

Honors Scholars Present in Dallas

Three LMU honors scholars were selected as presenters for the 57th annual conference held by the National Collegiate Honors Council at the Sheraton Dallas Downtown in Dallas, Texas, November 2-5, 2022.

The conference highlights student and faculty research presentations from across the nation while providing training and development for honors program administrators and staff. The conference theme, "Centering Community," examines the ways that honors colleges and programs create and center communities, knowing that students are far more likely to succeed when they feel they reside in communities that value and understand them.

Sarah Hopkins presented her session titled, *The effects of ECIG-aerosol on the longevity and growth of C.elegans.*

Emily Roark presented, *The Activity of ticks from various habitats and times of day, and corresponding infection status with Borrelia spp. and Babesia spp.*

Lily Smith presented, *The Role of Centrosomes in Rhabdomyosarcoma Myogenesis.*

The national submission process for the NCHC annual conference is highly selective, with hundreds of students and faculty submitting proposals each year. While in Texas, students have the opportunity to network with other honors students and faculty from across the country, celebrate the unique community created by honors education, and explore the city of Dallas through NCHC's signature experiential learning projects.

The National Collegiate Honors Council is a non-profit organization whose mission is to support and enhance the community of educational institutions, professionals and students who participate in collegiate honors education around the world. NCHC members total nearly 800 institutions from the United States and around the world. Professional and organizational affiliate memberships are also available. More information can be found at nchchonors.org.

The LMU Honors Scholars Program exists to promote undergraduate scholarship and encourage intellectual dialogue among students. It deepens values through an approach of critical reading and writing in courses reinforced with service learning and increased social and cultural collaboration. The LMU Honors education is marked by its interdisciplinary nature and course objectives that focus on analysis, synthesis, and application. A service ethic is reinforced by activities and responsibilities throughout the program where Honors students reach out to fellow students and to the broader community.

Thank you for representing LMU so well!

Assistant Professor of English and Department Chair of Literature and Languages, **Dr. Abigail Heiniger** recently had several publications and presentations.

"Rumpelstiltskin's Secret Review," Marvels and Tales. Forthcoming.

"A Cultural History of Fairy Tales Series Review," Journal of American Folklore. Forthcoming.

"Sinéad de Valera's Fairy-Tale Ireland: Loathly Lady as Decolonizer of Ireland." Children's Literature Association. Atlanta, Georgia. 2022.

Dr. Heiniger also traveled to Wales in May of 2022 to visit the National Library to conduct research for her LMU mini-grant.

Associate Professor of English, **Dr. Rebecca Brackmann** recently published an article titled, *"It Will Help Him Wonderfully': Placebo and Meaning Responses in Early Medieval English Medicine"*. It was published in *Speculum: The Journal of the Medieval Academy of America*.

Professor of English and Director of The Mountain Heritage Literary Festival, **Mr. Patrick Wensink** was recently invited to speak to LMU's Research and Scholarship committee to discuss his mini-grant, how he has used funds for research and read a portion of his manuscript-in-progress. He was also invited to be Roane State's visiting writer earlier this fall where he read from his manuscript.

Wensink also spoke with two senior classes at Middlesboro High School about creative writing and LMU's English program. In October he spoke to the staff of the University of Louisville's student literary magazine, "Miracle Monacle" about his career as a writer and a teacher.

Looking for a grant? We have links on our website to a variety of public, private and institutional funding sources by area of interest. It's a great place to start your search for external funding.

<https://www.lmunet.edu/orgsp/funding-sources>

News from the School of Mathematics and Sciences



Back Row—Emily Roark, Hannah Blevins, Juan Torres, Emily Boring, Morgan Simpson, Lydia Thurman
Front Row—Sarah Long, Madison Criswell, Summer Hatmaker, Sarah Hopkins, Madison Brassfield

Winners: Summer Hatmaker, Lydia Thurman, Sara Hopkins, Emily Roark, Hannah Blevins, Madison Criswell, Morgan Simpson



On November 18th 2022, students and faculty from LMU attended the 132nd Tennessee Academy of Sciences

meeting in Nashville, TN. Students presented their scientific research in poster and oral presentation format. Dr. Barbara Shock (Associate Professor of Biology, Conservation Biology), Dr. LaRoy Brandt (Associate Professor of Biology, Conservation Biology), and Dr. Kathryn Purple (Associate Professor of Biology, Microbiology) attended the meeting with 11 undergraduate students, and two LMU CVM graduate students supported by the Department of Biology (LMU School of Mathematics and Sciences). Seven of the 11 undergraduates won awards in their respective sections. The LMU students, projects, mentors, and awards* are as follows:

Lydia Thurman* (Major: Conservation Biology; Mentor: Dr. Adam Rollins – School of Math and Sciences; Conference Section: Ecology and Environmental Sciences – 3rd Place Poster) - *Impact of variations in moisture availability on myxomycete moist chamber results.*

Morgan Simpson* (Major: Veterinary Health Sciences; Mentor: Dr. Kathryn Purple – School of Math and Sciences; Conference Section: Microbiology – 3rd Place Oral Presentation) - *Investigation of the prevalence of the Trichy protozoan parasite, Trichomonas gallinae, in hunter-harvested mourning doves (Zenaida macroura) from east Tennessee.*

Emily Boring (Major: Conservation Biology; Mentor: Dr. LaRoy Brandt – School of Math and Sciences; Conference Section: Ecology and Environmental Sciences) - *Evaluating the efficacy of a non-invasive hair sampling method for bobcat (Lynx rufus) research.*

Madison Criswell* (Major: Veterinary Health Sciences; Mentor: Dr. Karen Gruszynski – College of Veterinary Medicine, and Dr. Barbara Shock – School of Math and Sciences; Conference Section: Zoology – 3rd Place Oral Presentation) - *Infectious Diseases of Domestic Cats (Felis catus) in Kentucky, Virginia, and Tennessee.*

News from the School of Mathematics and Sciences

Tennessee Academy of Sciences meeting continued—

Juan Torres (Major: Biology Pre-Health; Mentor: Dr. Whitney Kistler – School of Math and Sciences; Conference Section: Zoology) - *Frequency and identification of nematodes in the intestinal tract of Northern Bobwhites *Colinus virginianus*.*

Hannah Blevins* (Major: Conservation Biology; Mentor: Dr. Barbara Shock – School of Math and Sciences, and Dr. Vina Faulkner – College of Veterinary Medicine; Conference Section: Zoology – 1st Place Oral Presentation) - *Diversity and prevalence of Ehrlichia spp. detected in Ixodid ticks from the Cumberland Gap region of Tennessee, Virginia, and Kentucky.*

Emily Roark* (Major: Biology Education; Mentor: Dr. Barbara Shock – School of Math and Sciences; Conference Section: Zoology – 2nd Place Oral Presentation) - *Activity of ticks from various habitats and times of day, and corresponding infection status with Borrelia spp. and Babesia spp.*

Madison Brassfield (Major: Biology Pre-Health; Mentor: Dr. Kathryn Purple – School of Math and Sciences; Conference Section: Microbiology) - *Investigation of co-infection between Trichomonas gallinae and Salmonella in hunter-killed mourning doves (Zenaida macroura).*

Sarah Long (Major: Nursing; Mentor: Dr. Muthu Dharmasena – School of Math and Sciences; Conference Section: Microbiology) - *Prevalence of Clostridiodes difficile among wild birds at Harrogate, Tennessee.*

Sarah Hopkins* (Major: Biology Pre-Health; Mentor: Dr. Julie Hall – School of Math and Sciences, and Dr. Dominic Palazzolo – DeBusk College of Osteopathic Medicine; Conference Section: Microbiology – 1st Place Poster Presentation) - *Effect of electronic cigarette generated aerosol on the mortality and size of Caenorhabditis elegans*

Summer Hatmaker* (Major: Biology; Mentor: Dr. LaRoy Brandt – School of Math and Sciences; Conference Section: Zoology – 3rd Place Poster Presentation) - *Utilizing acoustic recorders and light pan traps to calculate the relationship between bat feeding habits and insect biomass.*

E. Morgan Tollivar (LMU CVM Veterinary Student) **and Nubia Salinas** (M.S. Veterinary and Biomedical Sciences; Mentor: Dr. Whitney Kistler – School of Math and Sciences; Conference Section: Zoology) - *Survey of haemosporidian parasites from Lesser Prairie Chickens (Tympnanuchus pallidicinctus) from Kansas and Texas.*



News from the Richard A. Gillespie College of Veterinary Medicine

Publications:

Loy, M., Simons, M.C., Raghavan, M., Bhatka, H. **Price, B.,** Foltz K., Fogelberg, K. Qualitative study of the roles, motivations, and challenges of academic veterinary technicians. *JAVMA*.

Devine E., Hunt J.A., Anderson S.L., Mavromatis M.V. Online case-based course in veterinary radiographic interpretation generates better short- and long-term learning outcomes than a virtual lecture-based course. *Journal of Veterinary Medical Education*. In press.

Ebner, L., Odette, O., Simon, B., Lizarraga, I., Smith, J., & Cox, S. (2022). Pharmacokinetics of butorphanol following intravenous and intramuscular administration in donkeys: A preliminary study. *Frontiers in Veterinary Science, 9*.

Christmann, U., Page, A. E., Horohov, D. W., Adams, A. A., Chapman, S. E., Hancock, C. L., ... & **Wood, P. L.** (2022). Lipidomic analysis of surfactant and plasma from horses with asthma and age-matched healthy horses. *American Journal of Veterinary Research, 83*(9).

Cahill, K. M., Johnson, T. K., Perveen, Z., **Schexnayder, M.,** Xiao, R., Heffernan, L. M., ... & Noël, A. (2022). In utero exposures to mint-flavored JUUL aerosol impair lung development and aggravate house dust mite-induced asthma in adult offspring mice. *Toxicology, 153*272.

Bhopalwala, H., Dewaswala, N., Kolagatla, S., **Wisnieski, L.,** Piercy, J., Bhopalwala, A., and Moka, N. (2022). Predictors of mortality for patients with COVID-19 in the rural Appalachian region. *International Journal of General Medicine 15* (2022): 2207.

Wisnieski, L., Amrine, D.E., and Renter, D.G. 2022. Predictive models for weekly cattle mortality after arrival at a feeding location using records, weather, and transport data at time of purchase. *Pathogens. 11*(4) (2022):473. <https://doi.org/10.3390/pathogens11040473>.

Gibbons P., **Devine E.,** Dutton D., **Pulliam T., Anderson S., Hunt J.A.** Development and validation of an ovine caesarean section model and rubric. *Clinical Theriogenology*. In press.

Hunt J.A., Gilley R.S., Spangler D., Pulliam T., Anderson S. Retention of basic surgical skills in veterinary students. *Veterinary Surgery*. In press.

Wells, J., Watson, K., Sharma, M., Davis, R. E., **Gruszynski, K., Robertson, S.,** & Nahar, V. K.* (In Press). Application of the Multi-theory Model (MTM) to Explain Intentions to Use Telehealth/Telemedicine among Veterinarians. *Veterinary Record*.

Grant Submissions/Awards:

Drs. Kolp, Wisnieski, Gruszynski and Vroegindewey submitted a grant proposal (*Estimation of veterinary workforce deficits and downstream effects through the creation of an interactive, data-driven dashboard for Appalachian states*) to the Inter-Disciplinary Engagement in Animal Systems program area priority at the USDA-NIFA Agriculture and Food Research Initiative. We expect reviews and a funding decision in March 2023.

Drs. Christmann, Hunt, Pierce and Devine submitted the Development and validation of a low-cost equine upper respiratory tract endoscopy model to the Southeast Veterinary Education Consortium Grant program on 11/1/2022.

Dr. Randy Evans served as a consultant on a grant for the KVMA Foundation, Kentucky Veterinary Medical Association Foundation 2022 Flooding Disaster Relief Grants Program. The grant was submitted to The Kentucky Colonels.

News from the Richard A. Gillespie College of Veterinary Medicine

Posters:

Gilley, R.S., Hunt J.A., Gilley R.S., Spangler D., Pulliam T., Anderson S.L. Veterinary students' surgical skills undergo significant attrition after five months without skills training. 10/13/2022. American College of Veterinary Surgeons Surgery Summit; Portland, Oregon

J. Malskis, K. Knarr, M. Corella, J. Finch, E. Willems, S. Runser, H. Barnhart, K. Gallatin, D. Kish, B. Beigel, **J. Morgan, K. Gruszynski, S. Kitts-Morgan**, L. Brandt, A. Vanderpool, **D. Spangler, and A. Verma** . Leptospirosis in the Cumberland Gap Region: a One Health Perspective. 10/22/2022. Fall meeting of the KY/TN American Society for Microbiology, Johnson City, TN.

Shashi Verma, **Joey Morgan, Ashutosh Verma**. Effectiveness of household brands of disinfectants in killing bacteria. 10/22/2022. Fall meeting of the KY/TN American Society for Microbiology, Johnson City, TN.

Gilley, R. Hunt, J., Spangler, D., Pulliam, D., Anderson, S. Retention of basic surgical skills in veterinary students. 10/13/2022. ACVS Surgical Summit.

J. Malskis, K. Knarr, M. Corella, J. Finch, E. Willems, S. Runser, H. Barnhart, K. Gallatin, D. Kish, B. Beigel, **J. Morgan, S. Kitts-Morgan**, L. Brandt, A. Vanderpool, **D. Spangler, and A. Verma**. Leptospirosis in the Cumberland Gap Region: a One Health Perspective 10/22/2022 Fall meeting of the KY/TN American Society for Microbiology, Johnson City, TN.

Truitt, G., Handler, D., Russomanno, J., **Gruszynski, K.** (2022) Food Insecurity, Food Production, and Veterinary Care in the Cumberland Gap Region. Consortium of Universities for Global Health.

Wisnieski, L., Faulkner, V., Shock, B., & Gruszynski, K. (2022). Predicting Lyme Disease Incidence using Google Trends Search Data. ISVEE.

Abstracts:

Christmann U., Hancock C., Emery A., Poovey J., Ortega Morales S., Duncan A., Wood P. (2022). Do horses with mild equine asthma have an altered plasma lipid profile? Calgary International Equine Symposium.

Appointments:

Dr. Gary Vroegindewey was named as Senior Fellow-Disaster Management for the Institute for Infectious Animal Diseases (IIAD) at Texas A&M University.

Thesis/Dissertation:

Dr. Karen Gruszynski served on Christina (Chrissy) Bradley's committee for her senior honors thesis. Her thesis titled ""Veterinarians' Role in Fighting the Opioid Epidemic" was presented and defended in August.

Awards:

Congratulations to **Dr. Bill Muir** for his winning of the 2022 ACVAA Career Achievement Award at the combined ACVS/ACVAA Symposium.

Presentations:

Melissa Loy presented Roles, Job Satisfaction and Career Motivation for Academic Veterinary Technicians (AVTs) at the Association of Veterinary Technician Educators. Other contributors to this project are **Price, B., Bhakta, H., Fogelberg, K., Simons, M., Foltz, K., and Raghavan, M.**

Dr. Karen Gruszynski presented "Horsepower" to Appalachia STEM event in Knoxville in cooperation with Abraham Lincoln Library and Museum.

Dr. M. Kolp presented results from his NSF-funded postdoctoral research on insect microbiomes at the Ecological Society of America's annual conference in Quebec.

News from the Richard A. Gillespie College of Veterinary Medicine

Melissa Loy & Dr. Bonnie Price presented The Unique Challenges of Veterinary Technicians in Academia at the Association of Veterinary Technician Educators. Other contributors to this project are **Price, B.**, Bhakta, H., **Fogelberg, K.**, **Simons, M.**, Raghavan, M. **Dr. Bonnie Price** presented Chip On Your Shoulder: A Study of Socioeconomic Privilege Using Legally Blonde The Musical at the American Veterinary Medical Association. Other contributor: Marcano, V.

CVM students, Erin Larsen (Class 2026) and Stacie Williams (Class 2026) recently attended the American Heartworm Society Triennial Symposium in New Orleans, LA. from September 8 to Sept 11, 2022. Erin's poster titled "Estimated Prevalence of *Dirofilaria immitis* Infection and Microfilaremia in Shelter Dogs From the Cumberland Gap Region of Tennessee and Kentucky" was well received and generated substantial interest among members of the Shelter Medicine community attending the meeting. Stacie's poster titled "A Survey of Pet Caretakers on the Use and Perceptions Regarding Heartworm Prophylaxis for Prevention of Canine Heartworm Disease" was based on her recently completed MS (VBMS) thesis project and drew considerable attention from conference attendees. Her poster and presentation of the research won 3rd prize in the student competition. Both students serve as CVM liaisons for the American Heartworm Society. **Dr. Charles Faulkner** is the faculty sponsor for these students.

Kolp, M. & Parker, B. Pandora's box: testing genetic and ecological factors of pathogen virulence toward an insect host with bacterial symbionts. 11/1/2022. Entomological Society of America

Matthew Kolp, Laura Mino, Sam Fox, Chris Reazin, Lydia Zeglin, Ari Jumpponen. Soil microbiome responses to changing fire regimes and fire severities. 9/22/2022. FEMS Microbiology Ecology Webinar on Microbial Ecology in a Changing Climate

Liz Devine. Shortage of Equine Veterinarians: How big is the problem, why it's getting worse, and what are some options being discussed? 10/28/2022. Equine Forum, University of Kentucky.

Gilley, R., Hunt, J., Spangler, D., Pulliam, D., Anderson, S. Retention of basic surgical skills in veterinary students. 10/13/2022. ACVS Surgical Summit.

LMU-CVM Student, Stacie Williams presented A Survey of Pet Caretakers on the Use and Perceptions Regarding Heartworm Prophylaxis Use for Prevention of Canine Heartworm Disease and the American Society of Parasitologists Annual Meeting in College Station, TX. CVM faculty supporting her in this project are **Wisniewski, L., Gruszynski, K., Faulkner, V.**, and **Faulkner, C.**

Dr. Lauren Wisniewski presented Utilizing Google Trends data to predict Lyme disease incidence in the United States at ESA. Other faculty contributing this project are **Faulkner, V.**, Shock, B., & **Gruzynski, K.**

Dr. Lauren Wisniewski presented on her project "Utilizing Google Trends data to predict Lyme disease incidence" (Co-PIs: **Dr. Gruszynski**, Dr. Shock, and **Dr. V. Faulkner**) at the 16th International Symposium of Veterinary Epidemiology and Economics conference.

Dr. Karen Gruszynski presented a poster at ISVEE titled "Infectious Diseases of Cats in Kentucky, Tennessee, and Virginia"

Dr. Gary Vroegindewey presented on World Organization for Animal Health Platform on "Animal Welfare for Europe, Animal Welfare in Natural Disasters Survey" at the 16th International Symposium of Veterinary Epidemiology and Economics (ISVEE) conference in Halifax, Nova Scotia.

Dr. Gary Vroegindewey presented two sessions on Veterinary Career Transition at the AMVA Convention in Philadelphia, PA.

News from the Office of Research, Grants and Sponsored Programs

Recent Grant Submissions:

Dr. Paul Wood recently submitted a proposal to United States Department of Agriculture, National Institute of Food and Agriculture.

Ms. Melanie Reid submitted a proposal to the Charles Koch Foundation.

Dr. Kathryn Purple submitted a proposal to the National Council of Veterinary Parasitologists.

Dr. Kim Carney submitted a proposal to the AVMA for the Winter Well Being Retreat.

Dr. Matthew Kolp submitted a proposal to the United States Department of Agriculture, National Institute of Food and Agriculture.

Dr. Robert Mullaney submitted a proposal to Cigna.

Dr. Ethan Fulwood submitted a proposal to the Appalachian College Association for their Faculty Fellowship Program.

Dr. Thomas Bragg submitted a proposal to the Appalachian College Association for their Faculty Fellowship Program.

Mr. Johnathan Greene submitted a proposal to the Blue Cross Blue Shield Community Trust Foundation.

Dr. Stacy Anderson submitted a proposal to the United States Department of Agriculture, National Institute of Food and Agriculture.

Dr. Stacy Anderson submitted a proposal to the Boehringer Ingelheim Veterinary Scholars Program (BIVSP).

Dr. Michael Rudolph submitted a proposal to the American Academy of Physician Assistants.

Recent Grant Awards:

Ms. Melissa Montroy received a grant from the Knoxville Bar Association Barristers Diversity Committee Scholarship Fund.

Dr. Kim Carney received a grant from the American Veterinary Medical Association Winter Well Being Retreat.

Dr. Stacy Anderson received a grant from United States Department of Agriculture —National Institute of Food and Agriculture.

Dr. Undine Christmann received a grant from the Southeast Veterinary Education Consortium.

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Oversight on all research proposals and projects involving human subjects.

Institutional Animal Care and Use Committee (IACUC)

Oversight on all research proposals and projects involving animals.

Institutional Biological and Chemical Safety Committee (IBCSC)

Oversight on research involving biological materials and chemicals.

Committee on Scholarly Activity (COSA)

To promote scholarly activity and research at LMU.

If your grant award, application, presentation, or publication has not been mentioned in this edition, please forward your information to us using the contact information listed above.

We would love to showcase your accomplishments!

Thank you!