



BC-CfE Laboratory Director Dr Zabrina Brumme with Timothy Brown

BC Centre for Excellence in HIV/AIDS invites the “Berlin Patient”, the first person to be cured of HIV, to Vancouver

“It’s an extraordinary story,” begins Dr. Zabrina Brumme, Laboratory Director at the BC Centre for Excellence in HIV/AIDS (BC-CfE) and Professor of Health Sciences at SFU.

Timothy Brown, known worldwide as the “Berlin patient” and the first person to be cured of HIV, was introduced by Dr. Brumme to a conference room in Vancouver. Attendees included community members, researchers, scientists, healthcare workers, post-doctoral fellows, and media. Dr. Brumme kickstarted Brown’s talk with an overview of the science and the possibilities for an HIV cure. She emphasized while Brown’s cure is inspiring, it is not a safe, scalable solution for people living with HIV around the world. However, Dr. Brumme pointed out, hearing the personal stories of people impacted by HIV, create opportunities for scientists and those with lived experience to come together in dialogue to move closer to an HIV cure.

Timothy Brown was born and raised in Seattle and moved to Europe in 1991 when he was 25 years old. He settled in Barcelona and decided to study in Europe, where he found getting an education was affordable. Timothy quickly adapted to his new home and developed an active social life, meeting and working with people from all over the world.

At this stage of his life, Brown says his idea of safe sex “was not safe at all”. One of his partners, who was living with HIV, recommended Timothy get tested – he tested positive. Brown says the news stunned and upset him and he struggled to share his new status,

especially with his family. Doctors put him on anti-retroviral medication, AZT (azidothymidine) as treatment, initially starting him on a low dose.

“Basically, I forgot I was HIV positive,” he says. He went for a checkup once a month and took his medication regularly but went on to resume his work and social life. Brown met someone who was also living with HIV and entered a long-term relationship.

In 2006, Brown’s health took a turn when he was in New York for a wedding and realized he was exceptionally tired. He didn’t think much of it, but once he was back in Berlin, he noticed it took him longer than usual to ride to work. Shortly thereafter, as he rode his bike to a restaurant, he was only able to get halfway through his journey. After seeing a doctor, he found out he had anemia – and a very low blood cell count. He proceeded to get a transfusion but was eventually referred to an oncologist.

After living with HIV for about 10 years, Brown received a diagnosis of acute myeloma leukemia, unrelated to his HIV. “It was like my second death sentence,” he says. When Brown was diagnosed, he was told he had two years to live. Doctors suggested chemotherapy.

The usual chemotherapy approaches to treat the leukemia were unsuccessful – leaving doctors with one last option – a bone marrow transplant which came with its own set of risks. Brown was introduced to pioneering hematologist, Dr. Gero Hütter, who was aware of a natural human genetic variant carried by a rare group of human beings, making them resistant to

most strains of HIV. He thought it may be possible to find a bone marrow match which had this resistance. Only one per cent of Northern Europeans have two copies of this mutated gene, but Dr. Hütter found a donor in the registry without too much difficulty.

Dr. Hütter suggested a bone marrow transplant from such a rare donor could cure both his HIV and leukemia. “I thought he was crazy”, Brown laughs.

Dr. Hütter was right – the transplant cured the HIV by 2009. The rest is medical history. A paper published in 2009 by Dr. Hütter and his colleagues did not mention the word “cure”, but by 2011 the word was finally used in a paper titled: *Evidence for the cure of HIV infection by CCR532/32 stem cell transplantation*.

Two years after the last bone marrow transplant, Timothy made a petition to get to know his anonymous donor. “I don’t know if he knows he made history,” Brown says. “I know nothing about him, except that he was studying in New York and he was German.”

“Mr. Brown’s case shows us it is possible to cure HIV, but we need to do it safely,” says Dr. Brumme. She spoke at the event about HIV cure research globally, including how Mr. Brown’s cure has inspired research into gene therapies as part of the strategy to cure HIV.

The cure for HIV will not be found in one place, by one person, Dr. Brumme insists. “The global community is in this fight together.”



» “The story of Timothy Brown gives us hope and an opportunity to keep conversations about stigma and prevention alive in BC and around the world while we at the BC-CfE and our partners march towards a cure.”

— Dr. Julio Montaner, BC-CfE Executive Director & Physician-in-Chief

BOOST Collaborative hosts final learning session

The BC-CfE's BOOST (Best practices in Oral Opioid Agonist Therapy) Collaborative hosted its fourth learning session of the year-long project, drawing collaborators from across BC. BOOST participants have one important goal in mind: to increase the number of their clients retained on potentially living-saving Opioid Agonist Therapy (OAT).

During the day-long session, participants heard from healthcare professionals, Indigenous Elders, families and individuals affected by opioid use disorder (OUD), where topics, including Indigenous health and barriers to access, were top of mind.

Dr. David Tu, a BOOST participant and panel contributor, is a family physician with over 19 years' experience working with the Indigenous community in the Downtown Eastside of Vancouver.

"25 percent of the population in Downtown Eastside identifies as Indigenous. They have a 5-fold increase in risk of experiencing an overdose from substance use, compared to non-Indigenous populations," said Dr. Tu. "In working with Indigenous people, they have their own context, experiences, wishes and dreams."

Dr. Tu urged participants to remember the words of Elder Shane Point, "Necamat Shqwaluwun", which translates as "One heart, one mind", which helped him understand how best to engage with this community.



A second discussion panel focused on how healthcare workers can help clients overcome the barriers they face initiating and retaining on OAT. A number of issues were addressed, including the stigma faced by clients and system-level restrictions.

Guy Felicella, a former DTES resident and Peer Advisor for BOOST, emphasized the value of the peer component in helping clients along their journey. "When I wanted help, I went to a person who got out and changed their life. Having that component in itself, makes the clinic more inviting and easier to access for those with OUD."

While closing the event, Dr. Cole Stanley, BOOST's Medical Lead, discussed the importance of the September learning session as the project draws to a close. "This learning session is such an important milestone in the provincial BOOST Collaborative's calendar. It is an opportunity to reinforce, reflect on, and share the significant strides we have taken in improving the way those with opioid use disorder are engaged and retained on treatment in BC today. I am confident the participants are taking with them a wealth of knowledge and quality improvement experience."

The BOOST Collaborative's closing conference will take place on 21 November 2019, where the final results of the project will be presented.

PROFILE

Welcome Dr. Nancy Yu



Dr. Nancy Yu, Assistant Director, Epidemiology and Population Health at the BC Centre for Excellence in HIV/AIDS (BC-CfE), feels like her new job is a dream come true. She says she is fascinated and excited about the projects underway at the BC-CfE, especially the application of the BC-CfE's made-in-BC **Treatment as Prevention**® approach to other diseases.

"I am working with wonderful, supportive people at the BC-CfE, in a beautiful province and with leaders in the research and clinical practice space," says Dr. Yu. "It really doesn't get any better."

Dr. Yu has spent nearly two decades conducting observational and clinical epidemiology studies, allowing her to generate real world evidence and handle all aspects of research. While she began her career studying clinical medicine in China, Dr. Yu found she was more interested in medical psychology, leading her to complete a PhD in behavioral neuroscience. Once she arrived in Winnipeg, her attention shifted to the study of human population, including the study of sexually transmitted diseases, nutrition, obesity and chronic diseases. In the Department of Public Health for over 18 years, Dr. Yu managed a portfolio of research projects, using administrative health insurance and public health surveillance databases. In the Centre for Global Public Health at the University of Manitoba, Dr. Yu conducted program implementation research and managed international health projects.

"The BC-CfE combines proven, evidence-based strategies with an innovative spirit to better the health of all British Columbians," says Dr. Yu. "At the end of the day, the Centre is a leader in addressing all kinds of barriers

to overcome disease transmission and we have seen approaches and projects that were spearheaded by the BC-CfE being replicated in other parts of the world."

Dr. Yu says her primary focus will be to continue to support Epidemiology and Population Health to align with the BC-CfE's goal of removing healthcare barriers for all British Columbians to advance a **Targeted Disease Elimination**® strategy. She will facilitate collaboration among teams to advance productivity and apply system changes to ensure improved processes for the entire unit.

"The BC-CfE consistently produces high quality research and evidence to influence public health policy and has a continuing commitment to preserve the integrity of scientific research and increase efficiencies," says Dr. Yu. "As we continue to support our talented research scientists, statisticians, data analysts and programmers to develop and share cutting-edge research, we can ensure this work is being used in a timely way to advance public health priorities."

Dr. Yu is not engaged in any research projects at this time, saying her main priority is to work on processes and address any data and management gaps within her current role. Meanwhile, she says she enjoys seeing how the Centre is growing, promoting healthcare sustainability, ensuring quality improvement and closing any gaps in the system and services.

"Some of the leading research in HIV, Hep C and applying a **Treatment as Prevention**® approach is coming from BC. It's an exciting opportunity to be part of a team that is leading the way, not just for BC, but for the world."

Dr. Robert Hogg named Distinguished SFU Professor



BC-CfE Senior Research Fellow Dr. Robert Hogg is among eight leading academic scholars at Simon Fraser University to become the first to receive the prestigious title of Distinguished SFU Professor. This new designation recognizes their outstanding performance and achievements and celebrates their international pre-eminence in their fields.

Dr. Hogg was recognized for his work on HIV/AIDS in marginalized populations which has helped advance treatment approaches across cultures and communities. As part of the Distinguished SFU Professor title, Dr. Hogg will share his work with the public through events such as lectures, panels and presentations. This recognition not only spotlights his contribution to the field, but also helps him magnify its impact through public engagement and student and faculty mentorship.

The BC-CfE congratulates Dr. Hogg on this well-deserved distinction!

LECTURES & EVENTS

HIV Care Rounds

Title: *HIV Infection and Tropical Diseases*

Speaker: Dr. Katherine Plewes

Wednesday, October 23, 2019, 12-1PM

BC-CfE Conference Room, Burrard Level 6, St. Paul's Hospital

Forefront Lecture

Title: *Preliminary Findings and Learnings from the Preservation of Sustained Virologic Response (per-SVR) Study*

Speaker: Dr. Kate Salters

Wednesday, November 13, 2019, 12-1PM

Hurlburt Auditorium, Providence Level 2, St. Paul's Hospital

For more information, contact us at Education@cfenet.ubc.ca or visit our website at <http://education.cfenet.ubc.ca>

BC Centre for Excellence in HIV/AIDS

- > Improve the health of British Columbians with HIV through comprehensive research and treatment programs;
- > Develop cost-effective research and therapeutic protocols;
- > Provide educational support programs to health-care professionals;
- > Monitor the impact of HIV/AIDS on B.C. and conduct analyses of the effectiveness of HIV-related programs.

Physician Drug Hotline
1.800.665.7677

St. Paul's Hospital Pharmacy Hotline
1.888.511.6222

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