

2nd Annual JVMA-CCFP-J ONE HEALTH DAY CONFERENCE

November 3rd, 2019

Alhambra Inn

Jamaica

The second hosting of the **One Health Day Conference**, a collaborative effort between the **Jamaica Veterinary Medical Association (JVMA)** and the **Caribbean College of Family Physicians Jamaica Chapter (CCFP-J)** was held at the **Alhambra Inn** on November 3rd 2019. It proved to be a wonderful event, with over 100 attendees spanning the human and animal medical and environmental spheres and a multi-disciplinary cast of 13 local and international speakers, the room came alive with riveting conversation revolving around the intricate ties between the environment, human and animal medicine. Exhibitors such as the **National Environment & Planning Agency (NEPA)**, **Hi-Pro Farm Supplies**, **Cari-Med/Purina**, **Recharged Distributors**, **Medicanja**, **Heritage Education Funds International** and **T. Geddes Grant/Poen Ophthalmics** mounted booths which were available for viewing throughout the day with well-qualified representatives making presentations during the program.

Session 1 delved into **climate change** and was led by natural resource specialist **Dr. Alicia Hayman** and physician **Dr. Owen James**. Dr. Hayman focused on the unprecedented and unpredictable effects of climate change on all sectors of Jamaica and the Caribbean region in disturbing detail, leading to a call to action by health professionals and individuals. Dr. James' presentation focused on the effects on health and well-being, from a global to a local level with the possibility of long gone diseases re-emerging, and those already here spreading into new areas. Both underlined the massive changes including rising sea levels, weather extremes and disruptions in food and water security, all impacting on our human existence as we know it. Though the process may be gradual, the consequences are long lasting. Mitigation strategies are needed to slow this snowballing process in an effort to preserve life.

Session 2 brought us **Eco-Health** with wildlife ecologist **Dr. Susan Koenig** and environmentalist **Suzanne Stanley** with their presentation on "**The Cockpit Country** -

Jamaica's Amazon". Over 500 square miles of forested rolling hills and gullies provides just the right geographic conditions to produce 20-27% of the country's rainfall per year, 40% of the island's ground water and 25% of the island's surface runoff. These are crucial to providing the diversity in local animal and plant species, many of which are only found in Jamaica, as well as being the source for several rivers which provide water for the western end of the island. Dr. Koenig articulated the delicate "physiology" of this process and demonstrated how it is threatened by bauxite mining contracts which could also impact the indigenous Maroon communities which call the area home.

Dana Wusinich-Mendez, marine protected area and coastal management specialist of the United States' **National Oceanographic and Atmospheric Administration (NOAA)** then covered **Stony Coral Tissue Loss Disease** in a remote presentation. She detailed the underwater landscape of coral reefs and this dangerous recently emerging disease they face in the Caribbean. The importance of reef systems extends beyond the tourism industry to the protection of our shorelines, nutrient restoration in seas and oceans, providing reproductive and sheltering grounds for a diverse set of marine organisms and supporting the fishing industry. The bacterial infection, still of uncertain cause, is rapidly lethal to stony coral anemones, adding to the problem of reef loss from pollution, harmful seaweed growth and "bleaching. The condition responds to antibiotics, but the challenge is to deliver the treatment in the vast areas that could be affected.

Dr. Henroy Scarlett, PhD, Public Health specialist from the **UWI Faculty of Medical Sciences**, Mona gave a timely and instructive presentation on **novel mosquito control and transmission prevention methods** as we battle our current ongoing dengue outbreak here. He described sterile and *Wolbachia*-infected male insect techniques as well as novel standing water treatments. He also touched on the research into isoxazoline use in humans - Nexgard and Bravecto to the rescue! Treat an affected human community and stop mosquito transmission in its tracks - a dead mosquito can't provide its disease taxi service!

After lunch, this segued into **Session 3, Comparative Medicine** which began with veterinary pathologist **Dr. Patrick Craig's** presentation on mosquito-transmitted **heartworm disease (Dirofilariasis)** in dogs and cats. He covered the life cycle, clinical effects, treatment and prevention and touched on human infection. This led into physician **Dr. Aldyth Buckland's** presentation on Dirofilariasis in humans in its pulmonary and cutaneous forms. She emphasized how easily a diagnosis of human pulmonary dirofilariasis could be missed given its radiographic similarity to lung cancer lesions.

Next came **Dr. Aisha Jones**, research scientist and Executive Director of **Biotech Research and Development Institute**, who highlighted the ground-breaking work of **Dr. Henry Lowe** and their team in researching **Cannabis** and the anti-cancer properties of the **Ball Moss (Tillandsia recurvata)**, a common epiphytic plant which grows on tree branches and utility lines. She described the research in which it found to have a significant effect on prostate and other cancers. She noted that currently it is marketed as a herbal supplement as no claims can be definitively made without a full process of clinical trials. She also mentioned the several *Cannabis*-based products are currently on the market for their pain management and anti-seizure properties.

Veterinarian **Dr. Paul Cadogan** then shared his personal story of using **Ball Moss therapy** for his dog Misty who was diagnosed with **osteosarcoma** earlier this year. Under the guidance of Biotech, he treated her with Ball Moss extracts and *Cannabis* products, over a period of months which appeared to have blocked or at least inhibited tumour spread though not stopping the primary lesion resulting in the need to amputation the affected limb. Dr. Cadogan noted the similarities between canine and human paediatric osteosarcoma and the benefits that research into the more common canine form could reap for its management in humans, including current work being done on a canine osteosarcoma vaccine. He ended his presentation by introducing the audience to his dog Misty who was warmly received with the song "For she's a jolly good fellow".

The day ended with the topic of **Antimicrobial Resistance**. Veterinarian **Dr. Kevin Walker** highlighted the role that the use and abuse of antibiotics in a livestock in particular can have in AMR development and covered the work of the **Veterinary Services Division** in researching the prevalence of resistant Salmonella in poultry in Jamaica. He explained that the country is now engaged in an international tracking process under CAMEVET and the World Organization for Animal Health (OIE) with annual seminars for the Harmonization of Registration & Control of Veterinary Medicines. The aim is to monitor the use of antibiotics in various species which can help identify weaknesses in the system and allow for corrective measures to be implemented.

Physician **Dr. Alison Nicholson**, head of the Department of Microbiology, UWI Faculty of Medical Sciences, covered AMR in the hospital and clinic settings and articulated the procedures that are in place to monitor and control antibiotic use, with measures in place to protect the most critical drugs. She detailed the implementation of infection control procedures to prevent nosocomial infections. She noted that more needs to be done, but significant progress is being made.

During the proceedings, brief presentations by sponsors were made, including an address by Mr. **Mr. Anthony McKenzie**, Director of NEPA 's the **Environmental Management & Conservation Division** who discussed the agency's programmes related to climate change mitigation.

The conference, which ended with presentations of mementoes and gifts to speakers and moderators, proved to be an effective and collaborative means of circulating vital information to the necessary parties, a day well spent in the comfortable Alhambra Inn with wonderful food and staff. We certainly look forward to the next staging in 2020.