RESEARCH AT ROSS UNIVERSITY SCHOOL OF VETERINARY MEDICINE

TODAY’S QUESTIONS BECOMING TOMORROW’S ANSWERS
A MESSAGE

FROM THE DEAN

SEAN J. CALLANAN, MVB, PHD, CERTVR, DIPLECVP, MRCVS, FRCPATH
A MESSAGE FROM THE DEAN

At Ross University School of Veterinary Medicine (RUSVM), we have a strong tradition of providing hands-on training and an innovative curriculum. Today, we are building on that tradition and advancing a vision and strategy to prepare our graduates to address the most pressing challenges in human and animal medicine through a One Health approach.

One Health is a global strategy that views the well-being of animals, people and ecosystems as inextricably related, and that seeks to promote the health of all species through the collaborative efforts of veterinarians, physicians, environmental and social scientists and other experts in a wide range of fields. RUSVM’s geographic location in the Caribbean within the Federation of St. Christopher and Nevis provides an ideal opportunity for students who wish to pursue knowledge and understanding of public health aspects of all species, scientific methodology, and the control and prevention of disease.

Our new Research and Pathology building provides significant laboratory and pathology space for faculty and students, and will add to our modern research facilities. We continue to forge partnerships with scientific organizations and researchers around the globe and continue to attract dedicated postgraduate students and top researchers to our school.

All of our researchers devote some of their time to teaching, bringing their years of research experience to students in the classroom. Significantly, students enjoy opportunities to learn firsthand about the day-to-day reality of life in a modern research laboratory. But more than that, our privileged location allows our students to venture beyond the classroom to participate in impactful research on wildlife and livestock, habitats and diseases in the contrasting, and sometimes fragile, ecosystems provided by the chain of islands in the Caribbean, an area rich in cultural and societal diversity.

To facilitate success in veterinary medicine today, RUSVM’s program trains students not just to provide the best care and treatments to pets and livestock, but also to apply the knowledge gained at RUSVM to address global issues in securing adequate supplies of safe food for the future; in developing drugs to improve and lengthen human and animal lives; in detecting and combating diseases transmitted between animals and humans; and in helping to alleviate poverty through improvements in agriculture and livestock health in the world’s poorest regions. As a veterinary or postgraduate student at RUSVM, you will learn how such research is conducted, how to apply it to the work you do, and how to become an effective contributor to the global healthcare team.

Sean J. Callanan, MVB, PhD, CertVR, DiplECVP, MRCVS, FRCPath

DEAN:
Dr. Willingham graduated (DVM) from the University of Georgia’s College of Veterinary Medicine in 1986. Following four years of private practice he served as a Peace Corps volunteer (1990-1992) in the Middle Atlas Mountains of Morocco where he developed an interest in parasitic worm zoonoses of both public health and agricultural importance in developing countries. This interest led to Fulbright Graduate Research Fellowship (1993) and PhD (1994-1997) study programs on zoonotic schistosomiasis at the Royal Veterinary and Agricultural University in Denmark.

From 1997 to 2010 Dr. Willingham was involved in projects in Africa funded by the Danish International Development Agency (DANIDA) aimed at strengthening research capacity on parasitic diseases of livestock belonging to small-scale farmers. He coordinated and supported the research efforts of postgraduate students based at universities in eastern and southern Africa, while also serving as Deputy Director of the WHO/FAO Collaborating Center for Research and Training on Neglected and Other Parasitic Zoonoses based at the University of Copenhagen.

Dr. Willingham worked at the World Health Organization’s Special Program for Tropical Diseases Research and Training (TDR) based in Geneva, Switzerland from 2010-2013 where he facilitated identification and prioritization of global research needs for helminth and zoonotic diseases as well as for the thematic area of the environment, agriculture and infectious diseases, and assisted in initiating TDR’s new research program on environmental and climate change impacts on vector-borne diseases.

Dr. Willingham serves as the Associate Dean for Research and Postgraduate Studies and Professor of One Health at RUSVM. Prior to his current appointment, he served three years as the inaugural director of RUSVM’s One Health Center for Zoonoses and Tropical Veterinary Medicine.
A COMMITMENT TO CHANGING THE WORLD

Ross University School of Veterinary Medicine (RUSVM) is committed to research, because we know it’s through discovery that we shape the world of tomorrow, and every day after that. Using a One Health trans-disciplinary approach, RUSVM celebrates our unique location in the Caribbean, structure, and diversity to foster intellectual curiosity, and deliver scholarly research that is reputable, relevant, and rewarded.

YOUR IMPACT ON THE WORLD CAN START WITH ONE IDEA.
AT THE CENTER OF DISCOVERY

Our research centers don’t occupy physical buildings, but each one is built by powerful new ideas, and contains a community of like-minded scientists collaborating on ambitious projects that could improve the health and well-being of animals, humans and ecosystems.
THE ONE HEALTH CENTER FOR ZOONOSES AND TROPICAL VETERINARY MEDICINE

CENTER FOCUS AREAS: ZOONOTIC, VECTOR-BORNE AND OTHER TROPICAL INFECTIOUS DISEASES • ANTIMICROBIAL AND ANTHELMINTIC RESISTANCE • HEALTH MANAGEMENT OF PRIORITY LIVESTOCK AND FISH • FOOD AND FEED SAFETY

WHAT WE DO:
Zoonoses, vector-borne and other tropical infectious diseases affect livestock production, human and animal health, wellbeing, and livelihoods—one of the most significant public health threats facing tropical and developing countries. Our largest center is dedicated to understanding and combating these diseases using a variety of research methods, from the laboratory to the field, to investigate issues concerning emerging, re-emerging as well as persisting endemic infectious diseases in consideration of nationally, regionally and internationally recognized priorities and critical research gaps.

CENTER DIRECTOR:
Souvik Ghosh, BVSc & AH, MVSc, PhD

Dr. Souvik Ghosh is an associate professor of infectious diseases at the Ross University School of Veterinary Medicine (RUSVM). He joined RUSVM as an assistant professor in 2014. Dr. Ghosh holds degrees of Bachelor of Veterinary Science & Animal Husbandry (BVSc & AH) and Masters in Veterinary Medicine & Public Health from the West Bengal University of Animal & Fishery Sciences, India, and a PhD in Virology from the National institute of Cholera & Enteric Diseases (WHO referral center), India. Dr. Ghosh’s research interests include veterinary and medical virology, molecular epidemiology and genetic diversity of viruses, viral zoonosis, and one-health. Currently at RUSVM, he is conducting research studies on enteric and respiratory viruses in animals and humans in the Caribbean with an emphasis on interspecies transmission/ zoonosis.

Dr. Ghosh is a member of the ICTV Birnaviridae and Picobirnaviridae study group. He has published over 80 research papers and review articles in peer-reviewed international biomedical/veterinary journals. He serves as the section/associate editor of research journals Archives of Medical Science, Frontiers in Microbiology (Virology), Frontiers in Veterinary Sciences (infectious diseases), and Veterinary Medicine and Science (Wiley). At RUSVM, Dr. Ghosh lectures in DVM courses veterinary virology and principles of infectious diseases, and also teaches a part of the MSc course in One Health.
DR. KELLY’S CURRENT PROJECTS:
After 30 years in the field and 130 published papers on ticks and tick-borne diseases, Dr. Pat Kelly decided it was time for a change. He is now leading an NIH funded investigation of mosquitoes and arbovirus sylvatic cycles on St. Kitts. One part of the study is a mosquito survey on the island. The mosquitoes, collected at over 30 sites on the island, are being identified to species level and will be tested by PCR and viral isolation for arboviruses. Also, blood from monkeys from around the island will be tested for antibodies against Dengue, Chikungunya and Zika viruses to see if they are being infected by mosquitoes and might play a role in the epidemiology of human infections. Dr. Matt Valentine is the PhD student on the project and, to date, 15 RUSVM students, 2 faculty members, 3 VIP’s and 4 St. Kitts government officials have assisted with the mosquito survey. This research follows on from a study which is being completed by another of Dr. Kelly’s PhD students, Dr. Iñaki Deza-Cruz, in which risk factors for Dengue, Chikungunya and Zika were investigated in RUSVM students. Dr. Kelly still maintains an interest in clinical research and is investigating ‘Florida spots’, commonly seen opacities in the eyes of dogs and cats on St. Kitts, along with his daughter, Susyn Kelly an engineering PhD student in New Zealand, and Dr. Pompei Bolfa, a pathologist at RUSVM.

DR. KETZIS’ CURRENT PROJECTS:
A primary focus of Dr. Ketzis’s research is on diagnostic and treatment methods for tropical and subtropical parasites of dogs and cats. Some of these parasites are zoonotic and others can infect wildlife. Given the increasing number of people that travel with their pets and the recent documentation of parasites expanding their distribution area, the results of the studies are not only useful for regions where these parasites are currently endemic, but also can be used to help decrease the importation of these parasites to new locations. More recently, Dr. Ketzis has extended her research into the evaluation and development of cost effective diagnostic methods for soil transmitted nematodes of people. One recently completed study on *Strongyloides stercoralis*, a zoonotic parasite, resulted in a Standard Operating Procedure for diagnosis that has been distributed to medical diagnostic laboratories throughout the Caribbean region. Students play a key role in Dr. Ketzis’s work with interns and DVM and MSc students involved in all stages of the planning through the final write-up of results.

DISCOVER MORE:
http://veterinary.rossu.edu/research/centers.html

*Each publication, press release, or other document about research supported by an NIH award must include an acknowledgment of NIH award support and a disclaimer such as “Research reported in this publication was supported by the National Institute Of Allergy And Infectious Diseases of the National Institutes of Health under Award Number R21AI128407. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.” Prior to issuing a press release concerning the outcome of this research, please notify the NIH awarding IC in advance to allow for coordination.
THE CENTER FOR INTEGRATIVE MAMMALIAN RESEARCH

CENTER FOCUS AREAS: CLINICAL AND REGENERATIVE MEDICINE
• ANIMAL MODELS • IMMUNE REGULATION • REPRODUCTION

WHAT WE DO:
Innovation and advances in human and animal healthcare depend on progress in understanding the pathogenesis of diseases and the efficacies of therapies. These aspects of biology are fundamental to drug discovery and design of rational approaches to disease management. At the Integrative Mammalian Research Center, we focus on basic research in close collaboration with a range of international institutions, particularly in the areas of immuno— and pathobiology, reproduction, molecular medicine, animal behavior, and in vitro and in vivo models of noninfectious human and animal diseases.

CENTER DIRECTOR:
Felix Toka, DVM, PhD, DSc, ACVM

Dr. Felix Toka received a DVM at the Faculty of Veterinary Medicine, Warsaw Agricultural University in Poland in 1991 and his PhD in Veterinary Virology at the same University in 1994. He has teaching and research experience from the University of Tennessee, Knoxville (USA), United States Department of Agriculture, Agricultural Research Services at Plum Island Animal Disease Centre in New York (USA) and Warsaw University of Life Sciences. Since 2012, he also holds a Doctor of Science (DSc.) degree in Veterinary Microbiology. From 2013 to 2015 he served as Director of Postgraduate Studies in the Department of Preclinical Sciences, Faculty of Veterinary Medicine at Warsaw Agricultural University in Poland. He is a diplomate the American College of Veterinary Microbiology, subspecialty Immunology. He joined Ross University School of Veterinary Medicine in 2015 where he lectures in veterinary immunology and virology. Dr. Toka has expertise in herpesvirus, picornavirus and poxvirus. He has extensively published in those areas in reputable journals. He currently supervises 3 PhDs at the Department of Preclinical Sciences, Faculty of Veterinary Medicine at Warsaw Agricultural University in Poland working in different areas of immunology encompassing herpesviruses, poxviruses and staphylococcus. Dr. Toka is interested in understanding the influence of virus infection on the function of the immune system. Currently, at RUSVM he is working on defining the role of Tripartite Motif (TRIM) genes in bovine macrophages following infection with viral or bacterial pathogens.
CENTER DIRECTOR

FELIX TOKA, DVM, PHD, DSC, ACVM
Currently Dr. Bolfa is involved in multiple research projects across the different Research Centers. They all have students involved and are focused on One Health or Comparative Pathology. Animals primarily investigated in his ongoing projects include but are not limited to equines, non-human primates, mongooses, feral chickens, dogs, cats and mice. One project is looking at silicate pneumoconioses in St. Kitts, by comparing different environments, air samples and pulmonary pathology in domestic and wild animals and possible impact on human health. Ongoing work is looking into background lesions in wild caught and captive vervet monkeys (Chlorocebus aethiops sabaeus).

Dr. Chapwanya’s research is in fundamental mechanisms of host defense immunity in livestock and primates, and the impact of infection in the female reproductive tract. With his clinical and agricultural background, coupled with basic immunology, Dr. Chapwanya has a keen interest in reproductive immunobiology. He has assembled a network of collaborators in Austria Brazil, Ireland, Portugal, South Africa, Switzerland, St. Kitts and Nevis and England to explore innovative ways of improving animal welfare and fertility. His postgraduate students are investigating diverse topics in animal and tissue culture models, including proteomics of seasonal weight loss in sheep, *in vitro* protein production by endometrial epithelial cells, uterine proteome of endometritis, controlled ovarian hyperstimulation in monkeys and host defense proteins in the genital tract of ewes.

Dr. Chapwanya has recently introduced an exciting small ruminant breeding initiative on the island of St. Kitts and Nevis, aimed at introducing genetic diversity and increasing weaning rates of local goats. This translates into higher meat yields, more revenue for farmers and improved livelihood of the local community. This project is in partnership with the local Government of St. Kitts and Nevis, and engages DVM students from the RUSVM Small Ruminant Club in meaningful research, beneficial to the community.

“*My first step to engaging students is creating awareness that the DVM is a powerful academic achievement that can open doors to other careers in science, aside from practicing veterinary medicine. Students are involved in collaborative work, learn to balance their time between class work and extracurricular activities, and have a chance to get hands-on training in research techniques that they have only heard about in class.*” – DR. TOKA

**DISCOVER MORE:** [http://veterinary.rossu.edu/research/centers.html](http://veterinary.rossu.edu/research/centers.html)
The Center for Conservation Medicine and Ecosystem Health focuses upon applied research, renewed advocacy, educational outreach and training, and evidence translation toward best practices and policy change as a fundamental basis for surveying and managing the health of populations, communities, and ecosystems. The center is made up of broad inter-disciplinary ensemble of biomedical professionals that recognize this complex interplay of altered environments and infectious diseases as an increasing threat to agriculture, public health and endangered/threatened species.

**WHAT WE DO:**

The Center for Conservation Medicine and Ecosystem Health focuses upon applied research, renewed advocacy, educational outreach and training, and evidence translation toward best practices and policy change as a fundamental basis for surveying and managing the health of populations, communities, and ecosystems. The center is made up of broad inter-disciplinary ensemble of biomedical professionals that recognize this complex interplay of altered environments and infectious diseases as an increasing threat to agriculture, public health and endangered/threatened species.

**CENTER FOCUS AREAS:** HEALTH OF INDICATOR SPECIES IN MARINE ECOSYSTEMS
- MARINE TURTLE MEDICINE AND MANAGEMENT
- DISEASE EPIDEMIOLOGY AND MANAGEMENT OF THREATENED AND INTRODUCED SPECIES

**CENTER DIRECTOR:**

Darryn Knobel, BVSc MSc PhD MRCVS Dipl. ACVPM (Epi)

Darryn Knobel, BVSc, MSc, MRCVS, PhD, received a BVSc in Veterinary Medicine and a MSc in Zoology from the University of Pretoria, and a PhD from the University of Edinburgh in Veterinary Medicine, Epidemiology, and Public Health.

He has an expertise in infectious diseases, and arrived at Ross University School of Veterinary Medicine in January 2015 to direct the Center for Conservation Medicine and Ecosystem Health. As the Director for the Center, Dr. Knobel oversees the center’s focus on the role of wildlife and the broader ecosystem in the emergence of disease, and conversely, on the impact of infectious diseases from humans or domestic animals on wildlife.

Conservation medicine and ecosystem health are emerging fields in the study of diseases in populations, and apply the principle of “One Health,” or the recognition that the health of humans, animals, and the ecosystems in which they live, are inextricably linked. Infectious diseases in particular can no longer be studied in isolation, as these diseases often affect multiple species, including humans, domestic animals and wildlife. Dr. Knobel’s research interests are focused on understanding the epidemiology of diseases that can spread between animals and people, and on applying this knowledge to better control or even eliminate these diseases.

“One of the many things about RUSVM that appealed to me from a research perspective is the commitment to the One Health approach. I believe that this approach is essential if we are to effectively address many of the more pressing problems facing humanity, including the effects of climate change, biodiversity loss and the emergence and global spread of vector-borne diseases.”
CENTER DIRECTOR

DARRYN KNOBEL, BVSC MSC PHD MRCVS DIPL. ACVPM (EPI)
A current project of Dr. Freeman involves the study of invasive Pacific lionfish (*Pterois* spp.) from the waters surrounding St. Kitts. Invasive lionfish are voracious predators and are known to have a serious negative impact upon coral reef fish populations; however, little is known about their general biology in the Caribbean region. If we want to be able to control these invasive fish, it is extremely important to identify populations within the region, in order to understand their reproduction and potential impacts to the ecosystem.

One of the most serious challenges for the recovery and survival of leatherback sea turtle populations is their notoriously low hatch success, which is especially problematic in St. Kitts. The locally poor hatch success is even more discouraging when considering only one of a thousand hatchlings that make it to sea will survive to adulthood. Working with the St. Kitts Sea Turtle Monitoring Network, Dr. Dennis has been investigating the pathology of dead leatherback embryos. The aim of this research is to better understand causes of embryo mortality, and to identify mitigations that can improve hatch success.

**How we impact our students:**

“With the intention of developing tomorrow’s researchers, I aim to provide students with opportunities and fertile ground for their own ideas to grow. My philosophy is to get out of their way and let them learn by doing. I hope to inspire them by putting health problems into a context where they can see how their skills are needed.” – **Dr. Dennis**

**Discover more:** [http://veterinary.rossu.edu/research/centers.html](http://veterinary.rossu.edu/research/centers.html)
THE CENTER FOR RESEARCH AND INNOVATION IN VETERINARY AND MEDICAL EDUCATION

CENTER FOCUS AREAS: STUDENT-CENTERED TEACHING AND LEARNING APPROACHES • SIMULATIONS AND EMERGING TECHNOLOGIES • HUMAN-ANIMAL INTERACTIONS AND WELLNESS

WHAT WE DO:

The researchers at this center develop and evaluate innovative pedagogical tools and techniques, including new approaches to curricula, which more effectively facilitate the application of acquired basic science knowledge to clinical professional training. Furthermore, the Center places emphasis in curriculum and faculty development as well as outcome assessments.

Current research within the Center for Research and Innovation in Veterinary and Medical Education will capture and provide evidence surrounding the profound changes in the significance of the human-animal bond and in enriching quality of living for both humans and animals. Surrounding wellness, studies will assess cortisol levels, personality profiles, childhood trauma, coping mechanisms and resilience.

Future directions include the use of dental simulators, arthrocentesis models, incorporating technology and specifically iPad® applications. Additional studies and evidence will extend current knowledge surrounding clinical communication specific to equine practice.

CENTER DIRECTOR:
Elpida Artemiou, BSc, MSc, PhD, AFAMEE

Dr. Artemiou began her professional career at RUSVM in counseling and continued to teach communication and professional skills upon completing her PhD in Medical Education with an emphasis on clinical communication, simulation-based teaching and learning and outcome assessments. Dr. Artemiou has focused her career in incorporating blended learning in the classroom. She has also developed and implemented outcome assessments to evaluate students’ communication competence and established the role of simulated clients as raters. Her interests further encompass a variety of areas relevant to veterinary medical education including workplace learning and assessment, leadership development, diversity programs, human-animal interactions, the principles of relational coordination in academia and practice, and the One Health approach. Through her many roles at RUSVM, Dr. Artemiou encourages a culture of personal wellness and mindful, reflective daily practice. Dr. Artemiou is passionate about human-animal interactions and improving quality of life for both animals and humans.
In supporting the human animal bond and enriching student learning and animal kennel environments, the Center recently completed a pilot study on the effects of music on student participants, assessing changes in stress, blood pressure and pulse, and canine subjects measuring heart rate variability during a simulated laboratory on canine physical examination. Extending research surrounding the human animal bond, the Center hopes to initiate an on campus pet therapy program/study using hand raised rabbits that can be later introduced to the St. Kitts community.

**DR. LITTLE’S CURRENT PROJECTS:**
Dr. Little’s research focuses on the development and validation of educational techniques in veterinary gross anatomy. His latest studies document student deliberate practice in the production of a 3D interactive virtual anatomy table. This research reported the benefits of computer assisted learning from subjective student and faculty perceptions as well as objective measurements of resultant exam outcomes.

**DR. PEREIRA’S CURRENT PROJECTS:**
Dr. Mauldin Pereira’s research focused on investigating the use of technology in teaching and learning. Specifically, her work investigated using Second Life as an educational platform to practice clinical reasoning in a simulated veterinary clinical setting. The study followed both a quantitative and qualitative approach, and indicated that the small group interactions using Second Life and traditional classroom environments offered a comparable educational platform for developing clinical reasoning process skills.

**HOW WE IMPACT OUR STUDENTS:**
“Engaging pre-clinical RUSVM students in clinical virtual environments exceeded my expectations. Research involving innovative teaching technologies is essential in veterinary education. I am excited for this center to continue studies which support technology resources used for educational enhancement.”

– DR. MAULDIN PEREIRA

**DISCOVER MORE:**
http://veterinary.rossu.edu/research/centers.html
PASSION FOR GLOBAL RESEARCH: OUR FACULTY

The RUSVM faculty consists of talented researchers from around the world, many coming from universities in other countries, and from international agencies like the World Health Organization. While our faculty members devote time to teaching and research here in St. Kitts, they are also involved in various research projects around the world—a testament to their commitment in One Health.
PASSION FOR DISCOVERY:
OUR STUDENTS

We actively encourage all veterinary students to become involved in research projects in a variety of ways, such as research electives and research assistantships—we want to spark their curiosity and critical thinking skills, to better prepare them to become global leaders in veterinary medicine. DVM students can also opt to undertake research degrees, working alongside our postgraduate students.
PASSION FOR KNOWLEDGE:
OUR LABORATORIES

RUSVM’s laboratories are the heart of research and training which act as a strong foundation for informed educational programs for our students. Our Research Centers are the primary avenues through which RUSVM interacts nationally, regionally and globally, and are now further supported by the opening of the 19,000 square-foot Research and Pathology building on campus.
Our main laboratory, fully renovated at the end of 2013, consists of a single open access laboratory, a closed room for refrigeration and separate area for Bacteriology and Tissue Culture. The total area is ~1,400 sq. ft. and accommodates research projects of a number of Principle Investigators 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 of ~500 sq. ft. Equipment in this laboratory includes a 3-lazer flow cytometer, real-time and conventional PCR apparatuses, 2D electrophoresis apparatuses for proteomics research and a new Pulsed Field Electrophoresis apparatus. Most of the state of the art equipment in our laboratories has been purchased in the last 3 years.

A rodent vivarium of ~500 sq. ft. 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 of 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. The 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 (~1,800 sq ft.), that is next door to the research laboratory complex.

Researchers and students can use the services of laboratory staff that includes a Senior Scientist as facility manager and three Research Associates. These experienced staff can assist with developing new techniques for research projects and in student training and supervision in the laboratory.

A ~12,000 sq. ft. research laboratory with capacity for approximately 50 researchers opened on campus in the summer of 2018. The laboratory is equipped for molecular biology, microbiology, cell culture techniques and other basic veterinary research.

The laboratory 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.
**MSc by Coursework in One Health**

This degree program in One Health is a flexible, online taught learning experience. The program also includes a residential week on campus, comprising of workshops and giving students the opportunity to meet face-to-face with faculty and fellow students. Taught by experts in their field, students have the opportunity to address a broad range of topics in One Health and conservation medicine. Our graduates will gain in-depth knowledge of, and undertake their own projects in, research aimed at sustainably reducing the burden of zoonoses and the complex interplay of altered environments and infectious diseases as an increasing threat to agriculture, public health and endangered/threatened species, on a global basis.

**MSc by Research**

Masters by Research students undertake individually tailored novel research over one year (3 semesters), culminating in the production of a thesis and research publications. Students have the opportunity to build on their existing knowledge and to gain advanced training in research techniques and practice.

**DVM/MSc by Research**

By devoting between 1 and 3 semesters on a research project, RUSVM students have the ability to earn a Masters degree in combination with their DVM degree.

**Doctor of Philosophy (PhD)**

Our highest academic qualification, which is undertaken over three years (9 semesters), will result in original research that makes a significant contribution to knowledge in a defined field of study. Throughout their training and research project, our PhD students develop as scientists, gaining expert knowledge in important areas of veterinary science and enhancing their experience in research dissemination. Our PhD program aims to produce graduates who will contribute to the next generation of veterinary researchers.

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**For further information on the DVM, MSc and PhD programs visit our website:**

[www.veterinary.rossu.edu](http://www.veterinary.rossu.edu)
Grants, Partnerships and Collaborations

RUSVM partners with academic and research institutions around the world, collaborating on funding opportunities and enhancing the student experience through joint postgraduate programs, providing opportunities to study and train abroad (e.g. University of Granada, Spain; University of Newcastle, UK; Institute of Tropical Medicine and Ghent University, Belgium; Vienna Veterinary School, Vienna; Teagasc Agriculture and Food Development Authority, Republic of Ireland; Kansas State, USA).

Collaborations with major corporations, foundations and other organizations (e.g. Zoetis, IDEXX, Morris Animal Foundation, American Kennel Club, Botstiber Institute, US National Institutes of Health, Caribaea Initiative) have provided research opportunities for research faculty, DVM and postgraduate students. RUSVM has become a member of the Caribbean Animal Health Network (CaribVET) and the Central American and Caribbean Association for Parasitology and Tropical Medicine (ACACPMT) and also developed a close relationship with the Caribbean Public Health Agency (CARPHA) and the Pan-American Health Organization (PAHO), all enabling research collaborations at the regional level.

RUSVM APPROVALS AND ACCREDITATIONS

• 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).

• Ross University School of Veterinary Medicine’s Clinic (RUVC) is accredited by the American Animal Hospital Association (AAHA).

• Ross University School of Veterinary Medicine is accredited by the St. Christopher (Kitts) and Nevis Accreditation Board and therefore under the Ministry of Education’s approval has the authority to confer the degree of Doctor of Veterinary Medicine to students who successfully complete the course of study. The status of full accreditation was renewed following submission of a self-study report and a site visit which was made effective for 5 years as of July 1, 2017.

• In July 2014, Ross University School of Veterinary Medicine received accreditation for the Postgraduate Studies Program from the St. Christopher and Nevis Accreditation Board effective for five years. The Postgraduate Studies program offers Master of Science (MSc) and Doctoral (PhD) degrees in all research areas supported by RUSVM. Areas of emphasis are guided by RUSVM’s themed Research Centers.