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Newsletter Fall/Winter 2021

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THE UNIVERSITY OF MISSISSIPPI

Graduate School

Newsletter Fall/Winter 2021

Dear Students, Alumni, Colleagues, and Friends of the Graduate School,

Season's greetings! The past six months have been very busy for the Graduate School and we are elated to have more students back on campus. I am happy to share some of the exciting things happening for graduate students and alumni over the past several months.

First, as you can imagine, students in our residential programs are thrilled to have increased in-person classes while our students also found virtual learning offers important access and flexibility. In our first story, read about how our students experienced this fall semester with increased in-person course offerings and continuation of key benefits of online coursework for students that need it.

Second, we held our campus annual Three Minute Thesis (3MT®) competition this fall, returning to a live competition after hosting a remote competition last year. Three accomplished professionals served as judges for our final round. Dr. John Satumba, a Chemistry Ph.D. alum who currently works at Cargill as the GEOS Global Bakery Category Technical Lead and R&D Regional Lead, joined us for the competition and met with many students while in Oxford. Shannon Cohn, lawyer, humanitarian, and award-winning producer of feature films with Mangusta Productions and producer and director of the new documentary *Below the Belt* was our second judge for the final round of competition. Our third judge was Dr. Amit Patel, a Pharmaceutical Sciences Ph.D. alum with an emphasis in Pharmacy Administration. Dr. Patel works with MME, a global company which started in Oxford, to help clients with product development, launch, market success, and price-setting strategies. We are exceptionally grateful to our accomplished judges who selected the graduate student to represent UM at the regional competition in spring of 2022.

You can read about the 3MT® competition, our winners, and other excellent competitors in two stories within our newsletter. The research they do is fascinating and illustrates the important ways our graduate students contribute to our state, region, nation, and world as they address important issues that affect our lives.

Continuing with the theme of highlighting research of our graduate students, you can read about the involvement of students in our Communication Sciences and Disorders M.S. program in research presentations at a premiere national conference. In addition, we introduce you to a pair of scholars (one who completed the Ph.D. this year) from Pharmacognosy and an alum of the Integrated Marketing and Communication MS program (now an assistant professor at Jackson State University) whose research with quality faculty mentors while they studied at UM led to publications. With these stories, we illustrate just how much our graduate students and programs contribute to the University of Mississippi's research mission.

Also included in this edition are stories about many other standout students, several of whom have funding through important scholarship and fellowship programs. These awards have a significant impact on students. Learn about our inaugural winner of the Advancing STEM scholarship, our Cole-Eftink Fellows, and a current NASA/Mississippi Space Grant Consortium (MSSGC) Graduate Research Fellow.

Finally, as we grow our graduate education offerings, our faculty develop innovative and unique opportunities for study. Our faculty in music are doing just that. Our final story describes three new areas of emphasis for graduate study in music here at UM.

Well…that summarizes some of what has kept us so busy. I invite you to stop by campus in 2022 and say hello. We are eager to host people again and I am sure that the spring blooms will not disappoint. In addition, I hope you will email us at **gschool@olemiss.edu** (or, for our alumni, send us details via our **Grad Notes form**) with your news and updates from 2021. We appreciate your support of the Graduate School and our graduate students at the University of Mississippi.

As I close out this message, I wish you all well. May this holiday season be filled with great memories, wellness, and hope.

Happy Holidays!

Annette S. Kluck, Ph.D.
Dean of the Graduate School
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THE UNIVERSITY OF MISSISSIPPI

Graduate School

Fall 2021: Learning Both in Person and Virtually

by Margaret Savoie

In February 2021, Chancellor Glenn Boyce announced that for the Fall 2021 semester, the University of Mississippi would be open for in-person learning and return to pre-COVID-19 operations. After a whirlwind of 2020 challenges, many of which were COVID-19 related, students have eagerly returned to campus, which is once again buzzing with faculty and students, Grove squirrels, and food delivery robots which hum across campus like miniature storm troopers. Many new and returning graduate students were thrilled for the opportunity to be physically back on campus, though for others, distance education provided options they now find are easier and more manageable to integrate into their current circumstances.

Katlyn Tidwell, a first-year Integrated Marketing Communications (IMC) master's student from Southaven, MS said, "I am excited about being back on campus in a classroom full of my peers. I learn better in a classroom setting … being back on campus feels great."

Some students expressed feelings of isolation, being removed from campus and located in their hometowns away from Oxford. Austin Newcomb, a first year M.Ed. in Counselor Education with Emphasis in Clinical Mental Health Counseling graduate student from Corinth, MS, elaborated on this sentiment, stating, "I actually feel like I'm a student again as opposed to last year only sitting in my bedroom."

The general consensus with students who are now back on campus was that distance learning during 2020-2021 academic year, although important to enable students to continue their education during the pandemic, was different than in-person classes. For students enrolled in residential programs, they missed the key dynamic factor of such programs—that is, having faculty in the front of the classroom leading active conversations, discussions, and debates which tend to lend themselves to that "aha

moment" when interaction contributes to everything coming together and making sense while working through difficult material.

Some students found themselves comfortable in either learning environment. Aldyn Ewing, an Accountancy graduate student from Corpus Christi, TX, welcomed the return of in-person classes, but said she didn't find the back-and-forth switch to be a great challenge. She said, "I don't see it [the switching back to in-person classes] as a challenge, but I'm thrilled to be back with in-person classes and feel I'm learning much more."

The past school year did open some students' eyes to online learning. As some students mentioned earlier, online classes were more independent. This newfound independence helped some reach a new potential and students decided to partake in the online graduate programs offered here at the University.

Along with this opportunity for independence, some students found coming back to campus to attend in person classes and programs was not a viable option. Many of those graduate students are part of online graduate programs. Some are doing this due to work, COVID-19 precautions, or other life situations.

Mary Parker Janoush, an IMC master's student from Cleveland, MS said, "I am currently working full time and it [the online program] allows for flexibility. I needed to be able to still work as well as work to obtain my degree."

"I will say that the workload is similar to that of the workload of an in-person course," continued Janoush.

The Graduate School is glad to have all our students back, whether online or on campus, for a year full of learning and academic success.

2021 Three Minute Thesis (3MT®) Competition Winners: from Microplastics to Philosophy

by Margaret Savoie

And the winner is … Kendall Wontor! This year's Three Minute Thesis (3MT®) overall winner is Kendall Wontor, a doctoral student in chemistry. Wontor's research focuses on microplastics in oysters, with several different aspects to her overall research project.

Wontor spent most of her childhood in Texas, but most recently lived in Hawaii before relocating to Mississippi. Her time in Hawaii sparked her interest in microplastics.

"My favorite things to do were going to the beach and sailing," said Wontor. "Whenever I would do either, it was pretty common to see small pieces of plastic in the sand and out in the ocean being tossed around in the waves. As a chemist, that really got me interested in the breakdown process of plastics and the problem of microplastic pollution."

"Microplastics are a diverse suite of contaminants with different polymers, additives, sizes and morphologies," explained Wontor's advisor Dr. James Cizdziel, professor of chemistry and biochemistry and coordinator of forensic chemistry. "Microplastics can also attract other pollutants, such as heavy metals, potentially introducing them into the food chain as the plastic is caught on gills or mistaken for prey," he added.

The first aspect of Wontor's research is focused on developing new methods to extract microplastics from oyster tissue, and this was the main point of her 3MT presentation. An example of an extraction method is sonication. "By developing and validating this extraction method, I hope to increase the analysis speed and sustainability of microplastics research," said Wontor.

In the second aspect of her research, Wontor uses chemical digestion to analyze oysters from ten sites across the Mississippi Gulf Coast. Here, Wontor is looking for any differences in the numbers, sizes,

shapes, and polymer types of microplastics present in the oysters from the different sites. Wontor is also dissecting the larger oysters found to see if the microplastics are localizing in specific tissues, such as the gills, mantle, digestive system, or abductor muscle/heart.

“Microplastics are abundant in the Mississippi River and Mississippi Sound. Oysters are exposed to these small plastic particles. This is a concern because oysters are filter-feeders and the microplastics may interfere with oyster biology. Oysters are a foundational species in the Gulf and an economic resource to the region,” explained Dr. Cizdziel.

Wontor is no stranger to presenting her research. She presented “Microplastics in Oysters from the Mississippi Sound” at the National Environmental Monitoring Conference in a special session on “Analyzing Microplastics in the Environment: Striving to Better Assess Occurrence, Fate and Effects.”

Wontor will represent the UM Grad School at the Conference of Southern Graduate Schools’ 3MT competition in North Carolina in February 2022.

The Graduate School is happy also to announce our 3MT winners for specific categories. They are as follows:

People’s Choice

This year’s People Choice Award Winner is Savannah Draud, a biological science doctoral student from New York.

Draud’s research centers on symbiosis, which is the living together of different organisms. Draud specifically studies the symbiotic relationship between plants and fungi found on their roots called mycorrhizal fungi. With her research, Draud aims to understand how a specific plant-fungal relationship developed in a certain area of the world, to unravel the environmental correlates of this relationship and to explain how this specific symbiotic relationship may have influenced the distribution and evolution of the Pasqueflower plant.

“My goal for the future is to become a professor and researcher at an R1 institution much like the University of Mississippi.” Draud continued, “While I am passionate about biology and my personal research interest, I am also passionate about sharing those interests and encouraging others to pursue the questions that make them excited about the world around them.”

Tied for First Place Doctoral

Siddhi Korgaonkar, doctoral candidate in pharmacy administration from Mumbai, India, and Sumeet Kulkarni, a doctoral candidate in physics from Pune, India, tied for first place in the Doctoral category of

this year's competition.

Korgaonkar's PhD dissertation is about understanding cancer-related financial toxicity experienced by individuals diagnosed with cancer and their families in the US. Cancer treatment is expensive, and patients may face financial hardship not only due to their medical bills but also from other expenses such as traveling for treatment and missed employment. Financial toxicity is a term used to describe these financial struggles and the ensuing psychological distress experienced by cancer patients and their families. Korgaonkar's research focuses on exploring different aspects of this issue and how the process of financial toxicity unfolds over the course of cancer treatment for patients or even into their survivorship.

"I was interested in cancer-related financial toxicity while working as a clinical pharmacist at Tata Memorial Cancer Hospital in Mumbai," said Korgaonkar. "I witnessed cancer patients and their families struggling to make ends meet while receiving cancer treatment."

After moving to the US, Korgaonkar noticed that this was a global problem. Korgaonkar is thankful for the opportunity to explore this issue further because of the research knowledge and skills acquired during her graduate education.

Sumeet Kulkarni

Sumeet Kulkarni studies black holes. He specifically studies pairs of black holes that spiral and smash into each other, giving out tiny ripples in space and time that are known as gravitational waves. The study of gravitational wave signals from black holes helps to understand different properties of the black holes such as how heavy they are, whether they are spinning, how they form, and more.

"I am really thrilled to win among what was an outstanding group of finalists!" said Kulkarni. He continued, "I tried an unconventional presentation with a completely blank slide but found ways to tie it into my story and I am very glad it came off well."

First Place Master's

Emily Morphis, a communication sciences and disorders (CSD) master's student from Belmont, MS, won first place in the master's division of this year's 3MT competition.

Morphis conducts a meta-analysis of current research about the development of speech problems, specifically stuttering, in individuals with Parkinson's disease who have undergone deep brain

stimulation surgery. Deep brain stimulation surgery helps reduce motor symptoms of Parkinson's disease such as tremors. However, even though the surgery improves motor symptoms, it can cause new speech problems. The implications of Morphis' meta-analysis will hopefully lead to more research into evidence-based speech-language pathology practice for people who have an acquired neurogenic stutter.

"After graduating in May, I hope to complete a clinical fellowship in a setting that allows me to continue researching and practicing with adults with neurogenic communicative disorders," said Morphis.

Second Place Master's

This year's second place master's 3MT Winner is Dakota Layton, a philosophy master's student from Huntsville, AL.

Layton's research focuses on analyzing how the spread of fake news contributes to the problem of truth-decay and how this problem infringed on an idea of Freedom. Expanding the understanding of Freedom is one of many steps needed to address the problem of truth-decay.

"We must expand our understanding of Freedom, not just for the purpose of addressing truth-decay, but for advancing the Common Good, understood as the happiness and well-being of all of our fellow citizens with whom all of us share the gift of civic friendship," stated Layton.

Layton commented, "I am proud to have presented my work for my fellow Graduate School peers who are all doing really fantastic and timely research on solutions to problems that we are currently facing as a society and I am honored to have placed second among this group of superb finalists!"

The Graduate School is proud of all the 3MT participants in both the preliminary rounds and final rounds. Thank you to everyone who has supported these students in their endeavors.

THE UNIVERSITY OF MISSISSIPPI

Graduate School

Two Standout Three Minute Thesis Competition Participants Share their Research

by Margaret Savoie

The Graduate School is fortunate to have students who are academically and research driven. This past semester, 65 students presented their research at the first round of the Three Minute Thesis competition (3MT®). Of these 65 students, 21 advanced to the final round. Among these finalists were two PhD students, Thomas Cilloni from Computer Science and Engineering and Thamsanqa Jongile from Nutrition and Hospitality Management.

Cilloni, originally from Genoa, Italy studied at the University of Liverpool from 2017 to 2020 before coming to the University of Mississippi. While at the University of Liverpool, Cilloni was part of a Double Degree program with Xi'an Jiaotong University through the international joint venture university Xi'an Jiaotong-Liverpool University, studying information and communication science and software engineering.

For his 3MT presentation, Cilloni presented on facial recognition and artificial intelligence.

"Facial recognition tools are becoming exceptionally accurate in identifying people from images," explained Cilloni. "However, this comes at the cost of privacy for users of online services with photo management, such as social media platforms." He continued, "Particularly troubling is the ability to leverage Artificial Intelligence (AI) to recognize faces even when a user does not actively label its own images; we therefore propose Ulixes, a strategy to generate visually imperceptible changes to facial images that make it impossible for AI to recognize who you are."

Cilloni's interests in this area of research were sparked back in 2018 when one day Instagram servers blacked out images and would not load on his feed. Cilloni was only able to read backup descriptions of

the images that had been posted.

The images were sometimes mislabeled. Cilloni said “I find this extremely scary and a major violation of privacy. I then set out to protect users and after 2 years of research I was able to build Ulixes.”

Looking to another area of research is Thamsanqa Jongile, who is pursuing a doctorate degree in Nutrition and Hospitality Management.

Jongile, originally from the Netherlands, studied at Stenden South Africa, an International Branch Campus of NHL Stenden University of Applied Sciences in the Netherlands, obtaining a Bachelor of Commerce degree in Hospitality Management in 2015. Prior to that he attended City and Guilds of London Institute and earned an advanced diploma in International Tourism. He had experience in working in USA, including at Brennan’s Restaurant in New Orleans before coming to the University of Mississippi.

“My dissertation weaves together the organizational behavior, hospitality management, and gerontology perspectives to explore the impact of psycho-social factors on successful aging in the workplace,” said Jongile.

He continued, “More specifically, I contend that emotional regulation, narcissistic leadership, and human resource policy coverage with employee resilience, emotional exhaustion, and job satisfaction … influence employee functionality and longevity in hospitality profession; I locate my work as part of the groundbreaking research on the successful aging concept in the hospitality industry.”

Jongile was interested in this area of research after a mixture of experiences as an employee in the hospitality environment and his mentor’s interests on the gerontology perspective.

Jongile is pursuing a future in academia and human resource consultancy and Cilloni’s hope for the future is to contribute to making privacy-preserving software part of the services that are used every day.

These two 3MT presentations illustrate the range of works and studies pursued by the many PhD students from different graduate programs. The Graduate School was proud to showcase these educational endeavors and looks forward to seeing what the future holds for them and all our future graduates.

Newsletter Fall/Winter 2021 Articles

Communication Sciences and Disorders M.S. Students Present at the Premiere Conference for Speech, Language, and Hearing Practitioners and Scholars

by Margaret Savoie

This year the University of Mississippi's communication sciences and disorders (CSD) graduate students and faculty were among 15,000 attendees at the American Speech-Language-Hearing Association (ASHA) Convention. The ASHA Convention is the principal annual professional education event for speech-language pathologists, audiologists, and speech, language, and hearing scientists. UM's CSD department had 18 presentations at the convention this year.

Dr. Vishakha Rawool, chair of the CSD department said, "The chance to present at the AHSA convention provides students with opportunities to highlight their research, network with others who are conducting research in related areas, find future collaborators, improve their visibility within the field, and enhance opportunities for future research funding."

For the CSD graduate program curriculum, a thesis is not required for students. However, even if some students are not planning on a research thesis, that does not mean research opportunities do not occur. Rebekah Glaze, a CSD graduate student from Hattiesburg, MS, is a prime example of this. "Dr. Higdon assigned this media project for us to do with the larynx," Glaze said. "A group of us on the project decided if we were going to do this, then we were going to do it right and started reaching out to graphic designers and engineers because Dr. Higdon wanted us to engineer a digital larynx that worked."

Glaze came to UM after graduating from the University of Southern Mississippi in 2015. She then took a gap period where she obtained her teaching license. "While teaching," said Glaze, "there were just those little times that affirmed that this was what I wanted to do."

“We presented our final product to Dr. Higdon, and she loved it and suggested to turn it in for ASHA,” said Glaze.

The team had some doubt about the likelihood that ASHA would accept a presentation on the digital larynx. “We all thought that there was no way it will get accepted because it’s not really a research project; we just built this thing,” said Glaze.

With a diverse staff made of clinical supervisors, researchers, professors, and more, the opportunities to get involved are never limited. Many of the presentations for ASHA are made by teams including mentors and students. “The teams, for ASHA, are usually from the same laboratory directed by an individual faculty member or they are from more than one laboratory directed by faculty members who are collaborating on the research project,” stated Rawool.

“The U Miss CSD graduate program is one of the top 100 programs in the country and is the top program in Mississippi,” said Rawool. The faculty, clinic, and supervisors help to bring new and exciting experiences to those in the graduate program.

“If you want to be involved in your program, it’s a great place to come and be involved. I jumped in and my ideas have been welcomed. It’s a very nurturing environment,” said Glaze.

Future hopes for the UM CSD program are to improve the quality and ranking of the program. Every year there are advances in both academic and clinical components of the program, made by staying up to date with current evidence and enriching clinical practicum with current technologies.

In order to present at ASHA, there is a required submission of a 1000-word summary of the proposal and a brief description of 120 words. The abstracts from the UM CSD presentations are listed below. Graduate students are shown in bold.

1. **Barton, A.**, Kornisch, M., Ikuta, T., Park, H., & Lowe, R. (2021, Nov. 15). Prevalence of Hearing Loss in College Students in the United States: A Meta-Analysis (Technical Research, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Hearing, Tinnitus, And Vestibular Science

Abstract: NIHL among college students appears to be increasing. This may be challenging as students are required to listen to lectures in classrooms that may have sub-optimal listening environments. The purpose of the current study was to conduct a meta-analysis to examine the prevalence of hearing loss in college students and to emphasize the importance of detecting hearing loss at 6,000 Hz. Results indicate that the prevalence of hearing loss in students is 19%, while the prevalence of hearing loss at 6,000 Hz among students with a hearing impairment is 85%. Implementing hearing conservation

programs may be advised to prevent hearing loss in students. It may also be beneficial to test hearing at 6,000 Hz in all students for better detection.

2. Chen, Y., Hao Y., & Zheng L. (2021, Nov. 15). Efficacy of International Tele-Practice Parent-training for Chinese Parents of Children with ASD (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Telepractice

Abstract: There is a great service need for Chinese families with children with Autism Spectrum Disorder (ASD), yet available services are very limited. To potentially address the need, we implemented an international tele-practice language-facilitating parent training program for three Chinese families of children with ASD residing in China. We found that both parents and children in the three families demonstrated gains after 6-12 sessions 1-hour weekly individual live video conferencing sessions. Parents showed improvements in techniques implementations, and children demonstrated progress in sentence complexity, lexical diversity, and frequency of communication initiations. Maintenance is generally achieved for both caregivers and children.

3. Cole, M., Hill, K., Banajee, N., Cristiano, J. D., Higdon, C., Harris, O., & O'Leary, M. (2021, Nov. 20). AAC Specialty Certification : Competencies & Ethics (1-Hour Seminar, In-Person). 2021 ASHA Convention, Washington D.C., United States.

Track: Augmentative and Alternative Communication

Abstract: The process for achieving Augmentative and Alternative Communication (AAC) Specialty Certification is under way! AAC is a unique area within the ASHA scope of practice. Effective AAC evaluation, funding procurement, and implementation requires a special set of expertise to deliver effectively (Hill, K., 2018). Ethical concerns arise when SLPs are under-trained in this area. The myriad of AAC choices and commercial nature of AAC further complicates evaluation/implementation which can cause SLP's to become over reliant on commercial vendors for evaluation, decision making, and treatment plans. The American Board of Augmentative and Alternative Communication (AB-AAC) will present a completed study identifying advanced clinical competencies related to AAC including survey results from SLPs clinically practicing in the area of AAC.

4. **Culbertson, E.**, Park, H., Kornisch, M., & Ikuta, T. (2021, Nov. 15). Repetition and Retracing in Aphasia Across Discourse Types (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Language Disorders in Adults

Abstract: Retraces and repetitions are important indicators of word finding difficulty, which can be influenced by the presence and type of aphasia, as well as cognitive-linguistic demands across different discourse elicitation tasks. This study examines the relationship between hesitations (retracing and

repetition) and different discourse tasks in people with fluent and nonfluent aphasia and neurologically intact adults. By comparing six tasks from four discourse elicitation types across groups, we found that participants from all three groups produced more retraces and repetitions in the story-retelling task than the recount and sequential-picture-description tasks, but found no difference of the amount of retraces and repetition production between groups. We will discuss the possible explanations and clinical implication in the presentation.

5. **Glaze, R.**, **Culbertson, E.**, **Hershberger, E.**, **Ryan, M.**, & Higdon, C**.** (2021, Nov. 19). Interprofessional Collaboration for Patient Education and Clinical Training in Voice and Resonance (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Leadership and Professional Issues

Abstract: Earlier research confirms that visual models and auditory input improve memory recall and other positive effects in regards to rehabilitation than just verbal cues alone (Chang & Bourgeois, 2019). The purpose of this research was to create a model of the larynx that would encompass several learning modalities (visual, auditory, and kinesthetic). As a result of the current COVID-19 pandemic, there is a necessity to have resources that can easily be used in various settings such as anatomical visual models. With this 3D digital and physical model larynx project, SLPs are able to accommodate various learning needs, as well meet the needs of different clinical settings.

6. **Harper, C.**, Kornisch, M., & Lowe, R. (2021, Nov. 15) Early Intervention Service Delivery Models: A Cost-Effectiveness Analysis (Technical Research, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Telepractice

Abstract: Despite growing advances, little research has examined telepractice as a method of early intervention service delivery from an economic perspective. Early intervention services are typically conducted using a face-to-face service delivery model in which providers travel to families' homes. A hybrid service delivery model would reduce travel for the provider by allowing early intervention services to be administered partially through telepractice. This may reduce costs for early intervention providers, which may allow for the provision of more services in areas of disparities, such as rural Mississippi. The purpose of the present study was to compare models of service delivery for early intervention in Mississippi in order to determine the most cost-effective service delivery model of early intervention.

7. **Harper, C.**, Kornisch, M., Lowe, R., & **Thome, E. K.** (2021, Nov. 15). A Comparison of Early Intervention Models: Traditional Services vs. Hybrid Telepractice Services (Technical Research, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Telepractice

Abstract: Research suggests that telehealth services could allow SLPs to perform intervention in difficult-to-reach areas without travel. This may enable SLPs to serve more children and families, while also reducing time and expenses. Therefore, preliminary results of this present pilot study aim to determine the efficacy of hybrid services (i.e., a combination of telehealth and in-person service delivery) in early intervention compared to the traditional model of service delivery. Overall, between-group results suggest that children who received hybrid services reached the similar levels of performance as children who received traditional therapy, with the exception of play skills. Within-group results suggest that both groups improved following treatment, although children in the in-person group experienced more significant improvements than the hybrid group.

8. Higdon, C., & Nunez, L. (2021, Nov. 15). Preparing a Collaborative Practice Ready Workforce: Report on IPE/IPP in Academic Programs (1-Hour Seminar, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Models of Academic and Clinical Education

Abstract: This session will present information collected by CAPCSD and ASHA on the implementation of IPE/IPP approaches currently employed by CSD academic programs and how these practices align with established best practices for IPE/IPP. Attendees will discuss the data and information in the context of how to advance interprofessional education and practice at their institution along with opportunities for IPE/IPP outcomes assessment research. This session will also explore the perspective and role of professional associations (CAPCSD and ASHA) in promoting IPE/IPP as a priority for academic programs and clinical sites and available resources that foster best practice for preparing a collaborative practice workforce.

9. **McKnight, P.**, Snyder, G., & **Ryan, M.** (2021, Nov. 15). Effects of Advocate Disclosure on Perceptions of an Adolescent Female Who Stutters (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that both children and adults who stutter are commonly attributed negative speech skills, personal characteristics, and stereotypes by listeners as a result of their speech. Self-disclosure offers the stuttering community a means of acknowledging and sharing their stuttering with a listener and has been shown to reduce negative perceptions. Furthermore, select advocate disclosures have also been found to yield beneficial results for a male child who stutters. This study expands upon previous research and examines the effects of a father disclosure, mother disclosure, brother disclosure, sister disclosure, female teacher disclosure, and no disclosure on perceptions of an adolescent female who stutters. Results and clinical implications are discussed.

10. **Ponthier, R.**, Kornisch, M., Lowe, R., & **Thome, E. K.** (2021, Nov. 15) Early Intervention Service Delivery via a Hybrid Telepractice Model: Children with Autism Spectrum Disorder (Technical

Research, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Telepractice

Abstract: EI service providers often face challenges when providing face-to-face services. One potential solution is the use of teletherapy, although this form of service delivery poses other unique challenges. Therefore, the use of a hybrid approach (face-to-face therapy and teletherapy) may offer solutions to the concerns raised by both types of service delivery. However, little research has examined the effectiveness of EI services using a hybrid approach. Therefore, the present study aimed to determine the effectiveness of hybrid EI services. Specifically, the present study examined differences among children with and without ASD, as individuals with ASD often receive EI services. Results of this study suggest that children with ASD will likely benefit from more in-person therapy sessions to promote language skills.

11. Rawool, V., & Campbell, C. (2021, Nov. 15) Correlation between Binaural Summation Measured via Acoustic Reflex Thresholds and Psychoacoustic Masking Level Difference (Technical Research, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Neuroaudiology and Central Auditory Processing

Abstract: We analyzed the correlation between the binaural summation measured via acoustic reflex thresholds and the results of the masking level difference established for 500 Hz in 60 participants. The Pearson Correlation Analyses between the MLD values and the binaural summation revealed a significant ($r= 0.277$; $p = 0.032$) correlation when the probe stimulus was presented to the right ear and the reflex evoking clicks were presented to the left ear. Although the correlation is significant, the effect size is small, suggesting that each measure may provide information Abstract both similar and different aspects of binaural processing and can be included in a battery of APD tests. (Funded by the Grace Clements Communication Sciences & Disorders Research Endowment Award at West Virginia University)

12. **Ryan, M.**, Snyder, G., & **McKnight, P.** (2021, Nov. 15). Effects of Different Stuttering Severity Disclosures on Perceptions of an Adolescent Female Who Stutters (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that people who stutter (PWS) are commonly attributed with negative stereotypes by listeners when compared to fluent speakers. Furthermore, increased overt stuttering severity has also been found to negatively affect listener perceptions of a PWS, as well as the quality of life of the PWS. Self-disclosure offers PWS a means of acknowledging and sharing their stuttering with a listener, and has been shown to reduce negative perceptions of PWS. This study expands upon previous research and examines the effects of disclosure statements delivered with perceptual fluency,

as well as mild, moderate, and severe overt stuttering severities on the perceptions of an adolescent female who stutters. Study results and clinical application for SLPs and their clients will be discussed.

13. Snyder, G., **Geringswald, K.**, **Simpson, M.**, & **McKnight, P.** (2021, Nov. 15). Effects of Different Stuttering Severity Disclosures on Perceptions of an Adolescent Male Who Stutters (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that people who stutter (PWS) are commonly attributed with negative stereotypes by listeners when compared to fluent speakers. Furthermore, increased overt stuttering severity has also been found to negatively affect listener perceptions of a PWS, as well as the quality of life of the PWS. Self-disclosure offers PWS a means of acknowledging and sharing their stuttering with a listener, and has been shown to reduce negative perceptions of PWS. This study expands upon previous research and examines the effects of (mild, moderate, severe) overt stuttering severity on the efficacy of disclosure statements for an adolescent male who stutters. Study results and clinical application for SLPs and their clients will be discussed.

14. Snyder, G., **Manahan, A.**, **McKnight, P.**, & Kornisch, M. (2021, Nov. 15) Effects of Written Stuttering Disclosure on Perceptions of Children Who Stutter (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that both people who stutter (PWS) are commonly attributed negative characteristics and stereotypes by listeners. Self-disclosure of stuttering offers PWS a means of acknowledging and sharing their stuttering with a listener, and has been shown to reduce negative perceptions of PWS. Furthermore, select advocate stuttering disclosures (i.e., teacher) improves perceptions of a male child who stutters (CWS). Given the decreasing of face to face interaction, and increasing of digital communication, this study expands upon the advocate disclosure research model and examines the effects of a child self-disclosure, mother disclosure, and female teacher disclosure in written form on perceptions of a male CWS. Results and clinical implications are discussed.

15. Snyder, G., **McKnight, P.**, **Manahan, A.**, & Kornisch, M. (2021, Nov. 15). Differential Effects of Verbal and Written Stuttering Disclosures on Perceptions of a Child Who Stutters (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that both children and adults who stutter are commonly attributed negative speech skills, personal characteristics, and stereotypes by listeners as a result of their speech. Self-disclosure offers the stuttering community a means of acknowledging and sharing their stuttering with a listener and has been shown to reduce negative perceptions. While verbal and written disclosure have

been studied separately, a comparison of the two methods has yet to be conducted. This study expands upon previous research and compares the efficacy of verbal and written stuttering disclosures when provided by three potential disclosure authors on listener perceptions of a male child who stutters. Results and clinical implications are discussed.

16. Snyder, G., **Simpson, M.**, **Geringswald, K.**, & **McKnight, P.** (2021, Nov. 15). Effects of Advocate Disclosure on Perceptions of an Adolescent Male Who Stutters (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Fluency

Abstract: Research indicates that both children and adults who stutter are commonly attributed negative speech skills, personal characteristics, and stereotypes by listeners as a result of their speech. Self-disclosure offers the stuttering community a means of acknowledging and sharing their stuttering with a listener and has been shown to reduce negative perceptions. Furthermore, select advocate disclosures have also been found to yield beneficial results for a male child who stutters. This study expands upon previous advocate disclosure research and studies the effects of a father disclosure, mother disclosure, female speech-language pathologist disclosure, girlfriend disclosure, female teacher disclosure, and no disclosure on perceptions of an adolescent male who stutters. Results and clinical implications are discussed.

17. **Standland, T.**, **Keene, G.**, & Higdon, C. (2021, Nov. 15). Assistive Technology and Augmentative Alternative Communication Considerations for Pediatric Cortical Visual Impairment and Multiple Disabilities (Conference Poster, Virtual). 2021 ASHA Convention, Washington D.C., United States.

Track: Augmentative and Alternative Communication

Abstract: This session will discuss the modification of a familiar interactive language learning tool into an augmentative and alternative communication (AAC) device option for a child with cortical visual impairment (CVI) and multiple disabilities. The session will highlight results of a single subject case study involving a pediatric client with a history of unsuccessful AAC attempts. Assistive technology was utilized to modify a language learning tool into a speech generating device to accommodate the client's visual and motor impairments. The device was implemented through stakeholder training and naturalistic teaching. This session will also discuss considerations regarding the establishment and expansion of language skills as they pertain to pediatric clients with CVI and multiple disabilities.

18. Weddington, G., Aarts, N., Higdon, C., & Dawson, T. (2021, Nov. 19). ASHA-PAHO Collaboration: Guyana – Volunteer Instructors Share Their Experiences (1-Hour Seminar, In-Person). 2021 ASHA Convention, Washington D.C., United States.

Track: Global Issues And Practices

Abstract: Present and former volunteer instructors share experiences in the ASHA-PAHO Project at the University of Guyana (South America).

THE UNIVERSITY OF MISSISSIPPI

Graduate School

Myxobacteria Brings Students Together for Publication

by Margaret Savoie

Recent Ph.D. alumna Shukria Akbar and current graduate student Kayleigh Phillips from the Department of BioMolecular Sciences, Division of Pharmacognosy, published a paper in *Environmental Microbiology* – "Differential Response to Prey Quorum Signals Indicates Predatory Specialization of Myxobacteria and Ability to Predate *Pseudomonas Aeruginosa*."

The publication is about predatory myxobacteria in soil. The myxobacteria eat other microbes predominantly on other gram-negative bacteria to fulfill their nutritional needs. "Think of this as New York City," said Phillips. "In the soil, there are so many different types of different organisms that send out chemical signals and some of the bacteria are eavesdropping on those signals and we are looking at that interaction." The focus was to investigate metabolomics and transcriptomics responses of two myxobacteria to the signaling molecules of their *Pseudomonas* bacterial prey and correlate this response to myxobacteria predatory specialization.

A May 2021 graduate, Akbar has multiple publications about myxobacteria. Another publication published in *Scientific Reports* explored the steps a prey bacterium, specifically *Pseudomonas putida*, took to avoid a predatory myxobacterium. She discovered distinct features the prey bacterial phenotype demonstrated compared to a non-avoiding phenotype of the same prey species.

Akbar received a Pharm.D. degree from the University of the Punjab, Lahore, Pakistan. Once at the University of Mississippi and working with Professor Cole Stevens on different research projects,

Akbar's interest in myxobacteria was ignited.

"With a Pharm.D. background, I wanted to work on one of the systems that are factories for producing biologically relevant small molecules, such as antibiotics," said Akbar.

Akbar is currently at the University of Wisconsin-Madison as a post-doctoral research associate. Her current work is focused on bacterial symbionts associated with insect hosts and trying to discover anti-infective small molecules that these bacteria produce.

Phillips had a different introduction to this area of research. "I received my bachelor's from Mississippi State, took some time off and I had a job at a pharmaceutical company, working as a microbiologist," said Phillips. Phillips said she knew she always wanted to go back to school. Once the decision was made, she started looking at different programs. The work that Stevens' lab was doing with myxobacteria helped Phillips to make her decision.

The team of Akbar and Phillips came together in May of 2021.

"I enjoyed working in the Stevens lab," said Akbar. "Professor Stevens is a very understanding supervisor and I believe he provided me with everything that I needed," she continued.

"I really like having funding for students to do projects where they can learn a lot," said Stevens. He continued, "It's more about answering questions and figuring things out than it is producing a product for us."

"I could not see myself where I am today without all that I received from the University of Mississippi and I cannot forget the participation of everyone from my advisor, Dr. Stevens, to excel me as a researcher, to my department's chair, Professor Kristine Willett, in providing resources to excel professionally, to Dr. Annette D. Kluck, dean of the Graduate School, for connecting the grads writing partners [through the summer thesis/dissertation discussion group and writing groups] to make us feel accomplished," said Akbar.

THE UNIVERSITY OF MISSISSIPPI

Graduate School

Former Graduate Assistant Teaching Communications and Sports Media at Jackson State University

by Margaret Savoie

After graduating with a master's in integrated marketing communication (IMC) in 2018, Nathan Towery continued his education at the University of Alabama, receiving his Ph.D. in the College of Communication and Information Sciences where he focused on strategic communication and sports communication. He has since moved to Jackson State University as an assistant professor of IMC and sports media.

While in graduate school, Towery was a graduate assistant for the Graduate School.

"Being a graduate assistant for the Graduate School really helped me a lot because I would be learning in the classroom but also actually doing it," Towery explained. "That helped me a lot and put everything in perspective of what I was learning in the classroom."

"It was a wonderful experience working with Nathan! He was creative, dependable, honest and a go-getter," said Paige Perry, former supervisor of Towery while at the Graduate School.

The path that led to teaching was not always the focus of Towery.

"Coming out of the IMC program does not always set you up perfectly to go the academic route, it is definitely a more practical based program, but I still use those tools that I learned to go the academic route," said Towery.

"I thought about going into the industry but then I fell in love with the research side during my Ph.D. and one thing just led to another and I ended up in the position I am today," said Towery.

Towery said he was appreciative of his time at the Graduate School and in the IMC master's program, and he is glad that he can give the skills and tools obtained while at the University of Mississippi to his students now.

"Graduate school was more work than I thought it was going to be, but the idea is that everyone wants to be there, and you have more intellectual conversations," commented Towery on what he wished he knew before joining a master's program.

During his time in the master's program, Towery had the opportunity to work with Dr. R. J. Morgan, an instructional associate professor and the executive director of the Mississippi Scholastic Press Association. The purpose of the Mississippi Scholastic Press Association is to support journalism in high school across the state of Mississippi. Towery was able to help Morgan with events on campus where high schoolers would come and compete. Students had all kinds of options such as creating a news story, a layout design, an ad, and more.

"Running that event was a lot of fun and being a part of that was really memorable and has stuck with me for a while," said Towery.

"I wasn't really sure exactly what I wanted to do but that developed while I was in the master's program," said Towery, "I got the opportunity to work with one of the professors on a research paper about college football announcing and stereotypes." The research paper led to a publication.

"Getting a paper published as a master's student was a really big accomplishment," said Towery. The publication, **"**Sometimes It's What You Don't Say: College Football Announcers and Their Use of In-Game Stereotypes**"**, was in the *Journal of Sports Media*. In his publication, Towery along with faculty dove into a content analysis of live college football broadcasts to analyze the comments of the game announcers and their use of stereotypes.

Towery is thankful for the opportunities he received while at the University of Mississippi, as well as the paths paved for him since working within the Graduate School.

Towery's publication from University of Mississippi

Schultz, B., Sheffer, M.L., & Towery, N. (2018). Sometimes It's What You Don't Say: College Football Announcers and Their Use of In-Game Stereotypes. *Journal of Sports Media 13*(2), 19-37. **doi:10.1353/jsm.2018.0007**.

THE UNIVERSITY OF MISSISSIPPI

Graduate School

Meet the Inaugural Recipient of Our New Graduate School Scholarship for *Advancing STEM*

by Margaret Savoie

This year the Graduate School launched a new scholarship opportunity, the Advancing STEM Scholarship. This scholarship supports recruitment and retention of doctoral students whose background, achievements, and expertise demonstrate a commitment to contributing to the advancement of women in STEM, regardless of the recipient's gender identity. The inaugural recipient is Hyllore Imeri, from Prishtina, Kosovo, who is a PhD student in pharmaceutical sciences with an emphasis in pharmacy administration.

"Since it is an inaugural scholarship, I feel honored and truly humbled to be the winner of the Advancing STEM Scholarship," said Imeri. "The scholarship has motivated me to continue my research work and contribute to the advancement of women in STEM."

What started as an interest in the process of a person becoming sick but healing because of the work of medication led Imeri to the world of pharmaceuticals. Imeri began her academic career at the University of Prishtina in Kosovo with a master of pharmacy degree. While working on her master's thesis, she worked with Dr. Kreshnik Hoti of U. Prishtina and Dr. Shane Desselle of Touro University. These two inspired and encouraged Imeri to continue her education to the doctoral level.

Imeri said, "Considering the Pharmacy Administration program quality, faculty, and fellow PhD students – the decision to come to the University of Mississippi felt natural."

"Hyllore works with me on all sorts of projects," said Dr. Marie Barnard, associate professor of pharmacy administration. Some of the projects include: an NIH grant called STEMI (Science Teaching Excites Medical Interest) where students are encouraged to be interested in STEM fields, a National Science Foundation grant with Tougaloo College working with undergraduate students, and looking at encouraging success in early science classes, supported by another NIH grant called Project SCORE

(Student Centered Outcomes Research Experience) which is a peer-mentoring opportunity for graduate students to work with the Boys & Girls Clubs in both Oxford and Jackson, Mississippi.

“This scholarship is great, and I am so excited for it because it is something we desperately need: more students to get into STEM,” said Barnard.

Barnard commented on the importance of women in STEM, “Hyllore is an awesome mentor for the pharmacy students. They come to her and ask her questions about deciding on getting a PhD. It’s important to have women in these roles to make us visible and lets students know they can come see us.”

Imeri’s hope for the future is to pursue an academic career. “I love learning and feel so motivated by the pursuit of knowledge, so academia would give me that chance to continuously do this through my research work; I also find teaching an exciting way to not only pass on knowledge, but also to inspire and motivate students to do their best while enjoying their work.”

To Imeri, the people in the pharmacy administration program make the program what it is. She said, “They are incredible researchers, and you get to admire their work, plus [they are] the best people to learn from and work with!”

The Graduate School is hopeful to be able to launch more scholarships to encourage students who are underrepresented in diverse disciplines to pursue their research and academic goals.

Give to the Advancing STEM scholarship fund and to help us support more graduate students who advance gender diversity in STEM (To contribute to this new scholarship, please visit **our giving page** and then select view other funds and type “Advancements in STEM” and select fund 06518).

THE UNIVERSITY OF MISSISSIPPI

Graduate School

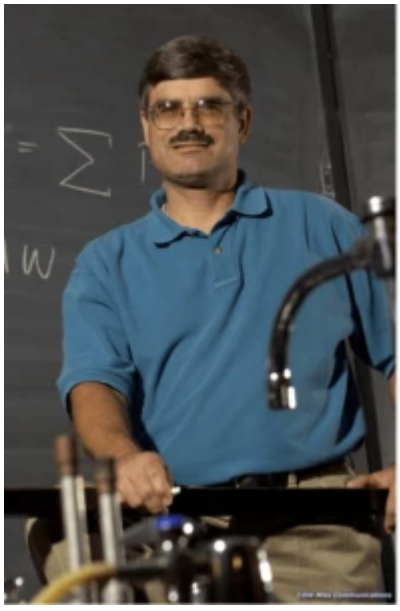
Cole-Eftink Fellows Program: Honoring Great Leaders by Supporting Current Students

by Margaret Savoie

Donald Cole

The Graduate School is happy to be continuing the Cole-Eftink Fellows program for a second year. Named after former Graduate School Deans, Drs. Donald Cole and Maurice Eftink, this program strives to encourage and help students from underrepresented backgrounds.

A competition for the University of Mississippi Southern Regional Education Board (SREB) Doctoral Scholars Program in 2020 was so fierce, with limited spots available, it was necessary to turn most of the students down. The Graduate School leadership wanted to reward the highly qualified students who did not receive an SREB spot and therefore created the Cole-Eftink Fellows program at the University of Mississippi Graduate School.



“These two men did a lot of work when it comes to diversity, equity and inclusion. Under their leadership, we saw tremendous growth in the underrepresented graduate student population,” said Dr. Murrell Godfrey, Assistant Dean of Diversity, Equity, and Inclusion.

Sheerah Neal of Wilson, North Carolina and a current Cole-Eftink Fellow said, “Being a Cole-Eftink Fellow means that I am part of the vision Drs. Donald Cole and Maurice Eftink had for diversifying the academic experience at the University of Mississippi.”

According to current Cole-Eftink Fellow, Janita M. Springfield from Oakland, Tennessee, “To be a Cole-Eftink Fellow means a number of things but two in particular: being recognized for my scholarly achievements and being supported by and providing support to underrepresented minority doctoral students at the University of Mississippi.”

The Cole-Eftink Fellows have opportunities for professional development, occasions to network among themselves and with others outside of the program, and mentorship opportunities. This semester, there has been a monthly seminar series where fellows can learn from and engage in conversations with accomplished academics.

“This program is helping me build professional foundations to help further my career in academia,” said Cole-Eftink Fellow Brianna Richmond from Lewisville, Texas.

“So far, I have gained a mentor and participated in a professional development opportunity in collaboration with doctoral students from Auburn University,” said Roger David Jr., a Cole-Eftink Fellow from Anguilla, Mississippi.

It is important for graduate students to feel at home while at the University of Mississippi. Robrecus Toles, a current Cole-Eftink Fellow from Oxford, Mississippi, said “This program means a lot to me because as an underrepresented minority this program gives me a sense of community that I desperately need as a Ph.D. student.”

This sense of community helps students to find who they are before they graduate and complete their programs. Destinee Manning, of Memphis, Tennessee reiterated this point, “I have only been in this program since the start of the Fall semester, but with the team and advisor this program has, I know it will help and mold me to be a better version of myself before I graduate.”

The Graduate School is thankful for this opportunity to recognize the accomplishments of our underrepresented students while honoring Drs. Donald Cole and Maurice Eftink. We hope to continue this program for years to come!

The Graduate School is proud of our nine current Cole-Eftink Fellows in all their academic endeavors! A list of the fellows and disciplines are as followed:

- Quinn Campagna, Ph.D. in Physics
- Roger Davis Jr., Ph.D. in Higher Education
- Destinee Manning, Ph.D. in Pharmaceutical Sciences with Emphasis in Medicinal Chemistry
- Emaya Moss, Ph.D. in Pharmaceutical Sciences with Emphasis in Pharmacology
- Sheerah Neal, Ph.D. in Counselor Education
- Brianna Richmond, Ph.D. in Psychology with Emphasis in Experimental Psychology
- Janita Springfield, Ph.D. in Counselor Education
- Robrecus Toles, Ph.D. in History
- Alex Vinson, Ph.D. In Pharmaceutical Sciences with Emphasis in Medicinal Chemistry

To help us grow the Cole-Eftink Fellows Program through financial support, please visit

https://umfoundation.givingfuel.com/cole-eftink-fellows-program

PhD Student Making *Gravitational* Waves in Research with NASA/Mississippi Space Grant Consortium (MSSGC) Graduate Research Fellowship

by Margaret Savoie

Lorena Magaña Zertuche is a PhD student conducting research that is out of this world! More specifically, she studies gravitational wave physics. Based off her previous accomplishments, Magaña Zertuche was selected to be a NASA/Mississippi Space Grant Consortium (MSSGC) Graduate Research Fellow.

The MSSGC is a statewide non-profit organization for universities and colleges coordinated and supported by NASA. The MSSGC's mission "is to enhance and support aerospace science and technology efforts and activities in Mississippi as well as promote a strong science, mathematics, and technology base at precollege, undergraduate, and graduate levels in the region's educational institutions." Seventeen Mississippi Space Grant colleges and universities comprise the MSSGC. The MSSGC is part of a larger NASA Space Grant program present in all 50 states.

Magaña Zertuche's research is focused on the merging of two black holes and modeling the aftermath of the merger. These black holes are part of a binary system where they begin to spiral towards each other. "Once the black holes get really close together, they – essentially, they are about to merge…you have to solve for Einstein's equation due to the very strong gravity right after the black holes collide," said Magaña Zertuche. After the merging of two black holes, there is essentially one giant black hole. This then rings out like a bell to dissipate all the energy from the merger process. Magaña Zertuche seeks to model the wave forms of that energy. This model can be used to figure out the spin and the mass of the merger's final black hole.

Her path began with working on a bachelor of physics degree with an astrophysics concentration at Georgia Tech. That led her to Syracuse University and a master's in physics, which then led Magaña

Zertuche to move to the University of Mississippi in 2017 where she began work on her PhD in the physics department.

“I was very interested in astronomy from a very early age, I must have been around 12, when young kids have this obsession with space. It started out very general, but when I got to high school, I realized I wanted to know ‘why’,” said Magaña Zertuche. It was not until she was an undergraduate student, talking to an upper-class friend about her research with neutron stars and black holes, when Magaña Zertuche took a step forward into the subject by asking a professor for an opportunity to work with her.

Magaña Zertuche said she was “very, very excited,” when she found out about receiving the MSSGC Fellowship, “I didn’t expect it because I know having these fellowships are pretty competitive. I knew the chances were not zero, but they were not extremely high. I feel extremely fortunate.”

While working on her research here at the University of Mississippi, Magaña Zertuche’s works with Professor Leo Stein in the physics department. When asked about Magaña Zertuche’s fellowship, Stein said, “It’s very fortunate to get support from funding agencies to do this and that the funding agencies think that what we’re doing is worth doing.”

Magaña Zertuche hopes for a future in academia. As a teaching assistant with Dr. Maurice Eftink (a former dean of our Graduate School), Magaña Zertuche was able to see what it was like to have her own class. Eftink permitted her to take charge of the physics components within the LIBA 150/151 courses. Magaña Zertuche said, “It was really a lot of fun because it allowed me to experience what it would be like to have my own class but in a scale that I could manage.”

“Before [the fellowship] Lorena would have to spend lots of time grading and teaching, which is all important because we are training the next generation of scientists and engineers,” Stein continued, “but this means that now she can spend 100 percent of her time doing her research.”

The interview with Magaña Zertuche was over Zoom while she was participating in a three-month long program at UCLA. While at UCLA, Magaña Zertuche continued her research and participated in tutorials and workshops with scholars from across the United States and across the globe as well. Magaña Zertuche learned about machine learning, an aspect of her proposed project, along with more mathematical aspects of detecting the signals of the merging of black holes.

“Machine learning is becoming a very big area in gravitational wave physics for detecting signals,” said Magaña Zertuche. Magaña Zertuche is going to implement machine learning in her project, and this helped her receive the NASA/MSSGC Fellowship. Her proposal is to build a high precision surrogate ringdown model of two black holes merging. This will be the first model to simultaneously fit for multiple mode frequencies over all angles and all times. This will be beneficial to a future mission called LISA (Laser Interferometer Space Antenna). LISA is a gravitational wave observatory to be based in space. “Essentially, the same observatories we have here on earth but in space, which will help avoid a bunch

[of] noise that you have here on Earth which disrupts the signals. You will be able to see much farther out in space."

The MSSGC Fellowship also has an outreach component. This is important for Magaña Zertuche because it allows her to give back to the community. With her outreach, Magaña Zertuche hopes to spark curiosity in people who may be underrepresented in space research. For example, the American Institute of Physics noted that in 2019 only 19% of the US's Ph.D.'s in physics were awarded to women. Magaña Zertuche is hopeful for younger generations, "Maybe I could be a sort of role model but it's important that they see someone more like them doing science."

The Sweet Sound and Study of Music at UM: Graduate Programs in Harmony

by Margaret Savoie

Have you ever walked by the University's Music Building and heard the delightful sounds of different instruments playing? That's not the only fascinating thing happening in the Music Building, which is home to the music department's master of music degree program featuring seven emphasis areas, including three that were added in 2017 that focus on ethnomusicology, music theory, and musicology.

Ethnomusicology is the study of the cultural context of music and non-noted traditions, music theory is the study of how music works and practices, and musicology is the study of the history and noted traditions of music.

"Musicologists are like art historians and ethnomusicologists are like anthropologists. Musicologists are concerned with history, historiography and the aesthetic taste, and how music is formed," said Dr. Thomas Peattie, associate professor of music. Peattie explained, "You would never ask an art historian 'what do you sculpt?' so there is a misperception that those in music sit around only playing instruments. There is a serious academic component that is part of our whole enterprise here." It is important to think of musicologists for their academic research.

John-Peter Springer Ford, a student studying for a master of music with emphasis in musicology, is a TA for Peattie, who is also his advisor helping with his research. This program allows students to work directly with their advisors and professors. "You have more chances to be able to go to office hours to be able to set up time outside of class with Dr. Peattie. It's amazing because he has time to look at things multiple times and is really able to help me hone what I'm looking for."

Ford's thesis is on George Chadwick and Robert Barnett's burlesque opera *Tabasco* which was written in 1894. "This is a work that has kind of been lost to history, so to speak," said Ford.

Ford started his academic music career at Northeast Mississippi Community College with an Associate of Arts degree in Vocal Music. He then went on to finish his bachelor's degree at Mississippi State in music education with an emphasis in voice. In 2019, Ford taught in China with the International Baccalaureate (IB) Program. As an advisor for one of the IB students, Ford found that he liked the research aspect. "I also liked the writing aspect and the different ways of looking at things because music history is almost like any other kind of history," added Ford. Musicology was the perfect fit.

"I cannot speak highly enough about the faculty here at the University, especially the music department," stated Ford.

Building off Ford's comment, Peattie said, "We really are able to give a lot of hands-on attention to our students and their works."

Music department chair, Prof. Nancy Maria Balach said, "The UM music department is invested in each graduate student and offers the freedom to focus on their individual music-related goals. Our students participate in key research alongside our esteemed faculty, are placed with advisors who guide them, and are offered assistantship opportunities that prepare them for the future."

A distinguishing factor for UM's master of music program is all three of the emphases introduced in 2017 work together. "Here because we are relatively small the three areas work closely together so all the students who come in take [courses] with all the professors in the academic area, rather than just focusing primarily on musicology. The students have to do theory courses and ethnomusicology courses," Peattie continued. Currently the music department also offers a Ph.D. in music education with an option of adding an emphasis in gender studies.

A hope for the music department, according to Peattie, is growth and more cross-campus collaborations. Such collaborations would help the music department grow their program more and eventually lead to enough interested to build the Ph.D. program and invite more faculty and students to the university.