

# Re:Search

Graduate Studies & Research at Salisbury University  
2023 Edition



Today's Leaders  
Connect with  
Tomorrow Makers

**POSTERS ON THE BAY**

PAGE 8

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*Re:Search* is published annually for friends of Salisbury University by the Office of Graduate Studies and Research in conjunction with the Office of Publications, with the generous support of Salisbury University.

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## PRESIDENT'S MESSAGE

*“Research is central to our mission.”*



I am thrilled to present Salisbury University's 2023 issue of the *Re:Search* magazine. In the time I have been here, I am repeatedly impressed by the amount and quality of research that happens at SU. There is an inspiring number of both student and faculty research that is repeatedly highlighted throughout the pages of this magazine.

Research is central to our mission. As a driver of knowledge, ideas and expression, research is a powerful mechanism we have as educators to support the growth and development of our students to think critically, work collaboratively and deliver ideas.

Dr. Karen Olmstead, SU's provost and senior vice president for academic affairs, is someone who has been instrumental in supporting and advancing research efforts at this University for years. As many of you know, Dr. Olmstead is retiring in 2023 after a long and successful career. She has made an undeniable impact on our SU community and helped open countless doors for research efforts to take place on this campus. Her leadership and achievements will leave a legacy for future generations of faculty, staff and students.

Please join me in thanking Dr. Olmstead for her many years of service and wishing her all the best in her well-deserved retirement. She is a remarkable colleague, leader and researcher, and she will be greatly missed.

Dr. Carolyn Ringer Lepre  
 President

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### ON THE COVER

Maryland's Governor Wes Moore spent time with each student researcher at the annual Posters on the Bay event where SU undergraduate research is showcased for Maryland legislators. • page 8



Olmstead was the co-principal investigator of a \$996K NSF grant that aimed to increase STEM graduates through outreach programs like STEM@SU – read more about Olmstead’s tenure at SU on page 21.

## PROVOST’S MESSAGE

### “A voyage of discovery ...”

In the 2020 edition of this publication, we described research in the words of Marcel Proust: “The real voyage of discovery consists not in seeking new landscapes, but in having new eyes.” As I approach my retirement at the end of this year, I realize a career is much like a voyage of discovery, leading to new ways of seeing and understanding.

When I arrived at SU in 2008 as dean of the Henson School of Science and Technology, I was excited to support the work of faculty in the sciences, mathematics, nursing and health care. Henson School faculty and staff won awards for discovery research, instructional and student support, increasing access to science careers, and expanding technical support for regional governments and businesses. Thanks to their commitment, we were able to open the Henson Medical Simulation Center and Nanticoke River Center, expand computing facilities, and develop other resources and programs. During this time, we also saw double-digit growth in enrollments and external funding.

In 2017, I moved to the Provost’s Office where it is my privilege to support the amazing work of faculty, students and staff across campus. It’s been so rewarding to see our research programs grow, including the launch of our undergraduate student research journal (*Laridae*) and this publication, students presenting their work in Annapolis and at the U.S. Capitol, growth of our campus-wide summer research program and student research conferences, and expanded infrastructure, including instrumentation, research and creative facilities, and technical and financial support.



So, what do I see with my ‘new eyes’ after my leadership voyage at SU? I see how all the pieces fit together. I see undergraduate and graduate students learning their research craft, faculty making important discoveries or providing critical expertise to our region, and faculty and staff seeking new ways (and funds!) to support students and our community. I’ve learned the research enterprise requires a lot of people working behind the scenes whether in Facilities Management, Information Technology, SU Libraries, Conference Planning, General Counsel, Publications and many other offices. For grant-funded work, I see the tremendous expertise and impact of the staff in the Office of Sponsored Programs. Finally, I’ve learned that a genuine commitment to education and student success lies at the heart of research and creative scholarship at SU. Faculty from all disciplines involve students in authentic experiences to develop new knowledge across the sciences, arts, humanities, health care, human services, education, business and other realms. It’s certainly been the privilege of my professional life to get to see this commitment in action every day at Salisbury University.

Dr. Karen Olmstead  
Provost and Senior Vice President of Academic Affairs

# 's Effectiveness and Side Effects



FAMI-MD participants and others benefit from the Henson Simulation Center's state-of-the-art technology like its Anatomage™ Table, a three-dimensional visualization system.

# Grant-Based Programs Encourage *healthy communities*

## SU's Expert Faculty Envision the Future

When Salisbury University's College of Health and Human Services (CHHS) announced the creation of the Center for Healthy Communities (CHC) in 2020, helping the community connect with funding and other academic and professional resources became its mission – and grants are at the heart of their efforts.

At its opening, Founding Director Teresa Simmons explained this grants connection: "Often, funding and other academic and professional resources are available, but unless you are familiar with grant writing and the process, it can be hard to secure them. Our goal is to have a centralized process so when opportunities arise that align with CHHS initiatives and our partners, we can all work together to position ourselves competitively among other applicants."

Three years later and the CHC is going strong! They have worked with the SU Grants Office to successfully gain and administer several community-based grants:

- School of Social Work's Behavioral Health Integration in Pediatric Primary Care (BHIPP) Program
- School of Nursing's Faculty Academy and Mentorship Initiative of Maryland (FAMI-MD),
- Eastern Shore Opioid-Impacted Family Support Program (OIFSP)
- LeadNursingForward.org
- Lower Shore Early Childhood Mental Health Consultation (LSECMHC) Program
- Substance Use Disorder Workforce Expansion (SUDWE) Fellowship

### Reaching Milestones and Making a Difference

For three of the CHC's groups, 2022 proved to be a banner year, from an important anniversary to helping an impressive number of residents to earning additional funding.

In fall 2022, SU joined Johns Hopkins University and the University of Maryland School of Medicine along with the Maryland Department of Health, Behavioral Health Administration in celebrating the 10th anniversary of the BHIPP program. BHIPP places M.S.W. interns in rural pediatric primary care settings, providing mental health and behavioral health services to children in a familiar and safe environment within the co-location of the pediatric primary care office. Since 2012, SU's BHIPP M.S.W. interns have completed nearly 9,000 contacts with pediatric patients.

Coinciding with the anniversary celebration, the CHC was awarded a second grant directed at supporting pediatric primary care providers in rural areas of Western and Southern Maryland.

In discussing the expansion, Brianna Church, an M.S.W. intern placed at PM Kidz in the Hollywood/ Waldorf areas, shared: "BHIPP is important especially in rural areas like Southern Maryland where access to mental health services is limited. BHIPP provides mental health services to families and children who otherwise could be on a long wait list to receive services."

Another group striving to provide quality care is FAMI-MD, which prepares experienced bachelor or higher degree earning registered nurses for new roles as clinical nursing faculty. As part of that preparation, FAMI-MD has been utilizing standardized patients (SPs) from SU's Henson Medical Simulation Center for seven years and reached a major milestone in 2022, its 1,000th simulated experience with SPs.

Funded through the Maryland Higher Education Commission (MHEC) Nurse Support Program (NSP)-II since 2011, FAMI-MD is offered as a collaborative effort among nursing programs across the State of Maryland. FAMI-MD graduates teach at 25 of the 28 accredited nursing programs in Maryland, and the academies are facilitated by faculty from 10 different Maryland schools.

The 1,000 simulated encounters helped over 400 nurses learn to manage common, yet challenging, situations they may encounter as a new educator. Practicing how to manage these challenges in a safe learning environment improves new faculty preparation and readiness.

"FAMI-MD participants feel much better prepared for real clinical settings," Dr. Lisa Seldomridge, Henson Simulation Center founding director and FAMI-MD principal investigator explained. "There's a lot of personal attention, feedback and coaching from Academy facilitators."





Among the most recent grants earned by Center for Healthy Communities programs are:

**\$ 617,391**

Maryland Higher Education Commission (MHEC) Nurse Support Program (NSP)-II • 2022

**\$ 1,980,000**

Health Resources and Services Administration Grant • 2020

**\$ 1,800,000**

MHEC NSP-II • 2018

Another program that Seldomridge is involved with, [www.LeadNursingForward.org](http://www.LeadNursingForward.org), received \$617,391 in additional funding in June 2022 from MHEC NSP-II to support and expand the comprehensive web resource that features easy-to-access information about becoming a registered nurse and nurse educator in Maryland. The SU School of Nursing project began in 2018, with an initial \$1.8 million MHEC award. Led by Seldomridge and nursing colleagues Dr. Kayna Freda and Abigail Johnson with website developers Erin Silva and Tim Lanzi from SU's Eastern Shore Regional GIS Cooperative, the website launched in February 2019.

The team's goal is to increase awareness of the nursing faculty shortage, provide strategies and tips on how to become an educator, and rebrand and promote the image of the nurse educator. In addition to information and inspirational stories, the website features a searchable career portal that connects job seekers with open positions in nursing education.

To date, [LeadNursingForward.org](http://LeadNursingForward.org) has had nearly 37,000 unique site visitors and 139,000 total page views since its launch. The Career Portal has 700-plus total registered users with 120 contributors of job and event posts, and 60-plus organizational profiles.

Both projects were recognized by Sigma Theta Tau International Nursing Honor Society as finalists for the Excellence in Nursing Education

Research Award, FAMI-MD in 2015 and [www.LeadNursingForward.org](http://www.LeadNursingForward.org) in 2019.

## Addressing Substance Use Disorder Issues

Two of the CHC's grant-funded program are designed to address treatment and support for those individuals and families impacted by substance use disorder.

With grant support from the Maryland Behavioral Health Administration (BHA), SU's graduate social work programs is addressing the growing need for licensed, skilled, social workers to work with individuals seeking substance use disorder (SUD) treatment through the SUDWE Fellowship. SUDWE aims to increase the number of social workers providing SUD treatment through a one-year fellowship for M.S.W. students. Students are committed to participating in specialized training throughout the year and work in a SUD treatment setting for two years post-graduation.

In its first two years, the SUDWE Fellowship has helped 20 SU graduates achieve their M.S.W. dreams. Originally funded as a two-year initiative, the success of students at SU and the other two participating institutions (Morgan State University and the University of Maryland-Baltimore) has led the BHA to renew the grant for three more years. A record 16 fellows were admitted for the 2022-2023 academic year – the most ever among the three

universities. Students from the current cohort are located in 10 counties across the Maryland, with field placements occurring in both outpatient and inpatient treatment settings.

Jessie Marsh, a recent SUDWE Fellowship recipient, shared her motivation for participating: "I am passionate about helping others with their mental health. ... I have a humble appreciation for the work it takes for people to get help. ... I am fascinated by the clients' strengths, even when they feel helpless. It takes a lot of courage and dedication to start and follow through with treatment."

Expanding support to families, SU received a four-year, \$1.98 million grant from the Health Resources and Services Administration to establish the SU Eastern Shore OIFSP. Its goal is to increase the number of Opioid Navigator Community Health Workers who are prepared to work with families impacted by opioid use disorders (OUD) and other SUDs in high-need and high-demand areas.

The program is developing educational support and experiential field training opportunities for 78 paraprofessional trainees. Their efforts target children, adolescents and transitional age youth whose parents are impacted by OUD and other SUDs, and their family members who are in guardianship roles.

"Our dedication to quality health education is essential to improving the



M.S.W. students collaborate with area pediatricians through BHIPP to provide mental health services to families and children.

health care in our communities,” said Dr. Deneen Long-White, project director, principal investigator and public health faculty member. “This grant will provide vital resources for the Eastern Shore and expand efforts to combat the growing opioid epidemic.”

## Supporting Childcare and Families

This commitment to families and children extends into SU’s Lower Shore ECMHC, a free early intervention support service funded by the Maryland State Department of Education. The program supports family and center-based childcare in addition to public pre-schools; specifically, the birth to 5 population in Somerset, Wicomico and Worcester counties. The goals of the program are to provide referrals to children/families who would benefit from additional support; help children remain in child care settings through capacity building/support for teachers, caregivers and parents; increase teacher/director and family confidence and competence

while managing challenging behaviors of children; and build partnerships with community partners – Judy Centers, Head Start, Child Find, Infants and Toddlers – and private providers who support the early childhood population.

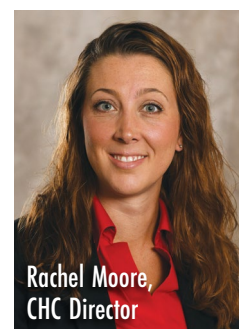
The group’s consultations involve collaboration between childcare entities and families to identify mutually agreed upon goals to best support a child’s social, emotional and developmental needs. A licensed mental health provider (LCSW-C) consults via classroom observations, data collection (age-specific/developmental child assessments), information gathering and identification of strategies to help reduce challenging behaviors that are recommended to teachers and families.

The ECMHC at SU is unique in that it is one of few programs across Maryland to utilize the internship pathway to further develop the ECMH workforce. M.S.W. student interns are part of service provided and they participate in community outreach events and early childhood development and mental health trainings.

## What’s Next for the CHC

In fall 2022, the CHC welcomed its new director, Rachel Moore, who brings with her experience in education, health education and applied behavior analysis. She is a National Commission for Health Education Credentialing-certified health education specialist, among other health and social services certifications. She hopes to create intentional inspiration centered in community health and use that inspiration to strengthen community resiliency and confidence.

As the CHC continues in its mission of community support, they will continue to ensure equitable access to initiatives that elevate our community’s health status. ❖



Rachel Moore, CHC Director



## A Showcase of Success in Motion **POSTERS ON THE BAY**

Maryland's New Governor Discovers Firsthand How SU Students Are Making Tomorrow Theirs

Research by Salisbury University students caught the attention of Maryland Governor Wes Moore in February, who was a surprise guest at SU's annual Posters on the Bay presentation in Annapolis.

An initiative of SU's Office of Undergraduate Research and Creative Activity (OURCA), Posters on the Bay began in 2018 as a successor to SU's annual John R. Hargreaves Distinguished Legislative Fellow award presentation. Initiated in 2001, that program recognized outstanding state legislators with distinguished careers in public service. In return, recipients committed to spend time interacting with SU students, learning about their scholarship while providing them with a firsthand look at civic engagement and the rewards of serving the citizens of Maryland. Similarly, Posters on the Bay allows SU students to interact with legislators and others while state leaders gain a fuller knowledge of their research.

The latest event gave 29 SU students the opportunity to showcase their recent research projects for Maryland senators, delegates, alumni, family and friends. Projects covered a wide variety of social, health and economic issues.

Moore spoke to each presenter about their work and shared his well wishes for their future.

"I want to welcome you to Annapolis and share how proud I am of your work," he said. "The research you've done is noticed and appreciated. Thank you for allowing me to spend this time with you. You are among the best this state has to offer and are our future."

"It's an honor to have Governor Moore speaking to our students about their research," said SU President Carolyn Ringer Lepre. "Posters on the Bay allows SU students to highlight topics they are passionate about and demonstrate to legislators and others the impact undergraduate research has on our community and across the state."



## PRESENTERS & TOPICS

- Volunteerism at the Newton Street Community Center • Madyson Amo & Abigail Walsh
- Targeting Cancer-Associated Proteins for Tumor Imaging • Emmanuela Angu, Min Thway Khant, Stefani Lanahan & Danielle Olenchak
- The Combinatorics of a Small Family of Odd Symplectic Partial Flag Manifolds • Connor Bean & Bradley Cruikshank
- Does Visitor Behavior Effect Animal Behavior Within Zoos? • Lydia Bradshaw
- The Continuing Efforts to Redress Government Discrimination Toward the LGBTQ+ Community: Imprint of the Lavender Scare • Dre'von Clark, Jaedyn Messer & Amanda Niederland
- Does Maryland's Local Government Funding for Mental Health Service Reflect Systemic Bias Against the Population? • Tiah Coates
- Aiding the Youth Homelessness Crisis Through Community Action • Ryan Devine
- Zero Waste at the Maryland Folk Festival • Jenna Feinauer
- The Intersectionality of Environmental Conflict & Disability in Maryland, Other States, & Abroad • Jake Goodman
- Analyzing the Efficacy of Public School Mental Health Systems • Eliza Hurd
- New Insights on the Fecundity of the Blue Catfish, *Ictalurus furcatus*, Brings About a New Understanding of this Invasive Species • Maria Kaschak
- Effects of Northern Snakehead (*Channa argus*) Mucus & Scales on Terrestrial Friction • Francis Lopez Chilel
- The Lack of Financial Literacy of Americans & the Impact on the U.S. Economy • Kellan McAleer
- Ethics Education Combats Epistemic Injustice in Prison • Carly Nascimbeni
- Trace Metal Concentration of Sediment in Two Chesapeake Bay Tributaries, Wicomico & Nanticoke Rivers • Samantha Peters
- A Comprehensive Public Transportation Survey of the Delmarva Peninsula • Evan Polkinghorn & Andrew Wilson
- Exodus: Sex-Specific Movements of Endangered Spotted Turtles (*Clemmys guttata*) Leaving Breeding Ponds & their Terrestrial Activity • Rebecca Pritt
- Using Chemistry to Find Better Solutions for Available MRI Contrast Agents • Zobia Rani & Ann Thomas
- Rhabdomyolysis in the NCAA • Sean Roesener
- Creating ... Creating ... • Luke Zolenski

*"The research you've done is noticed and appreciated. ... You are among the best this state has to offer and are our future."*

– Maryland Governor Wes Moore

*"I've presented research before, but never to Maryland lawmakers, so this opportunity provides a different perspective based on the feedback they may have."*

– Jaedyn Messer, Senior Psychology Major

*"Undergraduate research opens up a lot of opportunities not just for graduate school but having relevant experience when entering the job field."*

– Samantha Peters, Senior Chemistry Major

David Weber and SU Fraud Program students join members of the Worcester County Sheriff's Office and Ocean Pines Police Department.



## Federal Grant Helps Curbs Elder Fraud

In 2017, 92-year-old William Gautier received a notification from his bank that a check drawn on a long-standing, little-used account could not be cashed due to insufficient funds. That notification led to the discovery that some \$80,000 had been removed from the combined accounts, little by little, without his knowledge. Further investigation revealed fraudulent credit card applications also had been made in his name. In this case, most of the funds were recovered through insurance. However, many victims of elder fraud are not so lucky, according

to David P. Weber, clinical assistant professor of accounting.

He is hoping a \$2.6 million grant from the U.S. Department of Health and Human Services will help change those odds for some local senior citizens with the help of SU students. The funding allows the University

to expand its Fraud and Forensic Accounting Certificate Program with an eye toward providing new opportunities to assist Worcester County law enforcement officials in the fight against elder financial and high-tech fraud.

"To our knowledge, this is the only fraud experiential learning program of its kind in the nation," said Weber, who was appointed last year as a special investigator by Kris Heiser, state's attorney for Worcester County, to further the pilot program.

### Prevention And Prosecution

In fall 2022, 20 students in SU's Fraud Program interned with the Office of the State's Attorney for Worcester County, providing outreach and prevention services to elder victims and those at risk for financial fraud, and working to assist Worcester County Sheriff's Office detectives on related criminal investigations.



**\$2.6M**  
GRANT



*“To our knowledge, this is the only fraud experiential learning program of its kind in the nation.”*

“After law enforcement concludes its investigations, our student interns assist prosecutors with preparing for trial, including creating visual displays condensing voluminous financial records and other pieces of evidence into easy-to-understand exhibits for juries to consider, and even testify in court as needed,” said Heiser.

Perhaps most importantly, the grant provides new scholarship funding for student interns in the program. Currently, through SU’s ShoreCorps AmeriCorps program, students earn some \$1,400 during their one-year internship with the Office of the State’s Attorney, in exchange for at least 300 hours of service. The grant is expected to add an additional \$4,500 scholarship for each intern.

### **More Than A Job**

Looking toward the next few years, Weber believes the opportunities this grant provides will encourage more students to consider careers in fraud examination. That expected increase could help turn SU into a national leader in curbing a nationwide issue with recruitment and turnover of professional investigators tasked with investigating elder financial crimes. All of last year’s program graduates had jobs lined up before taking their final SU class, and nearly half were hired into federal or local public service, he noted.

While most students in the program appreciate that the experience they receive likely will help them land a

job, fraud examination and forensic accounting means more to them than a potential paycheck.

“Professor Weber does a great job of prioritizing service and helping others,” said Kaylynn Boswell, a senior management major. “Being part of something bigger than just getting a degree is rewarding in its own right.”

“This program isn’t just ‘Who stole your money?’ noted senior accounting and information systems major, and fraud and forensic accounting minor Garrett Zawodniak. “It’s also ‘How can we help you prevent that in the future?’” ❖

# FISHING FOR THE FUTURE



Dr. Noah Bressman, SU Biological Sciences Department faculty, and graduate assistant Zachary Crum found an innovative way to combat invasive species in local waterways while supporting their research – and Eastern Shore anglers helped.

In summer 2022, fishing hobbyists and professionals participated in the Nanticoke River Invasive Fishing Tournament, presented by Salisbury University, at Cherry Beach Park in Sharptown, MD.

Thanks to a grant from the Maryland Department of Natural Resources, the free tournament featured nearly \$3,000 in prizes. All blue catfish and northern snakeheads caught were given to Bressman's lab to continue research to learn more about their effects on the local ecosystem, with a focus on diet, growth speed and reproduction rates.

On a gorgeous July morning, 300 teams disembarked for the tournament. Fishing was tough for many, and others could only get the wrong species to bite.

At the end of the day, 42 teams weighed in a total 651 blue catfish and five snakeheads, totaling almost 1,000 pounds of invasive fish.



## Raising Awareness to Minimize Impact

“We really want to spread awareness in local waterway communities about what fish are invasive, and how they can minimize their populations to relieve some pressure from striped bass and blue crabs, whose populations are on the decline because invasive fish are eating and competing with them,” said Bressman.

Though invasive species like blue catfish and snakeheads have developed a stigma due to the harm they can cause for native species, that does not mean they are unfit for consumption, Bressman said.

“We want to bring awareness to the benefits to the native aquatic species once these fish are removed and encourage anglers to catch, keep and eat these delicious fish,” he said. “We shared creative recipes at the tournament for those who want to try cooking them at home.”

Bressman's previous research on invasive fish, “Terrestrial Capabilities of Invasive Fishes and Their Management Implications,” is featured in the journal *Integrative and Comparative Biology*. Data from the next phase will be used to enhance this work and further improve management of certain invasive species.

## Research and Education Are Key

Crum, an M.S. applied biology student from Chesapeake, VA, is no stranger to aquatic research and conservation efforts. While earning his B.S. in fish conservation at Virginia Polytechnic and State University (Virginia Tech) and following graduation, he has worked at state and federal labs and fisheries across North America, including Alaska, California, South Carolina and the Bahamas.

An avid angler and host of *The Fisheries Podcast*, Crum has a passion for contributing to impactful change in aquatic conservation and fisheries management, and researching invasive species and their effects is one way to work toward that goal.

“What's so special about SU and Dr. Bressman's lab is our ability to start something new from the ground up to hopefully spark long-term efforts that yield measurable change while capitalizing on the privilege of our location among the Chesapeake Bay and other renowned waterways,” said Crum.

“Experiential opportunities like this for both graduate and undergraduate students are invaluable when it comes to learning in the very environments biologists likely will find themselves working in following graduation.

“A tournament is one example of the many ways we creatively can reach anglers and the local communities. By making small changes in the way we handle and educate about invasive species, we are sticking up for underappreciated species and their habitat’s water modifications that don’t always have a voice but play an important role in our ecosystems and preserving biodiversity.”

Community members aren’t the only ones gaining important education from the event. At the tournament, the researchers measured and weighed the fish caught and removed the stomachs and took tissue samples before returning the fish to the anglers. These samples were frozen and used later by SU graduate and undergraduate students to conduct diet studies to discover what these fish are eating and what impact that can have on other species in their ecosystem.

The samples also traveled beyond SU. Fin spines were shared with Dr. Kate Galloway in the Biological Sciences Department at Nicholls State University in Louisiana. She is using them in her research on how climate change will affect invasive species and their defensive/protective structures. Blood and gonad samples were shared with the United States Geological Survey

(USGS) for reproduction research. Working with Dr. Christine Densmore, veterinary medical officer at USGS Eastern Ecological Science Center, Crum co-authored a report for the Atlantic States Marine Fisheries Commission to inform resource managers of the potential ecosystem-level impacts of the invasive catfish species in Chesapeake Bay tributaries and possible mitigation strategies to minimize these impacts.

### Inspiring Action and Looking Forward

Using SU’s tournament as a model, the Federalsburg, MD, Mayor’s Office partnered with the Federalsburg Lions Club, Federalsburg VFW, and Caroline County Parks and Recreation to host the Madness on the Marshyhope Blue Catfish Tournament and Festival in November. Bressman and his student researchers entered the tournament as a team, capturing fourth place and collecting more data on the eating and reproduction habits of the species. Helping to shift the public perception of catfish as a tasty seafood choice so that they will be fished more heavily, the event featured an after-tournament fish fry for the community.

The Bressman lab also continues outreach about the invasive species and how to mitigate them frequently

at Salisbury 3rd Friday events and in presentations to local elementary schools, fishing groups and conservation organizations, including the Izaak Walton League. Their work also captured the attention of Maryland Public Television, the state’s Public Broadcasting Service station. Film crews met with Bressman in the fall to contribute to a special they are producing on catfish that will premier in the spring.

When asked if the SU tournament will return, Bressman shared, “Depending on funding, I’d love to make it an annual event! We gain vital data and it really helps our community. It’s a win-win.” ❖

“Experiential opportunities like this for both graduate and undergraduate students are invaluable when it comes to learning in the very environments biologists likely will find themselves working in following graduation.”



Graduate student Zachary Crum (right) displays an impressively sized blue catfish caught in the Eastern Shore waterways.



# Squirrel!

## NSF Award Helps Freeman Answer a Decade-Old Question

Challenging Sammy the Sea Gull for the title of Salisbury University mascot is the squirrel. Found scampering around every corner of campus, members of the SU community are constantly entertained by their antics. Recently, their relative the flying squirrel is getting attention at SU as well.

The National Science Foundation (NSF) is helping an SU biological sciences professor expand research and student education in the intriguing bonds between flying squirrels. Dr. Angela Freeman received a three-year, \$480,233 NSF grant to continue their independent research, “Neuroendocrinology of Flying Squirrel Social Behavior.”

**\$480,233**  
National Science Foundation Grant



“This grant provides an awesome opportunity to grow my research and share it with SU students,” said Freeman. “I had this question about flying squirrels, who display somewhat rare behavior compared to other mammals, in choosing to connect and nest together with unrelated peers throughout the year, independent of outside factors such as temperature and season. I wanted to explore the hormones in their brain to better understand their shifting social and bonding behavior.”

### Shedding Light on a Hidden Community

Flying squirrels live throughout the Eastern Shore, but because they are nocturnal, they aren’t seen frequently like their SU tree squirrel cousins. Freeman explained that flying squirrels gather in summer and winter, nesting together in hollow trees in groups as large as 50. This nesting behavior is what peaked Freeman’s curiosity: “We don’t know why they do this. For a long time, we thought it was to stay warm. But they do it in the summer. They do it in Florida. They do it everywhere.”

The funding will support student assistant compensation, construction and placement of local aviaries, food and housing for the squirrels, and lab equipment.

“Research is the most fun when you don’t have to do it alone,” said Freeman.

“Sharing this experience with students is equally as rewarding as the research itself. Mentorship is my favorite part of the job, and it’s important to provide opportunities for students to learn outside the classroom while finding ways to financially support them so they don’t have to make a choice between educational advancement and working.”

This project was ideal for biological sciences majors Joanna Diaz-Ocana and Katie Ekholm, who are assisting Freeman at the inception of this grant and research.

“I was interested in this project because I knew that it would be great opportunity to learn new skills and explore my interest in field research,” said Ekholm. “This experience allows me to take another step towards my goal of going into research after I graduate because it will provide the hands-on experience valued in the field.”

This work is a continuation of previous research for Ekholm and Diaz-Ocana, who also assisted Freeman on a study surrounding the neuroendocrinology of vampire bat co-operation.

“I learned a lot from helping Dr. Freeman, and I aspired to do more to continue the learning experience of what it’s like to be a student research assistant,” said Diaz-Ocana. “This current research project has taught me many things such as oddly specific facts on flying squirrels, carpentry skills, patience and what it’s like to work with a team that shares the same curiosity in figuring out why animals do the things they do.”

Having the students involved in all aspects of research encourages them to have ownership over the project, inspiring them as they go beyond the normal classroom experience. “It’s a completely different experience to take something start to finish that becomes your own,” said Freeman. “It’s really fun as a professor to watch students take the knowledge that they get in the classroom and really apply it into something that’s physical and tangible and hands on, and be frustrated throughout the process and



Dr. Angela Freeman installing squirrel avaries at SU's Nanticoke River Center.

figure out what works, what doesn’t work, and revise and keep going.”

### Putting Research Into Action

Freeman’s research employs a three-part approach that will explain how hormones affect flying squirrel behavior, what parts of the brain are involved, and how the squirrels’ brains and behaviors change over the seasons.

The team will determine how oxytocin, a hormone important for bonding and trust, affects communal nesting behavior in squirrels by administering by the naturally occurring neuropeptide oxytocin or blocking its effects. They will also explore which parts of the brain are active during communal nesting and whether these brain regions produce oxytocin. Finally, they will look at how season impacts the brain’s sensitivity to the effects of oxytocin, and how this impacts communal nesting behavior.

The team is taking advantage of an innovative University research facility, the Nanticoke River Center. Located in nearby Mardela Springs, the center is situated in a prime flying squirrel

habitat. Freeman’s team set up their lab at the center and are benefiting from its convenience: “The field house here has really been a great place for us to do our research ... so anything we want to do, measuring something, weighing things, doing any chemical analysis, all of that we can do right here on site.”

Freeman understands the influence and importance of undergraduate research because her interest in flying squirrels began when she was an undergraduate working in New Brunswick, Canada: “I was hired as a field assistant for the summer. We would go out trapping flying squirrels, measuring them, marking them, and then we actually radio collared them and watched how they moved through different landscapes.”

After two years on the project, she began to see patterns in their nesting habits that inform her current research: “I always had questions about why they were in some nests and not others, and why they chose to move between certain forest types in winter versus summer. And that always stuck with me. And this became the perfect opportunity to kind of get through some of those questions that I’ve had for a decade or more.”

Perhaps a decade from now, the questions that her students have from their experiences with Freeman will inspire tomorrow’s discoveries. ❖

“Mentorship is my favorite part of the job, and it’s important to provide opportunities for students to learn outside the classroom while finding ways to financially support them so they don’t have to make a choice between educational advancement and working.”

# SU Ethics Initiative Earns NEH Grant

The Re-Envisioning Ethics Access and Community Humanities (REACH) program at Salisbury University received a \$146,322 grant from the National Endowment for the Humanities (NEH) Humanities Connections program in spring 2022.

The funding helps the initiative, a collaboration involving Philosophy, Psychology and Biological Sciences

departments, to bring aspects of ethical practice into all disciplines across campus. The grant supports three years' worth of programming around community-based ethics education.

Drs. Michèle Schlehofer (psychology), Timothy Stock (philosophy) and Jennifer Nyland (biology) received the grant after several years serving as co-directors of REACH. The initiative began in 2018, when Schlehofer and Stock realized how much overlap there was between their disciplines in terms of the importance of ethical concerns. Nyland came on board during the COVID-19 pandemic as it brought home complex ethical issues in a new and pressing way. The pandemic demonstrated how ethics affects nearly all aspects of life and provided a new context for biomedical research to establish ethics and social responsibility as a primary concern.

## Creating a Community Network

REACH developed methods to connect community partners with SU, and to return campus conversations around ethical issues to the community. The team developed the Community Ethics Network, a network of over 120 local organizations and leaders in the greater region focused on peer-to-peer discussion, resource sharing and opportunities. Members include representatives of large and small for-profit enterprises, nonprofit organizations, faith-based organizations, city and county governmental agencies, and advocacy groups.

CEN member Martin Hutchinson, United Way of the Lower Eastern Shore community impact associate, shared what drew him to join the network: "I am always looking for



NATIONAL  
ENDOWMENT  
FOR THE  
HUMANITIES

**\$146,322**

Humanities Connections Program Grant



SU's Ethics Bowl Team advanced to the Association for Practical and Professional Ethics' Intercollegiate Ethics Bowl national championship for the third time in 2022, placing 12th of the 36 teams.



opportunities to strengthen the work I do in the community ... It was also an opportunity to join with other colleagues in the community to explore a topic of vital importance to our work in the community. In addition, I was intrigued by the idea of ethics increasing community engagement and accountability.”

The need for these conversations is obvious when they start from community leaders, said Stock. “You have to understand why it is that you’re making the decisions that you’re making,” he said. “You have to be clear about what your principles are and how they connect to the mission of your organization and how to navigate different perspectives within the organization itself.”

### Bringing the Discussion Full Circle

The cyclical process of REACH begins as the group holds listening sessions with community and regional business leaders, allowing for conversation of ethical dilemmas they may be facing.

Faculty members bring the cases back to campus and find the proper program and class in which they should be discussed. After the case is dissected, the results are delivered to the concerned community members.

The team has already coordinated with the City of Salisbury and Habitat for Humanity regarding housing issues in the area. The grant funding expands this work, allowing for more listening sessions, on-campus training and ethics workshops.

The first such workshop was held in May, Adherence to Ethical Norms and Accountability. Participants from six local organizations, in a wide range of organizational roles, worked to identify a variety of key stakeholders, both in and outside their organization, and the ethical priority that guides each stakeholder relationship. They discovered that

## REACH Growth By The Numbers

Workshops & Consultations .....	4
Academic Presentations .....	5
Ethics Case Studies Developed .....	9
Listening Sessions Held .....	8
Number of CEN Members.....	334

conflicts often arise when collaborating organizations or individuals have different ethical priorities. Attendees worked through processes of identifying differences in ethical priorities and ways of building common ground. Finally, attendees learned various mechanisms of building accountability processes that extend beyond just reporting organizational activities to the community.

### The University As An Agent of Engagement

In the fall, the REACH team advocated for “ethics enfranchisement” at several events. Stock was part of SU’s Democracy Across the Disciplines seminar series focused on Controversy and Resilience, exploring the controversies facing democratic societies and the ways those societies are resilient in the face of challenges. Stock’s presentation focused on the question “What are universities for?” and made the case for SU’s community-engaged identity, in particular as a place where supporting ongoing conversations

about ethics can forge stable and meaningful “enfranchisement” of community members and community organizations around areas of pressing concern.

The “enfranchisement” model also was presented at the National Conference for Higher Education in Prison, highlighting several activities that Stock has led with Dr. Grace Clement, Philosophy Department, and Clarke Honors College philosophy student Carly Nascimbeni at the Eastern Correctional Institution, including an Ethics Workshop and three Ethics Bowl teams at the prison. Stock also presented in January at the American Philosophical Association’s Teaching Hub, making the case for public philosophy and community-based ethics teaching.

The NEH grant aims to blend humanities disciplines – ethics, in SU’s case – into different academic settings, in particular the STEM disciplines. Funds support Ethics Across the Curriculum, a program that helps train faculty in how ethics can be interwoven in their classes. Stock facilitated the program’s first workshop in January with 12 faculty participating in the inaugural cohort.

### REACH-ing Forward

This is the second NEH grant for REACH. Schlehofer and Stock earned a smaller planning grant in 2020 when getting the program established. The current round of funding was exceptionally competitive, with only 10 Humanities Connections implementation grants selected for funding, a mark of distinction for SU’s model of civically engaged education.

With new funds and increased interest, REACH is forming a Community Advisory Board. Members will provide the REACH team input on current community-facing initiatives, as well as helps steer what types of products the REACH team develops and implements in the local community. Their team is also expanding with Clement serving as a subject matter expert and Katie Stella-Breeding joining as community outreach coordinator.

Long-term goals for REACH include a University-based ethics center, similar to SU’s Bosserman Center for Conflict Resolution, which would allow businesses or individuals to seek out the expertise of REACH and SU students in solving real-world ethical issues. ♦



Dr. Jennifer Nyland



Dr. Michèle Schlehofer



Dr. Timothy Stock

# Grant Better Prepares Students for **INCLUSIVE TEACHING**

Giving SU students as many experiences as possible to work with adaptive sports

Dr. Dean Ravizza, professor of physical education teacher education and adapted physical education, has long been a proponent of inclusive teaching and preparing his students to be able to adjust their programs for whatever may come their way.

He has shelves filled with smaller equipment, needed to teach adaptive sports like goalball and beep baseball. Now, thanks to a \$25,000 Direct Effect Quality of Life Grant from the Christopher and Dana Reeve Foundation, Ravizza is going a step further in helping SU's physical education students learn to work with adaptive sports in a hands-on fashion.

Named for the late *Superman* actor Christopher Reeve and his late wife Dana, the foundation had its roots in the Stifel Paralysis Research Foundation and American Paralysis Association (APA), which Reeve and his wife Dana turned to when he was paralyzed with a spinal cord injury in 1995. From that connection, the Reeve Foundation and APA came together in 1999 in the unwavering belief that researchers and neuroscientists, working together, would find a way to connect and regenerate the damaged nerves and cells that result in paralysis.

As a pillar of the Reeve Foundation's National Paralysis Resource Center, the Quality of Life Grants Program impacts and empowers people living with paralysis, their families and caregivers by providing grants to nonprofit organizations whose projects and initiatives foster inclusion, involvement and community engagement, while promoting health and wellness for those affected by paralysis.



## Experience Makes Better Teachers

The award has allowed Ravizza to purchase of eight sport wheelchairs for the program. They will help future teachers to work with students with paralysis by allowing his SU students to experience firsthand what it's like to participate in athletics from a wheelchair.

"We want to give our students as many experiences as possible to work with adaptive sports because of the push for inclusion into the general education programming," said Ravizza. "We tend to make accommodations for the student with the disability so they can participate the way their same-age peers are. But what we don't do is flip that and have the general population participate like their same-age peers with disabilities. I want to prepare my students to be able to do both when they are in their own classrooms."

Along with the wheelchairs themselves, the grant allows for the purchase of spare parts to keep them in good condition, along with additional funds to collaborate with others on campus and in the community for events.

Ravizza is coordinating with SU's intramural program for some integration of adaptive sports, like pop-up wheelchair basketball tournaments or similar events.

## Impacting Lives Locally

He believes the teaching opportunities are endless, both on campus and off. He intends to hold local workshops for local teachers with the equipment, allowing them to experience the wheelchairs and see how they could be integrated into their own curricula.

"That was probably one of the driving forces of this grant," he said. "I can do a lot on campus, but how can we impact the greater community? This is just one way to be able to do that."

Following a recent professional development workshop on adaptive sports for physical education teachers in Wicomico County, some of whom are his former SU students, Ravizza has learned about local primary and secondary school students with mobility issues who could benefit from this equipment. He is willing to take the wheelchairs and his expertise on the road to co-teach with local teachers and assist in their programs to create more equitable learning opportunities for local children with physical disabilities.

The equipment has already had a profound impact on one local family. Twelve-year-old George Goodridge, who was diagnosed with spina bifida, participates in physical education classes



“ [The sport wheelchairs] will help future teachers to work with students with paralysis by allowing ... SU students to experience firsthand what it's like to participate in athletics from a wheelchair. ”

at SU through the homeschool program. When the sport wheelchairs were introduced, it enhanced his opportunity to be involved in class.

“It was great to see George be able to participate more and watch less,” said his mother, Michelle Goodridge. “I feel like he is more motivated with the program at SU than he has been in previous conventional programs we tried. When they first brought out the chairs for basketball I cried. It was amazing to see other kids adapting to the way George does things, usually it's George that has to find a way to adapt. He looks forward to gym every week and to seeing what they have planned.”

While the Special Olympics has a heavy presence in the area and many locals have the opportunity to go on to regional, national and even international competitions through the organization, little is available for younger individuals

with physical disabilities.

“We don't have that opportunity for kids who want to go on to adaptive sports, perhaps Paralympic sports,” Ravizza said. “I was thinking, ‘Wouldn't it be great if children had the opportunity to get some basic experience through physical education and then even expand further through the school system?’”

### **Sport as a Force for Change**

This grant is just the next step in Ravizza's commitment to using sport as more than a recreational activity. In 2020, he was honored with the University System of Maryland Board of Regents Award for Excellence in Public Service, recognizing his years of using sport and physical education to improve the lives of youth and their communities.

He first explored using sport to support children and youth in crisis while working

at a refugee camp in Tanzania during the Rwandan genocide. Later, in Uganda, he made sport part of holistic reintegration programs for former child soldiers. Recognizing his humanitarian service, he earned the 2018 Rotary International Peace Fellowship to further his work in using sports to bring people together across war zones and ideological divides. He also facilitated sports diplomacy programs for the U.S. State Department, using sports to increase dialogue and understanding between groups from around the world.

Ravizza is now crossing the divide of student accessibility. Paired with his expertise and passion, the newest grant will allow him to impact many generations of physical educators and, more importantly, those who may not have had a chance to be included in class or sport before. ❖

# College Assistance Migrant Program: **IMPACTING TOMORROW**



Senior Elementary/  
Early Childhood Education Major  
Esteban Garcia-Ailon

farm work. With nearly 10 million acres of farmland in Maryland, Delaware and Virginia, the region attracts thousands of seasonal migrant farm workers each year. Drs. Amber Meyer, Claudia Burgess and Vincent Genareo of SU's Seidel School of Education earned the grant, designed to enhance educational opportunities for those who qualify. The program is open for all undergraduate majors.

Four years into the grant, Nina Soto Ramirez, CAMP director, is excited to celebrate the program's first graduates in the spring. Soto Ramirez said: "This grant has a special impact because it provides academic, social and financial support to first generation students with migrant or seasonal farm work backgrounds so they can be successful in their academic journeys in higher education. This grant holds the potential to change lives."

Senior Esteban Garcia-Ailon is hoping to work locally as a kindergarten teacher when he graduates. Reflecting on when he first arrived at SU, he shared: "My experience as a first generation student was an eye opener for me. All of these college experiences that I was having were new to me and I had nobody in my family to relate to or to talk about it with."

He quickly connected with campus resources and faculty who were there to help him navigate the landscape of higher education. "They want me to succeed. They want me to achieve a degree. They want me to have a career in teaching," he explained. He realized "I have the potential to make a change in education ... for everyone and everywhere."

Another CAMP scholar looking to make an impact in education is sophomore Adela Rubio-Villafuerte. She recognizes that her college career means a lot to the community from which she comes. "Being a first generation college student puts a lot of pressure on you," she said. "You not only have yourself and your parents looking for you to do well, but also your community. You are a role model for your neighbors who are Hispanic – the younger children who look at you and realize you are in college. They see me and think: 'If she can do it, I can do it too.'"

SU is proud to celebrate these CAMP Scholars whose dreams are impacting tomorrow through a strong commitment to higher education and community. ❖

Thanks to Salisbury University and the U.S. Department of Education, a group of students for whom a college education may have seemed out of reach is on track to earn their college degree.

In 2019, SU received a five-year, \$2.1 million College Assistance Migrant Program (CAMP) award from the Department of Education. The Initializing Migrant/Minority/Marginalized Power through Opportunities and Widening Educational Representatives (I<sup>M</sup><sup>3</sup> POWER) grant is assisting first-year, full-time students who are engaged, or whose parents are engaged, in migrant and other seasonal

To learn more about CAMP, visit: [www.salisbury.edu/CAMPgrant](http://www.salisbury.edu/CAMPgrant)



## FROM DEAN TO PROVOST: Dr. Karen Olmstead Champions Research Efforts

There are few aspects of Salisbury University's campus that haven't been influenced by Dr. Karen Olmstead in some way.

Since coming to SU in 2008, Olmstead has been a strong advocate for students, faculty and research at the institution – from her tireless work to obtain federal research grants to supporting individual student research projects. She was instrumental in the creation of the Office of Undergraduate Research and Creative Activity (OURCA), *Laridae* undergraduate student research journal and summer research experiences, among countless other endeavors.

After nearly 15 years at the University, Olmstead announced plans to step down from her current position as provost and senior vice president of academic affairs, before retiring at the end of the year.

"Dr. Olmstead was a large part of why I chose SU as my academic home," said Dr. Jessica Clark, assistant provost for faculty success. "Her tireless advocacy for our students and faculty has made SU a more inclusive, dynamic institution, and SU is better for having been led by her."

When Clark came to SU as biological

sciences faculty, Olmstead was dean of the Richard A. Henson School of Science and Technology. She experienced firsthand how Olmstead's leadership and commitment to undergraduate research fostered an environment for success of both faculty and students.

As dean of the Henson School, Olmstead was a co-principal investigator for a \$996,000 National Science Foundation (NSF) grant – the largest NSF grant in SU history at that time – to fund the University's Bridges to SUCCESS (SU Connections to Careers for Every STEM Student) program, designed to increase science, technology, engineering and mathematics graduates by 75% within five years. She also secured \$150,000 for the PROMISE Academy to recruit science faculty from traditionally underrepresented groups.

Under her stewardship, enrollments, degree conferrals and external funding all grew. She was responsible for earning more than \$3.5 million in grants from the NSF, Howard Hughes Medical Institute, Bush Foundation and others.

As provost, she furthered that dedication to the campus community on

an even larger scale.

"Dr. Olmstead has always been a strong voice for the importance of our faculty at SU," said Dr. Clifton Griffin, dean of graduate studies and research. "Nothing is more valuable to a university than faculty time, so it has been incredible for SU to have a provost who is tirelessly advocating for research and celebrating faculty success."

During Olmstead's tenure as provost, SU also has set new records for Fulbright students and scholars, being named a top producer in the United States for both. She also focused on support for faculty careers with the creation of the assistant provost for faculty success position, the launch of SU's Center for the Advancement of Faculty Excellence and two awards from the NSF to support career equity for science faculty.

"Through countless changes and challenges, Dr. Olmstead has made a difference at SU, exemplified the mission of the University and positively influenced the people of our campus," Griffin said. "Her impact is immeasurable." ❖



# Just Be Curious!

Salisbury University welcomed Dr. Carolyn Ringer Lepre as its new president in summer 2022. Here she shares her research background and thoughts on the role of research for SU's current students.

**Q1: What is the focus of your research?**

**A:** My focus is predominately on representation in all forms of media. Initially, I wanted to be a journalist and write for magazines, so the starting point for my research was an examination of representation within print media. My findings, and desire to learn more on the subject, encouraged me to expand my research into network television, movies, and other forms of broadcast and digital media.

Media messaging and underrepresented groups is a theme that has always been present in my research. I primarily explored gender and minority representation within forms of media here in the United States. I co-authored a book, *Diversity and U.S. Mass Media*, with Catherine Luther and Naeemah Clark that really encompasses years of our collective study on minority and disability representation – of all forms – and was designed to be used as an undergraduate textbook.

**Q2: What made you pursue that field of study?**

**A:** Because I wanted to be a journalist, representation in media became a natural focus for me. Very early on, I became interested in how what people wrote or shared through media outlets impacted society – I wanted to understand how narrative shaped perception. I could see there was an impact that personalities within the media have on the influence of society. Media personalities can develop into celebrities, and how and what they report on, or decide what's worth covering, has tremendous implications on the public's perception of events and especially groups of people. I was intrigued to find a means to measure the impact of that influence. A specific area I examined was the historical news magazine coverage of United States First Ladies and how these women of influence were represented by our national media.

**Q3: In what ways do you believe there is still more to explore in the field?**

**A:** Representation in media is a field where there will always be more to research. There is so much more that needs to be done to think about the way stories are written and the repercussions those stories have. Media is always changing and evolving too. Social media and other digital platforms have reinvented the ways in which we engage and consume media; it has particularly affected the attitudes and behaviors toward people and groups. In recent years, we have seen greater representation of women in media, but that representation is still fairly attached to stereotypes.

This is not to say that representation is not improving. There are elements of representation in media that are much better than they were. We've seen improvement in sub-created areas of media by organizations like HBO, Netflix, Hulu and Amazon Prime. Many of the major streaming services have helped to increase the volume of representation in media.

**Q4: Have students played a role in your research?**

**A:** I was able to work with graduate students at the University of Tennessee who helped with components of my research, but mostly I have worked with undergraduate students. Often students would raise questions that would drive a curiosity in me to research the answer to their question or tie it in with my current research. I love presenting something to students that sparks an interest and leads them toward the development of their own research or thesis paper. Their enthusiasm to research and be curious inspires me to rethink and reevaluate my own work.

**Q5: What is something you learned in the course of your research that would surprise readers?**

**A:** One thing I was always struck by was the outcome of experiential research I would have my diversity and media class students participate in. We would examine Super Bowl advertisements across a 10-to-15-year period with the lens of diversity representation in those commercials. Nearly all of the students predicted they would be able to see, and map, an upward trend of representation in these advertisements, because the perception was society had become more conscious and more sensitive to the importance of representation. Students were always extremely surprised to see that the data they researched demonstrated there was no statistical difference in representation over time.

**Q6: What advice would you offer to SU students about conducting their own research?**

**A:** Not all research is the same. In my experience, there are some students who come to college and already know they want to do research, but there are many who find themselves initially disinterested in it because they perceive it as such a structured, scientific process.

I encourage students to rethink what the work "research" actually means – go and explore something you are curious about. Research can begin simply by asking why and endeavoring to answer that question. Research doesn't have to be a big and laborious task done by Ph.D.s. Some of the most interesting papers that come out are done by genuinely curious people, so I would encourage all SU students to not get caught up in an existing definition of research and just be curious. ❖

*“I love presenting something to students that sparks an interest and leads them toward the development of their own research or thesis paper.”*

# GRADUATE STUDIES

## 5 Years. 2 Degrees. 1 Great Benefit.

According to the Bureau of Labor Statistics, employment of clinical exercise physiologists is projected to grow 13% from 2016 to 2026, faster than the average for all occupations. This demand reflects the rising trend of hospitals emphasizing exercise and preventive care to help patients recover from cardiovascular and pulmonary diseases and improve their overall health. In part to address this need, Salisbury University has created a new, accelerated pathway with its Five-Year Combined B.S. Exercise Science/M.S. Health and Human Performance Program, which began in fall 2022.

“The five-year plan is designed for motivated students who want to be efficient with their investment,” shared Dr. Scott Mazzetti, program director for both exercise science and health and human performance.

This streamlined program allows students to earn the two accredited degrees and be job-ready much more quickly than following the traditional course progression. With three of the graduate classes fulfilling requirements for both degrees, students can take advantage of a more focused route toward a graduate degree, saving both time and money. This plan gives students a reduction in total tuition costs compared to obtaining separate B.S. and M.S. degrees. Additionally, students are guaranteed a seat in the graduate program as long as they maintain requirements for admission during their undergraduate coursework.

Students benefit from professional faculty and staff, who “train students to be well-rounded physiologists who have the ability to apply what they’ve learned to improve the quality of life for a variety of individuals, ranging from clinical patients to elite athletes,” said Mazzetti.

The program prepares students for a variety of professional careers, from clinical exercise physiology, to community and corporate wellness, to strength and conditioning programs. Earning Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation at both undergraduate and



graduate levels, the program has been recognized for excellence. As a point of distinction, SU's Exercise Science Program was the first undergraduate program to earn CAAHEP accreditation, nationally and internationally. Graduates are prepared to earn a professional certification through the American College of Sports Medicine or the National Strength and Conditioning Association (NSCA).

National trends are also being felt locally, creating a community health care need. Dr. Margarita Treuth, School of Health Sciences director, met recently with administrators at regional health care system TidalHealth to discuss how SU's five-year program will prepare qualified practitioners to address a regional, critical shortage. “There is a need for students trained in clinical exercise physiology and who will obtain the certification that comes from SU's master's program,” explained Treuth. “TidalHealth and other hospitals in Maryland will benefit by employing our graduates in their cardiovascular and pulmonary rehabilitation facilities.”

By combining these two programs, students accumulate the clinical hours necessary to sit for the highest level of credentials more quickly, enhancing career outlooks for SU graduates and fast-tracking the next generation of health care professionals – a win-win for both students and the community.

To learn more about this and SU's other graduate programs, visit: [www.salisbury.edu/gradstudy](http://www.salisbury.edu/gradstudy)



“SU's Exercise Science Program was the first undergraduate program to earn CAAHEP accreditation, nationally and internationally.”



# GIFTS TO SUPPORT RESEARCH: An Immeasurable Investment in Students' Futures

Across Salisbury University's campus, there are countless opportunities for students to make the most of their education and build the foundation for their futures. Among these opportunities, research has played a special role in students discovering their passions and potential.

The research community at SU is unlike that at other universities. SU's smaller, more student-focused environment is a special place where students develop long-term relationships with their mentors. Instead of being assistants to faculty researchers, SU students are leaders of their own projects, delving deep into their interests and taking part in opportunities that don't just look good on a resume, but are directly related to what they want to do in their careers.

The results are incredible. As undergraduates, SU students publish papers, present at major conferences within their disciplines, and earn national and international fellowships to take their work further.

"It's important for students to participate in undergraduate research because it really lets you dive into one specific area that you're interested in and share it ..." explained Jenna Feinauer, senior environmental studies and Spanish double major.

On top of a student's time and energy, research may involve expenses such as lab or field equipment, text materials, visiting museums and archives, travel to conferences and more. Gifts to support research allow students

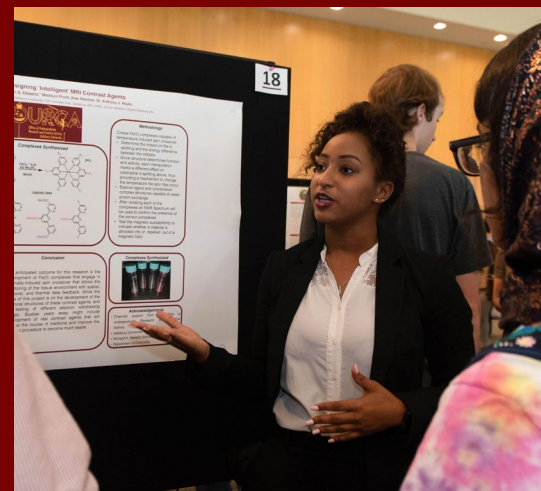
to cover these expenses and also devote more time to their studies, instead of seeking part-time jobs that aren't related to their career.

"By supporting research, you're helping a student further their education and accomplish things they never thought they could on their own. If we can invest in these opportunities, the possibilities for our students are limitless," said Dr. Clifton Griffin, dean of graduate studies and research.

Currently, there is an opportunity to endow SU's Office of Undergraduate Research and Creative Activity (OURCA), which has been a central hub for research and experiential learning across campus. Since its inception, OURCA has spearheaded opportunities such as SUSRC, Posters on the Bay, summer research, the *Laridae* student research journal and Undergraduate Research Fellows program. The impact these opportunities have had in kickstarting students' professional careers and setting them up for future success is immeasurable.

"It's very important to have an office like this on campus," Griffin said. "Five or 50 years from now, you will still see how that investment has made a difference in students having meaningful experiences on campus and into their careers."

There are many ways to support student research at SU, from one-time gifts to long-term endowments. For more information, contact Amy Luppens at [asluppens@salisbury.edu](mailto:asluppens@salisbury.edu) or 410-677-0084. ❖



## STUDENT RESEARCH OPPORTUNITIES

**\$150,000+**

in funding to support summer student research projects over the past 3 years

**100+**

summer student research projects completed over the past 3 years

**129**

students presented at the 2022 SU Student Research Conference

**14**

students presented at the 2022 National Conference on Undergraduate Research, the most competitive and prestigious venue for undergraduate scholarship in the United States

**29**

students presented to members of the Maryland General Assembly through the annual Posters on the Bay event in 2023

**Contact:** Amy Luppens • [asluppens@salisbury.edu](mailto:asluppens@salisbury.edu) • Office: 410-677-0084 • Cell: 410-829-6495

**Salisbury**  
UNIVERSITY



A copy of the current financial statement of the Salisbury University Foundation, Inc. is available by writing 1308 Camden Avenue, Salisbury MD 21801 or on its website, [www.salisbury.edu/foundation](http://www.salisbury.edu/foundation). Documents and information submitted under the Maryland Charitable Solicitations Act are available for the cost of postage and copies from the Maryland Secretary of State, State House, Annapolis MD 21401, 410-974-5534.

## RECENT FACULTY BOOKS

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### **Taking the Mystery out of Funding Maryland Public Schools**

*By Dr. Jon Andes, Education Leadership*

The book explores the historical background, overview of the governance structure, lawsuits and court action, sources of funds, commissions, collective bargaining, local school system operating budget, local school system capital budget, charter school funding, and the recently adopted legislation titled Blueprint for Maryland's Future. Two appendices contain an example of the annual state funding allocation with a table explaining each area of state funding and the projected funding required to implement the Blueprint for Maryland's Future Act.

*International Council of Professors of Educational Leadership, 2022*

### **Social Issues in Sport Communication: You Make the Call**

*Co-Edited by Dr. David Burns, Communication*

Combining theory with practical application, this collection of real-life, provocative case studies on social issues in sports provides students with the opportunity to make the call on ethical and professional dilemmas faced by a variety of sport and communication professionals. The case studies examine the successes and failures of communication in the corporate culture of sport intersecting with social issues including race, gender, religion, social media, mass media, public health and LGBTQ+ issues. Topics include the COVID-19 pandemic, the Black Lives Matter movement, sexual abuse scandals, domestic violence, cultural appropriation and mental health.

*Routledge, 2023 (In Press)*

### **The Black Experience and Navigating Higher Education Through a Virtual World**

*Co-Edited by Dr. Shanetia Clark,*

*Early & Elementary Education*

The book explores the reality of the Black experience from various perspectives involving higher education institutions with a focus on HBCUs. The book provides an overview and analysis of a virtual experience that goes beyond the day-to-day technological implications and exposes innovative ideas and ways of navigating students and faculty through a remote world. It focuses on heightening the awareness of disparities through the Black experience in a virtual environment, provides guidance on transitioning to fully remote environments, examines leadership dynamics in virtual environments, analyzes mental health balance, and examines implications on the digital divide.

*IGI Global, 2021*

### **Expanding the Foundation: African American Authors of Young Adult Literature, 1980–2000**

*Co-Edited by Dr. Shanetia Clark,*

*Early & Elementary Education*

This volume focuses on a group of authors who began writing in the late 1980s. This group consists of eight authors who expanded the foundation and built a critical reputation that garnered a variety of nominations and awards. This volume has a chapter for each of the eight authors that focuses on their critical reception as authors, then discusses in some detail a single representative work, and, finally offers classroom activities for individual, small group, and whole class activities that will engage students in the work discussed.

*Rowman & Littlefield, 2021*

### **More Mirrors, Windows, and Sliding Doors: A Period of Growth in African-American Young Adult Literature (2001 to 2021)**

*Co-Edited by Dr. Shanetia Clark,*

*Early & Elementary Education*

This is the third book in a three-volume series celebrating and examining about the work of 11 of the most prominent African American authors since 2000. The chapter authors-librarians and established and emerging scholars in the field of young adult literature survey the work of each author, their accolades, and how audiences responded to their work. Each chapter highlights a single work and discusses how it might be taught in a classroom with a focus on introductory, during, and concluding activities for individuals, small groups and the whole class.

*Rowman & Littlefield, 2022*

### **Literacy Across the Community: Research, Praxis, and Trends**

*Co-Edited by Dr. Laurie Henry,*

*Seidel School of Education Dean*

This volume explores and evaluates community-based literacy programs, examining how they bridge gaps in literacy development, promote dialogue, and connect families, communities, and schools. Highlighting the diversity of existing literacy initiatives across populations, this book brings together innovative and emerging scholarship on the relationship between P20 schools and community-based literacy programming. This volume not only identifies trends in research and practice, but it also addresses the challenges affecting these community-based programs and presents the best practices that emerge from them.

*Routledge, 2020*

### **A Field Guide to Community Literacy: Case Studies and Tools for Praxis, Evaluation, and Research**

*Co-Edited by Dr. Laurie Henry,*

*Seidel School of Education Dean*

This practical guidebook presents trends, research-grounded strategies, and field-based solutions to challenges of working in community-based literacy initiatives. A comprehensive guide for practitioners, this book addresses best practices for implementing, maintaining, expanding, and evaluating community-based literacy initiatives. The contributors in this volume help readers shift thinking from merely considering, "How can communities support literacy?" to "How can literacy help us create, support, and strengthen communities?"

*Routledge, 2022*

### **Chronotopes and Migration: Language, Social Imagination, and Behavior**

*Co-Authored by Dr. Farzad Karimzad, English*

This practical guidebook presents trends, research-grounded strategies, and field-based solutions to challenges of working in community-based literacy initiatives. A comprehensive guide for practitioners, this book addresses best practices for implementing, maintaining, expanding, and evaluating community-based literacy initiatives. The contributors in this volume help readers shift thinking from merely considering, "How can communities support literacy?" to "How can literacy help us create, support, and strengthen communities?"

*Routledge, 2021*

### **Energia's Research Adventures: Perspectives on Renewable Energy and Research Methods**

*Dr. Dr. Jacques Koko,*

*Conflict Analysis & Dispute Resolution*

By means of fictional characters and storytelling, the book examines non-renewable and renewable energy sources through the lenses of a variety of research methodologies. It sheds light on the meaning of research, portrays different tactics for designing and conducting research in the social sciences, both in quality and quantity, inductively and deductively. It utilizes fiction to discuss a set of qualitative and quantitative research methods for data collection, including the techniques of self-examination, diary or journal keeping, observation, interview, survey, and experiment. It also explains strategies for data analysis that encompass content analysis, narrative analysis, comparative, correlation analysis, regression analysis, time-series analysis and factor analysis.

*Balboa Press, 2022*

## Lunyala-English Dictionary

Co-Edited by Dr. Fulbert Namwamba,

*Environmental Studies/Geography & Geosciences*

This book is suitable for all Luhya readers and speakers – the majority of Luhya speakers share very many vocabularies in their daily communication, irrespective of the dialect. It addresses the need to unite Luhya people by sharing this kind of written material to enable them to understand how close they are. Despite the widespread notion that Luyhas are diverse, they are related in many ways and communication is one of them.

D&G Publishers, 2022 (2nd edition)

## Chronic and Infectious Disease: A Public Health Approach

By Dr. Brandy Nobiling, *Public Health*

This textbook consists of 12 chapters. Chapters 1-2 are foundational chapters that introduce readers to a brief history of disease in the context of public health efforts as well as many key terms used in public health. Chapters 3-8 cover various infectious diseases, and the remaining 4 chapters are dedicated to chronic diseases most responsible for morbidity and mortality in the United States. This textbook is by no means an exhaustive study of every disease known to exist, but rather a focused exploration of diseases selected due to their public health importance and impact.

Rebus Community, 2022

## Voices of Resistance: A Bilingual Anthology of Afro-Colombian Poetry

Adapted & Translated By Sally Perret, *Modern Languages & Intercultural Studies*

With the aim of making their culture and poems visible to a wider audience, the book brings together the verses of seven women representing different generations of writers. The poetry stands out for following a musical rhythmic structure, inherited from its African roots. The poets expose their lives, the triumphs and struggles they have lived. They are a critique of the environmental and ecological degradation of their territory. They talk about their experience living in Latin America with a common ethnic origin and also reflect on the abuses suffered by the simple fact of being a woman and Black.

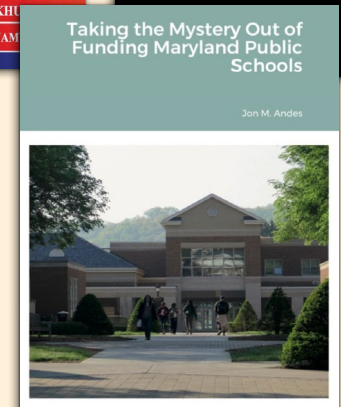
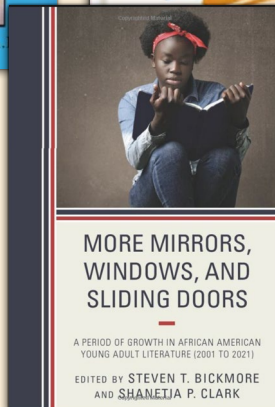
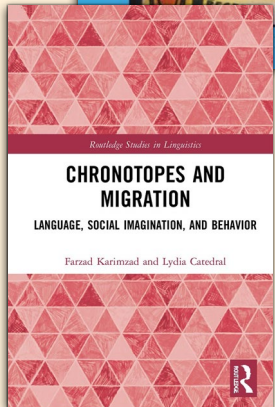
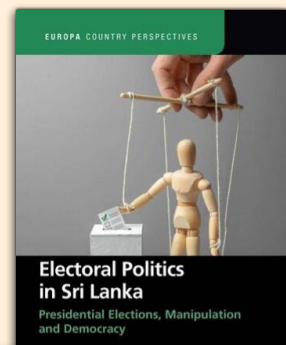
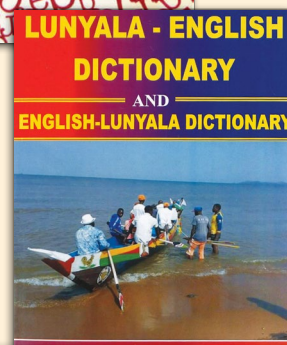
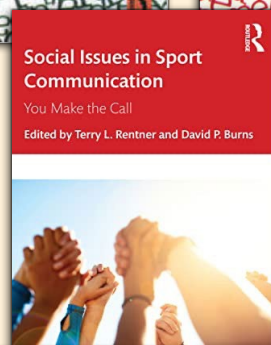
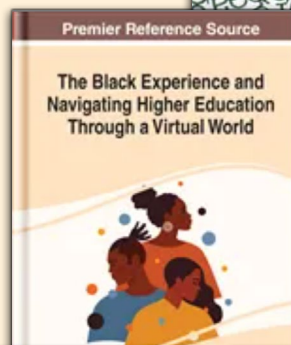
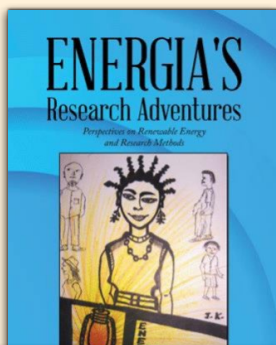
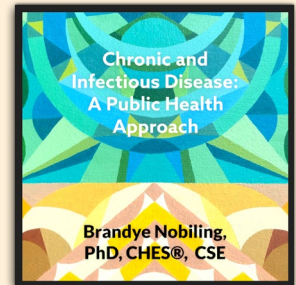
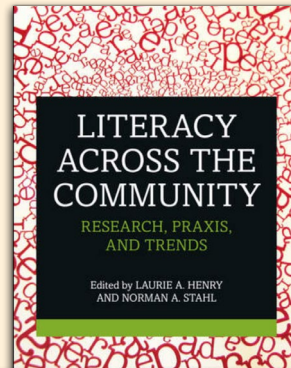
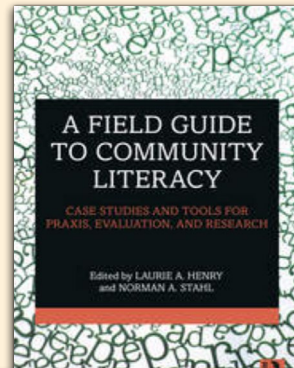
Ultramarina C&D, 2021

## Electoral Politics in Sri Lanka: Presidential Elections, Manipulation and Democracy

By Dr. Ignaciyas Soosaipillai, *Conflict Analysis & Dispute Resolution*

This volume examines and analyses electoral politics in Sri Lanka through the theoretical framework of manipulation. Through a close examination of eight presidential elections, research carried out for the volume found that elections are often associated with violence; presidential elections are mainly a majoritarian affair in which minority communities play only a marginal role; there is a significant gender imbalance, as women's participation in the electoral process is very limited; despite the presence of a large number of candidates contesting the election, it always remains a two-way race; and amid extensive manipulation and other problems, voter participation tends to be high.

Routledge, 2022 ❖



# Faculty Mini-Grant Program

The SU Faculty Mini-Grant Program provides awards up to \$3,000 to encourage faculty to develop research, scholarly or creative programs that provide the potential for sustained professional development and “seed funds” to secure additional extramural support. The following is an overview of this year’s awardees.

## Whole-Person Health and Well-Being in the Post COVID-19 Age: Scholarly, Community and Institutional Applications of Happiness and Well-Being

### Dr. Vinita Agarwal, Communication

How can we understand meanings of happiness in whole-person health and well-being in the post-acute crisis phase of the COVID-19 pandemic experience? Health-related quality-of-life (HRQoL) is linked with improved patient outcomes and has traditionally focused on deficits in functioning while well-being focuses on aspects that enable functioning (e.g., a sense of flourishing, happiness and fulfillment).

This project examines the multiple and competing ways the meanings of happiness can be (re)constituted conceptually, experientially and perceptually. The goals of the research are three-fold. First, gaining pragmatic knowledge and experience into integrative health coaching and well-being through earning a certification will result in enhancing Agarwal’s experiential competence in designing community-based offerings of whole-person well-being and happiness. Second, conducting a qualitative scholarly inquiry exploring how individuals (re)constitute happiness in whole-person health through mind-body approaches (e.g., in navigating chronic conditions, aging and ecological well-being) will offer deeper understandings of their shifts in the post-acute crisis phase of COVID-19. Third, combining applied and scholarly work in the pedagogical realm to develop an online course on Whole-Person Health and Well-Being by drawing upon Agarwal’s knowledge of whole-person health as a coach and researcher, her course offerings in health communication as an educator, and her practice-based competencies in mind-body practices will potentially contribute to institutional curricular enhancements.

## Acute Effects of Autoregulated and Non-Autoregulated Blood Flow Restrictive Exercise on Indices of Arterial Stiffness

### Dr. Brent Fedorko, Exercise Science

In the last few years, the popularity of blood flow restriction (BFR) exercise has increased in both clinical and athletic populations. The impact of this type of training on arterial stiffness is less understood. The purpose of this study is to investigate the acute effects of autoregulated (AR) and non-autoregulated (NAR) BFR exercise on indices of arterial stiffness. AR BFR training devices adjust pressure in the cuff ensuring similar pressure throughout the range of motion when the muscles are contracted (dilated) and relaxed. NAR BFR training devices do not adjust pressure in the cuff throughout the range of motion when the muscles are contracted and relaxed, which causes greater pressures at different points in the range of motion.

Thirty adults aged 18-40 years old will be randomized into AR

BFR or NAR BFR exercise groups. Each subject will undergo a series of pre- and post-tests, including anthropometry, ultrasonography of the carotid artery, applanation tonometry, ultrasonography of the vastus lateralis, blood pressure acquisition, body composition and maximal strength assessments (1 RM). The findings will be presented at conferences within the field of exercise science and health and will be prepared for manuscript publication.

## Speaking in Echoes, A Graphic Novel

### Dr. Elizabeth Kauffman, Art/SU Art Galleries

The combination of image and text has been an important aspect of Kauffman’s creative bodies of work since graduate school. In *Letters to Ohio* text from diverse sources is paired with small landscape paintings to create foreboding and cryptic postcards; and in *Smoke Signals, Post-Idiom, 10 Things, Principles of Invisibility* and *Oracle*, text and image merge into medium- and large-scale paintings that read like posters announcing snippets of personal trauma, ecological warnings and UFO sightings. Kauffman’s latest project, *Speaking in Echoes*, which uses words and pictures to tell a story is, on the one hand, a natural extension of her past work. On the other hand, there is a stark difference in her work of late because it is collaborative, sequential and digital.

*Speaking in Echoes* is a story that imagines philosopher Jill Stauffer in a discussion group about ethical loneliness with a group of incarcerated men. It is a 70+ page script, written by Dr. Tim Stock (philosophy), that will include approximately 280 different and detailed digital paintings that will illustrate the script. This book, like its collaborative formation, sits in an interdisciplinary space between academic text and graphic novel. This project follows in the path of works like Nick Sousanis’ *Unflattering*, published by Harvard University Press in 2015, which uses graphic abstraction to upend traditional scholarly discourse and pose epistemological questions through visual means. Like Sousanis’ book, *Echoes* employs painted images in the service of philosophical discourse. Unlike the former, however, this book tackles ethical questions about voice and visibility through an artful play of representational imagery

## Taking Before Teaching: The Impact of Experiencing the Class on Instructor’s Curriculum Uptake

### Dr. Carolyne M. King, English

This study investigates the impact on instructors’ perceptions and teaching behaviors of “taking” a version of a first-year writing (FYW) course as part of instructor development and training. Many high-performing student-writers “test out” of taking a first-year writing course, thus potentially “teaching” before taking a course they now instruct. Of course, instructors are prepared to teach in other ways – notably, through a required graduate course

in Composition Theory and Pedagogy. However, while research in the field of writing studies describes what the content of these pedagogically focused courses should include, there is little research that explores the key writing experiences that influence instructor’s pedagogical choices.

This project responds to this gap in instructor training by investigating the influence of “taking” a writing course on instructors’ pedagogical behaviors. This study examines three inter-related questions: 1) How does engaging with FYW content in a student role, impact instructors; 2) What pedagogical or behavioral modifications (if any) do FYW instructors make after this experience; and 3) How does “taking” the course in the student role, impact instructors’ confidence in their ability to teach a standard curriculum? This project uses a pre- and post-survey of participating instructors as they complete an asynchronous version of English 103 in summer 2022; additionally pre-and-post interviews about their teaching experiences in the fall 2022 semester investigates how instructors may draw upon their student-role writing experiences as they make pedagogical choices. This project offers particular benefit for SU and for the First Year Writing Program, and will help shape future professional development opportunities for writing instructors.

## Archival Research for Manuscript ‘Eleanor Antin’s King of Solana Beach’

### Dr. Jennifer Kruglinski, Art

Kruglinski planned to travel to Los Angeles for the duration of her two-week research appointment to access the special collections at the Getty Research Institute (GRI). The GRI’s special collections are crucial archival research for her manuscript, which examines the impact of failure on activism as well as identity in Antin’s King persona, as the GRI owns Antin’s collected papers. These papers are key to Kruglinski’s research into Antin’s King persona and performances such as *The Battle of the Bluffs* and *The King of Solana Beach* because they include objects that are not available anywhere else, such as the scripts for her performances of the King, recordings of those performances and tapes of interviews with Antin. They also contain objects such as the sketches from her King’s Meditations, which form an archival extension of the King’s persona that provides documentation of his “historic” presence in Solana Beach through his sketches and annotations, as well as ephemera such as communications Antin sent to friends and colleagues about her persona, and promotional materials from performances and exhibitions.

Kruglinski presented a preliminary iteration of the manuscript at the Southeastern College Art Conference (SECAC) in October 2019, the second largest art history conference and professional association after the College Art Association, and the chairs of her panel encouraged her to publish the paper as an article in SECAC’s journal *Art Inquiries*.

## Contributing to a Humanistic Framework for Social Work Education and Practice

### Dr. Stephen Oby, Social Work

Several principles of humanism and humanistic psychology are central to social work values. This preliminary research seeks to generate a literature review and outline for a humanistic framework for social work education and practice. There have been prior efforts to integrate humanism more meaningfully into social work, including Malcolm Payne's 2011 text, that will be instrumental for this project. However, humanism remains rarely addressed in social work education and, as far as Oby is aware, has never been applied to social work education.

The products generated from this work will both be submitted for publication and will serve as a foundation for Oby's broader scholarship trajectory. Humanistic principles influence his own teaching and practice but only informally, through his own learning and development. By engaging in this preliminary research, he will be able to initiate a process that will be impactful for social work educators and practitioners alike. The gain for Salisbury University exists not only in the benefits of a faculty member initiating a promising research agenda but also in Oby's ability to disseminate these results to colleagues as well as students, to benefit members of the Salisbury community and the discipline as a whole.

## Land Use, Conflict and Corridors: Elephant Conservation in a Rural-Urban Landscape

### Dr. Andrea Presotto, Geography and Geosciences

The Hwange West-Victoria Falls part of Zimbabwe is a landscape mosaic of dry forest and small-scale agriculture that contains a rapidly growing rural farming population, a large elephant population and urban sprawl. Elephants are valuable to the local ecology and economy but cause widespread conflict due to threats to people and the destruction of crops and property. Habitat destruction due to the unplanned expansion of farmland and urban development driven by tourism has increased human-elephant conflict and threatens the elephant's survival in this region.

This project aims to: a) implement a plan for elephant corridors to avoid their contact with the communal lands to reduce crop-raiding and property destruction, and b) quantify the land change in the area over the last few decades. Elephant habitats will be prioritized for conservation within known movement corridors based on the Land-Use Conflict Identification Strategy (LUCIS) model. The outputs of these goals will feed directly into the elephant management strategy of the region. Presotto will look at the spatial-temporal patterns of land use/land cover changes in the study area and the locations of human-elephant conflicts using historical and current remotely sensed imagery and geographic information system (GIS) mapping and analysis capabilities. She will employ as mapping priorities the land use from the perspectives of elephant-required resources, agriculture on the communal lands and rural/urban development. This work builds on the previously funded project to increase elephant conservation in Zimbabwe.

## Artist Residency in Barcelona and Solo Exhibition in the SU Art Galleries Downtown

### Wm. Brooke Rogers, Art

Brooke Rogers was accepted to the RARO Artist Residency Program in Barcelona, Spain. RARO is an itinerant artists in residence

program created to generate spaces for exchange, creation and dissemination of work. RARO introduces a format that has the particularity of being itinerant, receiving national and international artists, curators and cultural managers to develop their projects in the different RARO workshops at the same time generating talks, meetings, visits and exhibitions that complement each project. While in Barcelona, Rogers will spend as much time as possible visiting the baroque and baroque-inspired architecture of the city, while working on a new series of related constructed paintings. "Constructed painting" is a sort of sculpture-painting hybrid. This is his primary mode of studio work in recent years.

The residency is a collaborative model. Rogers will be placed in a local sculptor's studio for the first week while he builds the painting supports. After that, he'll share a painting studio for three weeks while completing the paintings. The hope is to establish professional and institutional connections through the local AIFS staff in Spain that may help arrange a pop-up exhibition before returning to the United States. Once back in Salisbury, Rogers will mount a large solo exhibition of the new paintings at the SU Art Galleries Downtown.

## Visually Dynamic Prices

### Dr. Gustavo Schneider, Marketing

Schneider plans to investigate the use of visually dynamic price information and how it influences consumer offer perception. The focus of this project is to investigate how such visually dynamic characteristics of the price can influence offer evaluation. Prior research has found that image motion can increase attention (Simons et al. 2000) and that attention can increase attribute importance in advertising context (Mackenzie 1986). However, it is not clear how consumers respond to different types of movement (e.g., moving up/down, shrinking, growing) and how movement can influence price evaluation. Therefore, this research aims to investigate how consumers respond to visually dynamic price information.

Two pretests have been conducted for this project (both pretests were conducted using data collected from an online participant pool). In this first pretest, Schneider found that consumers reported greater excitement when prices have a growing movement. Another pretest followed (N=120) in which Schneider found that prices with growing movement increase purchase intention, and that this effect is mediated by excitement. Moving forward, the plan is to clarify the role of excitement on offer evaluation and investigate potential boundary conditions for the reported effects (e.g., product category, consumer expertise, cognitive load). This project can contribute to consumer researchers and managers on clarifying the role of visually dynamic prices on consumer perceptions of offers.

## Modeling Cardiac Physiology in Calculus

### Dr. Melissa Stoner, Mathematical Sciences

Demonstrating the relevance of mathematics to real-world problems is a pedagogical challenge. The problem is especially acute in the case of calculus, for which applications are not obvious. For students enrolled in MATH 198: Calculus I for Biology and Medicine, providing effective curricular applications specifically tailored to their interests has been theorized (Abramovich) and shown (Stoner) to support students' understanding of the relevance of calculus.

This project utilizes the iStan high fidelity manikin in the Henson Simulation Center to develop a mathematical model of cardiac output that would be used to create a classroom activity illuminating the role of calculus at the core of aspects of cardiac physiology. Stoner aims to 1) identify a model that mimics the functioning of the iStan patient simulator, and 2) identify conditions that cause changes in cardiac output that would be accessible to calculus students. The second phase consists of implementing a classroom activity in which students use calculus to derive the model of cardiac output. Finally, during a visit to the Simulation Center, students test their model over a range of input values and compare it with the actual manikin functioning.

## Change the Message Recording Session

### Jerry Tabor, Music, Theatre and Dance

"Making my compositions accessible and well-performed is essential in the development of my career," said Tabor. When considering performance material, musicians like to hear recordings that demonstrate the music they might like to play. To encourage such performances, Tabor is producing a studio recording of his latest seven compositions. The compositions to be recorded are his most advanced jazz works to date; they may help to redefine some aspects of jazz, such as form and improvisational frameworks. When the recording is finished, Tabor hopes to distribute it commercially.

## Comparison of OnePatch and Standard 12-lead ECG

### Zachary Townsend, Exercise Science

Heart disease continues to be the leading cause of death in the U.S. An electrocardiogram (ECG) is a common, non-invasive, test that can detect potential heart problems and prompt early treatment/prevention. However, even experienced ECG technicians make electrode-placement mistakes that can lead to a misdiagnosis. Therefore, a mobile ECG device may be a useful tool for identifying heart disease and reducing the number of lead-placement errors made by students learning ECG interpretation.

A standard 12-lead ECG requires clinicians to place 10 separate electrodes in precise locations on the body, which involves significant time and training. As a result, medical equipment companies are now manufacturing portable ECG devices that do not require as much prep time, with only one patch required to obtain an ECG reading. However, these one patch ECG devices have not been extensively tested. Therefore, the purpose of this study is to compare heart rate and intervals (PR, RR, QT) obtained from the OnePatch ECG device with the standard 12-lead ECG. In this non-invasive observational study, participants provide informed consent and are asked to visit the lab in order to record a standard 12-lead ECG (using 10 electrodes) and a OnePatch ECG. This study seeks to answer the research question: Is there a significant difference in ECG tracings obtained from the OnePatch device compared with the standard 12-lead ECG? This project also allows exercise science students to gain practical hands-on experience using different ECG testing equipment they may encounter in the field. ❖

# Graduate Research and Presentation (RAP) Grant Program (Spring and Fall 2022)

The Office of Graduate Studies and Research provides research grants, up to \$750, to help graduate students develop research and scholarly projects with faculty supervisors and present their projects at various conferences and meetings. The program enables students to receive recognition for their work and provides networking opportunities and professional development in their field of study.

## An Inquiry Into a Collaborative Teacher Study Group: Elementary Teachers of Reading Talking About Race, Reading Instruction and Assessment

**Sarah Crebs, Ed.D. Contemporary Curriculum Theory and Instruction**

This research inquiry aims to critically examine how elementary reading teachers participating in a collaborative teacher study group (CTSG) talk about race and elementary reading instruction and assessment on the Eastern Shore of Maryland/Delaware. I recruited K-5 elementary teachers of reading from local school systems within 50 miles. As the researcher, Crebs is facilitating the collaborative teacher study group, conducting semi-structured interviews and monitoring an Online Padlet discussion board from December of 2021 through May of 2022. In order to investigate how teachers situate themselves in conversations about race and literacy, Crebs draws on the aspects of critical research, particularly using the theoretical frames of Critical Race Theory (CRT) and Critical Whiteness Studies (CWS). In addition, Critical Discourse Analysis (CDA) serves as a simultaneous guide for theory and analysis. CDA assists in highlighting racialized power dynamics hidden within teachers' reading instruction and assessment, and it provides visibility for educators, school leaders, teacher educators and policy makers in moving forward with conversations about race. This study provides an opportunity for others to expand on and create spaces for talking about race in connection with reading instruction and assessment.

## An Equity Audit: Evaluating Two Universities' Public-Facing Diversity Information

**Haley Cristea & Honor McElroy, Ed.D. Contemporary Curriculum Theory and Instruction**

This research focuses on an equity audit to (1) evaluate public-facing diversity information about two universities in the mid-Atlantic region (2) critically examine public conceptions of diversity that are inherent in the demographic reporting in state and regional levels for public universities,

and (3) explore the ways in which legislative mandates drive and reinscribe monolithic conceptions of identities. Using public-facing diversity information reported by the universities selected for comparison, the findings of this equity audit call into question the purposes of equity reporting and how the data is shared. The researchers of this audit found that categories used to collect demographic information are driven by racialized census conceptions of identity, seeming to cause harm to both equity and diversity. By reproducing problematic census data categories and collapsing categories in a way that eclipses identity, these institutions privilege monolithic conceptions of race, ethnicity, and identity that reinforce oppression and harm inclusion and diversity initiatives.

## Evaluating the Feeding Ecology and Growth of Invasive Blue Catfish in the Nanticoke River, a Tributary of the Chesapeake Bay, USA

**Zachary Crum, M.S. Applied Biology**

Invasive species have the ability to cause widespread ecological impacts in aquatic systems. Blue catfish (*Ictalurus furcatus*) are considered an invasive species in the Chesapeake Bay and have raised great concern over the potential impacts they may be having on native species of conservation concern through predation including threatened alosines and endangered Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). This study aims to provide the first assessment of the feeding ecology and growth of blue catfish in an Eastern Shore tributary of the Chesapeake Bay. This study employs multiple sampling methods to collect blue catfish from the Nanticoke River in Maryland and Delaware. Crum is identifying blue catfish stomach contents using visual identification and DNA barcoding to investigate the diet composition of blue catfish in the Nanticoke River. Stable isotopes of carbon, nitrogen, and sulfur are analyzed and paired with stomach content analysis to further investigate blue catfish feeding and trophic ecology. Age estimates using lapillar otoliths collected from each fish produce useful information on the growth parameters

of this invasive population of blue catfish. The data gathered from this study provides fisheries managers with useful information for management decisions.

## The Intersectionality of Environmental Conflict and Disability in Maryland, Other States, and Abroad

**Jacob Goodman, M.A. Conflict Analysis and Dispute Resolution**

In many parts of the world that have been severely impacted by the effects of environmental conflict there unfortunately is often a disturbing trend that natural disasters, manmade disasters and pollution tend to hurt marginalized communities the most. More specifically individuals with disabilities are at a greater risk to the effects of natural disasters, manmade disasters and pollution when living in low income areas near sources of pollution such as factories and incinerators. This research shows examples of how this dynamic plays out locally within Maryland, on the domestic level in other parts of the United States and on the international level in other parts of the world. The purpose of this is to educate policy makers and the public on how to better address environmental concerns and prevent the harmful impacts pollution has on individuals with disabilities. It is also meant to educate local governments how to better prepare individuals with disabilities for natural disasters, while at the same time making evacuation and rescue procedures more accessible.

## Investigating the Influence of Bleaching on the Isotopic Composition of *Aiptasia* and *Berghia*, and Nematocyst Concentration with *Aiptasia*

**Kyle Musselman, M.S. Applied Biology**

Mutualisms are prevalent in the biological world and aid in the survival of many species. The mutualism examined here, between the cnidarian host, *Aiptasia*, and the endosymbiotic algae, *Symbiodinium*, provides the cnidarian host with nutrition and the endosymbiotic algae with a safe, stable and nutrient-rich environment. Evidence suggests that the loss of *Symbiodinium* through bleaching can change the isotopic composition of *Aiptasia* and lower their concentration of nematocysts. Through menthol bleaching, this study examines how the isotopic composition of *Aiptasia* and a specialist predator, *Berghia*, change following bleaching. Additionally, the influence of bleaching on nematocyst concentration within *Aiptasia* is evaluated. It is expected that *Aiptasia* and their predators have increased  $\delta^{15}\text{N}$  values and decreased  $\delta^{13}\text{C}$  values, and that *Aiptasia* possesses a lower concentration of nematocysts following bleaching. This study provides additional data on how both a cnidarian and its predator changes isotopically after a bleaching event, and definitively determine how nematocyst concentration in *Aiptasia* changes following bleaching. This will aid in producing more information on how the loss of *Symbiodinium* alters this important mutualistic relationship.



Evaluating the Feeding Ecology and Growth of Invasive Blue Catfish in the Nanticoke River, a Tributary of the Chesapeake Bay, USA

## Investigating the Influence of Bleaching on the Feeding Ecology of the Nudibranch *Berghia* Using the Sea Anemone *Aiptasia*

**Kyle Musselman, M.S. Applied Biology**

Cnidarians like corals and sea anemones form mutualisms with *Symbiodinium* algae that help to create and maintain highly diverse coral reef ecosystems that provide various ecosystem services to local human communities. However, such ecosystems are imperiled by human stressors like climate change. High stress can lead to “bleaching,” or the loss of the *Symbiodinium* algae from the tissues of cnidarians, resulting in their decline and the potential breakdown of these ecosystems. There is a gap in our knowledge concerning how invertebrate cnidarian predators are influenced by bleaching events. This study uses *Aiptasia* sea anemones and *Berghia* nudibranchs as model organisms. *Aiptasia* are bleached for use in feeding trials with *Berghia*. *Berghia* then participate in recorded feeding trials and are given a choice between a bleached and unbleached *Aiptasia*. The preferred *Aiptasia* type in each feeding trial and the feeding behavior of the *Berghia* are determined and analyzed. This analysis will be used to discern if feeding preferences and behaviors exist among individual *Berghia* or the whole *Berghia* genus. Preliminary data suggests that *Berghia* prefer unbleached *Aiptasia* both individually and as a group. This trend is expected to continue as more *Berghia* are sampled.

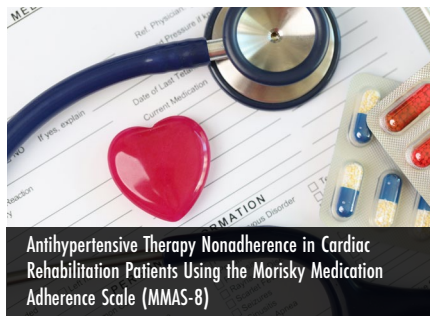
## Antihypertensive Therapy Nonadherence in Cardiac Rehabilitation Patients Using the Morisky Medication Adherence Scale (MMAS-8)

**Natalie Parks, Doctor of Nursing Practice**

In a patient population where disease states are being newly navigated and the emphasis is on improving cardiac health, medication adherence can help prevent poor patient outcomes. Currently at TidalHealth’s Cardiac Rehabilitation Program, there is no standardized process for assessing medication adherence for new patients. This Doctor of Nursing Practice (D.N.P.) project’s aim is to implement an evidence-based, cost-effective tool, the Morisky Medication Adherence Scale (MMAS-8), into practice to assess medication adherence of eligible patients to determine if it can increase identification of patients not adhering to antihypertensives. Another outcome is to identify reasons for nonadherence. Patients at least 18 years of age and older and beginning the cardiac rehabilitation program who have a cardiac



Investigating the Influence of Bleaching on the Feeding Ecology of the Nudibranch *Berghia* Using the Sea Anemone *Aiptasia*



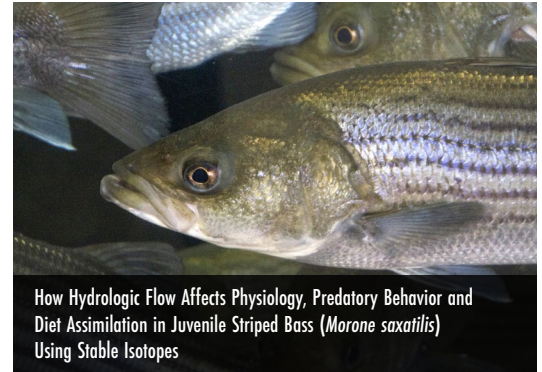
Antihypertensive Therapy Nonadherence in Cardiac Rehabilitation Patients Using the Morisky Medication Adherence Scale (MMAS-8)

diagnosis and prescribed at least one antihypertensive medication are eligible to participate. Patients younger than 18 years old, those without a cardiac rehabilitation diagnosis and those not currently prescribed an antihypertensive medication are excluded. Strategies used to protect the subjects include Notice of Practice change/information usage and proper staff training. Privacy is protected by the HIPAA act, two-step verification log-in and de-identification of data. Analysis of the project findings are done using Statistical Package for Social Sciences (SPSS) software by the D.N.P. student investigator to determine if the MMAS-8 increases the number of patients identified as nonadherent to their antihypertensive therapy compared to the current practice.

## The Quest for Identity in *Lidded Mirrors* by Houshang Golshiri

**Faezeh Pasandi, M.A. English**

Many of Iranian writers in diaspora have felt the urge to search for their identity. This article is particularly interested in Houshang Golshiri’s *Lidded Mirrors*, where the author constantly tackles the issue of identity. In this article, Pasandi studies the search of identity by exploring three main arguments: memory through writing, the language and the notion of “home.” To do so, the article explores a handful of memories as well as stories told by the protagonist, Ibrahim, an Iranian writer who travels between European cities to tell his stories to other compatriots. This article argues how the scattered stories reflect the title of the novel and the attempt of the author to define his identity by discussing the importance of (Farsi) language



How Hydrologic Flow Affects Physiology, Predatory Behavior and Diet Assimilation in Juvenile Striped Bass (*Morone saxatilis*) Using Stable Isotopes



Impacts of Facilitating a New Student Reflection on Orientation Leaders

and highlighting the significance of other characters, mostly women in this process.

## How Hydrologic Flow Affects Physiology, Predatory Behavior and Diet Assimilation in Juvenile Striped Bass (*Morone saxatilis*) Using Stable Isotopes

**Samuel Pincus, M.S. Applied Biology**

The striped bass (*Morone saxatilis*) is an anadromous perciform fish that is native to the Chesapeake Bay (Grout, 2006). The Chesapeake Bay is the primary nursery for these fish, with 70-90% of adult striped bass in the Atlantic Ocean migrating there to spawn (Chesapeake Bay Program). Due to overfishing by commercial and recreational fisherman, the striped bass population is on the decline with mortality surpassing the designated threshold (ASMFC, 2019). While there are restrictions and a management plan in place, the focus of these restrictions is aimed toward the breeding adult size class (ASMFC, 2021). The goal of this research is to examine environmental impacts on juvenile striped bass to help identify locations that should be restricted to help recover the striped bass population from the bottom up.

## Impacts of Facilitating a New Student Reflection on Orientation Leaders

**Lindsey Ward, Master of Business Administration**

The research aims to describe the responsibilities bestowed upon first-year orientation leaders facilitating a New Student Reflection (NSR)

on the second day of First Flight (Salisbury University orientation). The NSR uses the method of “civic reflection” to engage first-year students in discussions around difficult topics. Civic reflection consists of three elements: a group of people, a civic activity and a source material (usually a poem or short story). Developed in the 1990’s, civic reflection is used throughout the country in service programs such as AmeriCorps, high school service-learning initiatives, non-profit boards and other civic realms. The research presents exploratory data findings from orientation leaders on their experience participating as facilitators of New Student Reflection and how it helps in the development in leadership.

## Rhetorical Analysis on Accommodation Transfer

**Hunter Whitt, M.A. English**

This project attempts to rhetorically analyze traditional syllabuses as it pertains accommodations. Scholar Neil Simpkins refers to “accommodation transfer” as students with disabilities having to learn their accommodations through self-experiences. This analysis looks to build onto his concept and connect it with the relationship between the instructor and student, as this would not only allow an easier access to accommodation transfer for the student but allow instructors to see through the lens of accommodations in a broader sense. ❖

# Summer Student Research Successes

## Investigations into 3D Image Capture and Augmented Reality

Sebastian Acosta • Faculty Mentor: Dr. Steven Binz

## Detection of Emotional Changes with Harmonic Progression in Music

Usra Alaraki • Faculty Mentor: Dr. Randall Cone

## Targeting Cancer-Associated Proteins for Tumor Imaging

Emmanuela Angu, Stefani Lanahan and Ana Valdes • Faculty Mentor: Dr. Joshua E. Sokolowski

## The Combinatorics of a Small Family of Odd Symplectic Partial Flag Manifolds

Connor Bean and Bradley Cruikshank • Faculty Mentor: Dr. Ryan Shiffler

## Scarab Biodiversity on an Urban Campus

Philip Becnel • Faculty Mentor: Dr. Dana Price

## Learning How to Conduct Qualitative Research in Psychology

Emily Bovard • Faculty Mentor: Dr. Yuki Okubo

## Does Visitor Behavior Effect Animal Behavior Within Zoos?

Lydia Bradshaw • Faculty Mentor: Professor Mary Gunther

## Art and Love: The Infinities of Tullia D'Aragona

Lily Christiana • Faculty Mentor: Dr. Cristina Cammarano

## Mental Health Care Services in Local Governments in Maryland

Tiah Coates • Faculty Mentor: Dr. Andrea Presotto

## Image Processing and Computer Vision Algorithms for Sustainable Shellfish Farming

Joshua Comfort • Faculty Mentors: Dr. Yuanwei Jin and Dr. Enyue Lu

## Diet Composition of Invasive Blue Catfish in the Nanticoke River

Zach Crum • Faculty Mentor: Dr. Noah Bressman

## Oxytocin Effects on Co-Nesting in Southern Flying Squirrels

Joanna Diaz-Ocana and Katie Ekholm • Faculty Mentor: Dr. Angela Freeman

## Synthesis of Functionally Diverse and Highly Substituted Oxazoles and Azlactones

Andrew Downey • Faculty Mentor: Dr. Stephen Habay

## Barriers to Mental Health Care Among Emerging Adults

Tiernyn Heishman • Faculty Mentor: Dr. Deeya Mitra

## Image Processing and Machine Learning for Tumor Detection Using MRI Images

Emily Hitchcock • Faculty Mentors: Dr. Yuanwei Jin and Dr. Enyue Lu

## Instagram Reels for Small Businesses: How to Hook, Bait, and Reel in Customers

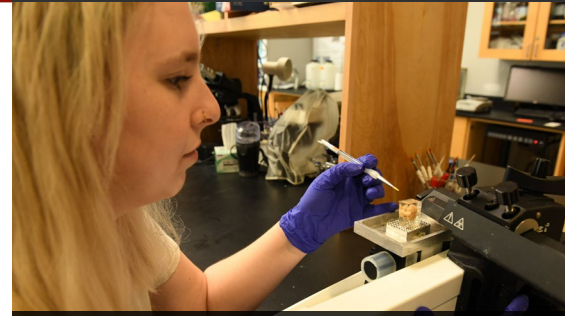
Daisy Holder • Faculty Mentor: Professor Lauren Hill

## The Patriarchal Institution of Lies: An Analysis of bell hooks' *All About Love*

Liam McGinnes • Faculty Mentor: Dr. Cristina Cammarano



Diet Composition of Invasive Blue Catfish in the Nanticoke River



Sexual Dimorphism of Song Control, Learning, and Social Nuclei Regions in Songbirds



Investigations into 3D Image Capture and Augmented Reality



Art and Love: The Infinities of Tullia D'Aragona



Scarab Biodiversity on an Urban Campus





African American Local Historical Storytelling



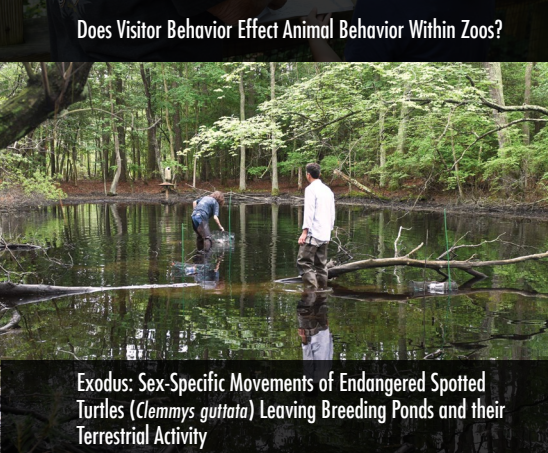
Holding Tank and Recirculation System Construction for Blue Crab (*Callinectes sapidus*) Stable Isotope Research



Oxytocin Effects on Co-Nesting in Southern Flying Squirrels



Does Visitor Behavior Effect Animal Behavior Within Zoos?



Exodus: Sex-Specific Movements of Endangered Spotted Turtles (*Clemmys guttata*) Leaving Breeding Ponds and their Terrestrial Activity

In addition to research on invasive fish (page 12) and flying squirrels (page 14) highlighted in this issue of *Re:Search*, Salisbury University students spent their summer exploring a variety of topics, including augmented reality, the work of bell hooks and alternative dispute resolution (ADR). Over 30 students presented their results during a poster session at SU's annual Summer Student Research Showcase. Several of these projects were highlighted with a video and may be viewed online under the "Student & Faculty Research" playlist on SU's YouTube channel: [www.youtube.com/user/salisburyuniversity](https://www.youtube.com/user/salisburyuniversity)

**Psychophysiology as a Neurocognitive Assessment Tool**

Catherine Milligan, Aman Shahzad, and Adara Turek  
• Faculty Mentors: Dr. Echo Leaver and Dr. Meredith Patterson

**Investigating Septic Tank Pollution in Eastern Shore Waterways**

Connor Morningred • Faculty Mentor: Dr. Jennifer Nyland

**Influence of the Symbiotic State of the *Aiptasia* Sea Anemone on the Feeding Preferences of the Nudibranch *Berghia***

Kyle Musselman • Faculty Mentor: Dr. Christina Bradley

**Ethics for Everyone at Eastern Correctional Institution**

Carly Nascimbeni • Faculty Mentors: Dr. Grace Clement and Dr. Timothy Stock

**Immersing Myself in Qualitative Research and Racial Knowledge**

Amanda Niederland • Faculty Mentor: Dr. Yuki Okubo

**Holding Tank and Recirculation System Construction for Blue Crab (*Callinectes sapidus*) Stable Isotope Research**

Samuel Pincus • Faculty Mentor: Dr. Christina Bradley

**Exodus: Sex-Specific Movements of Endangered Spotted Turtles (*Clemmys guttata*) Leaving Breeding Ponds and their Terrestrial Activity**

Rebecca Pritt • Faculty Mentor: Dr. Eric B. Liebgold

**African American Local Historical Storytelling**

Melissa Reid • Faculty Mentor: Dr. Judith Franzak

**Examining Chronic and Infectious Disease Health Policy: A Literature Review**

Kasey Schlack • Faculty Mentor: Dr. Brandy Nobiling

**Performance Modeling of Reliable Data Transfer in Computer Networking**

Luke Scott • Faculty Mentor: Dr. Yaping Jing

**Analyzing the Roles of Abuse and Neglect within Love: Insights from bell hooks**

Ella Seetoo-Ronk • Faculty Mentor: Dr. Cristina Cammarano

**Students Failing School or Schools Failing Students: Critical Thinking Education Deficits in Public American Secondary Schools**

Jane Simoncic • Faculty Mentor: Professor Lauren Hill

**"Deconstruction Is Love": Jacques Derrida's Impact on the Spiritual Deconstruction Movement**

Kylie Sommer • Faculty Mentor: Dr. Beth Towle

**Sexual Dimorphism of Song Control, Learning, and Social Nuclei Regions in Songbirds**

Kellee Toler • Faculty Mentor: Dr. Jeremy Corfield

**Using a Quadtree Data Structure to Facilitate Analysis of Clusters Formed Through Diffusion Limited Aggregation**

Matt Wilson • Faculty Mentor: Dr. Jeffrey Emmert

**Individual Practitioners in the United States in the Field of ADR - South Carolina and Kansas**

Alison Wright • Faculty Mentors: Dr. Brian Polkinghorn and Dr. Brittany Foutz

# University Student Academic Research Awards (USARA)

University Student Academic Research Awards (USARA) are research grants, up to \$400, that are available to help support undergraduate research projects and creative endeavors related to developing and conducting projects with a faculty supervisor. These competitive funds support undergraduate research projects, directed by a faculty mentor, that may include research development, supplies, and the presentation of research/scholarly pursuits at national or regional meetings.

## SPRING 2022 WINNERS INCLUDE:

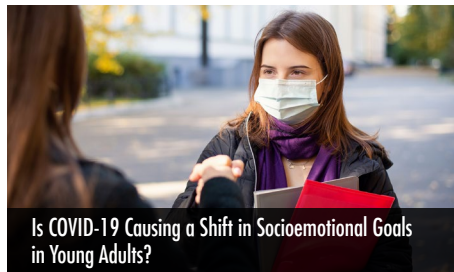
### Nationalism and Attitudes Toward Climate Change: Testing a Solution Aversion Hypothesis

Gabrielle Atkinson, Psychology  
Mackenzie Nickel, Psychology  
Alison Weeg, Psychology  
Faculty Mentor: Dr. Mark Walter



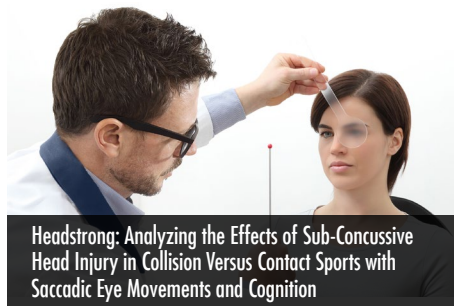
### Is COVID-19 Causing a Shift in Socioemotional Goals in Young Adults?

Jack Kaputa, Psychology  
Tharaphy Khin, Psychology  
Faculty Mentor: Dr. Echo Leaver



### Incapacitated and/or Forcible Rape Experience Predicting College Women's Rape Victim Empathy

Tieryn Heishman, Psychology  
Faculty Mentor: Dr. Suzanne Osman



### Do Accomplished Musicians Go Through a Sampling Period?

Zoe Bradshaw, Psychology  
Faculty Mentor: Dr. Larence Becker

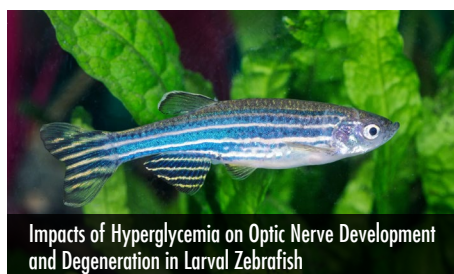
## FALL 2022 WINNERS INCLUDE:

### Analyzing the Efficacy of Public-School Mental Health Systems.

Eliza Hurd, Community Health  
Faculty Mentor: Dr. Sherry Maykrantz

### Heat Drying Fecal Matter in Mice for Cortisol Immunoassay Extractions.

Adebola Okusolubo, Biology  
Faculty Mentor: Dr. Angela Freeman



### Headstrong: Analyzing the Effects of Sub-Concussive Head Injury in Collision Versus Contact Sports with Saccadic Eye Movements and Cognition

Aman Shahzad, Psychology  
Faculty Mentor: Dr. Echo Leaver

### Minimum Time Effect of Fish Oil on Arterial Stiffness – A Pilot Study

Alonzo Strickland, Exercise Science  
Faculty Mentor: Dr. Timothy Werner

### Effects of High Functional Resistance Training on Parameters of Arterial Stiffness

Collin Barnett, Exercise Science  
Faculty Mentor: Dr. Timothy Werner

### Associative Recognition in Aging

Adara Turek, Psychology  
Faculty Mentor: Dr. Meredith Patterson

### The Effect of Playing Sports on Cognition and Neural Activity

Catherine Milligan, Psychology  
Faculty Mentor: Dr. Echo Leaver

### The Patriarchal Institution of Lies: An Analysis of bell hooks, *All About Love*

Liam McGinnes, Philosophy  
Faculty Mentor: Dr. Cristina Cammarano

### UV Reflectance and Fluorescence in Flying Squirrels for Mate Choice

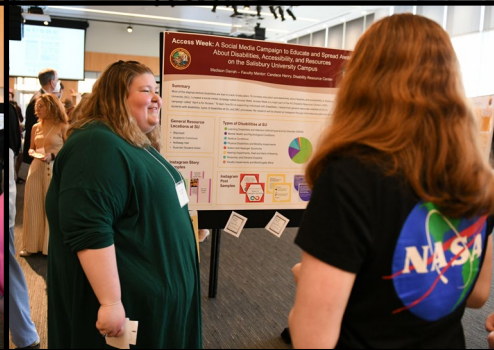
Meghan Reed, Biology  
Faculty Mentor: Dr. Angela Freeman

### Impacts of Hyperglycemia on Optic Nerve Development and Degeneration in Larval Zebrafish

Virginia Murray, Biology  
Faculty Mentor: Dr. Jessica Clark

# 2022 Salisbury University Student Research Conference

During the annual SU Student Research Conference (SUSRC) in April, over 100 students shared their research on topics ranging from health care, to the sciences, to the liberal arts, to business, to education. At the conference, Dr. Randall Groth, chair of Secondary and Physical Education Department, was awarded the 2022 Outstanding Research Mentor Award. Groth has been the research mentor for SU's Preparing Aspiring Teachers to Hypothesize Ways to Assist Young Students (PATHWAYS) initiative since 2014. The program's undergraduate research projects involve designing and testing instructional sessions for K-12 students. Each summer, eight undergraduates work in pairs, meeting with a group of four K-12 students once per week to provide mathematics instructional sessions. Groth's work has resulted in seven peer-reviewed articles with undergraduate co-authors and one with a graduate student co-author.



**Dr. Randall Groth**  
 Chair of Secondary  
 and Physical Education  
 Department  
 2022 Outstanding  
 Research Mentor Award  
 Recipient

Save the Date! SUSRC 2023  
 Friday, April 21

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- Geographic Information Systems Management (M.S.)\*
- Health and Human Performance (M.S.)
- History (M.A.)
- Mathematics Education (M.S.M.E.)
- Nursing (M.S.N.)\*
- Reading Specialist (M.Ed.)
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