

# RESEARCH & GRADUATE NEWS



NEWS & EVENTS

ISSUE 13 | SEPTEMBER 2022

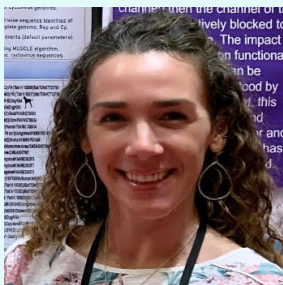
## CONGRATULATIONS TO OUR MOST RECENT GRADUATES



**CONGRATULATIONS TO OUR LATEST PHD GRADUATE, DR. KATALINA CRUZ.** Having completed the MSc in One Health at RUSVM, Katalina went on to pursue a joint PhD with RUSVM and the University of Granada, Spain, receiving the highest award of PhD Sobresaliente. Supervised by Dr. Patrick Kelly (RUSVM, St Kitts), Dr. Antonio Osuna (Granada, Spain), and Dr. Maria Trelis (Valencia, Spain), you can watch the [recording](#) of Katalina's public defense of her thesis entitled *Trichuris trichiura*: Assessment of Potential Alternative Diagnostic Methods and Efficacy of Treatments in the African Green Monkey Animal Model (*Chlorocebus sabaeus*).

## STUDENT SPOTLIGHTS

LET'S CELEBRATE THE ACHIEVEMENTS OF...



**KERRY GAINOR, PhD CANDIDATE AT AMERICAN SOCIETY OF VIROLOGY (ASV) CONFERENCE**  
Congrats to Kerry Gainor, RUSVM PhD Candidate who travelled to Madison, WI to present part of her research at the American Society of Virology's 41st annual meeting. Kerry's poster is entitled: Novel Cyclovirus Species in Dogs with Hemorrhagic Gastroenteritis.



**BRITTANY MIDDLEBROOKS, DVM, MSc BY RESEARCH**  
Brittany Middlebrooks delivered an oral presentation entitled Contraceptive Efficacy and Safety Profile of Porcine and Recombinant Zona Pellucida Vaccines Formulated with a Non-Freund's Adjuvant in Caribbean Donkeys at the 9th International Conference of Wildlife Fertility Control in Colorado.



**NORA GARDNER, DVM CLASS OF 2023,**  
DVM student Nora Gardner is a RA with Dr. Heather Fenton working on her "Reducing animal use in ecotoxicology: establishing freely available normal references and historical controls for the

gonadal development of wood frog larvae, a study species in ecotoxicology" research project.

Wood frogs are commonly used in research because their tissues, specifically the gonads, are very susceptible to changes associated with exposure to pharmaceuticals or toxins. The goal of this project is to create an open access resource for future research that utilizes gonadal tissue from Wood frog tadpoles. The tadpole gonads from our digital slides could ideally be used as a control group to reduce the number of specimens required in different studies. Nora is also working on two other projects this semester with Dr. Pompei Bolfa.



## STUDENT SPOTLIGHTS (CONTINUED)

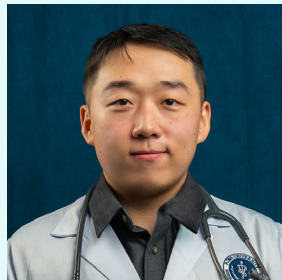


### NOAH MAKELA, DVM CLASS OF 2024

DVM student Noah Makela is a RA with Dr. Kimberly Stewart working on her sea turtle conservation research project. Noah leads the SKSTMN In Water Team that captures juvenile sea turtles to collect morphometric and health data. He performs physical

examinations, record morphometrics, places flipper and Passive Integrated Transponder (PIT) tags, and collects blood samples from the turtles before releasing them. Following collection, he then processes blood samples in the Chelonian Laboratory.

The values obtained from the bloodwork are used to assess overall organ and metabolic function and assists us with long term health monitoring sea turtle populations. Data is shared with other scientists and the public to promote best practices in sea turtle management and health. As part of the project, Noah also contributes to conservation education, rehabilitation, and is part of the Sea Turtle Hotline response team.



### RUSVM BOEHRINGER INGELHEIM VETERINARY SCHOLARS OF 2022

A big congratulations to DVM students Jiashi Feng and Alexis Hall for being selected as our 2022 Boehringer Ingelheim Veterinary Scholarship Program recipients. Under the supervision of Drs. Aline Vieira and Ananda Muller, Jiashi has been conducting research on 'Procalcitonin as a Biomarker Of Infection in Cats with Fever'. Under the supervision of Dr. Hilari French, Alexis has focused her research on 'Two Non-Commercial Protocols to obtain Platelet-Rich-Plasma (PRP) in Donkey Species'. Their work has recently been presented at the prestigious National Veterinary Scholars Symposium (NVSS) 2022.

## JOURNAL CLUB FALL SEMESTER

Journal club is a platform available through Canvas (RUSVM Journal Club) to present and share our research proposals, recent peer review publications, as well as ongoing research projects and collaborations with our faculty and student community. The sessions also provide our graduate students the opportunity to present their work with assistance from their faculty advisors.

### DATES FOR JOURNAL CLUB THIS TERM:

- September 21
- October 12
- October 26
- November 9
- November 23

If you're interested in the presenting a topic of research at Journal club this semester, you may sign up [here](#).

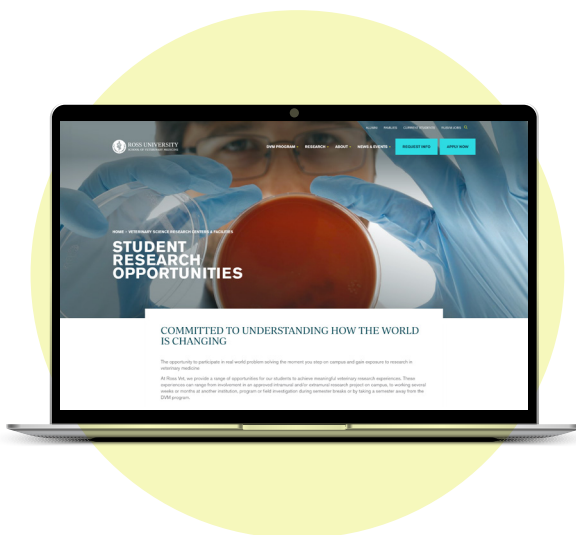
## ROSSIES IN RESEARCH

This past semester, over 100 Rossies have been active as research assistants and volunteers, helping with various projects carried out across our four research centers.

**Research Assistants: 10**

**Research Volunteers: 92**

Interested in getting involved with research? Learn more about our [Student Research Opportunities](#) or email [research@rossu.edu.kn](mailto:research@rossu.edu.kn) with questions.





## STUDENT PUBLICATIONS

**Bergfelt, D.**, Vences, M., Merritt, D., Machado, M., Rawlins J., Hervé-Claude, L.P., **Dzikiti, L.**, Canales, R., Sanchez-Okucki, R. (2022). Cortisol, Lactate, and Ammonia Plasma Concentrations Associated with Performance-Based Physical Activities in Bottlenose Dolphins (*Tursiops truncatus*) Aquatic Mammals, 48(3), 287-295. doi: <https://doi.org/10.1578/AM.48.3.2022.287>

Gainor, K., & **Ghosh, S.** A Comprehensive Review of Viruses in Terrestrial Animals from the Caribbean Islands of Greater and Lesser Antilles. Transbound Emerg Dis, n/a(n/a). <https://doi.org/https://doi.org/10.1111/tbed.14595>

Jonk, K., **Mauldin Pereira, M.**, **Ketzis, J.**, & **Conan, A.** (2022). *Dirofilaria immitis* Prevention Messaging: Knowledge and Attitudes of Students from North America Attending the Ross University School of Veterinary Medicine, St Kitts. Veterinary Record Open, 9(1), e32. doi: <https://doi.org/10.1002/vro2.32>

Kim, J. D., Lucio-Forster, A., & **Ketzis, J. K.** (2022). Ancylostoma in Dogs in the Caribbean: A Review and Study from St. Kitts, West Indies. Parasit Vectors, 15(1), 139. doi:10.1186/s13071-022-05254-2

Matthew, M. A., Christie, J., Yang, N., & **Yao, C.** (2022). A Loop-Mediated Isothermal Amplification (LAMP) Assay Specific to *Trichomonas tenax* is Suitable for Use at Point-of-Care. Microorganisms, 10(3), 594. doi:10.3390/microorganisms10030594

**Mignucci-Giannoni AA**, Cintrón-de Jesús, J., Rivera-Pérez C, Rivera-Tritsare GS, Zardus JD. (2022). Barnacles Associated with Whales, Dolphins, Manatees, and Sea Turtles from the Puerto Rico Archipelago and Florida. Caribbean Naturalist, 86, 1-24. <https://www.eaglehill.us/CANAonline/CANA-access-pages/CANA-regular/CANA-086-Mignucci.shtml>

**Segabinazzi, L.**, Roberts, B. N., **Peterson, E. W.**, Ambrosia, R., **Bergfelt, D.**, **Samper, J.**, **French, H.**, **Gilbert, R. O.** (2022). Early Pregnancy in Jennies in the Caribbean: Corpus Luteum Development and Progesterone Production, Uterine and Embryo Dynamics, Conceptus Growth and Maturation. Animals (Basel), 12(2). doi:10.3390/ani12020127

**Vieira, A. B.**, Restrepo, M. A., Auzenne, D., Molina, K., O'Sullivan, M., **Machado, M. V.**, & **Cavanaugh, S. M.** (2022). Mild to Moderate Overweight in Dogs: Is There an Impact on Routine Hematological and Biochemical Profiles, Echocardiographic Parameters and Cardiac Autonomic Modulation? Vet Res Commun. doi:10.1007/s11259-021-09880-6

Yang, N., Christie, J., Keen, H. L., Matthew, M. A., **Yao, C.**, & Stajich, J. E. Draft Genome Sequence of *Trichomonas tenax* Strain Hs-4:NIH. Microbiology Resource Announcements, 0(0), e00157-00122. <https://doi.org/doi:10.1128/mra.00157-22>

## STUDENT PRESENTATIONS

**Escobar A.**, **Dzikiti B.**, Bailey S., Rodriguez Quintana B., Daniels S., **Thorogood J.**,

**Maney J.** Effects of two continuous infusion doses of lidocaine on isoflurane minimum anesthetic concentration (MAC) in hens. AVA meeting. May 18th- 20 2022. (virtual)

Picknell A., **Stewart K.M.**, **Dennis M.** Pathology of Leatherback (*Dermochelys coriacea*) Embryos and Dead in Nest Hatchlings in St. Croix, U.S. Virgin Islands. International Sea Turtle Symposium. March 2022 (poster)

Gainor K. Novel Cyclovirus Species in Dogs with Hemorrhagic Gastroenteritis. American Society of Virology/ July 16-20th 2022 (poster)

Vences M., **Bergfelt D.R.**, Merritt D., **Machado M.**, **Rawlins J.**, Canales R., **Hervé-Claude L.P.**, **Dzikiti L.**, Sanchez-Okucki R. 2022. Cortisol, Lactate, And Ammonia Plasma Concentrations associated with Performance-Based Physical Activities in Bottlenose Dolphins (*Tursiops truncatus*). Society of Marine Mammalogy (SMM) 4th Biennial Conference, West Palm Beach, Florida, USA, August 1-5 (virtual/poster)

**Bergfelt D.R.**, Canales R., Vences M., Smallcomb M., Sanchez-Okucki R. 2022. Circulating Concentrations of Cortisol in Cows and Calves during Weaning in Bottlenose Dolphins (*Tursiops truncatus*). Society of Marine Mammalogy (SMM) 4th Biennial Conference, West Palm Beach, Florida, USA, August 1-5 (poster)

Trujillo M., **Chapwanya A.**, **Becker A.**, **Gallagher C.**, Mau A., **Marchi S.**, **Machado M.**, **Conan A.**, **Muller A.** *Coxiella burnetii* Shedding Patterns on Pregnant and Post Parturient Ewes from Saint Kitts. 16th International Symposium of Veterinary Epidemiology and Economics (ISVEE 16). 06 August 2022 - 11 August 2022 (oral)







## STUDENT PRESENTATIONS (CONTINUED)

Trujillo M., Conan A., Calchi A., Rogerio Andre M., **Becker A., Gallagher C.,** Mau A., **Marchi S., Machado M., Chapwanya A., Muller A.** *Coxiella burnetii* Shedding Occurrence and Molecular Diversity in Ewes from St. Kitts. International Union of Microbiological Societies (IUMS 2022). 20-22 July 2022 Rotterdam, Netherlands (**oral**)

Middlebrooks B. Contraceptive Efficacy And Safety Profile of Porcine and Recombinant Zona Pellucida Vaccines Formulated with a Non-Freund's Adjuvant in Caribbean Donkeys. 9th International Conference of Wildlife Fertility Control. 23-25 May 2022 Colorado (**oral**)

Hall A., Segabinazzi L., Peterson E., Bertschinger H., Schulman M., Roth R., **Knobel D., Gilbert R., French H.** The Recombinant Zona Pellucida Vaccine Induces Ovarian Shutdown and Leukocyte Infiltration in Jennies –Preliminary Data and Descriptive Analysis. BI Symposium Minnesota USA August 3-7, 2022 (**poster**)

Feng J., Machado M., Sepulveda-Garcia P., **Muller A., Vieira A.** Acute Phase Proteins in Cats with Classical Bacterial, Blood-Borne Bacterial and Retroviral Infections. BI Symposium Minnesota USA August 3-7, 2022 (**poster**)

Gainor K., Ghosh S. Novel Cyclovirus Species in Dogs with Hemorrhagic Gastroenteritis. ASV conference 2022 Madison USA July 2022 (**poster**)

Picknell A., Fenton H., Dennis M., Navarrete Talloni., Bolfa P., Stewart K. Causes of Morbidity and Mortality in Free-Ranging Sea Turtles Found on St. Kitts and Nevis (2015-2022). 70th Annual International conference Wildlife disease association July 23-29 2022 Madison WI USA (**poster**)

Feng J., Bolfa P. Primary Pulmonary Adenocarcinoma with Renal Metastasis and Hypertrophic Osteopathy in a Dog. ACVP Annual meeting 12-15 November 2022 (**poster**)

James D., Kelly S., Armien AG., **Kelly P.,** Lawrence M., **Bolfa P.** Tropical Keratopathy is a Disorder of the Anterior Corneal Stroma in the African Green Money (*Chlorocebus sabaeus*) ACVP annual meeting 12-15 November 2022 (**oral**)

Rivera-Perez C., Dennis M., Orcera-Iglesias J., Cabrias-Contreras L., Rivera-Guzman A., Mignucci A. Verminous Pneumonia as a Cause of Death in an Antillean Manatee from Puerto Rico. 24th Biennial conference on the Biology of Marine Mammals, West Palm Beach, FL. 1-5 August 2022 (**poster**)

