opioid Initiative

Anticipated Total: \$151,673

Effective Dates: 7/1/2019 – 9/30/2020

Principal Investigator: Sheryl Marie Pimlott-Kubiak, Ph.D.

Sponsor: Lutheran Foundation

Title: Evaluation of the Allen County Substance Abuse Pilot Program

Anticipated Total: \$230,900

Effective Dates: 7/1/2019 – 6/30/2022

Principal Investigator: Bradley R. Ray

Sponsor: National Center for State Courts

Title: New England Regional Judicial Opioid Initiative

Anticipated Total: \$207,682

Effective Dates: 10/1/2019 – 9/30/2021

UNIVERSITY LIBRARIES

School of Library & Information

Principal Investigator: Christine D'Arpa

Sponsor: Institute of Museum & Library Services

Title: Community Health and Wellness: Rural Library Practices, Perspectives, and Programs

Anticipated Total: \$130,706

Effective Dates: 7/1/2019 – 6/30/2022