

CANFAR'S 30TH YEAR

As CANFAR approaches its 30th anniversary, take a look at the impact the foundation has had on the Canadian research landscape.

Investment in research: **\$20M+**

Research initiatives funded: **400+**

To learn more about CANFAR funded research, visit CANFAR.com/Research

SPECIAL RESEARCH EDITION



Dr. Stanley Read, Chair of the CANFAR Scientific Advisory Committee and consultant at SickKids Hospital.

DECADES OF LEADING EXCELLENCE IN RESEARCH

CANFAR's scientific advisory committee marks 30 years of research excellence

When **Dr. Stanley Read** first joined CANFAR's Scientific Advisory Committee nearly 30 years ago, the outlook for a person newly diagnosed with HIV was dire. At the time, the diagnosis of HIV was often a death sentence.

"It was pretty bleak," Dr. Read recalls.

The first cases of what would eventually be known as AIDS first appeared in North America in 1981. That June, five previously healthy, gay men in Los Angeles appeared to have a rare lung infection. Within days, other reports of similar cases of this and other rare opportunistic infections called Kaposi's Sarcoma began to trickle in across the United States.

By the end of the year, there were 270 reported cases of a condition researchers had begun calling GRID (Gay-Related Immune Deficiency). It wasn't until the following year that researchers at the Center for Disease Control identified the disease as Acquired Immune Deficiency Syndrome, or AIDS. There was no treatment, without which a patient's life expectancy was short.

"There was a limited understanding of what was going on, both in terms of local, Canadian, and international transmissions and disease," says Dr. Read. "There were limited diagnostics and no effective treatments."

By 1987, there was still no known treatment, nor any known prevention interventions.

Thousands had already died from the disease, and thousands more were being infected every day. In response to the burgeoning global epidemic, community members formed the Canadian Foundation for AIDS Research to raise money to fund research to fight the disease. Organizers established a scientific advisory committee (SAC) to review and select the best research from the flood of applications that came to CANFAR for funding.

“It was pretty bleak. There was a limited understanding of what was going on.”

A year later, Dr. Read – at the time, Director of the Infectious Disease Training Program at Toronto's Hospital for Sick Children – joined the newly formed SAC, which, to this day, is comprised of leading Canadian researchers in the field of HIV, AIDS, and other infectious diseases. Shortly afterward, he assumed the role of Chair, alongside **Dr. Mark Wainberg**, another prominent infectious disease researcher based at McGill University in Montreal.

"The SAC's role is to keep up-to-date..."

Continued on pg. 2...

CANFAR CALENDAR

Here are the key events coming up in our calendar.

CAHR 2017 | APR 6-9

The annual CAHR Conference is the premier gathering in Canada for those working in all disciplines of HIV/AIDS research, as well as policy makers, persons living with HIV, and other individuals committed to ending the pandemic. This year's conference will be held in Montreal, QC.

AIDSBEAT "LEGENDS" | MAY 26

One night a year, the top legal minds in Toronto clash on-stage, not in the courtroom – all in support of CANFAR. The 21st editions of this battle of the bands will held at the Church at Berkeley in Toronto, ON. Tickets and info at: www.AIDSbeat.ca.

CAN YOU DO LUNCH?

OTTAWA | JUNE 7

TORONTO | JUNE 12

Gather with Toronto and Ottawa's most influential philanthropists over lunch with a guest speaker and silent auction to raise awareness and funds for Canadian HIV and AIDS research. Purchase your tickets online at: www.CANFAR.com/events

CANFAR DINNER AT THE TELUS SKY GARDEN

VANCOUVER, BC | JUNE 2

www.CANFAR.com/events

'80S PROM | JUNE 10

CANFAR's 30 Under Thirty will be hosting their annual fundraising event, an 80s-themed Prom party! More details to come. For tickets and information, visit: www.CANFAR.com/80sProm

CANADIAN ROOTS EXCHANGE NATIONAL YOUTH CONFERENCE

WINNIPEG, MB | MARCH 27-30

CANFAR will be in Winnipeg at the end of this month to deliver a community workshop to indigenous and non-indigenous youth to explore how different communities access local youth-focused supports. CANFAR will also be collaborating with Resource Assistance for Youth, Inc. to deliver a workshop to street-involved youth.

NATIONAL EDUCATION CONFERENCES

PRINCE ALBERT, SK | APRIL 26-28

ST. JOHN'S, NL | MAY 4-6

CANFAR will be distributing teaching resources on HIV, resiliency, and global issues at two national education conferences in April and May.

...Continued from Pg. 1

...on current research and research direction, to be able to choose from many excellent applications," Dr. Read explains. "There are many excellent researchers in Canada in various important areas, which directly or indirectly have the potential for an impact on HIV infection and disease."

Over three decades of work, the impact on research has been tremendous. An HIV diagnosis is no longer a death sentence thanks to advances in treatment – advances that CANFAR-funded researchers directly contributed. The SAC recommended funding for research that discovered a key component of the drug treatment that is keeping many people alive today. The SAC has also identified Canadian research that has led to findings that have nearly eliminated the risk of HIV transmission between a mother and her baby and an HIV vaccine

candidate that can reduce, and sometimes prevent, HIV progression. All in all, the SAC has directed over 400 research projects in prevention, treatment, care, and cure.

Despite these accomplishments, there is still much to be done.

"Research will continue to be important in all spheres for the foreseeable future," he says, "including research into factors that are important in finding a cure."

"Even when a cure is found, there will still be work to do."



KEVIN HOLLETT

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LETTER FROM THE PRESIDENT

As CANFAR enters its 30th year, it's an opportune time to reflect on what we've accomplished and establish bold and strategic plans for our future.

In 2016 CANFAR reached a significant milestone: we surpassed \$20-million in funded research. This supports the more than 400 research projects that have led to tremendous breakthroughs in HIV treatment and prevention – and brought us closer than ever to a cure.

I'm grateful and humbled by the significant contributions of CANFAR – and the thousands of donors and supporters who have been with us throughout the decades -- to the body of research that has reversed the tide of the AIDS epidemic.

Our researchers have worked on successful initiatives ranging from treatment that suppresses the HIV virus and keeps people living with HIV alive and healthy, to strategies that prevent mother-to-child transmission. They've contributed to strategies to prevent new infections and engage individuals into life-saving care. Their findings have broadened our understanding of the virus and progressed other health-related research in the fields of cardiovascular diseases and cancer. In short, CANFAR has helped transform health research, both domestically and globally.

The dozens of dedicated and brilliant members of our Scientific Advisory Committee have provided incredible leadership and expertise in identifying research -- and

researchers -- that will have this type of impact (you can read more about the SAC on page one). I'm incredibly grateful for their tireless contributions. Along with our Board of Directors, they've helped set the strategic direction of our funded research. Prevention, treatment, cure: these are the areas CANFAR has focused our funding for the greatest impact.

Despite the many accomplishments, we know there is still a tremendous amount of work to be done. More than 36 million people are living with HIV. Here in Canada, someone is infected with HIV every three hours. The number of lives still affected by this disease is startlingly. The tide has indeed turned, but the epidemic is far from over.

Now is the time for CANFAR to grapple with a question that will define both the future of the research we fund and the course of the epidemic: how do we get from prevention to cure?

In the coming months, CANFAR will engage with research and community leaders from across the country to help us answer this question. I'm eager to get started and to report back to you on our progress.

As we enter our fourth decade as leaders in our field, the time is now to establish a bold vision for the future of HIV and AIDS research in Canada.



CHRISTOPHER BUNTING

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RESEARCH HIGHLIGHT:

ENGAGE USES SOCIAL NETWORKS TO STUDY HIV PREVENTION

In Canada, nearly half of new HIV infections occur in gay, bisexual men, and other men who have sex with men (MSM). While HIV continues to disproportionately affect this population, research – and funding for research -- has not kept pace.

In order to better understand HIV prevalence and other sexually transmitted infections (STIs) – and how to prevent them -- in these communities, CANFAR has partnered with the Canadian Institutes for Health Research (CIHR) and the Ontario HIV Treatment Network (OHTN) to fund a group of Canadian researchers and community organizations to launch Engage - a multisite study that includes new HIV prevention interventions for MSM.

Over the next five years, Engage will lead research studies to help us understand how new knowledge and options for testing, treatment, and prevention are changing the landscape of HIV with the intent to use the findings to inform future HIV intervention strategies.

The disproportionately high rate of HIV infection in gay, bisexual men, and other men who have sex with men is particularly evident in Canada’s largest cities: Montreal, Toronto, and Vancouver.

As each of these cities is in a different province, Canada’s provincially based health care system has led to the implementation of different policies to address the HIV epidemic and help prevent new infections in each of these cities. This disparity is compounded by a relative dearth of research

allowing for direct comparisons between the three cities.

Understanding how HIV is transmitted

- Many recent advances in HIV research are changing the way we understand HIV transmission, prevention, and treatment - especially among MSM.

Early HIV treatment has been shown to increase health outcomes and significantly lower chances of HIV transmission, and new options to prevent HIV transmission such as PEP (post-exposure prophylaxis) and PrEP (pre-exposure prophylaxis) are changing the way we think about safer sex. HIV testing is becoming easier, faster and able to detect HIV infection sooner. As a result of these advances, a new generation of young gay, bisexual, and other men who have sex with men are growing up with no experience or memory of the AIDS crisis. And yet many experience social, cultural, and structural issues that continue to create conditions where they may more at risk for HIV transmission than others.

Engage research will also focus on health issues beyond HIV, including sexual health and STIs, substance use and mental health. These are issues that directly or indirectly affect all in gay, bisexual men, and other men who have sex with men.

Using social networks - Engage recruits its participants based on a social network model. The only way to participate in Engage is to be invited by someone who has already participated in the study. New participants are always the friends and acquaintances of former participants.

Here’s how it works: initial participants are selected after consultation with the Engage community committee members in each site. Each of these participants is encouraged to invite someone from their social network to participate by giving them an Engage invitation. Participants receive 50 dollars for taking part in our study, and an additional 15 dollars for every guy they refer who also participates in the study.

This “snowball” recruitment makes it possible to reach various groups and individuals, a form respondent driven sampling that provides statistically significant data which is invaluable for sexual health research.

CANFAR’s support - Through its Legacy Fund – an initiative bringing together Canadians to focus on a common goal of

funding research for HIV prevention among MSM – CANFAR is investing \$500,000 to support this critical research, partnering with the Institute of Gender and Health, CIHR, and OHTN.

For more information about Engage, or to find out how to participate in the study, visit www.engage-men.ca.

BY THE NUMBERS*

49%

of HIV-positive Canadians are gay, bisexual, queer and other men who have sex with men

18%

of HIV-positive gay, bisexual, queer, and other men who have sex with men don’t know their status

79%

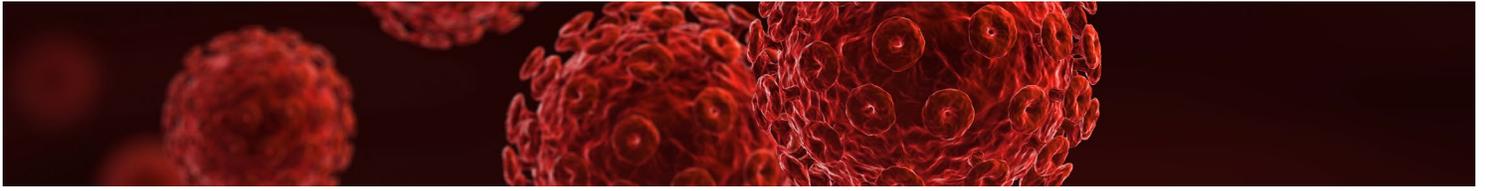
of all gay and bisexual men in Canada live in British Columbia, Ontario, and Québec

*Sources: Statistics Canada, Public Health Agency of Canada



KYLE WINTERS

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DISPELLING MYTHS RELATED TO HIV AND AIDS

CANFAR is committed to raising awareness and fighting stigma associated with HIV and AIDS

Stigma and misinformation have continuously challenged the HIV and AIDS community since the very first cases in North America reported in the early 1980s. Despite incredible advances in HIV prevention, treatment, and care, those misconceptions remain deeply embedded in our collective psyche.

More than one quarter of all new positive diagnoses in Canada are among youth. Many of these could have been prevented with more knowledge about HIV prevention and testing. CANFAR remains committed to fighting stigma toward those living with HIV.

Because of misinformation, there are some common questions that are still asked today, and addressing them is a simple way to increase awareness and broaden understanding of HIV and AIDS. Here are some of those questions with up-to-date answers.

1 IS HIV A DEATH SENTENCE?

HIV/AIDS is the deadliest pandemic in recent history: more than 35 million people have died from AIDS-related illnesses - twice as many people as that killed during the first World War. Advances in treatment has significantly transformed the lives of people living with HIV.

CANFAR-funded researchers were part of the team that contributed to advances in HIV treatment that enables people living with HIV to live longer and healthier lives. Today, a person who takes daily treatment medication, known as antiretroviral therapy (or ART), has a very low risk of developing AIDS and can live a long and fulfilling life. In fact, people diagnosed with HIV can expect to live into their 70s if they remain on treatment.

2 IS USING CONDOMS THE ONLY WAY TO PREVENT HIV?

Condoms are very effective at preventing HIV infection, as well as other sexually transmitted infections. However, there are more options than condoms to prevent HIV. People who have an elevated risk for contracting HIV have the option of taking a new drug called PrEP (Pre-Exposure Prophylaxis) that prevents contracting HIV when taken daily. These individuals may have a partner who is HIV positive, are injection drug users, or have unprotected sex with people without knowing their partner's HIV status. PrEP in combination with condom use is an effective means of preventing HIV infection.

Treatment that keeps people living with HIV alive and healthy also reduces the risk of transmitting the virus by 96%. They work by suppressing the virus in an HIV-positive person to levels that cannot be transmitted to another person.

CANFAR is currently funding research that is exploring methods for making PrEP more accessible in Canada.

3 CAN YOU HAVE A HEALTHY BABY IF YOU ARE HIV-POSITIVE?

The transmission of HIV from a HIV-positive mother to her child during pregnancy, labour, delivery, or breastfeeding is called mother-to-child transmission. In the absence of any medication, transmission rates range from 15% to 45%. However, mother-to-child transmission can be virtually eliminated with proper treatment for both mother and child. Thanks to medication, the number of children born with the virus worldwide has been cut by 60% since 2000.

CANFAR is currently funding research evaluating drugs that prevent lactation in mothers living with HIV, thereby eliminating another risk of transmission between mother and child.

¹ Public Health Agency of Canada, 2014-2015

² Rowe, Janet. *Deadly Pandemics through History*. UofT Magazine Fall 2013. <http://magazine.utoronto.ca/feature/history-of-pandemics-bubonic-plague-influenza-hiv-aids-smallpox/>

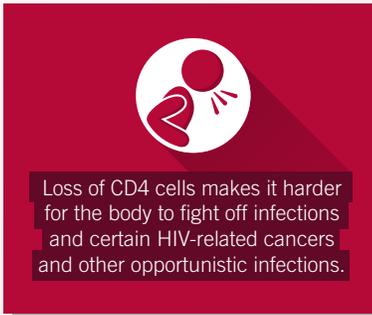
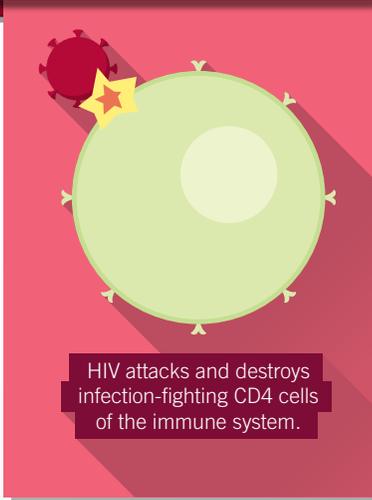
³ HIV Prevention Trials Network, 2011

⁴ World Health Organization. *Mother to Child Transition*. 2017. <http://www.who.int/hiv/topics/mtct/en/>

HIV TREATMENT

There is no cure for HIV, but treatment is ensuring that people living with HIV can have long and healthy lives. HIV can be transmitted through unprotected sex, needle sharing, or from mother-to-child before or during birth. Treatment not only boosts the immune system, it also reduces chances of transmission to negligible by slowing the growth of HIV and keeping the amount of virus in the blood low.

HIV WITHOUT TREATMENT



HOW HIV TREATMENT WORKS

Antiretroviral therapy (ART) is the use of medicines to treat HIV infection and prevent it from developing into AIDS.

ART prevents the virus from multiplying, reducing the amount of HIV in the body.

A person's daily ART regimen usually includes three or more HIV medicines from at least two different HIV drug classes. In the absence of a cure, it is a life-long regimen.

IMPACT OF HIV TREATMENT

HIV TREATMENT REDUCES THE RISK OF TRANSMITTING the disease by **96%**

TREATMENT HAS EXTENDED LIFE EXPECTANCY OF YOUNG CANADIANS DIAGNOSED WITH HIV TO THEIR **EARLY 70S**

45% MOTHER-TO-CHILD transmission REDUCED FROM NEARLY 45% TO **5%**

SOURCES
The New England Journal of Medicine, "Prevention of HIV-1 Infection with Early Antiretroviral Therapy", July 11, 2011
National Institutes of Health, AIDSinfo.NHL.gov, September 13, 2015
US Department of Health and Human Services, "Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents", April 8, 2015
Plus One, "Closing the Gap: Increases in Life Expectancy among Treated HIV-Positive Individuals in the United States and Canada", December 18, 2013
World Health Organization, "Mother-to-child transmission of HIV", WHO.int/hiv/topics/mct

INVESTING IN RESEARCH: CANFAR is investing in HIV research to improve the effectiveness, limit the side effects, and expand access to life-saving treatment.

Find out more at CANFAR.com.

YES! I want to support Canadian HIV and AIDS Research!

I would like to make a **SINGLE** contribution in the amount of:

- \$50 \$100 \$250 \$500 \$1000 Other: \$ _____

I would like to make a **MONTHLY** contribution in the amount of:

- \$50 \$100 \$250 \$500 \$1000 Other: \$ _____

To make a donation to CANFAR, please visit

CANFAR.com/DONATE

Has your address changed? Please update your information here: CANFAR.com/DONATE

Name: _____
Address: _____
City: _____ Province: _____ Postal Code: _____
Tel: (____) _____ E-mail: _____

PAYMENT OPTION #1

I have enclosed a cheque payable to "CANFAR"

PAYMENT OPTION #2

Please charge my donation to my credit card:

VISA MASTERCARD AMERICAN EXPRESS

Name on Card: _____

Card Number: _____

Expiry Date: _____

CLICK ME!

CORPORATE PARTNERS

There are more than a hundred corporate, media, and private partners doing incredible work behind the scenes to support HIV and AIDS research and awareness. These individuals and groups make it possible for CANFAR to fund research initiatives, host fundraising events, and lead awareness programming. We shine the spotlight on two of them in this issue of Catalyst.



TORONTO LIFE

We're so pleased to welcome Toronto Life to the CANFAR family. In 2016, Toronto Life signed on as a media sponsor for Bloor Street Entertains, our annual gala and Canada's largest fundraising event in support of HIV and AIDS research. Devoted to coverage of living in Canada's wealthiest and most dynamic metropolis, Toronto Life helps readers understand and engage in the life of their city. Welcome aboard, Toronto Life!



GREAT-WEST LIFE, LONDON LIFE AND CANADA LIFE

Great-West Life, London Life and Canada Life (GWL) have been long-time and generous supporters of CANFAR. GWL has provided funding for CANFAR's innovation research grants. Most recently, GWL funded research by **Dr. Sarah Flicker**, who is exploring the differences in HIV community engagement programs through photography. Keeping people living with HIV on treatment remains one of the greatest challenges to service providers; Dr. Flicker's research could provide insights on best practices for shaping accessible care. Our sincerest thanks for supporting this work.

DEBBIE OSSKE
 Director of Events & Stewardship
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CELEBRATING OUTSTANDING SUPPORT FOR HIV AND AIDS RESEARCH

CANFAR recognized individuals and organizations for their outstanding work supporting HIV and AIDS research at a reception hosted by the Four Seasons Hotel in December.

"CANFAR is pleased to honour so many who have dedicated their time, energy, and resources to the fight against HIV and AIDS, and in particular to supporting this fight through research," said **Christopher Bunting**, CANFAR President. "The dedication of these individuals and organizations—along with our partners and friends across the country—has led to advances in treatment that have transformed HIV from a death sentence, helped raise awareness for testing and prevention, and contributed to the fight against stigma."

Among those honoured by CANFAR were **Donna and Gary Slaughter** of the Slaughter Family Foundation. They received Bluma Appel Lifetime Achievement Award. The late Bluma Appel founded CANFAR, and was a noted philanthropist and volunteer who was awarded the Officer of the Order of Canada in 2001.

Since 2008, the Slaughter Family Foundation has supported numerous national charities aimed at protecting human rights and improving health outcomes of marginalized people and youth. Last year the Slaughts supported CANFAR's educational programming through a \$1-million donation over four years to increase awareness of HIV among vulnerable youth populations in Canada.

This year's award recipients:

- | | |
|---|--|
| <p>Bluma Appel Lifetime Achievement Award
 Donna and Gary Slaughter (Slaughter Family Foundation)</p> <p>Chairman's Award
 Nada Ristich (BMO Financial Group)</p> <p>President's Award
 Sylvia Mantella (Mantella Corporation)</p> <p>President's Nod Award
 Kavita Israni-Winger</p> <p>Volunteer of the Year Award
 Armando Mendonca</p> <p>Award for Innovation
 Todd Kjargaard (Jackie O Floral Affairs and Event Design)
 Shawn Hewson (Bustle Clothing)
 John MacBride (Seneca College)</p> | <p>CANFAR Event Award
 Air Canada (Bloor Street Entertains)</p> <p>Red Ribbon Award
 Molly MacKenzie (CANFAR Club President – Dalhousie University)</p> <p>Rising Star Award
 Sophie Hamr (30 Under Thirty)
 Michael Hemsworth (30 Under Thirty)
 Michael Gennis (Ottawa Legacy co-chair)
 Jason Sordi (Ottawa Legacy co-chair)</p> <p>In addition to the awards, 11 volunteers were recognized for their contributions to CANFAR in 2016:
 Faduma Ali, Lauren Butler, Afrin Chowdhury, Rana Kamhawy, Anton Lunyov, Michael Manno, Vasiliki Marapas, Brent Murphy, Amir Shafie, Sivakamy Thayaalan, and Alyssa Volk.</p> |
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"CANFAR is pleased to honour so many who have dedicated their time, energy, and resources to the fight against HIV and AIDS, and in particular to supporting this fight through research," said **Kyle Winters**, CANFAR Vice-President and Chief Operating Officer. "We're so deeply grateful to all of our award recipients, and to the entire community that supports the work of CANFAR."

CANFAR has recognized the work of supporters in the HIV and AIDS community since 2007.