

CONFERENCE HIGHLIGHTS

The Canadian Association for HIV Research (CAHR) hosted the 27th annual CAHR conference in Vancouver, BC on April 26-29th, 2018. The conference brought together over 750 scientists, community members, clinicians, policy makers and those hoping to share and learn more about the state of HIV research in Canada. Co-chaired by Dr. Hélène Côté and Dr. Melanie Murray (University of British Columbia), the four-day conference was comprised of plenary sessions, panel discussions, topic-based research presentations, and ancillary meetings. The conference also provided opportunities for new researchers, including a New Researcher Workshop and poster presentations.

Under the theme of "Celebrating our Diversity: Uniting in the Response to HIV", this conference highlighted the diversity of work being done in local communities across Canada, as well as the leadership role that Canadian researchers undertake in translating new knowledge globally. Additionally, the conference provided space to share the growing knowledge around co-morbidities and how they interact and contribute to our understanding of HIV, including Hepatitis C infection and aging. CAHR 2018 also included concurrent interdisciplinary sessions to encourage different research streams to present their knowledge on the same topic through different lenses. Highlights from the key sessions are included in this document.

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Symposium: Individualized Management of People Living with HIV: Clinician and Patient Perspectives



In this session, Dr. Bertrand Lebouché of McGill University examined the value of individualizing antiretroviral (ARV) therapy for patients, as well as the need to balance the expectations of 'practitioner' and 'patient' for successful short and long-term outcomes. Using clinical study data, psychometric analysis and practical examples, Dr. Lebouché provided a new layer of knowledge regarding the importance of addressing each patient's needs about ARV therapy before selecting an antiretroviral combination to manage this lifelong infection. A discussion on data gaps and future research to better engage patients in their HIV care was also presented.



Special Session: A Patient Takeover? Integrating Program Science with Community-Based Peer Researchers

Hosted by James Watson and Francisco Ibanez-Carrasco from the HIV Research Team at the Centre for Urban Health Solutions at St. Michael's Hospital and with the support of the Canadian Alliance in HIV and HCV Knowledge to Action, this guided panel interview followed a set of presentations which described the pathways of peer researchers and their academic supporters in health intervention research using HIV as a preferred example. Advice was provided on how to support the work of peers, nonprofit organization staff, and the work of new and established health researchers. This work is not only highly technical, but also deeply symbolic and political. Together, the presenters: recognized awareness of the key intersections between Program Science and Community-Based Research (CBR); discussed the opportunities and challenges to adopt/ adapt CBR principles to intervention/implementation research in various fields of work; and summarized key elements to integrate CBR and Peer Research Associates (PRAs) in intervention/implementation research.

Special Session: An Exploration of Critical Questions in HIV Vaccine Research

Moderated by Drs. Jonathan Angel, Ottawa Hospital Research Institute and Michael Grant, Memorial University, this session explored two key questions in HIV vaccine research: 'What is the role/ importance of alpha4beta7 expression in HIV vaccine design/development?'; and 'Can we design a vaccine to induce broadly neutralizing antibodies against HIV?' Speakers Dr. Ralph Pantophlet of Simon Fraser University and Dr. Lyle McKinnon, University of Manitoba illustrated the critical challenges faced when working on HIV vaccine candidates and offered new insights and understanding on how to address these challenges.

The 2018 Red Ribbon Award (which is presented annually by CAHR for outstanding service to the cause of research in HIV/AIDS) was presented to Valerie Nicholson.





Plenary: Epidemiology & Public Health Sciences: Ending the HIV Epidemic in Canada by 2025, Getting to Zero – Can We Get There?



Epidemiology & Public Health Sciences plenary speaker Dr. Sean Rourke of St. Michael's Hospital described the advances, challenges and opportunities in HIV research that can inform an action strategy to end the HIV epidemic in Canada. Similarly, they discussed how program science can offer approaches and pragmatic solutions to end the epidemic in Canada. Using the program science framework and approach to illustrate how we can achieve the goal of ending the HIV epidemic in Canada in the next decade, Dr. Rourke highlighted the fact that we must connect with grassroots HIV/ AIDS community efforts and federal and provincial initiatives that are currently underway, as well as mobilize key stakeholders and health/public health sectors, thus establishing the leadership that is needed to accomplish these goals. Once in place, we will need to sharpen our focus and efforts, set goals and targets with metrics to measure our progress and success, and implement and scale-up coordinated solutions.

Plenary: Basic Sciences: Harnessing the Immune System to Eliminate and/or Control HIV

Basic Sciences plenary speaker Dr. Steven Deeks of the University of California described the role of the immune system in determining how HIV persists indefinitely during antiretroviral therapy. He also reviewed and critiqued the possibility for immunotherapeutic agents to reduce the size of the reservoir during effective antiretroviral therapy or control the reservoir in the absence of therapy. In addition, he described emerging combination immunotherapy approaches aimed at curing or controlling the virus, explaining that many of these approaches have emerged from recent advances in the management of cancer.

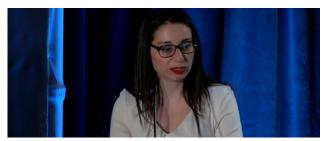
Symposium Evolution of HIV Treatment

HIV treatment has changed tremendously since the early AZT years. In this session, a series of speakers assessed those changes by reviewing the history of HIV treatment and exploring patients' unmet needs, thereby setting the basis for the ensuing discussion. The speakers answered the questions of: 'Until we find a cure, how do we move forward on antiretroviral therapy?'; 'Should we try to further improve triple therapy or expand two-drug regimens?'; and 'Has HIV treatment reached a fork in the road?'

Special Session: Issues for Impactful Community Practice

In recognition that the content, methods and/or approach of some important research conducted by community members may not neatly fit into any of the four existing CAHR Tracks, this abstract driven session featured a review of Community Practice Research methods. Throughout the session, a series of speakers: described recent research on the needs of people living with HIV from affected communities, including those who are working as peer researchers; discussed research on AIDS service organizations, other communitybased organizations, and on HIV-related health services; and examined ways to translate research into practice, including using community-based research methods.

Symposium: CTN's Postdoctoral Fellowship Awards Program



In this session, participants of the CIHR Canadian HIV Trials Network Postdoctoral Fellowship Awards Program, which offers career opportunities to outstanding young clinical scientists, presented highlights of the work they are undertaking.

Special Session: Women with HIV Matter! Exploring Models of Women-centered HIV Care in Canada



As moderated by Dr. Kate Shannon, University of British Columbia, and Dr. Angela Kaida, Simon Fraser University, this session described the key components of a successful women-centered HIV care model, explored creative examples of womencentered HIV care in clinical practice and research, and worked to identify ways to deliver women-centered HIV care in diverse environments. Participants highlighted the fact that women comprise 25% of people living with HIV in Canada. Research has shown that women living with HIV in North America are less likely to initiate and be adherent to anti-retroviral therapy than their male counterparts, and less likely to achieve viral suppression. Women have unique sexual and reproductive health needs and are impacted by gender-specific social-structural determinants of health, yet few models of women-centered HIV care exist in Canada.



Plenary: Clinical Sciences: HPV-Associated Cancers in HIV-Infected Men and Women: The Promise and the Challenges of the Future

Clinical Sciences plenary speaker Dr. Joel Palefsky of the University of California described current approaches to prevention of HPV associated cancers in HIV-infected men and women and summarized the factors that may increase or decrease the incidence of HPV-associated cancers in HIV-infected men and women in the future. Dr. Palefsky also illustrated that with improved longevity due to effective antiretroviral therapy (ART) for HIV, cancer has become one of the most common causes of mortality among HIV-infected men and women. The prevalence and incidence of anogenital HPV infection are greatly increased in HIV-infected men and women, in comparison with HIVuninfected individuals. Likewise, the incidence of HPV-associated cancers, including anal cancer, is increased in HIV-infected individuals, and is especially pronounced in settings where screening and treatment of high-grade squamous intraepithelial lesions (HSIL), the cancer precursor lesion, are not routinely performed. As the HIV epidemic matures, a variety of competing factors may influence the future incidence of HPV-associated cancers. These include the effect of long-term treatment with effective ART for HIV, earlier initiation of ART, aging of the population, premature aging associated with HIV infection, HPV vaccination, and changes in screening and treatment for HSIL.





Plenary: Social Sciences: So, What Now? Working Together to Address Structural Inequities and Harms of HIV and Overdose



Social Sciences plenary speaker Dr. Bernadette Pauly of the University of Victoria identified key challenges related to the implementation of harm reduction initiatives in the current fentanyl poisoning epidemic, proposed new directions for research that addresses structural inequities and disrupts stigma, and assessed new opportunities for the development of community-based participatory research. Dr. Pauly's focus centred on the importance of addressing structural inequities that produce harms of HIV and overdose, thus disrupting stigma and promoting health equity, as well as new opportunities for the development of community-based participatory research to inform diverse community-based solutions.

Symposium: Canadian Immigration Policy and Health Care Pertaining to HIV and Viral Hepatitis



This panel session, moderated by Dr. Curtis Cooper of the University of Ottawa, explored the steps that nearly 250,000 individuals are required to undertake each year to successfully immigrate to Canada. Specifically, Canada's immigration policy as it pertains to those living with HIV, Hepatitis B and/or Hepatitis C was examined. Together, speakers, panel members and the audience discussed the challenges faced by those living with HIV and viral hepatitis as they engage with the health care system upon arrival. Speakers included George Giovinazzo and Dominique Elien-Massena from Immigration, Refugees and Citizenship Canada.







Special Session: Microbiome and HIV

Moderated by Dr. Ralph Pantophlet of Simon Fraser University, this session included presentations from a series of speakers that: summarized key aspects of the current state of microbiome research, with emphasis on how the microbiome affects immune system development and its regulation; described the variability in the microbiome of HIV-1 infected individuals and research used to study host and microbial factors that affect HIV pathogenesis; and interpreted how differences in the microbiome can dictate differences in immune responses to HIV-1 infection and influence strategies for therapeutic and preventative interventions.

Special Session Perspectives on "Twoeyed Seeing", Weaving Indigenous and Western Ways of Conducting HIV Research

The "Two-eyed Seeing" Special Session highlighted and discussed recent advances in this novel way of conducting HIV research. Together, speakers identified the skills related to the creation and use of "Two-eyed Seeing" knowledge that is relevant and important to the Indigenous community. As well, they examined methodology that will allow for the creation, gathering, distribution and use of knowledge and information in the Indigenous community's own research.



Plenary: Implications for the Front Lines

As led by CATIE, the 'Implications for the Front Lines' session utilized a program science lens to highlight evaluated HIV programs presented at CAHR. These programs will have key implications for community programming that use the 90/90/90 goals as their framework.

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CAHR-CANFAR Excellence in Research Award

These CAHR-CANFAR Excellence in Research Awards are bestowed annually to mid-career researchers who while at the prime of their careers have achieved a track record of excellence and demonstrated a commitment to improving the lives of those living with HIV with or at risk.

- The 2018 winners of the CAHR-CANFAR Excellence in Research Awards are:
- Social Sciences: Dr. David Brennan, University of Toronto
- Epidemiology-Public Health: Dr. Ann Burchell, Li Ka Shing Knowledge Institute, St. Michael's Hospital
- Basic Sciences: Dr. Adam Burgener, University of Manitoba
- Community-Based Research: Dr. Winston Husbands, OHTN
- Clinical Sciences: Dr. Darrell Tan, University of Toronto

Awarded since 2017, the CAHR-CANFAR Excellence in Research Awards winners are honoured each year at the opening ceremonies of the CAHR Conference to highlight the achievements of investigators in all pillars of HIV research. For more information on the CAHR-CANFAR Excellence in Research Awards, please see:

https://www.cahr-acrv.ca/excellenceresearch-awards/



28th Annual Canadian Conference on HIV/AIDS Research – CAHR2019

May 9-12th, 2019 in Saskatoon, SK

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www.cahr-acrv.ca

The Canadian Association for HIV Research (CAHR) gratefully acknowledges the companies and organizations which contributed to the 27th Annual Canadian Conference on HIV/AIDS Research (CAHR2018). Their sponsorship and support make it possible for CAHR to hold the annual conference.

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