



JMU Research, Scholarship & Creative Endeavors

Volume 3, Issue 4

Greetings!

Thank you for reading the JMU Research, Scholarship & Creative Endeavors summer update!

I'd like to start out by welcoming two new leaders to the JMU community. Dr. Tim Miller ('96 and '00) will assume responsibilities as Vice President for Student Affairs on July 1. Dr. Miller previously served as the Associate Dean of Students at George Washington University. Additionally, Dr. Robert Aguirre has been selected as the next Dean of the College of Arts & Letters. Dr. Aguirre was most recently the Senior Associate Dean of the College of Liberal Arts and Sciences at Wayne State University. A big Madison welcome to Drs. Miller and Aguirre!

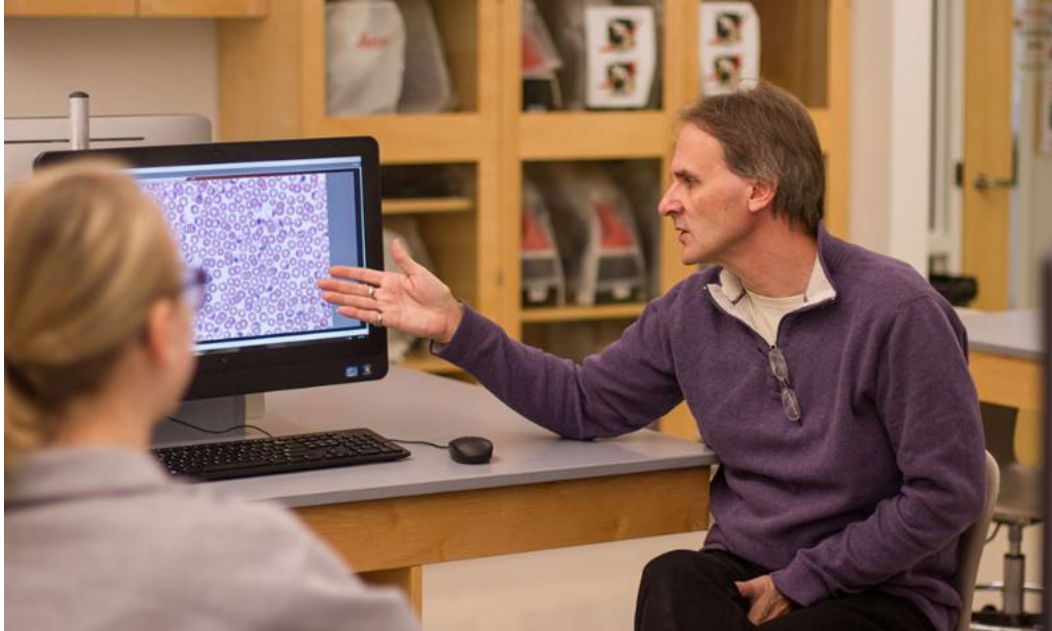
The JMU Faculty Research Council selected Professor of Biology Chris Lantz as the 2018 Provost Award Winner for Excellence in Research & Scholarship. Dr. Lantz's current research focuses on understanding host immunity to malaria infection. Since arriving to JMU, he has been awarded \$900,000 in extramural funds, primarily from the National Institutes of Health. [More on Dr. Lantz](#)

Reminder! The Boys Home of Virginia Harley-Davidson raffle is June 7th, and tickets can be purchased for \$10 each. Follow this [link](#) to support this incredible organization and learn more about how Boys Home is positively impacting the lives of young men.

I would also like to extend congratulations to Virginia Clean Cities Executive Director Alleyn Harned, recipient of the 2018 Excellence in Public Service Award. Alleyn was honored during the Public Service Recognition Week awards ceremony, hosted by JMU's College of Arts and Letters, School of Public and International Affairs, and Master of Public Administration Program. Alleyn has led Virginia Clean Cities since 2009, and is a graduate of JMU's MPA Program. Learn about all the Public Service Award Winners [here](#)

Yvonne Harris

Vice Provost for Research & Scholarship
James Madison University



Provost Award Winner Dr. Chris Lantz mentoring a student.

Faculty Grant Awards

For a monthly listing of recent faculty grant awards, please visit the [Madison Scholar website](#). Here are some notable awards from March and April 2018:

Kevin Caran (Professor of Chemistry and Biology) and Christine Hughey (Director of the JMU LC/MS Undergraduate Teaching and Research Laboratory) received \$340,000 from the National Science Foundation for a regional summer research program integrating deaf and hearing participants in chemistry research.

Hossain Heydari (Professor of Computer Science) received \$9,480 from the New College Institute to offer a Cyber Defense Competition for high school students.

Hossain Heydari (Professor of Computer Science), Brett Tjaden (Professor of Computer Science), and Xunhua Wang (Professor of Computer Science), received \$84,643 from the National Security Agency to offer a week-long "Cyber Defense Bootcamp for High School Technology Teachers" in the summer of 2018, utilizing a mixture of lectures and hands-on exercises.

Robert Brent (Associate Professor of Integrated Science and Technology) received \$90,898 from the Virginia Department of Environmental Quality to develop Total Maximum Daily Loads to address benthic impairments.

Jacqueline Williams (Professor of Kinesiology) received \$25,000 from the Virginia Department of Education to provide a high-quality health and physical education content/teaching summer institute.

JMU Students attend the National Conference on Undergraduate Research



Engineering Professor Rob Prins and University Research Process Analyst Becky Rohlf accompanied eleven undergraduate students to the University of Central Oklahoma in Edmond for the 2018 National Conference on Undergraduate Research (NCUR). Organized by the Council on Undergraduate Research, NCUR is a conference for young scholars that welcomes presenters from all U.S. institutions of higher learning and from all disciplines of academic study. Since 1989, JMU has facilitated participation at NCUR for close to 500 students. View additional conference photos and read the students' abstracts [here](#)

Economic Development and Innovation Community hosted at new Hotel Madison & Shenandoah Valley Conference Center



Director of Technology Innovation & Economic Development Mary Lou Bourne setting the agenda.

JMU's Office of Technology Innovation & Economic Development ([TIED](#)) hosted 40 local, regional, and state university economic development professionals for a meeting of the

University Based Economic Development (UBED) Group. UBED meets four times a year around the state to share updates on recent activities and new opportunities to grow the Commonwealth's innovation economy through partnerships with higher education institutions. Mary Lou Bourne, Chair of UBED and Executive Director of TIED introduced three speakers: Jonathan Alger, President of JMU, Carrie Chenery, Executive Director of the Shenandoah Valley Partnership ([SVP](#)), and Karen Jackson, the former Virginia Secretary of Technology. Discussions ranged from how to market intellectual assets from higher education that bring jobs to Virginia to initiatives that help drive business including [GO Virginia](#), Virginia is for Entrepreneurs ([VA4E](#)), and the Virginia Research Investment Fund ([VRIF](#)).



JMU President Jonathan Alger welcomes the audience.

Later that afternoon, TIED also hosted a meeting for the Shenandoah Valley Innovation Council ([SVIC](#)). George Pace of the Shenandoah Valley Angel Investors discussed their \$4.9M in investments, Mark Siciliano announced the new SVIC mentor program, and Seth Marsh discussed his product [CUED-IN](#) Inc., a web and app-based platform that connects high school students with local businesses. Businesses can post job, internship, and shadowing opportunities to the platform and students can search through this database and apply for these workplace experiences, which could then inform their career choices.



Hotel Madison & Shenandoah Valley Conference Center

Both meetings were held at the Hotel Madison & Shenandoah Valley Conference Center, and the Virginia Economic Developers Association ([VEDA](#)) generously sponsored lunch for attendees. Open for business since early May, the 230-room facility is a public-private partnership between the JMU Foundation, City of Harrisonburg, and dpM Partners, and includes classroom space for JMU's Hart School of Hospitality, Sport and Recreation Management. [Explore Hotel Madison](#)

Department of Foreign Languages, Literatures, and Cultures hosts annual Conference



The Department of Foreign Languages, Literatures, and Cultures recently hosted its sixteenth conference titled *Courage: The Most Admirable of Human Virtues*. Scholars/researchers and students from a variety of disciplines explored the various meanings of courage and its value throughout the history of humankind. Professor Haun, Dr. Mason, Dr. Cardillo, Dr. Yanacek, Dr. Lang-Rigal, and Dr. Polanz hosted a round table discussion titled *Courageous Women Across the Globe* and explored the origins and actions of the #metoo movement in the United States, the #metoo movement in France and Quebec, courageous women in German history, the courage of writing in another language, the courage to examine institutional discursive practices, and the courageous Nicaraguan women who shaped central American history.

Faculty Member receives Fellowship for Community Engaged Scholarship Project in Kenya



Dr. Besi Muhonja (right) with her collaborator, Dr. Jane Mutheu Mutune of the Wangari Maathai Institute for Peace and Environmental Studies.

Besi Muhonja, Associate Professor of Africana Studies, Women's Studies and Gender Studies, and African Literatures and Cultures, was awarded a fellowship by the Carnegie African Diaspora Fellowship Program (CADFP) to travel to Kenya to work with The Wangari Maathai Institute For Peace And Environmental Studies and Dr. Jane Mutheu Mutune on the project -- Community Engaged Scholarship: Curriculum Development and Graduate Student Mentoring. The Carnegie African Diaspora Fellowship Program is designed to increase Africa's brain circulation, build capacity at the host institutions, and develop long-term, mutually-beneficial collaborations between universities in Africa and the United States and Canada. Muhonja will focus on designing curriculum that fosters experiential partnerships between academics and grassroots advocates or citizens. She will also be helping to design processes and frameworks for collaborative knowledge production with students, scholars, and community partners as well as for incorporating community engaged scholarship and pedagogy in the mentoring of graduate students.

New Cybersecurity Programs

JMU to host Virginia Cybersecurity Education Conference

The Virginia Cyber Range, of which JMU is a member institution, will host the 1st Annual Virginia Cybersecurity Education Conference on August 14th and 15th on JMU's campus. The event promises to share innovative and practical ways to increase classroom effectiveness and improve student outcomes in cybersecurity education at both the high school and collegiate levels. The conference is open to all Virginia high school and university faculty, administrators, and partners. Visit the conference [website](#) for more information and to register.

Fall 2018 Program Launch! Cyber Intelligence Graduate Certificate

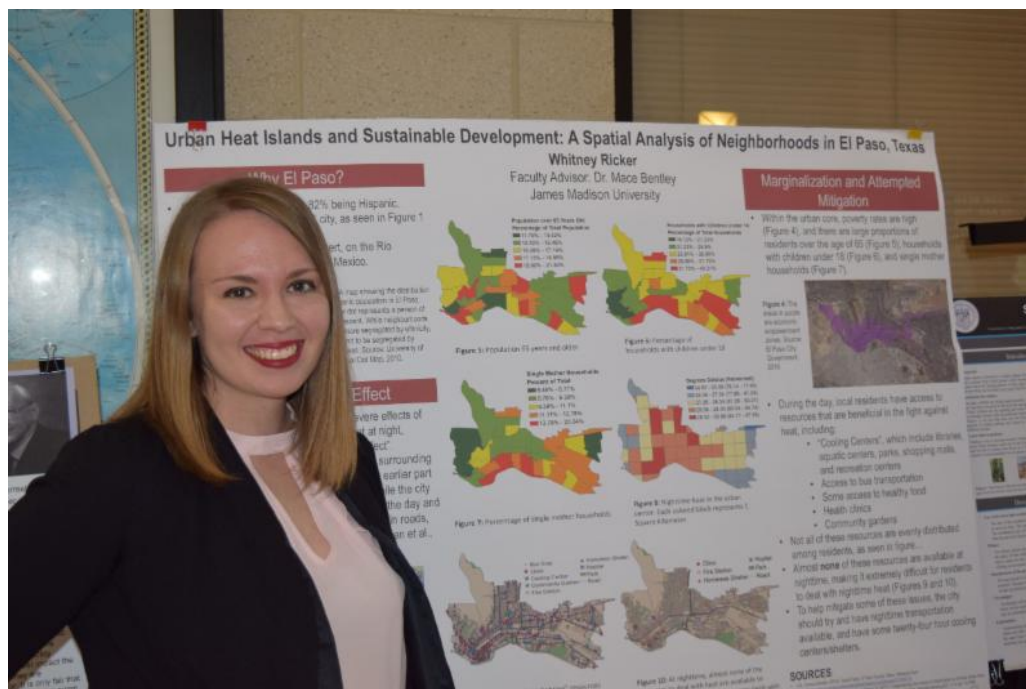
The College of Integrated Science & Engineering (CISE) will launch an online, 18-credit Cyber Intelligence Certificate Program this upcoming fall semester*. Cyber Intelligence is defined as the products and processes across the intelligence cycle of assessing the capabilities, intentions, and activities – technical and otherwise – of potential adversaries and competitors in the cyber domain. This certificate will provide opportunities for persons with an undergraduate degree (e.g., healthcare, psychology, political science) to

expand their skill sets and pursue analytical-oriented cyber positions. Dr. Edna Reid, Associate Professor and Dr. Kathleen Moore, Assistant Professor (Intelligence Analysis) will serve as the program directors. [Read more](#)

*pending SCHEV approval

ISAT Students present Senior Projects

Recently graduated Geographic Science student, Whitney Ricker, completed and presented her research titled “Urban Heat Islands and Sustainable Development: A Spatial Analysis of Neighborhoods in El Paso, Texas” during the 2018 Integrated Science and Technology (ISAT) Senior Symposium. Ricker said her own childhood experience of living in New Mexico inspired her to do this research. While living in New Mexico, Ricker traveled to El Paso numerous times and said she “was always shocked by the stark social and economic contrasts present both within El Paso and between the United States and Mexico.” In light of climate change, Ricker was interested in seeing how, in more recent years, people experienced the extreme heat.



Ricker worked with Dr. Bentley, professor in the Geographic Science Program, and Professor Khemthong, who she says “spent countless hours helping me craft my project into what it is today.” Ricker hopes to go to graduate school and study how climate change will continue to impact different communities in the future. She wants to continue doing similar research in other parts of the world and with different variables. She is constantly seeking new knowledge and hopes to “be able to utilize new skills and tools to enhance [her] findings, and maybe even implement some much needed changes.”

Collaborative Project with Purdue University exploring Entrepreneurial Success of Veterans

Dr. Bobby Vaziri, assistant professor of Computer Information Systems and Business Analytics, received a \$38,000 award from the National Association of Veteran Serving Organizations (NAVSO) for a collaborative project with Dr. Sandra Liu, a professor at Purdue University. Their work examines veteran-owned businesses, which contribute nearly \$1 trillion to the U.S. economy. Their goal is to determine the key factors which contribute to veteran entrepreneurs’ success, so that information can be used to help future veteran entrepreneurs along the path of starting a business. Vaziri will contribute to

the quantitative analysis component of this study by developing a predictive model for the success factors for veteran entrepreneurs.

Graphic and Industrial Design Professors host 2nd Annual Emergence Design Forum

David L. Hardy, professor of Graphic Design and Kevin Phaup, professor of Industrial Design, hosted the 2nd Annual Emergence Design Forum. This event is often referred to as “design for good” because it helps introduce young designers to career pathways that benefit society at large. This year’s topic was “Disaster and Design” and participants explored how design can alleviate some of the challenges experienced by victims of natural disasters. Graphic Design and Industrial Design students came together to share their perspectives and knowledge, and brainstorm creative solutions to issues such as fuel shortages, access to supplies, and evacuation procedures. Current ongoing crises caused by extreme weather occurrences, such as Puerto Rico’s complete loss of its power grid, remind us why critical-thinking and skill-building challenges like this are relevant and necessary.



Photographs by Elise Trissel, Associate Photographer at University Communications & Marketing

Psychology Students receive Engagement Grants

Psychology majors Kathia Bonilla and Caleigh Strother received engagement grants, which are funded by the university and allocated by the JMU Faculty Senate and Student Government Association. After completing her field placement at Western State, a psychiatric hospital in Staunton, Virginia, Bonilla realized that she wanted to pursue clinical psychology and continue her work with this population. She applied for a grant to expand an art therapy group program she had worked with at the hospital. Strother did her field placement at the Commonwealth Center for Children and Adolescents, a psychiatric facility that sees patients ages 3 to 18. As a former Drum Major for the Marching Royal Dukes, Strother was quick to notice the way in which these young people responded to music. She used her grant money to fund ukuleles for the site. [Learn more about these experiences and the engagement grants](#)



JMU joins NSF High Performance Computing Resource

Dr. Yvonne Harris, JMU's vice provost for Research & Scholarship, recently accepted an invitation to join the Extreme Science and Engineering Discovery Environment (XSEDE), a networked computer system funded by the National Science Foundation to enable researchers and students to utilize high performance computing (HPC) resources and tools.

Yasmeeen Shorish, associate professor with JMU Libraries, and Dr. Isaiah Sumner, assistant professor of Chemistry and Biochemistry, serve as JMU's *campus champions* -- local information resources for XSEDE. Sumner and his students' research uses computers to simulate how large proteins move and how enzymes catalyze chemical reactions in an effort to determine how large disruptions to these proteins and enzymes lead to diseases. Sumner says that "because XSEDE resources have allowed us to run these large simulations, my students and I have been able to present our work at regional and national scientific meetings and have been able to publish our work in peer-reviewed journals."

[Read more](#)

Spotlight on Adapted Physical Education



Photograph by Elise Trissel, Associate Photographer at University Communications & Marketing

Four celebrated Paralympic athletes and three accomplished wheelchair basketball players* led a Paralympic Skill Lab experience with select Kinesiology 100 classes in February. The event promoted engagement and education related to adapted sport, inclusion, and sociocultural norms. Assistant Professor of Kinesiology Cathy McKay ('98) organized the experience, which was funded by an Innovative Diversity Efforts Award (IDEA) Program Grant and a Faculty Senate Engagement Mini-Grant.

Prior to the skill lab, students viewed the award winning adapted sport film --*The Rebound: A Wheelchair Basketball Documentary*, which was produced and directed by JMU alumni Mike Esposito ('10) and Shaina Koren ('11). Both quantitative and qualitative data were collected before and after the documentary viewing and the skill lab to gauge

attitudes related to disability, disability sport, and inclusive campus recreation. [Read more](#)

*Corrected version. This story originally appeared in Vol. 3 Iss. 3

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