

# JMU Research, Scholarship & Creative Endeavors

#### Volume 6, Issue 5

Thanks for tuning into another issue of the Research, Scholarship & Creative Endeavors newsletter!

Nick Swayne, executive director of JMU X-Labs, recently published "<u>Creating an</u> <u>Innovation Space to Solve Real-World Problems</u>" in *Campus Technology*. Swayne stressed the importance of trial and error when selecting technology and equipment for a space hosting, "transdisciplinary courses in which students of different majors collaborate with faculty and professionals to use technology to solve real-world problems for an organization, community or business."

The JMU Department of Philosophy and Religion will partner with the African, African American, and Diaspora (AAAD) Studies Center (along with other campus partners) to host the <u>Global Civil Rights Movement symposium</u> on Thursday, December 2<sup>nd</sup>. This event will feature a public address by Dr. Iliana Yamileth Rodriguez of Emory University – "Latinx Civil Rights Struggles in the US South."

Our congratulations to Ashleigh Baber, associate professor of chemistry and biochemistry, who was named a 2022 Rising Star by the American Chemical Society's Women Chemists Committee. The honor recognizes "exceptional early- to midcareer women chemists across all areas of chemistry on a national level."

Office of Research & Scholarship James Madison University



Drs. Joanne V. and Alexander Gabbin, professors at JMU for more than 35 years, sit in the renamed Gabbin Hall during a ceremony on JMU's historic Quad on September 24th.

## **Faculty Grant Awards**

For a monthly listing of recent faculty grant awards, please<u>visit the JMU Office of</u> <u>Sponsored Programs website</u>. Here are some notable awards from June and July 2021:

Jolynne Bartley (Institute for Innovation in Health and Human Services) received \$106,000 from the Virginia Department of Social Services to provide ongoing home visiting services that improve health outcomes for at risk families and children and guide parents to make positive choices in all areas of life which will impact children and the community.

Keigo Fukumura and Sean Scully (Department of Physics and Astronomy) were awarded \$45,000 from NASA Goddard to model, analyze, and compare disk winds and their relation to the structure of the underlying XRB accretion disk in comparison with AGN warm absorbers and UFOs to produce a theoretical edifice that encompasses all astrophysical black holes.

Kokhan Oleksandr (Department of Chemistry and Biochemistry) received \$402,105 from the National Institutes of Health (NIH) to explore three new predicted mechanisms of the bc1 complex activity and their role in regulation of reactive oxygen species production and provide research training to a new generation of future biomedical scientists.

Shane McGary and Ángel García (Department of Geology and Environmental Science) received \$349,914 from the National Science Foundation (NSF) to provide an undergraduate research experience focusing on cave and karst science.

Thomas Moran (Department of Kinesiology) was awarded a \$275,000 grant from the Virginia Board for People with Disabilities to create a collaborative community approach to assist in rural counties across the Shenandoah Valley in leveraging existing resources as well as introduce new wellness programs and opportunities intended to transform the physical, emotional, and social wellness of individuals with developmental disabilities.

Kirsten Richards (Department of Computer Science) received \$90,781 from the Office of Naval Research to conduct an exploratory study to reveal common characteristics of cyber warriors and suggest modalities for identifying these individuals early in their careers. Trevor Stokes (Department of Graduate Psychology) and Sara Snyder (Department of Educational Foundations and Exceptionalities) received \$63,500 from the Shenandoah Valley Regional Program (a regional education service) to support student internships within schools of surrounding communities.

## Professor of Art Awarded Professorship at BU

Professor of art history John Ott<u>is serving as the Ray and Margaret Horowitz Visiting</u> <u>Professor in American Art</u> at Boston University during the 2021-22 academic year. Ott's profile describes research interests in "art consumption, patronage, and markets in the United States, and artwork by and portrayals of African Americans, particularly during the second quarter of the twentieth century." This past June, Ott presented a paper at the Space Between Society Conference in Richmond, "Make Cotton Great Again: The Racial Fabric of New Deal Art in the Southern U.S."

### College of Education Receives Grant Supporting Early Education Access

From University Communications:

James Madison University [on September 7<sup>th</sup>] announced the receipt of a \$3,654,000 grant to increase access to early education in several cities and counties across Virginia. The grant will provide 314 preschool slots for 3 and 4-year-olds currently facing barriers to formal school entry, at no cost to families.

"This is a historic time for our community to create equitable access to high quality early childhood education for all children and families across the Commonwealth," said Dr. Maryam Sharifian, director of early childhood initiatives at James Madison University. Sharifian will oversee the project, with the support of coordinators Stacey Bosserman and Yvonne Frazier.

The 1-year grant from the Virginia Early Childhood Foundation builds on existing efforts to increase access to high-quality preschool through public-private partnerships. JMU Early Childhood Initiatives include several projects and grants to address racial inequity, lack of access, increasing quality, teacher training, leadership, and family engagement. The grant is the next step in increasing the capacity of communities to provide high quality early education to at-risk children, with a particular focus on increased access for children and families of color and those living in child care deserts.

#### WRTC Professor Publishes Book on Human-Animal Communication

#### From the book description:

*The Sensory Modes of Animal Rhetorics: A Hoot in the Light*(Palgrave) presents the latest research in <u>animal perception and cognition in the context of rhetorical theory</u> Alex C. Parrish [associate professor of writing, rhetoric, and technical communication] explores the science of animal signaling that shows human and nonhuman animals share similar rhetorical strategies—such as communicating to manipulate or persuade—which suggests the vast impact sensory modalities have on communication in nature. The book demonstrates new ways of seeing humans and how we have separated ourselves from, and subjectified, the animal rhetor. This type of cross-species study allows us to trace the origins of our own persuasive behaviors, providing a deeper and more inclusive history of rhetoric than ever before.

## **Intelligence Analysis Faculty Brings National Security**

#### **Research Background**

#### From CISE Marketing Communications:

Orlandrew "Drew" Danzell is a new face within the IA faculty. His journey to JMU comes after <u>years of research and experience across the country</u>. Danzell graduated with a Ph.D. in Security Studies from Kansas State University in 2011. His dissertation focused on counterterrorism efforts and the hardening of domestic infrastructure against terrorist attacks.

Drew spent ten years working at Mercyhurst University in their Intelligence Studies Program, the last three of which he was chair of the department. He provided students with the skills needed for the intelligence community, law enforcement pursuits, and private businesses. He also spent time working on a wide range of research projects—from why political parties turn to terrorism to the role of education as a pacifying antidote for terrorism on the African continent. "I am excited to merge my experiences in other collegiate IA programs with new opportunities at JMU."

### Economics Faculty Investigates 19th Century Racial Exclusion Vote

#### From the College of Business:

A JMU researcher is using quantitative methods to unlock the racial history of Indiana in a pioneering study that is the first of its kind.

In *Social Science Quarterly* this spring, economics professor Scott Milliman published an article titled "Racial Exclusion in the Antebellum North: An Analysis of Indiana's 1851 Vote to Ban African American Immigration," the findings of which show how a <u>racially</u> <u>charged 1851 vote</u> depended on economic and social factors that varied across Indiana's 91 counties.

### Dietetics Faculty Explore How to Build a Supportive Learning Community During the Pandemic

Dietetics faculty from the Department of Health Professions published "Implementing Online Best Practices and Learning Community during the Pandemic in a Nutrition Course for Nutrition and Health Sciences Majors" in the *Journal of the Academy of Nutrition and Dietetics*. Co-authored by Ana Abad-Jorge, Michelle Hesse, Danielle Torisky, and Jeremy Akers, the Learning Outcome summary describes the research as "...using innovative online best practices to develop an <u>engaging and supportive learning</u> <u>environment</u> within a large "Nutrition for Wellness' course...The faculty implemented engaging online pedagogies to enhance student motivation, interaction and connection, while building a learning community during a time of heightened student anxiety."

### Biology Graduate Student Profiled by Cold Spring Harbor Laboratory

Biology student Dagmawi "Dag" Mamo was<u>recently profiled</u> in Cold Spring Harbor Laboratory's blog -- *Current Exchange*. Dag, a graduate assistant in the lab of biology unit head Casonya Johnson, joined the Cold Spring Harbor Laboratory for a virtual meeting in late summer -- Mechanisms of Eukaryotic Transcription. From the blog: "As an undergraduate student, I did my Honors thesis on developing transgenic constructs as part of our laboratory's large-scale project. As a master's student, I wanted to continue the journey of trying to understand the mechanisms of HES transcription factors' mediation of transcription repression. This is because characterization of HLH-25 could serve as a model for studying the role of HES-1 in human cancers and could lead to the development of new treatments."

## Yearbook Content Informs an Examination of Race Relations on Virginia Campuses

Professor of sociology and faculty in the African, African American, and Diaspora Studies Center Stephen Poulson recently published *Racism on Campus: A Visual History of Prominent Virginia Colleges and Howard University* (Routledge).

From the book description:

Drawing on content from yearbooks published by prominent colleges in Virginia [including JMU], this book explores <u>changes in race relations that have occurred at</u> <u>universities</u> in the United States since the late 19th century. It juxtaposes the content published in predominantly White university yearbooks to that published by Howard University, a historically Black college. The study is a work of visual sociology, with photographs, line drawings and historical prints that provide a visual account of the institutional racism that existed at these colleges over time. It employs Bonilla-Silva's concept of structural racism to shed light on how race ordered all aspects of social life on campuses from the period of post-Civil War Reconstruction to the present. It examines the lives of the Black men and women who worked at these schools and the racial attitudes of the White men and women who attended them. As such, *Racism on Campus* will appeal to scholars of sociology, history and anthropology with interests in race, racism and visual methods.

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