

OneHealthInitiatives-OneHealthdrugs communication

<https://onehealthinitiative.com/one-health-initiative-news/>

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One Health News

COST Action OneHealthdrugs: NEWSLETTER OCTOBER 2024 – END YEAR 2

[October 14, 2024](#)

NEWSLETTER OCTOBER 2024 FROM: <https://onehealthinitiative.com/wp-content/uploads/2024/10/NEWSLETTER-OCTOBER-2024.pdf> Contribution to newsletter by of Sheraz Gul (Fraunfher, Hamburg), Rohini Roopnarine (University of Grenada, Caribbean Islands) and Bruce Kaplan (One Health Initiative) SEE page 12 and 13-NEWSLETTER OCTOBER 2024 – END YEAR 2 Prof. Professor Rohini R. Roopnarine, (St. George's University of Grenada, WI) PROFESSOR ROHINI R. ROOPNARINE, DVM, M.PHIL, EdD,...

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News

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SEE page 12 and 13-NEWSLETTER OCTOBER 2024 - END YEAR 2

Prof. Professor Rohini R. Roopnarine, (St. George's University of Grenada, WI)

PROFESSOR ROHINI R. ROOPNARINE, DVM, M.PHIL, EdD, MRCVS (UK), Diplomate (Hon.) AVES/AVOHS, Member, National Academies of Practice (Vet. Med), Course Director, Veterinary Epidemiology & Public Health, School of Veterinary Medicine, True Blue campus, St. George's University, Grenada, WI, **Email:** rroopnarine@sgu.edu,



American Veterinary One Health Society

Formerly: [American Veterinary Epidemiology Society \(AVES\)](https://avesociety.org)

<https://avesociety.org>

Expert in Veterinary Epidemiology & Public Health and professional education in the field point out with a short summary some concepts.

Her participation to the COST Action OneHealth*drugs* is of unique relevance due to her expertise in the field of professional education and her capacity to interconnect the One Health concept with medicinal chemistry approaches within parasitic diseases, but valid for other diseases. She presented an important lecture, very well appreciated at the COST Action event in Rome at the joint event Paul Ehrlich medicinal chemistry network-*OneHealthdrugs*, 17 June 2024. She is part of the One Health Initiative (OHI) our communication partner in US ([Bruce Kaplan, DVM](#) as representative

scientist). We have some crucial connection interconnecting Europe and USA on One Health themes (<https://onehealthinitiative.com> and <https://www.onehealthdrugs.com>).

A Joint message for the European Researcher night form One Health Initiative (OHI) and COST Action OneHealthdrugs . 27 September 2024.

The Missing Professional in the Chemistry of Care: Medicinal Chemists and the One Health Philosophy

The concept of One Medicine focused on the interconnection between animal health and human health with the inclusion of the connection with ecosystem health, bringing the One Health term into being. However, another key player is key to elevating this transdisciplinary approach—the Medicinal chemist.

The environmental impact of medical waste derived from antivirals, antibiotics, anthelmintics and antifungals, amongst others, is a key threat to human and animal health. Importantly, developing antimicrobial-resistant pathogens is a key public health concern compounding the effects of human and animal contact with medical waste in effluent systems and other water sources. The skills required in designing compounds using the principles of green chemistry and implementing antimicrobial stewardship are tools of the chemist that can be used for educating and preparing future medical and veterinary graduates for a more eco-friendly approach to practice.

We wish that future efforts can mitigate the effects of climatic change on the occurrence of novel emerging diseases in diverse species. This effort will continue with the development of new and safer vaccines and therapeutics. *However, the outcome of this work can only be successful with the inclusion of the medicinal chemists into the conversation of interprofessional education. One Health approaches to antimicrobial stewardship could have significant benefits for elevating our approach to mitigating the effects of climate change and halting the progression of*

antimicrobial resistance and its threats to human health, animal health and ecosystem demise.

Suggested website

Medicinal chemists play a crucial role in the One Health approach, which emphasizes the interconnectedness of human, animal, and environmental health. Here are some key contributions they make:

1. **Drug Development:** Medicinal chemists design and synthesize new drugs to treat diseases that affect both humans and animals. This includes developing antibiotics, antivirals, and antiparasitic agents that can be used across species¹.
2. **Antimicrobial Resistance:** They work on creating new compounds to combat antimicrobial resistance, a significant One Health By developing drugs that are effective against resistant strains, they help protect both human and animal health².
3. **Environmental Impact:** Medicinal chemists also focus on the environmental impact of pharmaceuticals. They develop eco-friendly drugs and work on methods to reduce pharmaceutical pollution, which can affect wildlife and ecosystems³.
4. **Interdisciplinary Collaboration:** They collaborate with veterinarians, physicians, environmental scientists, and other professionals to ensure that new drugs are safe and effective for all species and do not harm the environment⁴.
5. **Public Health:** By contributing to the development of vaccines and treatments for zoonotic diseases (diseases that can be transmitted from animals to humans), medicinal chemists help prevent outbreaks and protect public health¹.
- 6.

Their work is essential in creating a holistic approach to health that considers the well-being of humans, animals, and the environment.

Provided by:



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