illuminated

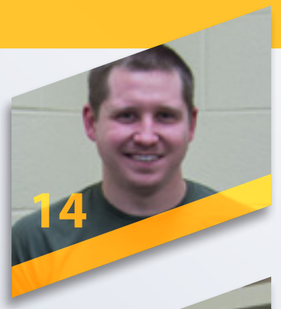
GRADUATE STUDENT RESEARCH MAGAZINE

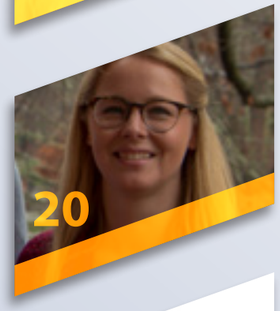
SPRING 2017

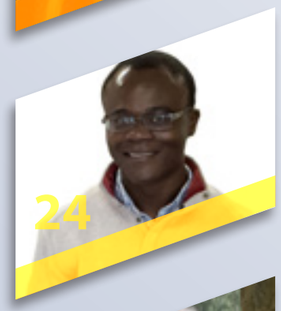
ETSU SCHOOL OF GRADUATE STUDIES VOLUME 6, ISSUE 2

ARTICLES

ARTICLES







ILLUMINATED STAFF

EDITOR
Dr. Karin Bartoszuk *(Center)*
Associate Dean, School of Graduate Studies

WRITER
Danielle Lee *(Right)*
Graduate Student
Master of Science, Sport Science and Coach Education

DESIGN & PHOTOGRAPHY
Julie Woodburn *(Left)*
Graduate Student
Master of Arts, New Media Studio

FROM THE SCHOOL OF GRADUATE STUDIES

The East Tennessee State University School of Graduate Studies is proud to present *Illuminated*, a magazine that showcases the excellent work of our graduate students and their faculty advisors. There are over 2,300 students enrolled in graduate programs at ETSU. Illuminated presents some of our students' research and creative works that make meaningful contributions to various disciplines, and contribute to our strong graduate programs. *Illuminated* features research and creative projects that are currently happening on campus, and provides updates on alumni of ETSU graduate programs.

Enjoy!

Celia McIntosh Ph.D.
Dean

Karin Bartoszuk Ph.D.
Associate Dean

Scott Kirkby Ph.D.
Assistant Dean

GRADUATE STUDENTS & ADVISORS

Are you excited about your research and would like to share your hypothesis or findings? You might be a perfect fit for Illuminated. There is more than one way to get involved.

FOR CURRENT GRADUATE STUDENTS AND THEIR ADVISORS:

Are you or one of your graduate students working on a culminating experience (e.g., thesis, dissertation, capstone)? Your research could receive additional exposure through Illuminated Magazine and help educate the rest of the campus about your department and program. This is a unique opportunity to get your work recognized!

FOR CURRENT GRADUATE STUDENTS AND THEIR ADVISORS:

Did you or one of your students get accepted into an excellent doctoral program or receive an excellent career opportunity? We want to hear about it! Share your story in the "Where Are They Going?" section.

FOR FORMER GRADUATE STUDENTS AND THEIR ADVISORS:

Do you know an outstanding student who graduated from ETSU more than a year ago? We want to hear from them! The "Where Are They Now?" section features former ETSU graduate students who are now professionals in positions across the country.

FORM AVAILABLE: http://www.etsu.edu/gradstud/documents/illuminated_nomination_form.pdf

For more information on nominating students or getting featured in Illuminated, please contact:
Dr. Karin Bartoszuk, ***bartoszu@etsu.edu***

FULL SPEED AHEAD

M.S. SPORT SCIENCE AND COACH EDUCATION (APPLIED SPORT SCIENCE) // ERIC MAGRUM, GRADUATE STUDENT
DR. BRAD DEWEESE, ED.D., FACULTY ADVISOR

Eric Magrum's first interest in resistance training and coach education began as a high school junior in a fitness class focusing on weight training. His passion for coaching began as a secondary pursuit while acquiring a key to the weight training facility was his first. In exchange for the key, Eric became a volunteer strength coach at Eastwood High School where he then found his interest in coaching.

Continuing his education at Bowling Green State University (BGSU) in Kinesiology, Eric continued to serve as a strength and conditioning coach and additionally assumed the role of assistant track and field coach at Eastwood. During his senior year at BGSU, Eric visited multiple conferences to further enhance his knowledge in his field. At a conference in New Jersey, he attended a presentation given by Dr. DeWeese, then of the United States Olympic Committee (USOC), on evidence-led speed development strategies. The next year, Eric attended a speed summit in Indianapolis where Dr. DeWeese was speaking on training theory, but now as an ETSU faculty member. It was here that Eric became aware and excited about interning within the Center of Excellence for Sport Science and Coach Education. Reaching out to Coach Meg Stone (internship coordinator), Eric came to ETSU where he was exposed to world-class faculty within the department of Kinesiology, Leisure, and Sport Sciences. Eric was able to see that no other place in the country could offer the unique experience of learning in an applied setting. At ETSU, the graduate students in the Sport Science and Coach Education program use their knowledge from the classroom and apply it on a daily basis with whichever sport teams they are assigned to. Witnessing this experience as an intern solidified ETSU as the institution of choice for his further education.

Eric is a graduate student pursuing his Masters of Science in Sport Science and Coach Education. Additionally, he serves as a collegiate strength and conditioning coach for ETSU's Volleyball team while maintaining a graduate assistantship.

In his coursework, he closely studied the process of planning and organizing training (periodization) under Dr. Mike Stone. Outside of the classroom, Eric focused his efforts on learning and applying the blending of speed training and weightlifting with Dr. DeWeese. Both having similar interests in relationship-based coaching philosophy and the integration of speed training and weightlifting, it became apparent that Eric desired to assist Dr. DeWeese in the training process. In his first semester at ETSU, Eric worked closely with Dr. DeWeese in aiding and implementing the training program of multiple Olympic athletes. Assisting with elite athletes, Eric was able to derive his research interests and ultimately his thesis.

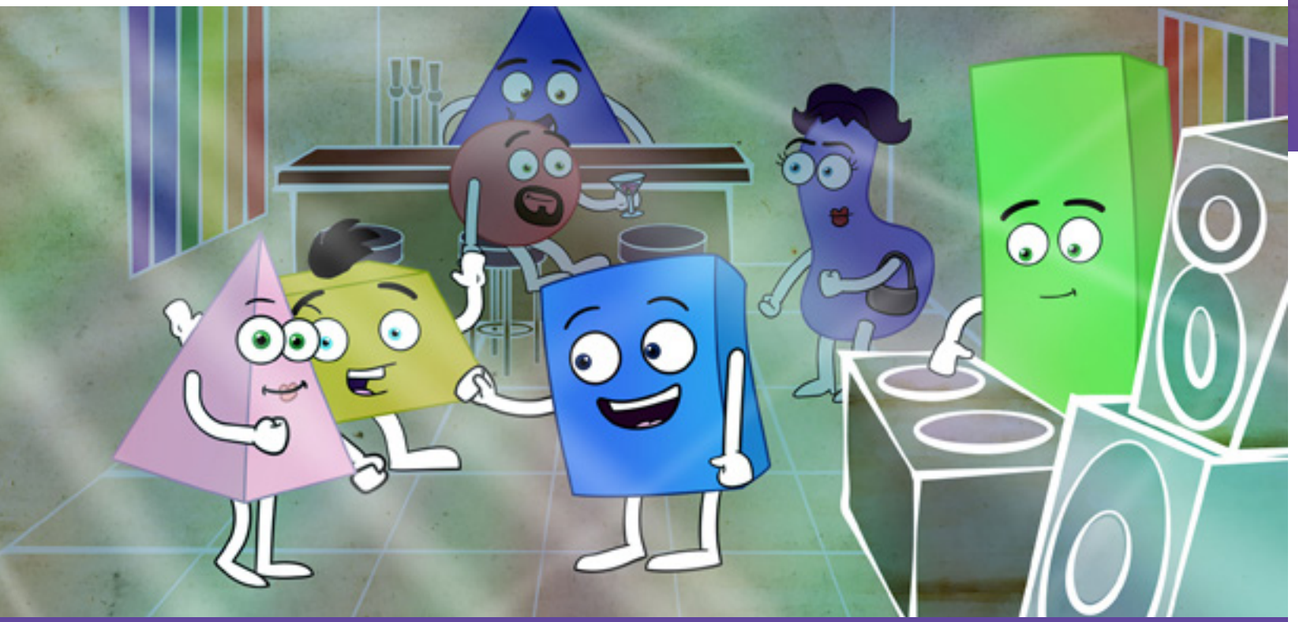
Serving as a former track and field coach, Eric's research interests consisted of any element with the ability to enhance sprint speed. Athletes training under Dr. DeWeese's supervision partake in a series of tests that monitor athletes' performance over time. This process is commonly referred to as monitoring in which data is collected and analyzed for sport enhancement, and used to guide training prescription and the adaptation process. Eric's thesis was comprised of monitoring data collected from an elite-level sprinter for a period of five months. There were five monitoring sessions conducted at the end of each training period (block) to evaluate how training effects performance. For his thesis, Eric examined how an integrated approach to speed development and strength training would impact an elite-level sprinter's performance. Through the integrated approach used in training practices, he hypothesized that sprint velocity and isometric peak force would increase, and ground contact time would decrease. Sprint velocity can be described as how fast an individual can run; ground contact time is how long an individual is on the ground for; and isometric peak force looks at how much force can be produced in an isometric condition. Applying a single subject design, Eric observed changes in sprint velocity and ground contact time through an optical measurement system utilizing LEDs. In addition, isometric peak force was observed through an isometric mid-thigh pull. Through his analysis, he found that sprint velocity and isometric peak force significantly changed while ground contact remained unchanged.

In this type of research, where it is a single-subject monitoring study and many of the variables are controlled, it is extremely difficult to find subjects willing to participate for five months, much less, a world-class sprinter. Gaining the trust of an elite athlete is an achievement in itself due to how protective he or she is over their training methods and particularly when they are being monitored very closely. The need for studies focusing on elite-level athletes is extremely useful to other coaches that are working to enhance athletic performance in other elite athletes. Most of the athletes competing at this level are physiologically equivalent in most aspects, therefore small changes to their overall performance could create a podium (top three) finish. Having such a subject created an extremely unique thesis, because most studies only observe one aspect of training-speed training or weight training. Combining components of speed and weightlifting will help further support integration of the two and help bridge the gap in literature pertaining to the matter.

Dr. DeWeese played an important role in this aspect, because he was able to bring this athlete to ETSU thanks to his prior experience at the USOC and as a track and field coach at the University of North Carolina-Asheville. Dr. DeWeese's previous research is literature that Eric has been able to use and spring-board his research off of as well. Eric commented had he not attended the conference in New Jersey where he spoke with Dr. DeWeese, he may never have found ETSU. Conducting a study on a high caliber athlete would not have been as attainable without the efforts of his mentor, Dr. DeWeese.

(Left) Eric Magrum and (Right) Dr. DeWeese

Eric will graduate this year in May and plans to pursue his Ph.D. He has been commented on by many professors and peers as not only one of the best students, but also one of the best coaches that has come through his program. As for advice for future students, he says, "Be willing to learn and ask questions. Do your homework (read scientific literature) before you come here so you can ask better questions and learn more." Eric has collaborated with Dr. DeWeese in several research articles and has also given multiple presentations at the annual Coaches College Conference put on by the Center of Excellence in the College of Education. ■



PROGRESS THROUGH ANIMATION

M.A. NEW MEDIA STUDIO // JULIE WOODBURN, GRADUATE STUDENT
PROFESSOR CHER CORNETT, FACULTY ADVISOR

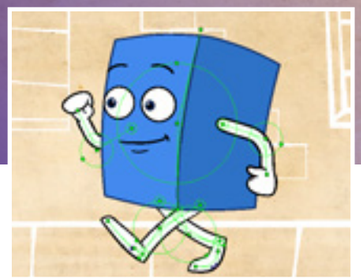
Julie Woodburn chose to pursue her Master of Art degree in New Media Studio at ETSU, because the program provides an opportunity for students of different backgrounds to engage in a cross-disciplinary plan of study combining more traditional arts and/or digital arts. Growing up, Julie was always interested in animation and studied graphic design at her undergraduate institution, Seton Hill University, Pennsylvania. Following graduation Julie began employment at Resource Management Concepts Incorporated where she worked as a graphic designer, but desired to further her education in digital arts.

Upon arrival at ETSU, Julie knew she wanted to raise awareness regarding LGBTQ+ issues, focusing on exclusion and discrimination, through digital media and animation.

Aware of the biases placed against the LGBTQ+ community, Julie drew inspiration for her capstone project from the phrase "you can't fit a square peg into a round hole." She knew she wanted to relate this analogy to the feelings of the LGBTQ+ group not fitting in with society. This also led to broader implications reflecting discrimination that other groups experience. Julie and Professor Cornett began exploring ways to promote this issue.

With her interests lying in animation, Julie decided to create a short animated film. Her film depicts a square (the main character) who wants to go to a circle club with his circle friends, and falls victim to square discrimination. Trying to fit in, he finds a cheese grater to shave down his edges, however is stopped by a friend that shows him a place where all are welcome. Not only does this make a case for LGBTQ+ equality, but also promotes the prevention of self-harm.

With a capstone project like Julie's, there is a large amount of creativity and research involved. Crafting an idea and creating the technical aspects of the film was only one of multiple parts. First, Julie had to write



Example of a 2D animated character rig structure used in the Capstone Film.

a literature review researching her topic. Finding scholarly articles pertaining to media arts was rather difficult. Julie's objective in her research was to find what topics are currently portrayed in the media regarding LGBTQ+ characters. She found there are a small number of television shows aimed at youth that have inclusive characters and storylines. She also found that many Disney movies portray only a stereotypical relationship between men and women. Since there are not many children's television shows that have LGBTQ+ characters in them, the focus of her work was to shed light on LGBTQ+ centric characters. Her project also focused on the accessibility of LGBTQ+ role models. Julie mentioned that Ellen DeGeneres is a great role model for this community and especially for youth, but she is not accessible, because of her stardom. She found that youth of the LGBTQ+ community have more successful outcomes if they have reachable role models.

Secondly, the characters for the animation needed to be developed using sketches and thumbnails (a small image representation of a larger image). Thirdly, a story line needed to be developed. Julie wrote the script for the story and used her own voice to create an animatic, which is "a particularly detailed storyboard with voiceover and sound overlaid on top of it in a video format." This was important in the animation process, because it helped Julie see how the camera would move and aided her in knowing the characters' actions and expressions. Final voice acting was provided by undergraduate theater majors that were delighted to work on the project. Julie spent a large amount of time on this technical aspect. In order to gain perspective of this work-intensive process, it took twenty-four frames (drawings) to create one second of animation, and her film was 120 seconds long, making that 2,880 frames.

Undertaking a project of such magnitude requires extensive planning to keep the project moving forward in a timely manner. Julie's faculty mentor, Professor Cornett, helped keep her on track throughout this long, thorough project. Julie commented, "Professor Cornett always threw countless questions at me that I had not thought of and made me think about what I was trying to accomplish."

Julie has presented her work at multiple exhibitions including the Blue Plum Film Festival where two of her short films were selected for showing. Julie just received two Silver Addy awards at the Northeast Tennessee Advertising Federation Awards Banquet, one for her short film, "The Feeder" and one for her "Nature Mural Illustration" nominated by Professor Cornett. After graduating, she would like to find a position working for a TV show or advertising firm. ■

(Left) Cher Cornett and (Right) Julie Woodburn

To create the final animations, Julie had to design a character rig (a skeleton for the character) using a special software program. Pictured here is Julie's main character (see Top Left) where the green lines serve as his "bones" and each individual point was animated to create the movement of the character. Rigging (creating the structure of the character) was another technical aspect of animation that Julie had to learn.

// WHERE ARE THEY NOW? //

ALLANA R. HAMILTON

Educational Leadership and Policy Analysis Ed.D., 2011, Biological Sciences M.S., 1991

WHAT DEGREE DID YOU EARN AT ETSU? WHAT YEAR DID YOU GRADUATE FROM ETSU?

I received my M.S. in Biological Sciences in 1991 and my Ed.D. in Educational Leadership and Policy Analysis in 2011.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am currently the President of Jackson State Community College and my position includes the following:

- A demonstrated commitment to serving students, faculty and staff;
- An understanding and commitment to the community college philosophy and mission;
- An understanding of and commitment to the principles of academic freedom, tenure, and shared governance;
- An understanding of and commitment to the use of technology to enhance the teaching/learning process;
- A commitment to attracting traditional and non-traditional students into transfer programs as well as workforce programs (AAS/certificates/diplomas), and promoting approaches to enhance their opportunities for success;
- An understanding of and commitment to enhancing student success through focused efforts on retention, persistence and completion, and embracing Achieving the Dream college efforts;
- A demonstrated commitment to diversity and inclusion as core values that enhance the education process and contribute to student success;
- A demonstrated commitment to affirmative action and equal opportunity;
- A demonstrated strength in human relations, strong communication skills, and a demonstrated commitment to building an effective working relationship with all constituent groups.
- A demonstrated understanding of planning, financial management, legal environment, budgeting, and organizational skills, including:
- An understanding of outcomes-based funding principles and the impact on budgeting and planning;
- A demonstrated background with and understanding of and commitment to private fundraising;
- An understanding of the needs and concerns of the public and private constituencies of the college, as well as the college community, including students, faculty and staff, alumni and other college supporters;
- A demonstrated commitment to the principles of collaboration and innovation in order to address the local, regional, and state-wide education and workforce needs;
- An expressed commitment to collaboration with other state institutions to meet the state's workforce and post-secondary education needs with a focus on student success.

WHAT IS THE MOST INTERESTING ASPECT OF YOUR POSITION?

While there are many interesting aspects of this position, the one that comes to my mind is how we (faculty, staff, administrators, alumni, community) are all working together to provide quality programs and services so that the student, the college, and the community/region will succeed.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

My education at ETSU not only provided me knowledge and skills in my discipline(s), but also provided me opportunities for both personal and professional development and growth outside my discipline(s).

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

My advice would be to take advantage of the various opportunities to include not only the classroom experiences, but also co-curricular and extra-curricular experiences. While it is essential to have the knowledge and skills within a discipline, those other college experiences (experiences gained outside the classroom) also help shape your personal and professional pathways. ■

// WHERE ARE THEY NOW? //

ANNE MAGLIA

Biology, M.S., 1994

WHAT DEGREE DID YOU EARN AT ETSU?

Master of Science in Biology

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I graduated in 1994.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am the associate vice chancellor for Research Administration and Institutional Compliance at the University of Massachusetts, Lowell.

I oversee the administration of the University's externally sponsored research grants and awards, and compliance with federal regulations and requirements.

WHAT IS THE MOST INTERESTING ASPECT OF YOUR POSITION?

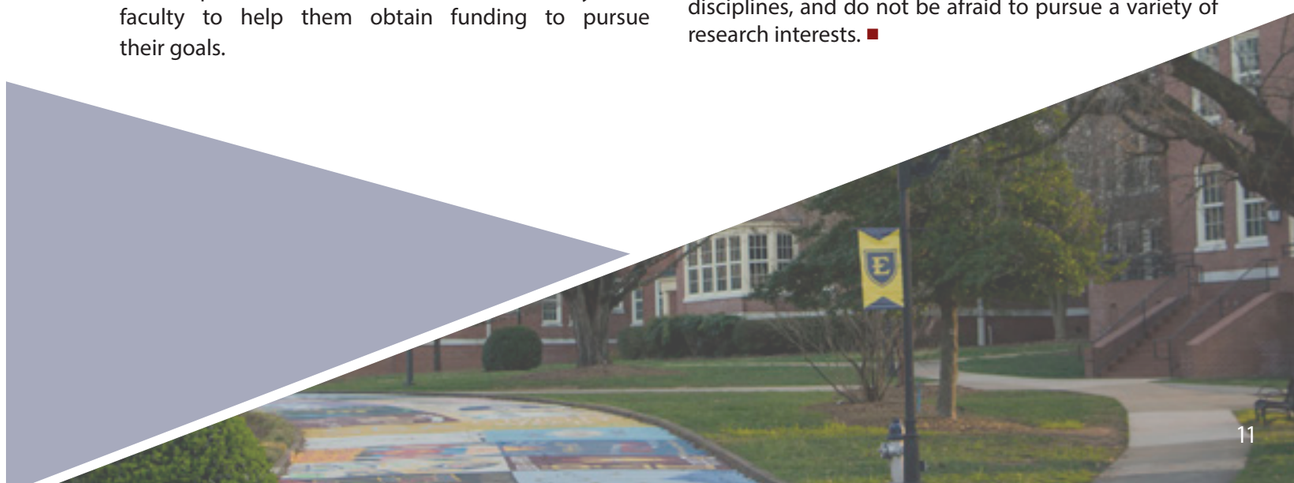
I get to see all of the creative and exciting research on campus, and I am able to work directly with faculty to help them obtain funding to pursue their goals.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

My first exposure conducting my own research project was at ETSU. My thesis advisor was Dr. Rebecca Pyles. I spent many hours creating a career development plan and strategizing about how to best align my thesis and publication plan with my career goals. I relied on those skills and strategies as a Ph.D. student, postdoc, and professor, and I still use them when I advise faculty on developing their research funding portfolio. Learning early on to be creative and strategic in how I pursued my research program strongly influenced my career path.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

Collaborate, collaborate, collaborate! Seek out opportunities to work with experts in other disciplines, and do not be afraid to pursue a variety of research interests. ■



// WHERE ARE THEY GOING? //

GUILLERMO MENDOZA

Early Childhood Education, M.A. 2016

WHAT DEGREE DID YOU EARN AT ETSU?

I earned my Master of Arts degree in Early Childhood Education with a concentration in Research.

HOW HAS YOUR MASTER'S DEGREE HELPED YOU?

The master's program helped me become a better researcher in my research interests. Going through the master's program, I dove into my passion of working with English Language Learners (ELLs) and researching techniques/methods that are more developmentally appropriate for ELLs during early childhood. It was actually during my master's that I knew that I really liked the academic lifestyle and knew I wanted to become a professor one day.

WHAT PROFESSORS/ADVISORS WERE INSTRUMENTAL IN HELPING YOU?

My mentor, Dr. L. Kathryn Sharp, has been and still is a great professor who really is passionate about helping her students achieve their goals. Her guidance and her willingness to help me become a better researcher has been of great value to my education. I would not be here today if it was not for her, along with many other professors in the department. My career goal is to one day become a college professor at a university and continue to work on research, and be able to teach as well. Dr. Sharp was my research mentor, and helped me gain significant experience teaching and working on other research projects.

WHAT DOCTORAL PROGRAM WILL YOU BE ATTENDING?

I am currently enrolled in ETSU's early childhood education doctoral program.

WILL YOU RECEIVE FUNDING?

I was very fortunate to have received a fellowship from the SREB-State Doctoral Scholars Program. "The purpose for the fellowship is to increase the number of minority faculty in campuses around the country. The Doctoral Scholars Program provides multiple layers of support — not only financial assistance and research funding, but also career counseling, job postings and a scholar directory for networking and recruiting. Mentoring and advocacy for scholars is crucial, and support continues into early careers as graduates become faculty members" (SREB).

WHY DID YOU CHOOSE TO PURSUE A DOCTORAL DEGREE?

In order to become a professor, I knew that I needed to have a doctorate in my field. So when I found out that I was going to receive the fellowship from SREB, I knew that this was my calling; this was my time.

WILL YOU PURSUE/EXPAND ON YOUR TOPIC YOU WORKED ON DURING YOUR MASTER'S ?

I will absolutely expand on my research I worked on as a graduate student. Just as much as I want to become a professor, I also want to continue to work with ELL children and continue to conduct research on ways to help children who are learning two languages at the same time.

WHAT ADVICE WOULD YOU GIVE TO CURRENT GRADUATE STUDENTS WHO WOULD LIKE TO PURSUE A DOCTORAL DEGREE?

I would encourage them to continue to improve their academic knowledge. We often hear that knowledge is power, and who does not want that? I believe that if you want to become a leader in your field, it is vital to obtain as much knowledge as possible. My father once said I could pay the price (time) now when I am young, or later in life when I will not have the same stamina as I do now. I would highly encourage others to think about pursuing a doctoral degree.

ANYTHING ELSE YOU WOULD LIKE TO SHARE?

My family and I migrated to the U.S. when I was 7 years old to be able to have the opportunities and blessings that I have today. I am very humbled to have had great teachers from the early childhood department, especially Dr. Sharp, who has been my mentor. I look forward to the future with a smile on my face and with determination to one day walk across the stage to be hooded and to be called Dr. Guillermo Mendoza. ■

// WHERE ARE THEY NOW? //

DEREK R. SLAGLE, PH.D.

Allied Health, M.S., 2010

WHAT DEGREE DID YOU EARN AT ETSU?

I received my Master of Science in Allied Health. At the start of my degree, the program was in the College of Public and Allied Health, prior to the splitting of the colleges for the Health Sciences Division. I graduated from the College of Clinical and Rehabilitative Health Sciences. My main focus in the program was health policy and health administration. My master's program at ETSU introduced me to public health policy and administration, and led me to my doctorate in Public Administration.

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I graduated from ETSU in 2010.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I just recently graduated with my Ph.D. in Public Administration from Florida Atlantic University, and just took a faculty position at the University of Arkansas, Little Rock as a Visiting Professor in the School of Public Affairs.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

I graduated with my Bachelors of Science degree in Biochemistry and Cellular and Molecular Biology from the University of Tennessee. I did not know what I wanted or could really do to do with the degree. I called and spoke with Dr. Verhovsek about the program, and how I could continue my full-time employment at the University of Tennessee in a Clinical and Diagnostic Laboratory, while also pursuing the master's degree at ETSU. Once in the program, I was exposed to subject areas such as health administration and health policy from Doctors Byington and Verhovsek that shaped my academic pursuits and professional experiences. Data from my master's thesis on the Recruitment and Retention of Allied Health Professionals in Urban versus Rural Areas would eventually be published in three peer-reviewed, scientific publications. I can say without a doubt that I would not be where I am without my master's program at ETSU. Not only did the coursework and research/thesis provide a solid foundation, but also it opened up new opportunities and directions that I previously didn't know I had.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

It is never too early to try to start publishing. Publication is often a marathon task, so do not get discouraged by the process and feedback. ■

PREDATOR/PREY INTERACTIONS IN A TOXIC ENVIRONMENT

M.S. BIOLOGY (BIOLOGY) // TREVOR CHAPMAN, GRADUATE STUDENT
DR. JOE BIDWELL, PH.D., FACULTY ADVISOR

After reading Dr. Joe Bidwell's research papers, Trevor Chapman knew he wanted to join Dr. Bidwell's research lab at ETSU. As a secondary education major turned biologist, Trevor studied animal behavior at his undergraduate institution, Hanover College in Indiana. Growing up, Trevor preferred the outdoors, which led to his interest in predator/prey interactions. Trevor was reading Dr. Bidwell's work on toxicology and was interested in finding a link to his own interests--do environmental toxins influence flight/fight responses?

Trevor, with the guidance of Dr. Bidwell, explored the combined elements of toxicology and predator/prey interactions in an aquatic environment. In particular, expanding the examination from a single species toxicity test (where the focus is on one organism and its response to the contaminant) to additionally incorporating a natural stressor. His research question was developed by exploring how organisms in their natural environment would react /interact when exposed to multiple variables such as stressors and environmental contaminants in combination. More specifically, when a certain prey species senses a predator is near, a flight or fight response is initiated. He examined how predator stress would influence sensitivity to toxic chemicals in this environment.

The flight response in an aquatic environment is sometimes triggered when a predator is detected through the senses (such as a smell or other chemical emittance). Trevor stated: "If there are already contaminants (such as sodium sulfate and ammonia, human derived contaminants) in the aquatic environment, does encountering a predator make amphipods more susceptible to that pollution and/or change the flight/fight response?" Sodium sulfate was selected for testing, because it is an environmental contaminant in need of further attention, due to its constant release into streams in southern Appalachia via coal processing plants.

Predator-avoidance behavior occurs when prey avoid their predator by reducing their activity or by finding refuge. This type of avoidance, also known as the fight or flight response, induces a physiological response in addition to behavioral responses. In observing flight responses, Trevor and Dr. Bidwell used oxygen consumption to measure the amphipods' (any member of the invertebrate order amphipoda inhabiting aquatic environment) physiological responses (organic processes of an organism). They measured oxygen consumption with new respirometry equipment which utilizes "red flash" technology to detect oxygen molecules in the water. This helped them quantify the amphipods' metabolic rates and response to cues.

Trevor's question presents a key point in toxicity tests for aquatic life. Presently, for regulation, state-funded laboratories conduct toxicity assessments on aquatic species, but use single species tests that are implemented in basic conditions. These conditions often do not include predators or other stressors that may occur in the natural environment. Such testing conditions might underestimate the effects of contaminants.

(Left) Dr. Joe Bidwell and (Right) Trevor Chapman

Trevor's first step in the experimentation process was collecting amphipods. He ran a pre-test trial and exposed the animals to two different predator cues to quantify their behavior response. The first cue administered was an alarm cue (injured amphipods) is a warning sign among prey. This cue elicits a behavioral response, which tells other prey to avoid the area. The second cue was the introduction of a predator cue. During this process, the predator passively releases a chemical signal that triggers a "fight or flight" response. In addition, another subset was included to account for the different concentrations of sodium sulfate. Trevor looked at the effect of predator cues on amphipod sensitivity to sodium sulfate by conducting side by side-concurrently bioassays lasting 96 hours. He began to observe the effect of the contaminant, sodium sulfate, to determine the difference in lethality between being predisposed to sodium sulfate alone versus sodium sulfate merged with either alarm cue or predator cue. Trevor's tests mirrored the toxicity tests run by the state-funded labs through exposing the organisms to sodium sulfate at different concentrations. He differentiated the experiment by including either the predator or alarm cue with the contaminant.

Trevor expressed that his results provided very interesting findings, as one type of predator cue increased toxicity relative to the control while the other did not (although both induced predator avoidance behavior). He also looked at ammonia levels; one of the first researchers to observe what happened on these levels. He found that the alarm cue was resulting in significantly higher ammonia levels that could have played a role in tampering with the lethality trials. Ammonia levels were derived from the alarm cue (being the macerated amphipod) resulting in protein degradation. As it sits in the water, the bacteria begin to degrade the deceased amphipod, producing ammonia, which is quite toxic to animals. Although this issue required methods to be altered, the effects of alarm cue on water quality has not been studied and these results presented new questions for further research.

Through his research, Trevor's goal is to promote change in the methodology of toxicity testing. Studies have already shown that incorporating a natural stressor is necessary, but have not been taken into consideration when regulating water toxicity. He also hopes to show the need for the federal regulation of sulfate since it is currently being handled at the state level, and not all states test for it.

Dr. Bidwell commented on his mentorship of Trevor stating: "Regarding mentorship and his thesis, it was really a true collaboration, because Trevor brought this knowledge on board about behavior in the face of predation threat which was not an area I had worked in. Additionally, the more successful students in my lab are self-starters and Trevor works well on his own." In having such a large project with many responsibilities, Trevor recruited numerous undergraduate students that he supervised much like a research mentor. In turn, these undergraduate students have received valuable hours and experience in the lab, helping many of them land sizeable internships, which has given him great practice to become a professor in the future.

Trevor has published multiple peer-reviewed papers and given presentations on both his graduate and undergraduate research. Trevor stated, "The way that I've approached my graduate studies in general is by wanting to step outside of my comfort zone each time and in a big way. Tevor is applying to Ph.D. programs ■

// WHERE ARE THEY NOW? //

TIMOTHY MCDONALD

Painting, M.F.A., 2005

WHAT DEGREE DID YOU EARN AT ETSU?

I received my M.F.A. in Painting from the Department of Art & Design.

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I graduated in the Spring of 2005.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am an Associate Professor in the Department of Art & Music at Framingham State University in Framingham, MA. I teach painting, drawing, and foundations classes and am the Director of the university's Mazmanian Art Gallery.

WHAT IS THE MOST INTERESTING ASPECT OF YOUR POSITION?

The most interesting aspect of my position is working on an individual level with students and seeing their understanding of themselves grow as artists and individuals.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

I received a kind of mentoring by osmosis from faculty across the department. Being in contact with and challenged by such dedicated artists, scholars and educators so dedicated to their practices, and open with their advice and knowledge, provided me a model for how I might approach my own art practice and teaching.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

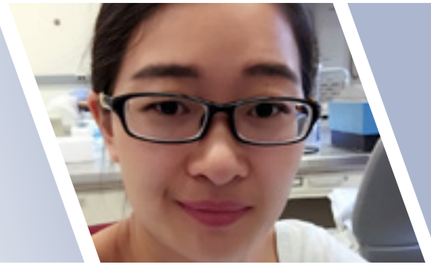
Be ambitious for your work and try to be present with it, no matter the discipline. ■

This mixed media painting was included in a recent solo exhibition, entitled *Like Itself*, at the Bromfield Gallery in Boston.

// WHERE ARE THEY NOW? //

XIA ZHANG

Biomedical Sciences, Ph.D. (Physiology), 2016



WHAT DEGREE DID YOU EARN AT ETSU?

I earned my Ph.D. in Biomedical Science with a concentration in Physiology at ETSU. I performed my research under the supervision of Dr. Chuanfu Li in the Department of Surgery.

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I graduated from ETSU in August 2016.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am now a postdoc in the Department of Pharmacology, Yale University School of Medicine, New Haven, CT.

WHAT IS THE MOST INTERESTING ASPECT OF YOUR POSITION?

My research mainly focuses on the in vivo functions of Wnt signaling and their mechanisms. I am currently using various biochemical, molecular and cell biological, genomic, transgenic and gene targeting approaches to investigate their roles in regulation of leukocyte functions in infection and inflammation-related diseases. I significantly benefit from the excellent work environment and learn a great deal from my colleagues and faculty at Yale University.

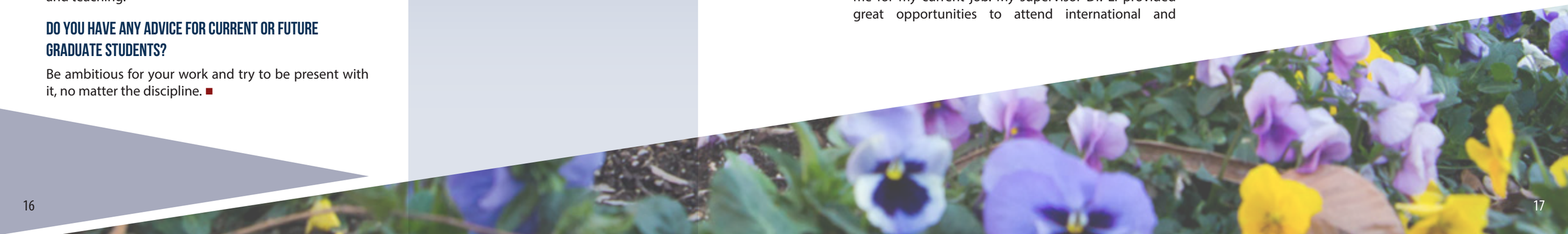
HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

The skills and knowledge I learned at ETSU prepared me for my current job. My supervisor Dr. Li provided great opportunities to attend international and national meetings. Also, I attended lab meetings in the Department of Surgery held by Dr. Williams. My communication skills, analytical skills and reasoning skills were enhanced. More importantly, the experience provided a broad and comprehensive cutting-edge knowledge of the immune and inflammatory field. All those aspects are fundamental and critical for my current job, and I will carry them with me throughout my life.

All the faculty and colleagues at ETSU were extremely helpful for my career and my life. I really enjoyed all the time I spent with them. I have to mention that the support and advice from all my committee members has been tremendously helpful with my job search. They all worked together to help me succeed. I believe we will have lifelong friendships with each other.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

I have three points of advice for graduate students. First, always plan ahead. Set up goals for each step, especially when you prepare for graduation. Second, believe in yourself. Do not let anyone tell you that you can't. Persistence is the key to getting what you want. Lastly, take advantage of any resources in graduate school to prepare yourself for the future position. You will not stay there forever, and you will leave one day. Are you ready? ■



HEART OF THE MATTER

PH.D. BIOMEDICAL SCIENCES (PHYSIOLOGY) // XIAOHUI WANG, GRADUATE STUDENT
DR. CHUANFU LI, M.D., FACULTY ADVISOR

After earning his Master's of Science degree in biology and working with Dr. Liu in China, Xiaohui Wang knew he would like to further his education in biomedical sciences. While earning his Master's degree from Nanjing Normal University, he also worked in the laboratory of the Geriatrics Department at Jiangsu Provincial People's Hospital where he met his faculty mentor Dr. Li, who was a visiting professor from ETSU. Through the work with Dr. Li, Xiaohui discovered an interest in Toll-like receptors (TLRs), which are a class of proteins influencing the immune system; and he decided to pursue his education at ETSU under Dr. Li's mentorship.

Xiaohui's research has become more defined focusing on Toll-like receptor 3 (TLR3), which is a protein producing an inflammatory response in the body's fight against viral pathogens, in particular to understand the prevention of myocardial infarction (heart attack) and reduce the risk of heart failure. In the future, this research has great potential to positively impact people.

Toll protein is a newly discovered protein for development dating back to 1985. Since then, research pertaining to TLRs has significantly expanded in the immune system function, and their importance are more and more understood in biomedical science, leading to Nobel Prize awards in 2011. Dr. Li began his research in 1991 at ETSU, and received numerous National Institute of Health (NIH) grants to research the role of TLRs in heart attacks and in sepsis-induced heart dysfunction.

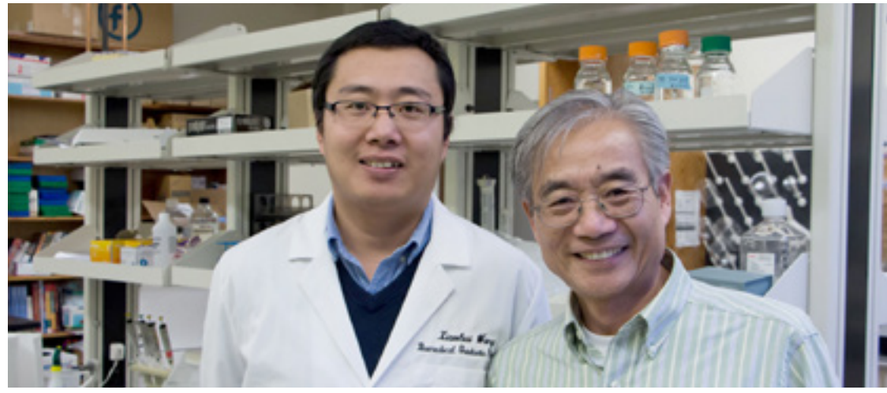
Xiaohui's research is in the initial stages. He discovered that TLR3 is extremely important in neonatal cardiomyocyte proliferation and commented:

"Previous studies conducted in our lab have shown that TLR3 deficiency exhibits a protective role during the early stages of heart ischemic injury. However, this may be a negative factor for long-term cardiac functional recovery after a heart attack. These findings suggest that TLR3 (which mediates immune response) may play a critical role in heart tissue repair and regeneration after damage. We want to conduct further research on the issue to confirm that."

This motivation and pursuit for answers related to myocardial infarctions and heart disease led Xiaohui to his study: "The Role of TLRs, Hippo-YAP1 Signaling Pathway and microRNAs In Neonatal Heart Ischemic Injury and Regeneration."

Xiaohui hypothesized that TLR3 is required for neonatal heart regeneration and repair following ischemic injury. Activation of TLR3 could promote cardiomyocyte proliferation by increasing glycolytic dependent YAP1 activation.

He used neonatal mice for experimentation, which have numerous physiological and genetic similarities to humans. There is evidence that cardiomyocyte cells divide at the neonatal stage versus the adult stage where there is not any proliferation; therefore, he used neonatal mice in his study.



(Left) Xiaohui Wang and (Right) Dr. Chuanfu Li

For Xiaohui to study the role of TLR3 in cardiomyocyte proliferation, he employed mice with a deficiency of TLR3 protein, induced heart attack in these mice and then observed them for three weeks. After twenty-one days, he observed that the white type group (mice with the TLR3 protein) fully regenerated their cardiomyocytes while the experimental group (without TLR3) did not recover showing large damaged areas. After repeating trials, Xiaohui found that the TLR3 protein was responsible for the regeneration of the damaged cardiac muscle cells; thereby supporting his first hypothesis. Xiaohui also mentioned that the heart of a fish can repair itself, because it uses glycolytic metabolism to generate energy. The second hypothesis Xiaohui made is that TLR3 may promote glycolytic metabolism for the regeneration and repair of damaged hearts.

Glycolysis is a certain metabolic phenotype that generates energy for an organism (the break-down of sugar to create energy). However, adults in mammalian species use oxidative phosphorylation to produce energy. Therefore, the human adult heart cannot repair itself after damage like it can in fish. This is mainly due to the differing metabolic phenotype. Xiaohui bridged the gap between the two commenting, "If we can stimulate glycolysis we can induce cardiomyocyte proliferation in damaged hearts." He continued stating that the creation of a glycolysis activator could work to help promote cardiac cell regeneration in humans since humans do not operate off glycolysis versus fish. The implications from his finding could impact millions of people, since cardiovascular disease (CVD) is the number one leading cause of death in America. The work that Xiaohui and Dr. Li have done (as well as previous students who also worked in his lab) is a positive continuing effort of how CVD might be combatted.

His research will hopefully lead to human application in the near future considering that 25% of all patients experiencing a heart attack usually develop heart failure following myocardial infarction. The focal point of his research might target the regeneration of heart attack patients' cardiac cells post damage.

Xiaohui plans to graduate in July, and he is considering post-doctoral positions where he can continue and expand on his work. His other interests lie in microRNAs, metabolic programming, and signaling pathways in neonatal heart regeneration. He has collaborated not only with Dr. Li, but other students and faculty to produce over twenty-one peer-reviewed articles. He has also given over twenty presentations, namely at the annual meeting of the American Heart Association and the Shock Society. He received the Shock Society competitive travel award for two consecutive years and the Outstanding Youth Investigator Award presented by the China-USA Cardiovascular Symposium. He gave his advice for students conducting graduate level research commenting, "As a graduate student in the biomedical science field, failure always happens in our research, but never be frustrated by failure. Keep your curiosity alive." ■

(Left) Rebecca Loyd, (Center) David Moore, and (Right) Rebecca Wilson

GRADUATE AND PROFESSIONAL STUDENT ASSOCIATION

REBECCA WILSON, PH.D. BIOMEDICAL SCIENCES // PRESIDENT OF THE GRADUATE AND PROFESSIONAL STUDENT ASSOCIATION (GPSA)

The Graduate and Professional Student Association is the only student organization at ETSU serving only graduate and professional degree students. GPSA is open to graduate students in all programs and at all levels of graduate education, both online and on campus. Rebecca Wilson, a Ph.D. candidate in the Biomedical Sciences program, is currently serving as the association's president.

The purpose of GPSA is to offer graduate and professional students support and to involve the students in institutional governance and development. Wilson states: "Our primary function is to improve the quality of graduate and professional education and student experience at ETSU". Being a member of GPSA means interacting with other graduate students at ETSU and sharing/collaborating ideas across many different disciplines. "Graduate programs tend to isolate students (especially students away from home for the first time), so the beauty of this association is to relieve that remoteness and essentially to break down the isolation barriers and discipline silos," remarked David Moore, the GPSA staff advisor.

In breaking down those isolation barriers, GPSA holds numerous gatherings to encourage both on-campus and online students to get involved in university governance and participate in student-led activities. GPSA holds social events each semester, such as bowling and team building at the Basler Team Challenge ropes course, two student workshops for professional development, a community service activity, and at least two general meetings (at the beginning and end of each semester). Gatherings such as these encourage students to discover what is unique about their school/college/program compared to their peers' academic endeavors at ETSU.

In this pursuit of knowledge across all disciplines, part of GPSA's purpose is to grant transportation funding to members who wish to deepen their knowledge base in their field. Active members can access up to $500 for transportation costs to present their research at conferences. Funding is available to both on-campus and online students. To be eligible for funding, students must be considered active in GPSA for at least one semester prior to requesting funds. To obtain active status students must: submit a GPSA membership application; pay the $5 membership fee; and attend at least two GPSA events during the semester prior to requesting funds. Students may request funding once per fiscal year (July 1 through June 30) and if granted funding, must give a presentation following the conference they attended. The presentation can be on research they presented at the conference and/or what they learned through attending the conference. This provides an opportunity for students to "give back" to ETSU through education after they were granted the means to increase their scope of knowledge.

GPSA strives to accommodate students enrolled in online programs. Rebecca Loyd, staff advisor for GPSA members enrolled in online programs, mentioned that online students' participation is growing stronger, but the association is working to increase that number. To the extent possible, events are scheduled so that online and on-campus students can attend at least two events each semester.

> ***"Our primary function is to improve the quality of graduate and professional education, and student experience at ETSU."***

GPSA is proud to say that every college at ETSU has been represented in the past two years, and with growth continuing, GPSA is pleased to announce that it just received an office location in the SGA suite in the Culp Center. This new office will provide a location where students can meet GPSA officials and will also serve to accommodate organizational meetings. GPSA is much more than a club that funds graduate students. It is an association that benefits graduate students, as well as those who are interested in applying to graduate and professional degree programs at ETSU. ■

// WHERE ARE THEY NOW? //

INES GALIANO

Professional Communication, M.A., 2016

WHAT DEGREE DID YOU EARN AT ETSU?

I earned my Master of Arts in Professional Communication (focusing on Radio-TV-Film) as well as my Health Care Translation and Interpreting Graduate Certificate.

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I graduated in May of 2016.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am attending Escola Superior de Cinema i Audiovisuals de Catalunya, which is the main film school in Spain, located in Barcelona. I am finishing my master's program in film, where I have been shooting my own short films and learning a little bit more about the film industry in Spain.

I am also a freelance translator and interpreter, and I work mostly in the health care field. I am also applying to Ph.D. programs in communication for next year.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

ETSU changed me in so many ways that I would not even know where to start. My education taught me about the industries I want to work in and prepared me for the outside world.

My translation certificate gave me the skills I needed to be able to work in the medical field. The certificate has so many practicum hours in actual clinics and hospitals that I felt fully prepared when I finished.

My master's degree was a great overview of what the communication industry is, and led the pathway for me to start thinking of my doctoral program. I learned to not be afraid of academic research, and I even ended up loving it. I discovered that I can make a difference through research as well, by studying and describing social phenomena, and thus making an effort for change.

My focus was RTVF, which introduced me to the great world of film and mass media, which I fell in love with. That led me to the film school I am at currently. I wanted to improve and try to learn about the Spanish industry as well.

What I took away from ETSU, being such a diverse institution, was to embrace multiculturality. I was able to meet people from many different countries and cultures, which helped me grow into the person I am today. I am now more socially aware and have learned to care about other cultures and respect everybody, no matter where they come from. I love that ETSU has students from all over the world who taught me that we live in a very diverse world, and we should enjoy those differences.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

My advice would be: go out and do things. Join as many student organizations as you can or even create your own. Go to the many cultural events that ETSU and the Mary B. Martin School of the Arts organize every week. Attend the monthly talks given by recognized personnel that come to our campus to share their knowledge. Go out of your comfort zone and meet international students. They are ready to share their story and culture with you, and you can learn so much from them without having to travel abroad. Go out of your dorm and get involved, because ETSU has much more to offer than just great classes. Then go back to class and apply everything you have learned on campus. ■

// WHERE ARE THEY NOW? //

MARSHALL GALLOWAY

History, M.A., 2011

WHAT DEGREE DID YOU EARN AT ETSU?

I earned both my bachelor's and master's degrees in History at ETSU.

WHAT YEAR DID YOU GRADUATE FROM ETSU?

I received my M.A. in 2011.

WHAT IS YOUR CURRENT POSITION, AND WHAT DOES THE POSITION ENTAIL?

I am the Coordinator of the online Associate of Arts degree at King University. The position mainly entails coordinating efforts among the various department chairs who oversee individual courses within the degree. I also conduct course and program assessment for the degree program.

WHAT IS THE MOST INTERESTING ASPECT OF YOUR POSITION?

I try to be as hands-on with my students as possible, and I really enjoy speaking with them and helping them with any questions or concerns that they may have. A large percentage of the students who apply to our Associate of Arts degree are first-generation students who have been out of school for decades, and some of them have never attended college. I have noticed that many of these students believe, whether true or not, that the program is their last chance for a college education. I feel strongly that it is my calling to do what I can to help them succeed, and it has been very rewarding in the last year to see students graduate who started the program around the time that I was hired.

HOW DID YOUR EDUCATION AT ETSU IMPACT YOUR LIFE AND CURRENT POSITION?

Although a regional university, ETSU has a strong liberal arts tradition. Consequently, I was forced to take courses in areas that did not necessarily play to my strengths or interests. As a result, I was not just trained for my chosen vocation; I was also trained to think critically and problem-solve. This has given me the mental flexibility to move into college administration, even though I was specifically trained as a historian.

DO YOU HAVE ANY ADVICE FOR CURRENT OR FUTURE GRADUATE STUDENTS?

I am always afraid to give advice; one's experience is not going to be just like someone else's. However, there are some things that I try to keep in mind as I go through life. First, life is a roller coaster, not a drop tower – there are going to be ups and downs, but neither has to be permanent. Second, there are hard times in any life when all you can do is endure, to tell life that it will not beat you today. Third, always try to "do good," whatever that means to you. I know that is a cliché, but it is important to know what you believe in and try to make the world a better place, even in small ways. Fourth, we are here in this world for each other. Modern society is all about individualism, but that is not how we are by nature. We are social creatures that need each other. Finally, I would give some advice on humility from Cotton Mather (by way of Benjamin Franklin): "You are young and have the world before you; stoop as you go through it, and you will miss many hard thumps." ■

CARDIOVASCULAR HEALTH RISKS IN HISPANIC CHILDREN

PUBLIC HEALTH, (EPIDEMIOLOGY) // ABRAHAM ALHASSAN M.D., GRADUATE STUDENT
DR. ARSHAM ALAMIAN, FACULTY ADVISOR

After completing the Master's of Public Health program at ETSU, Abraham Alhassan decided to pursue his Doctor of Public Health degree. Abraham became interested in public health issues as a medical student working in his home country, Ghana, where he was a leader of a student organization, "The Federation of Ghana Catholic Health Trainees." This organization reached out to people to provide basic medical care, health education, screening tests, and administered drugs. Being part of such an organization sparked Abraham's interest in public health. As a master's student, he signed up for courses covering chronic diseases with Dr. Alamian, inspiring him to pursue a doctoral degree in public health.

Dr. Alamian's work focuses on cardiovascular disease risk factors and metabolic syndrome in children. Research shows that children at younger ages (preschool) are starting to have increasing levels of high blood lipids (fats in the blood). Using this information, Abraham developed his research questions focusing on cardiovascular health risk factors in Hispanic children. Hispanics are at higher risk for diabetes, obesity, and insulin resistance syndrome (metabolic syndrome) compared to national levels.

At this point, the data available on Hispanic children is limited particularly for children living in northeast Tennessee.

For his dissertation, Abraham focused on three different topics that influence health outcomes--diet, sociodemographic factors, and biomarkers (ghrelin, leptin, c-peptide, and tumor necrosis factor) to examine their association with cardiovascular disease risk factors including metabolic syndrome among Hispanic children. Metabolic syndrome is defined as a clustering of several risk factors including central obesity, elevated blood pressure, low HDL levels, increased triglycerides, and high glucose levels. In his study, the child had to have three or more factors to be considered at high risk for future cardiovascular problems. The data was previously collected by Dr. Alamian and a team of multidisciplinary researchers from ETSU through a diversity research grant funded by the Tennessee Board of Regents.

The sample of the study included 150 Hispanic children between 2 and 10 years of age. Abraham worked in conjunction with the Johnson City Community Health Center and trained a research assistant to recruit subjects. Children would go in for a well-child visit and interested parents would agree to the study. The parent completed a parent questionnaire and a set of child questionnaires on sociodemographic, health and lifestyle variables. Height, weight, and girths were taken by a nurse, and the blood draw for biomarkers taken by a phlebotomist.

Abraham focused on three different aspects in his study. The first set of variables assessed the relationship between parental factors (mothers' perception of whether their neighborhoods are safe for children to engage in outdoor play or to walk outside at night; are there enough parks, playgrounds and green spaces in the neighborhood; mothers' satisfaction with the neighborhood where their children live as places to bring up children; mother's BMI status and engagement in physical activity) and the potential for the various cardiovascular health risks in children. The second area assessed food group intake and the relationship between major food groups and cardiovascular risk factors. Finally, Abraham wanted to see how select non-traditional biomarkers (including adipocytokines, ghrelin and c-peptide) related to the risk factors. Overall, he was specifically interested in how these biomarkers can be used to detect cardiovascular risk factors. Since there are not any specific guidelines that have been published or are being used, Abraham wanted to propose cut-off levels for detecting cardiometabolic risk factors in pre-adolescent Hispanic Children.

Abraham employed descriptive analyses (chi-squared, t-test, Mann-Whitney U test and correlation analysis); receiver operating characteristics analysis and the Youden's J statistic; and multiple logistic regression analysis.

Findings from the study confirmed the high prevalence of obesity, elevated blood pressure, elevated triglycerides and low high density lipoprotein cholesterol in the sample. A particularly concerning finding was the higher prevalence of elevated blood pressure and the clustering of at least three risk factors in 2-to-5-year-olds than 6-to-10-year-olds. Children whose mothers where obese and did not engage in moderate physical activity were less likely to engage in vigorous physical activity on at least three days in a week, and to have elevated blood pressure versus children whose mothers had a healthy BMI and were physically active.

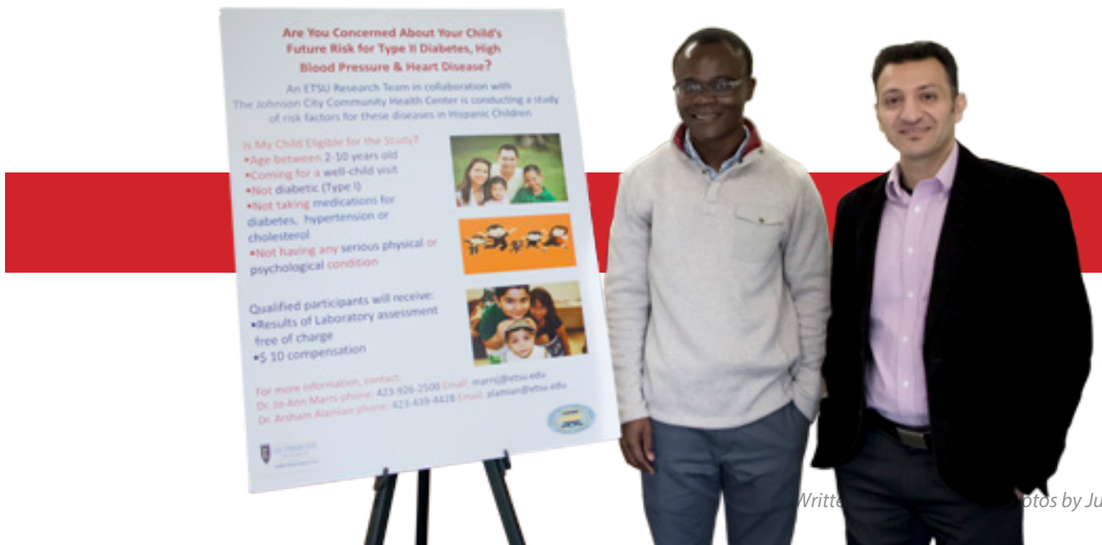
In general, Hispanic children's fruit and legume intake exceeded the minimum daily requirements; however, the sample generally fell short of daily requirements for dairy, whole grains, vegetables, and fiber intake. A significantly higher proportion of the sample met legume recommendations compared with a nationally representative sample, but generally, the sample proportions that met vegetable, fiber, wholegrain and dairy intake were as low as for similar age group proportions in the nation. Higher legume, fruit and fiber intake were confirmed to be protective of cardiovascular health.

Lastly, the biomarker results suggested that non-traditional biomarkers could be used as a test of cardiovascular health risk. Admittedly, further studies need to be done, however, the findings suggest that by taking a simple blood draw, a physician may see risky levels of these hormones and take preemptive measures to keep a patient's cardiovascular risk factors down.

Not only has Abraham worked with Dr. Alamian on this project for three years, but he is also his graduate assistant. Dr. Alamian mentioned that this project was the only primary research study in the department at the time. Dr. Alamian's project has played a major role in Abraham's professional development as he was charged as the research team coordinator for the study at the community health center. "He has been one of the best students I've had come through this program, and was instrumental in the data collection," Dr. Alamian stated. Abraham said Dr. Alamian helped clarify his research objectives to make them concrete.

Abraham will graduate this spring and is pursuing a career in public health practice (as a hospital epidemiologist) or work at the Centers for Disease Control and Prevention while continuing to practice medicine. He has presented at many conferences and is the lead author of three manuscripts ready for submission. He leaves this advice for graduate students: "there is a lot of mentoring available and materials for resources—use them". ■

(Left) Abraham Alhassan and (Right) Dr. Arsham Alamian



ES-SEN-TIAL

ART, M.F.A., (STUDIO ART) // LYN GOVETTE GRADUATE STUDENT
PROFESSOR PATRICIA MINK, FACULTY ADVISOR

Lyn Govette's passion for creating art with fibers and textiles started in her 20s. Formerly a physician's assistant (PA-C) of over 25 years, she continued to create art and take classes in her spare time. Lyn moved back to Tennessee to be near family and continued working as a PA-C. While selling her repurposed clothing line and observing what other vendors were making, she concluded that there were many aspects of creating she was not exposed to when she studied art as an undergraduate. This influenced her decision to get a graduate degree. Lyn said she always loved ETSU's campus and wanted to pursue graduate level coursework there. Her grandmother was an art teacher and played a big role in her decision. Searching for application and admission information, Lyn met with Professor Patricia Mink, who became her faculty mentor at ETSU.

During Lyn's coursework, she took a surface design class with Professor Mink whose expertise in digital printing on textiles inspired a new passion. Utilizing her newfound skills, Lyn began creating studies, including pictures, and incorporating stitching into her work. She used sewing "as an extension of what she already knew" to enhance the picture by integrating thread to enrich lines or marks on the picture.

While searching for thesis ideas, Lyn traveled through coal mining communities and began to capture the severity of mountain top removal (MTR). Her focus was on the changes to the land rather than the communities that were impacted

After conducting interviews with local activist groups in southwest Virginia and capturing the moments with photographs, Lyn used these photographs to create images on textiles through digital transfer techniques.

(Left) Lyn Govette and (Right) Professor Patricia Mink

She printed a larger version of one image, suggested by Professor Mink, to do a sheer layer and a solid layer. When they hung the layers together on the wall, Lyn remarked: "It was like the catalyst . . . it was stunning". She realized this image clarified the concept for her thesis exhibit. Aware of other artists employing activism in their art (a form of art addressing cultural power structures), Lyn felt that this was a way she could express how devastating MTR is by presenting it in an exhibit with fiber art. She mentioned: "Here, there isn't much coal so we are not impacted in the same way, but we utilize energy, so we are affected by and affect the environment. I wanted to explore that with images and see if I could create what I had experienced, so that when people came to the gallery to see the exhibit, they would have some of that experience."

Realizing her photos, research, and interviews built a story of MTR's destruction, Lyn decided to use what she had seen for her thesis. In completing a thesis in the MFA program, students create an exhibit and write a paper in support of their research and how it relates to the exhibit. Creating an exhibit of such magnitude is a lengthy and work-intensive process. Lyn first printed her images on paper in order to select the ones she wanted to use. Enlarging those images was her next step, in which she used a surface design technique to determine which material she would print on and which embroidery technique (machine or hand stitch or combination) she would use.

When reading through the research pertaining to the issue and to grasp a better understanding of MTR, Lyn learned of a practice called the "beauty strip". The forest service uses this technique to hide clear-cut sites in the national forests from the view of visitors expecting to see the grandeur of the wild forests. Lyn portrayed this concept through the artificial trees she created in her exhibit. Before viewing the rest of the works in the gallery, there is the beauty strip symbolizing the shallowness and mask of the façade.

Another aspect of Lyn's research was to find out which substrates and textiles work better for printing, and which fabrics pair best with the images. "The images had to be printed, taken out and put together, which is part of the process of figuring out where to go." When starting her project, Lyn considered the issue of sustainability and started deconstructing existing fabrics to make new art instead of buying virgin materials. She found there were some fabrics that worked and some that did not work, especially when it came to polyester. While recycled polyester is "sustainable", it is not biodegradable, but breaks down into plastic bits. Lyn began to question if it was truly a sustainable material. Deciding that this concept was going against what she wanted to achieve, Lyn chose to use natural fibers (cotton, silk, linen), with the exception of one image that is on a recycled cotton-polyester mix. Lyn found that she had to go with pigment inks versus plant based dyes, because she needed the image to be crisp. Through her explorations, Lyn learned she had to accept a certain limitation to produce what she wanted to achieve, meaning not everything could be sustainable.

After the surface design trials, Lyn used different dying techniques, during which she said she "wrecked" some of the images. Wrecking the images in the works displayed the analogy of the devastation MTR left behind on the sites she visited. Using these different techniques required Professor Mink's guidance throughout the entire project. Her mentorship has been a great attribute to Lyn's success. Professor Mink has been sewing and working with fibers since she was four years-old. These common interests made for a great mentorship between Professor Mink and Lyn. She used Professor Mink's guidance to help fine-tune her techniques as the exhibit progressed. Professor Mink commented, "the faculty mentor's expertise keeps the student from reinventing the wheel".

Throughout her time at ETSU, Lyn has reached out through the arts in the community. She has worked with the Alternative Learning Center at Science Hill and with Girls Inc. She plans to graduate this spring, and wants to continue to exhibit in different galleries and be a part of a community that supports other artists. She would consider an adjunct position if the opportunity should arise. ■

SCHOOL *of*
GRADUATE STUDIES
EAST TENNESSEE STATE UNIVERSITY

EAST TENNESSEE STATE UNIVERSITY

Office of University Advancement | 1276 Gilbreath Dr. | Johnson City, TN | 423-439-4242

Gift Form — School of Graduate Studies

I am/we are making a tax-deductible gift to support Graduate Studies at ETSU. ☐ Graduate Foundation Account ☐ Add-On Fellowship

Name(s) _____

Degree(s)/Date(s) _____

Home Address _____

Business Address _____

E-mail Address _____

Phone Number(s) Home (_____) _____ Business (_____) _____ Cell (_____) _____ Fax (_____) _____

Enclosed is my/our gift of ☐ $5,000 ☐ $1,000 ☐ $500 ☐ $250 ☐ $100 ☐ $50 ☐ $25 ☐ Other

OR

I/we pledge $ _____ to be paid annually over _____ years.

Please make checks payable to the ETSU Foundation, pay by credit card below, or pay online at www.etsu.edu/give

Please charge my ☐ VISA ☐ MasterCard ☐ Discover ☐ American Express in the amount of $_____

Account Number _____ _____ _____ _____ Expiration Date _____ Security Code _____

Signature _____

☐ I/we work for a matching gift company (include form). Even if your spouse is not an alum of ETSU, his/her company may still match.

ETSU is an AA/EEO employer.

SCHOOL *of* GRADUATE STUDIES

EAST TENNESSEE STATE UNIVERSITY

PO Box 70720, Johnson City, TN 37614-1710
www.etsu.edu/gradstud
Phone: 423-439-4221