

Global experts to discuss how to prepare for infectious diseases like Ebola, tuberculosis

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How can Canada and the world better prepare for global health challenges such as the Ebola virus?

That's what eminent researchers and young investigators will discuss at an upcoming infectious disease symposium at the Executive Learning Centre, Seymour Schulich School of Business, York University, November 18-20.

The 11th annual International Consortium on Anti-Virals (ICAV) symposium, Infectious Diseases: Global Public-Health Challenges of the Next Decade, will put the challenges posed by several infectious diseases under the microscope, including the Ebola virus, the H7N9 influenza virus, MERS coronavirus and dengue viruses, as well as drug-resistant tuberculosis.

Dean Julio Frenk of the Harvard School of Public Health, an eminent authority on global health, will deliver the keynote address on the morning of Nov. 18. A former minister of health in Mexico, Frenk will argue that the global public health situation, exemplified by the Ebola crisis, calls for a total rethink of how the developed world approaches global health.

Nigeria successfully contained Ebola in their country - how did they do it? Professor Oyewale Tomori and Dr. Sunday Omilabu, both from Nigeria, will provide some answers on Nov 20. Tomori will also address the question "What does Africa need to do to prevent a recurrence of

this disaster?" in his keynote address that day.

There will also be a presentation on the National Microbiological Laboratories in Winnipeg, which discovered two of the three antibodies in the experimental Ebola treatment ZMapp, which was given to the first Ebola-infected United States missionaries. There will be a talk about the current state of development of ZMapp by the Canadian company that partnered with Mapp Biopharmaceutical Inc. and LeafBio (San Diego) to include the third antibody.

"Today's infectious disease challenges in our global village are unprecedented. ICAV has long recognized that the international community must establish the capability to detect, contain and treat infectious diseases promptly in both the developed and developing worlds," says symposium chair Dr. Jeremy Carver, ICAV president and CEO. "Solutions must be science-based and implemented in the context of respect and understanding of local cultures. The rise of antibiotic resistance, the increased ease of global transmission, the inadequate surveillance tools and the public policy deficits compound the problem."

The symposium co-hosted by ICAV and the York Institute for Health Research will also focus on new drug development, new approaches to therapies, and solutions to the social and cultural obstacles that impede implementation of relevant health policy and treatments. Two of the key objectives are to facilitate dialogue and accelerate the launch of, first, a novel anti-infective to combat multi-drug resistant tuberculosis and, second, the use of therapeutic antibodies to treat persons critically ill from infectious diseases

"This symposium is a welcome addition to York's educational agenda in global health. It augments the unique undergraduate program in [global health](#) launched by the Faculty this fall that will train the agents of change that will be giving keynote addresses at events like this in the

decades ahead," says Faculty of Health Dean Harvey Skinner.

Janusz Kozinski, founding dean, Lassonde School of Engineering, says "Solving the biggest challenges facing humanity takes more than technical talent working alone in silos. We need experts from every field to ignore traditional barriers between disciplines and work tirelessly together to find solutions. Diseases like Ebola are a human tragedy. We must confront it now or we will be at greater risk from these kinds of [infectious diseases](#) in the next month, in the next year and in the next decade."

Some of the other speakers will include:

Jane Heffernan, Centre for Disease Modelling, Department of Mathematics and Statistics, at York University; Zarir Udwadia, Hinduja Hospital, Breach Candy Hospital and Parsee General Hospitals, Mumbai, India; and Dirk Jochmans, Rega Institute for Medical Research, University of Leuven (KULeuven), Belgium; Dr Gustavo Dayan, Sanofi-pasteur; and Professor Subash Vasudevan, Duke University-Singapore. For a complete list of speakers, visit the ICAV website.

Udwadia, who will present the keynote address Nov. 19, works with some of the poorest patients in Mumbai and recently created a stir by publishing a report describing patients with "totally drug-resistant tuberculosis." He was urged to change the term to "extremely drug-resistant" TB or "XDR-TB." He will comment on the health infrastructure and regulatory failures that are leading to an explosion of XDR-TB in India.

Dr. Chris Miller of the University of British Columbia is working with Udwadia to evaluate a novel potential treatment for XDR-TB. He will describe his proposal in the presentation following the keynote speech.

Two billion people, roughly one third of the world's total population, are infected with tuberculosis bacilli, the microbes that cause TB. It is expected that about one in 10 of them will become sick with "active TB."

According to the World Health Organization, the incidence of dengue fever has grown dramatically in recent decades, with more than 2.5 billion people worldwide now at risk from dengue.

Three presentations on Nov. 19 will discuss efforts to contain dengue fever.

Dayan will present an update on the efforts of his company to develop a vaccine to protect against dengue infection. Vasudevan will talk about the efficacy and safety of CELADEN, a small molecule drug, now in human clinical trials.

Dr. Olaf Horstick from Heidelberg will present a contrasting viewpoint - urging control of the mosquito vector as the most effective approach to control of the disease.

ICAV is a Canadian not-for-profit drug development company founded in 2004 to discover and develop novel anti-viral therapies for neglected and emerging diseases, and to ensure their global accessibility to all those in need.

[For complete program, click here.](#)

Provided by York University

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