



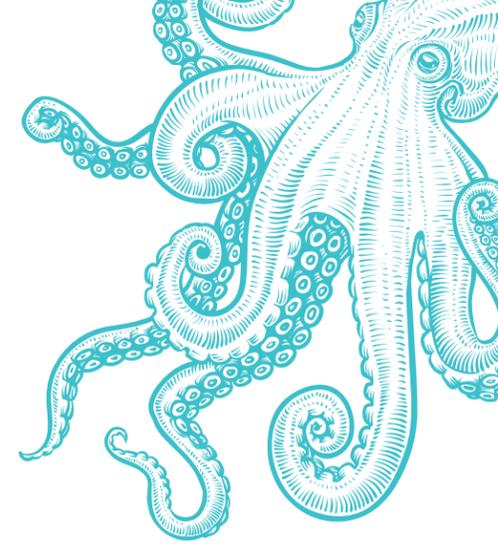
# A TRANSDISCIPLINARY APPROACH TO ONE HEALTH



ROSS UNIVERSITY  
SCHOOL OF VETERINARY MEDICINE



# MAKE AN IMPACT.



## WELCOME.



**Samson Mukaratirwa, DVM, MVSc, PhD**  
Associate Dean for Research and Graduate Studies

At Ross University School of Veterinary Medicine (RUSVM) we have a strong tradition of providing hands-on training and a curriculum that reflects current veterinary education topics and trends. Our unique location and culturally distinct campus on the Caribbean island of St. Kitts provides up close and personal interactions with domestic, native terrestrial, and aquatic animals, as well as opportunities for agricultural and ecosystem connections. "The Department of Agriculture embraces the One Health concept as part of its transformational and development strategy for the agricultural sector," said Director of the Ministry of Agriculture, St. Kitts and RUSVM alumna Tracey Challenger, BSc, DVM, MSc. "As the gateway for food safety and food and nutrition security, hence the pathway to the sustainability of life, we must ensure that all elements of AHFS, inclusive of Environmental Health and Veterinary Public Health, be considered at every stage of planning and implementation of the new road map."

RUSVM's programs train students to not just provide the best care and treatments to animals, but to also apply the knowledge gained at RUSVM to address global issues such as securing adequate supplies of safe food for the future, developing drugs to improve and lengthen human and animal lives, detecting and combating diseases transmitted between animals and humans, and in helping to alleviate social issues such as poverty through improvements in agriculture and livestock health. Every day, our researchers are forging paths in the lab and in the field to solve real-world challenges.

Research is thriving at RUSVM, and through the efforts of our faculty, we continue to build our capacity for research across a broad range of disciplines. The educational and research opportunities afforded based on our One Health approach equip our students to be future leaders and contribute to devising adaptive, holistic, and forward-looking strategies to improve the quality of life for all.

## A COMMITMENT TO CHANGING THE WORLD.

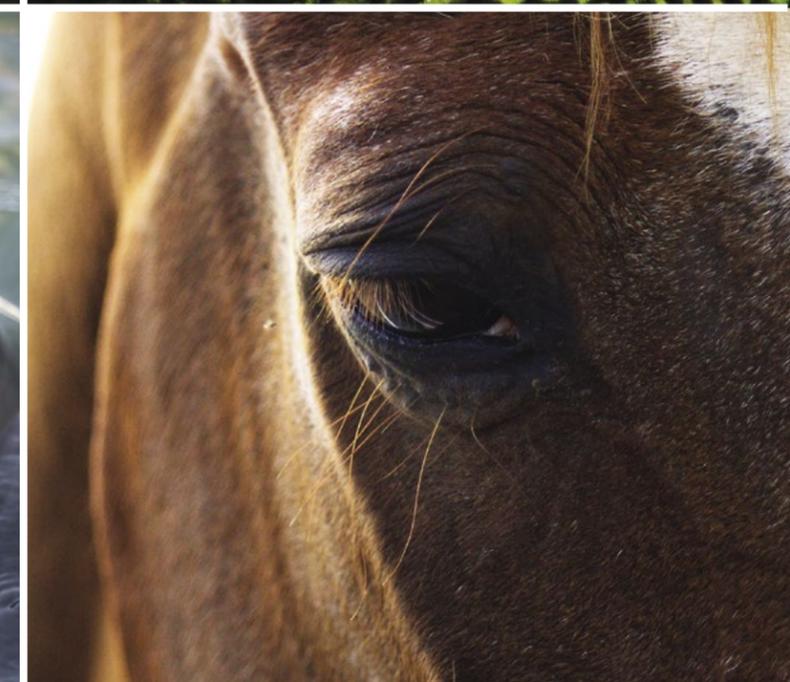
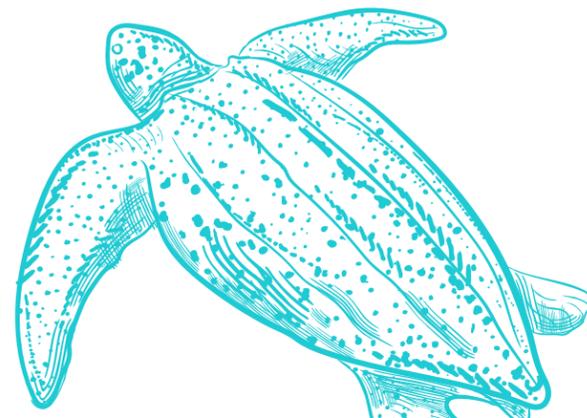
Through the lens of One Health, we recognize that the health of humans, domestic and wild animals, plants, and the wider environment are closely linked and interdependent. The approach mobilizes multiple sectors, disciplines, and communities through the collaborative efforts of veterinarians, physicians, environmental and social scientists, and other experts across a wide range of fields.

It is increasingly important for those of us who are preparing students in the animal health, human health, and environmental health continuum to coordinate efforts on behalf of local and global communities.



“As a veterinary school, we are committed to preparing graduates in approaches that recognize the interconnection of health across the ecosystem by bringing a focus to recognizing zoonoses, food safety and security, species extinction, and habitat loss. These One Health approaches are pivotal.”

**SEAN CALLANAN, MVB, CERTVR, MRCVS, PHD, RCPATH, DIPIECVP**  
Dean, Ross University School of Veterinary Medicine





**PASSION FOR  
DISCOVERY.**



**YOUR IMPACT ON THE WORLD  
CAN START WITH ONE IDEA.**



“Zoonotic pathogens pose a serious threat to global health, economy, and society. In the Caribbean islands, humans and animals including marine and wildlife live in proximity, and vectors of important arboviruses have been identified, offering an ideal environment for the thriving and transmission of zoonotic pathogens. This is the reason our One Health Center for Zoonoses and Tropical Veterinary Medicine leads interdisciplinary, One-Health-based research programs on various aspects of zoonotic diseases with the overall aim to improve animal and human health and the shared environment, and create public awareness on zoonoses, especially in the Caribbean region.”

**SOUVIK GHOSH, BVSC & AH (GOLD MEDALIST), MVSC, PHD**  
Center Director & Associate Professor, Infectious Diseases



# RUSVM RESEARCH CENTERS.

DISCOVER THE CONNECTIONS THAT BIND US.



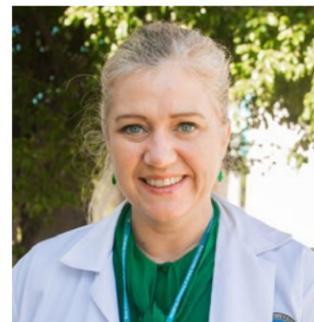
**The One Health Center for Zoonoses and Tropical Veterinary Medicine** focuses on one of the most significant public health threats facing tropical and developing countries: the transmission of disease from livestock and other domesticated animals to humans.

**SOUVIK GHOSH, BVSC & AH (GOLD MEDALIST), MVSC, PHD**  
Center Director & Associate Professor, Infectious Diseases

By researching the connections between systems and advancing the understanding that animals, people, and the planet are interconnected, Dr. Ghosh and his team of researchers are positively impacting global health.



**The Center for Integrative Mammalian Research** offers research programs in the areas of animal models of disease, immune regulation, reproduction, and pain management.



**KERRY ROLPH, BVM&S, CERTVC, PHD, FANZCVS, DIPECVIM-CA, FRCVS**  
Center Director, Associate Professor of Small Animal Internal Medicine

We are driving integrated human and animal research initiatives across a broad range of primarily non-infectious disease research including anesthesia and pain management, immune regulation, gene function, reproductive disorders, neurology and animal behavior, and in vitro and in vivo models of non-infectious human and animal diseases.





### The Center for Conservation Medicine and Ecosystem Health

investigates the complex relationship between altered environments and infectious disease among wildlife, with special emphasis on protecting threatened and endangered species, and developing management strategies for introduced flora and fauna.

**DARRYN KNOBEL, BVSC, MSC, Ph.D., MRCVS, DIPL. ACVPM (EPI.)**  
Center Director, Professor of Epidemiology and Population Health

Focused on applied research into the health and management of wildlife and free-roaming animals in the tropics, with a special concentration on marine species and terrestrial species that are not native to the Caribbean. Faculty members within the Center also provide additional training opportunities to DVM students through special electives in aquatic veterinary medicine, leveraging RUSVM's unique geographic position to provide students with hands-on experience in this growing field.



### The Center for Research and Innovation in Veterinary and Medical Education

provides a home for researchers working to promote evidence-based innovations for teachers in both veterinary and medical education.

**ELPIDA ARTEMIOU, MSC, Ph.D., AFAMEE**  
Center Director, Associate Professor of Clinical Communication

Emphasizing active teaching and incorporating blended learning and experiential practice in the classroom. The Center is exploring the advances of emerging technologies including the use of Apple® technology, virtual and augmented reality, and artificial intelligence within veterinary and medical education. Taking a transdisciplinary approach, working with collaborators across animal and human health, the Center encompasses a variety of areas relevant to veterinary medical education including workplace learning and assessment, human-animal interactions, and the principles of relational coordination in academia and practice.



# BIG IDEAS. BIG IMPACT.



## VITAL RESEARCH.

The vital research we're conducting at RUSVM is helping address local, regional, and global concerns, that could impact countless lives and even the way we see the world and the universe.

RUSVM offers students the opportunity to participate in real world problem solving the moment they step on campus and gain exposure to research in veterinary medicine. We provide a range of opportunities for our students to achieve meaningful veterinary research experiences. These experiences can range from involvement in an approved intramural and/or extramural research project on campus, to working several weeks or months at another institution, program or field investigation during semester breaks or by taking a semester away from the DVM program.



Learn more  
about RUSVM.

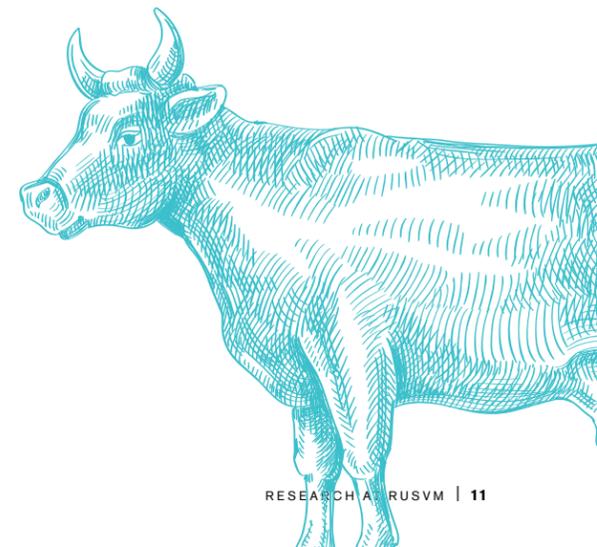


“It reminds me of how thankful I am for the incredible mentorship I've received from our research team and professors throughout my time at Ross Vet. I'm proud to be a Rossie, to have the privilege to be studying the career I've always dreamed of, given the opportunities to try new things, and to learn from the best, all while living on the beautiful island of St. Kitts.”

**ALEXIS HALL, CLASS OF '23**



Learn more about  
research opportunities.





# UNDERSTANDING OUR WORLD BY VIEWING IT DIFFERENTLY.

## RUSVM RESEARCH FACILITIES ON ST. KITTS.

Our main laboratory consists of a single open-access laboratory, a closed room for refrigeration, and a separate area for Bacteriology and Tissue Culture. The space accommodates research projects that cover a wide variety of veterinary research disciplines including Immunology, Pharmacology, Virology, Marine Biology, Stem Cell Research, and Cell Biology. This laboratory is supplemented by an upstairs specialized equipment laboratory. Equipment in this laboratory includes a 3-laser flow cytometer, real-time and conventional PCR apparatuses, 2D electrophoresis apparatuses for proteomics research, and a new Pulsed Field Electrophoresis apparatus.

A rodent vivarium adjacent to the laboratories is also available to researchers. It consists of a humidity and light-controlled clean room with a sterile atmosphere, ventilated rack system for housing rodent cages, and has a remote sensor alarm system to warn in case of failure in environmental temperature control. It has an associated preparation room with an autoclave, refrigerator, biosafety cabinet, extraction fan, and CO2 lines from exterior tanks. Storage for laboratory supplies and reagents is provided in two rooms in proximity to the primary research laboratory areas.

Our research facilities also include a small marine aquarium outside of the main laboratory complex. In addition to the dedicated research laboratories, researchers also have access to a fully equipped veterinary diagnostic laboratory next door to the research laboratory complex. Researchers and students can use the services of laboratory staff. These experienced staff can assist with developing new techniques for research projects and in student training and supervision in the laboratory.

Our largest research laboratory can accommodate approximately 30 researchers. The laboratory is equipped for molecular biology, microbiology, cell culture techniques, and other basic veterinary research.

The Research Facilities complex complies with CDC/NIH standards for BSL2 containment laboratories and all other US applicable safety standards (OSHA, EPA, etc.). Students and other laboratory workers must complete specific biosafety training courses before working in the laboratories.

## COMMITTED TO SCIENTIFIC INQUIRY AND EXCELLENCE IN RESEARCH.

### RUSVM Research Faculty

We are contributing to a body of knowledge that can be translated into improving the health of animals, humans, and the environment.

In addition to the specific laboratories, centers, and facilities, our researchers are may be appointed as Fellows through the One Health Research Foundation (OHRF), a 501c3 organization that allows for eligible grant funding and contracts to pass through to the university to launch and maintain important research projects.



Meet RUSVM research faculty and OHRF's research appointees.



# INSPIRING STUDENTS, TRANSFORMING SOCIETY.

## RUSVM GRADUATE PROGRAMS

RUSVM prepares students for careers at the heart of research. Develop transferable research skills necessary to pursue a wide selection of opportunities in academia, industry, business, or elsewhere. As a veterinary or graduate student at RUSVM, you will learn how research is conducted, how to apply it to the work you do, and how to become an effective contributor to the global healthcare team.

### RESEARCH PROGRAMS

#### MSc BY RESEARCH

The Master of Science by Research degree program is based on supervised research over a period of one year full-time or a maximum of two years part-time. Progress monitoring is conducted throughout the study period with demonstrated satisfactory progress at set milestones.

#### PhD BY RESEARCH

The Doctoral degree is based on supervised research over a period of three years full-time or six years part-time. Progress monitoring is conducted throughout the study period with demonstrated satisfactory progress at set milestones.

#### DVM/MSc BY RESEARCH

By devoting between 1 and 3 semesters to a research project, RUSVM students can earn a master's degree in combination with their DVM degree.

### ONE HEALTH PROGRAMS

Through online coursework, you will explore the global complex interplay of altered environments and infectious diseases as an increasing threat to public health, animal health, and the environment.

#### MSc IN ONE HEALTH

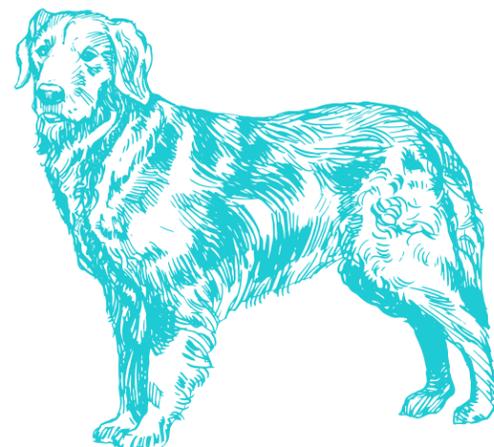
The MSc in One Health degree program can be completed in two to three years with part-time study. The program is taught through online coursework with a capstone project and an optional one-week residency on St. Kitts.

#### GRADUATE CERTIFICATE IN ONE HEALTH

The Certificate in One Health is a 13-credit program offered exclusively online. Students of the certificate program have the option to later apply completed credits towards the full MSc in One Health degree program.



Learn more about our graduate admissions.



## ACCREDITATIONS.

Ross University School of Veterinary Medicine is accredited by St. Christopher & Nevis Accreditation Board under the Ministry of Education, to confer the degree of Doctor of Veterinary Medicine, Doctor of Philosophy (PhD.), and Master of Science (MSc) on its students who successfully complete the course of study.

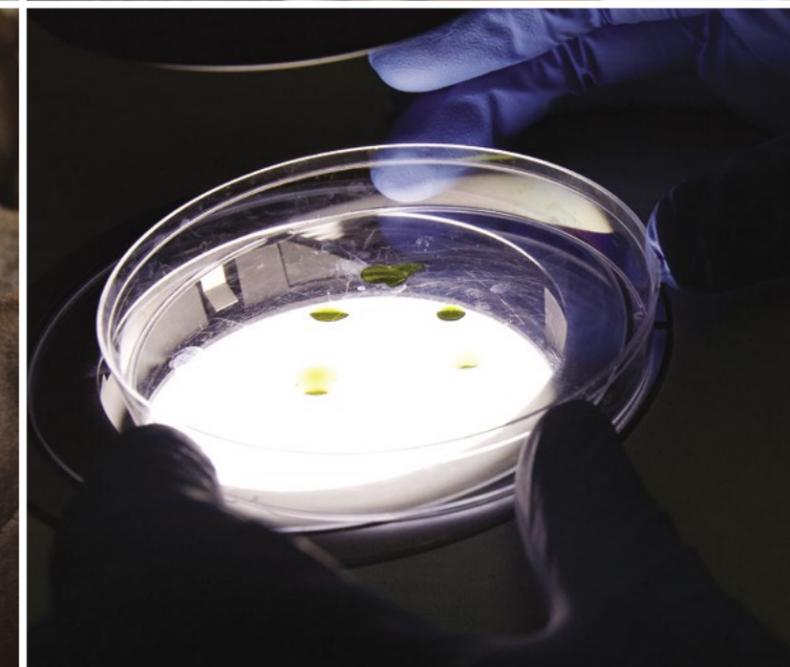
The status of accreditation was renewed following the submission of a self-study report and a site visit for a period of five years, effective July 1, 2017. About the St. Kitts-Nevis Accreditation Board.

Ross University School of Veterinary Medicine confers a Doctor of Veterinary Medicine (DVM) degree which is accredited by the American Veterinary Medical Association Council on Education (AVMA COE), 1931 N. Meacham Road, Suite 100, Schaumburg, IL 60173, Tel: 800.248.2862. For more information please visit [avma.org/education/accreditation-veterinary-colleges](http://avma.org/education/accreditation-veterinary-colleges).

The AVMA COE uses defined standards to evaluate veterinary medical education programs, including facilities, clinical resources, curriculum, faculty, student outcomes and research programs. The standards are interpreted and applied by the AVMA COE-accredited veterinary medical education programs in relation to its mission.

Ross University School of Veterinary Medicine's (RUSVM) Veterinary Clinic is accredited by the American Association for Accreditation of Laboratory Animal Care International (AAALAC, [www.aaalac.org](http://www.aaalac.org)). The accreditation focuses on animals used in teaching and research environments.

RUSVM received full accreditation from AAALAC, an organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs.





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SCHOOL OF VETERINARY MEDICINE

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