Final Report of the

6th Biennial Canadian Cancer Research Conference

8-11 November 2021

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ABOUT THE CONFERENCE

The first Pan-Canadian Cancer Research Strategy in 2010 reported on the need for the Canadian Cancer Research Alliance (CCRA) to convene a regularly occurring national research conference in Canada to bring together the cancer researcher and trainee communities and showcase Canadian cancer research achievements.

Since its inaugural conference of 2011, the CCRA's <u>Canadian Cancer</u> <u>Research Conference</u> (CCRC) has brought together the Canadian cancer research community for an agenda spanning the research spectrum. These meetings provide an ideal opportunity for researchers, trainees, clinicians, decision-makers, and patients to hear the latest developments in Canadian cancer research and network across research disciplines.

The objectives of the CCRC are to:



- Showcase the breadth and excellence of Canadian cancer research
- Allow leading experts from across all areas of cancer research to exchange knowledge and share ideas to strengthen Canada's cancer research community
- Support new investigators to establish themselves in the cancer research community
- Enhance patient involvement in cancer research in Canada

This report describes the 2021 CCRC and includes conference highlights, attendee demographics, and responses to a post-conference online survey. This is the sixth CCRC organized by the CCRA, which was originally planned as an in-person conference to take place in Halifax. Like many events and meetings, the conference was pivoted to a fully virtual, online experience due to the COVID-19 pandemic. It was held over four half-days, from **November 8-11, 2021**, and scheduled to accommodate the multiple time zones across Canada. The conference was overseen by an Executive Planning Committee (EPC) and guided by a Scientific Program Committee (SPC).

CONFERENCE COMMITTEES

Executive Planning Committee

Mr. Patrick Sullivan (Chair)
Childhood Cancer Canada

Ms. Ruth Ackerman CCRA Board Patient and Family Representative

Ms. Kimberly Badovinac Canadian Cancer Research Alliance, Canadian Partnership Against Cancer

Dr. Judy Bray
Canadian Cancer Society

Dr. Don Desserud CCRA Board Patient and Family Representative Mr. Stephen Herst Terry Fox Research Institute

Dr. Anne-Marie Mes-Masson Centre de recherche du CHUM

Dr. Paul O'Connell The Leukemia and Lymphoma Society of Canada

Dr. Dajan O'Donnell
Cancer Research Society

Dr. Martine Puts University of Toronto

Dr. Stephen Robbins
CIHR – Institute of Cancer
Research

Dr. Paula Robson Alberta Health Services

Mr. Gordon Schwark
Terry Fox Research Institute

Dr. Rachel Syme CIHR – Institute of Cancer Research

Dr. Sara Urowitz Canadian Cancer Research Alliance, Canadian Partnership Against Cancer

Dr. Franco Vizeacoumar Saskatchewan Cancer Agency, University of Saskatchewan

Dr. Christine Williams Ontario Institute for Cancer Research

Scientific Program Committee

Dr. Martine Puts (Co-Chair) *University of Toronto*

Dr. Franco Vizeacoumar (Co-Chair)

Saskatchewan Cancer Agency, University of Saskatchewan

Ms. Nathalie Baudais
Patient Partner

Dr. Catherine Cook
University of Manitoba

Dr. David Dawe
CancerCare Manitoba

Dr. Carlo DeAngelis Sunnybrook Odette Cancer Centre, University of Toronto

Dr. Lynn Gauthier Université Laval Dr. Peter Greer Queen's University

Dr. Elena Kuzmin Concordia University, McGill University

Dr. Philipp Lange University of British Columbia

Ms. Debi Lascelle Patient Partner

Dr. Madeline Li Princess Margaret Cancer Centre

Dr. Paola Marcato

Dalhousie University

Dr. Rachel Murphy BC Cancer

Dr. Harminder Singh University of Manitoba, CancerCare Manitoba

Dr. Christian Steidl BC Cancer

Dr. Erin Strumpf McGill University

Dr. Nawaid Usmani University of Alberta

Dr. P. Peter Wang University of Toronto

Dr. Gareth Williams University of Calgary

Dr. Amina Zoubeidi University of British Columbia

CONFERENCE ATTENDANCE

The 2021 CCRC had 775 registered delegates with up to 486 attendees online at once. This is considerably lower attendance than at previous CCRCs, which was foreseeable considering the high number of virtual events and digital burnout many have been facing during the pandemic. The 2021 conference had the second-highest participation of attendees from Western Canada (British Columbia, Alberta and Saskatchewan), the first highest being the 2017 CCRC which was hosted in Vancouver (Figure 1).

Figure 1. Distribution of CCRC 2021 Attendees by

Province

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

2021 (N=775)

■ BC ■ AB ■ SK ■ MB ■ ON ■ QC ■ NB ■ NS ■ NL ■ PE ■ Int'l

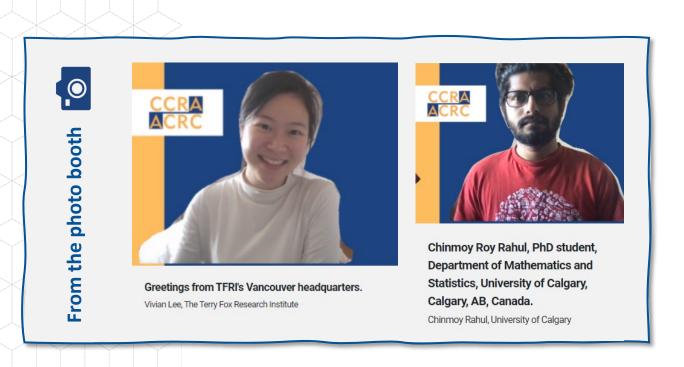
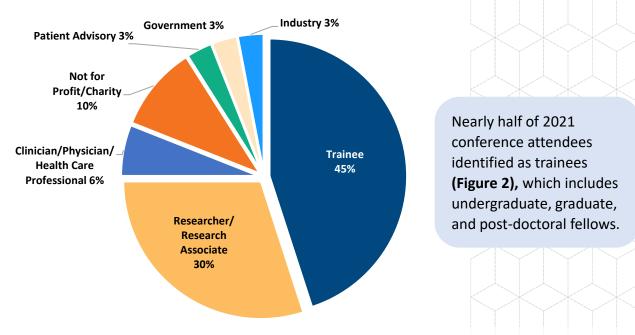
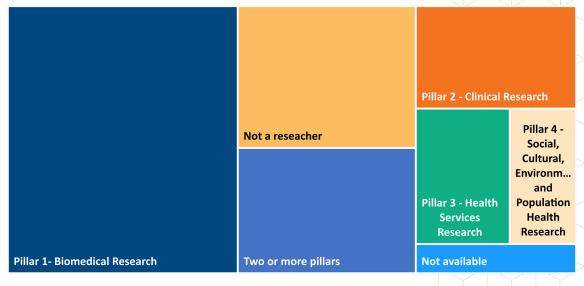


Figure 2. Distribution of CCRC 2021 Attendees by Registration Category



Biomedical Research was identified as the primary research focus of 40% of CCRC 2021 attendees, and 15% of attendees indicated more than one pillar as their primary research focus (**Figure 3**).

Figure 3. Distribution of CCRC Attendees by Resarch Focus



According to the post-conference survey, respondents' top reasons for attending the CCRC were opportunities to hear about the entire spectrum of cancer research, and opportunities to hear about leading-edge science. The survey was open from November 12th until November 30th, 2021 and received 129 unique responses (an overall response rate of 17%).

SCIENTIFIC PROGRAM

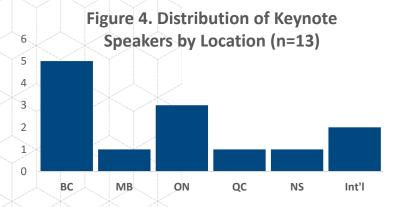
The CCRC 2021 scientific program consisted of keynote sessions, concurrent sessions, lightning sessions, a poster hall, an engagement session, and a workshop featuring leading national and international researchers from across the cancer spectrum. Collectively, the conference's scientific program provided attendees with opportunities to learn about cutting-edge research in Canada and present results to colleagues from across the country.

The full scientific program can be downloaded here.

84% of survey respondents felt that the scientific program was well-balanced between basic, clinical, translational, health services and population health services research.

Keynote Sessions

The four keynote sessions of the 2021 CCRC were crafted to span the four pillars of health research and facilitate cross-disciplinary discussions. Keynote sessions featured presentations from leading Canadian and international researchers (see **Figure 4** for geographic distribution). Keynotes were chaired by both a scientific and patient co-chair and concluded with a 20-minute panel discussion. Topics included: Personalizing Big Data, Aging Well with Cancer, Tomorrow's Cancer Therapies Today, and Understanding and Managing Risk – The saga of hereditary cancer.



93% of survey respondents were satisfied with the keynote sessions.

Aging Well with Cancer and Understanding and Managing Risk were most frequently ranked as top sessions.

Really humbling keynote on "Dignity and Personhood" by Dr. Chochinov. My entire academic career has been in vitro. Seeing the work put into improving patient care and the research on why patients may lose the will to live reminds me of the greater goal beyond my thesis. #CCRAconf

-2021 CCRC Delegate, on Twitter

Concurrent Sessions

The 2021 CCRC scientific program featured 15 concurrent sessions that provided a focused look into a variety of topics across the research spectrum. Each session consisted of three pre-recorded presentations, followed by a live question and answer segment. These sessions were moderated by both scientific and patient co-chairs and featured 45 abstract selected speakers. Of the presenters, 38% identified as trainees and 20% identified as early career researchers (within 5 years from the date of their first research-related appointment).

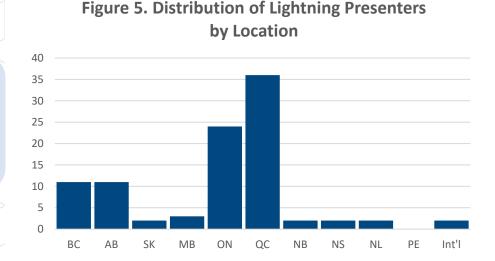
There was an additional concurrent session organized to highlight Cancer Research Platforms. Representatives from CTRNet, CanPath, 3CTN, the Marathon of Hope Cancer Centres Networks, and DHDP (Digital Health and Discovery Platform) were invited to promote these platforms to CCRC attendees.

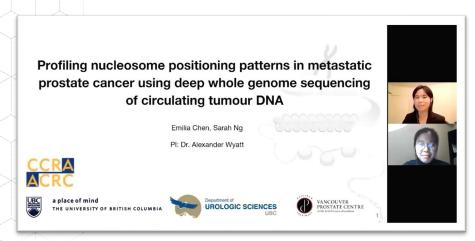
78% of survey respondents attended a concurrent session outside their primary research focus and 89% of survey respondents were satisfied with the concurrent sessions.

Lightning Sessions

Building on the success of the introduction of lightning sessions (formerly Rapid Fire sessions) at the 2019 CCRC and recognizing the value of these opportunities for trainees, the number of lightning sessions was expanded to 20 sessions. Lightning sessions topics spanned the research spectrum and included some cancer site-specific sessions. These sessions consisted of five 3-minute presentations followed by a 15-minute discussion session. The 96 presenters for lightning sessions were selected from submitted abstracts and included researchers from across Canada (**Figure 5**); of these 73% identified as trainees.

81% of survey respondents were satisfied with the lightning sessions.





Above: Emilia Chen and Sarah Ng deliver a Lightning Presentation on "Circulating-tumour DNA Derived Nucleosome Positioning Captures Tissue Gene Expression And Transcription Factor Activity In Prostate Cancer."

Abstracts and Poster Hall

There were 443 abstracts submitted for presentation at the 2021 CCRC. Of these, 141 were identified for concurrent and lightning presentations and 288 were selected for poster presentations. Posters were grouped into the following 23 categories:

- AYA Cancer
- Big Data, AI, and Technology
- Bioinformatics, Systems Biology, Genomics, Proteomics
- Cancer Across the Ages
- Cancer Clinical Research and Trials
- Cancer Risk and Primary Prevention
- Comparative Oncology and Model Systems
- COVID-19 and Cancer
- Drug Discovery, Design, Delivery and Resistance
- Health Disparities and Equity
- Health Services Research, Health Economics, and Implementation Science
- Imaging and Radiotherapy
- Indigenous Cancer Research
- Molecular and Cellular Biology, Genetics and Epigenetics
- Palliative and End of Life Care
- Patient Experience and Advocacy
- Pediatric Cancer
- Precision Medicine
- Regulatory Science and Policy/Science and Health Policy
- Screening, Early Detection, Diagnosis and Prognosis
- Survivorship
- Treatment and Therapies
- Tumour Biology, Immunology and Microenvironment









74% of survey respondents were satisfied with poster presentations, the lowest rating of all aspects of the scientific program. The CCRC recognizes the challenge of hosting a virtual poster hall and will continue to seek opportunities to improve this experience for future conferences.

DIVERSITY, EQUITY AND INCLUSION AT THE CCRC

The 2021 CCRC strived to be a more inclusive and equitable conference and work will continue to achieve this goal at future conferences. New initiatives were implemented at the 2021 CCRC to ensure that the conference remained a safe space for all attendees, to address barriers to participating at the conference, and to better understand the identities and experiences of the audience. These values also extended to the scientific program, which featured a concurrent session on Equity in Cancer Care.

Today I co-chaired a session on health inequities in cancer care during the Canadian Cancer Research Conference...12 years after my stage IV diagnosis!

@CCRAlliance #patientpartner #PublicHealth #CCRAconf

—2021 PIP Participant, on Twitter

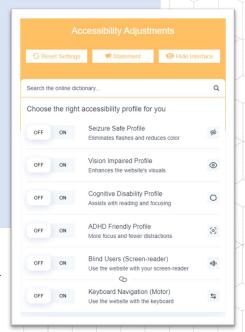
A Code of Conduct was introduced in 2021 to ensure that the CCRC remained a productive, professional and respectful space for all participants. It explicitly established the conference as an event that did not tolerate discrimination or harassment of any kind and outlined levers to report and respond to misconduct.

In an effort to address certain barriers that limit or prevent people with disabilities from participating in a virtual conference, the virtual platform, Pheedloop, was selected in part due to its industry-leading accessibility features for people with visual- and hearing-impairments as well as neurodiverse individuals. Automatically generated closed captioning was made available for all scientific sessions.

The conference platform included the following accessibility features:

- Optimization for screen-readers and keyboard navigation
- Assistive technology and browser compatibility
- UI, design, and readability adjustments
- Support for custom disability profiles, including:
 - Epilepsy Safe
 - Vision Impaired
 - Cognitive Disability
 - ADHD Friendly
 - Blind User (Screen-reader)
 - Motor Impaired (Keyboard navigation)

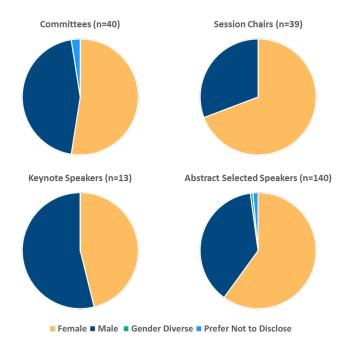
Right: Accessibility adjustments interface, as seen on desktop version of virtual platform.



To understand who attended the conference and to identify which audiences require more effort to reach and include in future conferences, the 2021 CCRC registration process included a voluntary demographics section where registrants could disclose their gender, preferred language, disability status, racial and/or ethnic identity, and indigeneity. This data will be used to improve outreach to underrepresented groups and establish a baseline to measure the impact of these DEI efforts for future conferences.

The 2021 CCRC also saw the continued application of the CCRC's Gender Equity Policy, which states that the CCRA and CCRC committees will undertake the necessary measures to achieve gender in all balance organized aspects of the conference. This includes equitable representation among SPC members, session chairs. invited and abstract selected speakers (Figure 6).

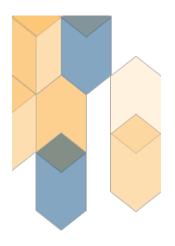
Figure 6. Gender Breakdown of CCRC Groups



95% of survey respondents agreed that the CCRC values diversity and inclusion and 83% agreed that the CCRC is an inclusive and equitable event.

An aspect where there is a clear need for improvement is the inclusion of francophones and French-language offerings. It was remarked on several occasions that low-quality closed captioning and translations posed a significant barrier for francophone presenters and audience members to engage during the sessions.

Feedback from delegates and partners, through survey responses and conversations, has been critical to the efforts to create an equitable and inclusive space and will continue to inform how the conference evolves as equity and inclusion will remain a key priority for the CCRC moving forward.





I felt because of the conference being held virtually, the organizers were able to create the most inclusive and equitable event I've taken part in (have been an attendee at two previous conferences).

—Survey Respondent

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Indigenous Engagement

The 2021 CCRC undertook numerous initiatives to increase engagement and inclusion of Indigenous researchers and communities within the conference program, including:

- Engaging an Elder/knowledge-keeper to participate in the conference as well as deliver conference opening and closing remarks
- Welcoming an Indigenous researcher to deliver a presentation as part of the keynote session, "Understanding and Managing Risk - The saga of hereditary cancer"
- Providing complimentary trainee or community-based researcher registration to individuals who submitted abstracts related to Indigenous cancer research
- Sharing Land Acknowledgement resources on the conference platform
- Highlighting the Indigenous cancer research stream in conferencerelated communications
- Holding an Indigenous research ethics workshop to gain a better understanding of how researchers and Indigenous community leaders engage in health and cancer-related research that is ethical and benefits First Nations, Inuit and Métis.
- Holding a knowledge and engagement workshop on Indigenous-led research and data governance in cancer control
- Providing the ten submitted abstracts on Indigenous cancer research as one lightning presentation, four poster presentations and five oral presentations including a dedicated concurrent session on Indigenous cancer research

PATIENT INVOLVEMENT IN CANCER RESEARCH PROGRAM

The third Patient Involvement in Cancer Research Program (PIP) was held virtually in coordination with the 2021 CCRC. The program was attended by 23 patient partners and supported by 11 CCRA members and affiliated organizations. PIP participants were engaged as members of the EPC and SPC, and as co-chairs for keynote and concurrent sessions.



PIP is the Patient Involvement in Cancer Research Program at the biennial Canadian Cancer Research Conference - great information, training, networking for patient advocates.

—2021 PIP Participant, on Twitter



PIP PARTICIPANTS



Patient Involvement in Cancer Research Program

Programme de Participation des Patients à la recherche sur le cancer



Mr. Jason Abramovitch





Ms. Ruth Ackerman





Coquitlam, B.C.



Ms. Louise Bird





Mr. Vikram Bubber Surrey, B.C.



Ms. Melissa Coombs St. John's, N.L.



Dr. Don Desserud



Brampton, Ont.



Rocky View County,



Ms. Heather Hogan Woodstock, N.B.



Mr. Mark Beck



Mr. David Laird Winnipeg, Man.



Ms. Debi Lascelle Ottawa, Ont.



Ms. Donna Pepin



Montréal, Que



Mr. Angus Pratt



Mr. Archie Stewart Port Hawkesbury, N.S.



Ms. Michelle Belleville, Ont.



Ms. Katey Thompson Ottawa, Ont.



Ms. Chantale Winnipeg, Man.



Dr. Christine Wu Winnipeg, Man.



Ms. Mei-Lin Yee

New to the 2021 PIP was the introduction of a grant competition. This was a small grant opportunity targeted at trainees and early career investigators. It was adjudicated entirely by PIP participants—they had full control of rating the applications and determining the final grant winner. Congratulations to Dr. Stéphanie Bernard, a postdoctoral fellow at the University of Alberta in the Faculty of Rehabilitation – Physical Therapy, the winner of the inaugural PIP Small Grant Competition for her proposed research "Exploring gynecologic cancer survivorship needs, barriers and facilitators to virtual pelvic health care: a patient-centred multi-methods study".



Above: Dr. Stéphanie Bernard, winner of the inaugural PIP Small Grant Competition

Please refer to the
Evaluation of the
2021 Virtual PIP and
Recommendations
for Future Programs
for more
information.

It's the first time I attended a PIP meeting/activity. It's an amazing experience and the conference is well organized. I got a chance to connect with my local cancer researchers through my scientific partner, and organized some research activities with my local cancer support group.

-2021 PIP Participant



Above: Dr. Jacques Simard and Ms. Nathalie Baudais (patient partner) co-chair the Keynote session, "Understanding and Managing Risk – The saga of hereditary cancer."

CCRA AWARDS

During the 2021 CCRC, the CCRA announced the recipients of its biennial awards, recognizing significant contributions to cancer research in Canada. Initiated in 2011, the CCRA Awards acknowledge and celebrate the contributions of individuals who have had a remarkable impact on cancer research and the cancer research community as well as those who have shown exceptional leadership in patient involvement in cancer research.

Instead of an in-person awards presentation, 2021 CCRA award recipients were recognized during the conference's opening remarks and were featured in recorded interview segments that aired throughout the virtual conference. The 2021 awards program also introduced several changes to actively support the nomination of a more diverse pool of candidates, standardize the adjudication process and incorporate equity considerations into the scoring rubric.

For more information on the CCRA Awards and the 2021 recipients, please visit the CCRA Awards webpage.

The following individuals were recognized in 2021:

- Mr. Barry Stein, President & CEO Colorectal Cancer Canada, recipient of the Exceptional Leadership in Patient Involvement in Cancer Research award
- Dr. Linda Watson, Scientific Director of Applied Research and Patient Experience, Cancer Care Alberta, recipient of the Exceptional Leadership in Patient Involvement in Cancer Research award
- Dr. Bradly Wouters, Senior Scientist, Princess Margaret Cancer Centre; Executive VP Science and Research, University Health Network, recipient of the Exceptional Leadership in Cancer Research
- Dr. Connie Eaves, Ph.D., FRSC, FRSE, FRSL, Terry Fox Laboratory, BC Cancer and Department of Medical Genetics and School of Biomedical Engineering, University of British Columbia, recipient of the Outstanding Achievements in Cancer Research award
- Ms. Elisabeth Baugh, Chair of World Ovarian Cancer Coalition and past CEO of Ovarian Cancer Canada, recipient of the Distinguished Service to Cancer Research award

COMMUNICATIONS

Social Media

From November 7th to December 5th, 2021, a total of 442 tweets were posted using the CCRC conference hashtag (#CCRAconf), with a potential reach of 174.9k users. The CCRA gained 143 new followers on Twitter and 68 followers on LinkedIn throughout the #CCRAconf social media campaign (from April 1st to December 5th).

Website

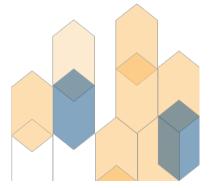
The CCRC page of the CCRA Website hosted all conference-related information and instructions, in both English and French. During the CCRC communications campaign (April to November), CCRC-related pages received over 20,000 unique pageviews and the CCRA website had 13,500 unique users. 94% of survey respondents were satisfied with the conference website.

Conference Emails

Leading up to the conference, the number of email subscribers increased to 1983 from 1883. Following the conference, the list increased to 2364 email subscribers.

Communications Toolkits

The CCRC 2021 partnered with nearly 60 organizations to promote CCRC abstract submission and registration. CCRA member and partner organizations received communication toolkits with prewritten bilingual content for newsletters, website postings, and social media.



<u>Subscribe to our email newsletter</u> for more information about the CCRC, and to stay up-to-date on the latest developments at the Canadian Cancer Research Alliance.

VIRTUAL EVENT

Pivoting from in-person to a virtual setting created a new set of opportunities and challenges for managing technologies and fostering virtual engagement. In 2021, over 80% of survey respondents rated the virtual event as good or better.

Due to the virtual nature of the event, all session recordings were made available for delegates to view for six months. Since recordings became available following the live event, there have been 613 session views and 191 individuals have signed in (as of February 15th, 2022).



Above: Screen capture of the 2021 CCRC virtual platform lobby (Pheedloop).

Gamification

CCRC attendees were able to search for gamification codes worth a variety of points added throughout the conference platform. This was used as a mechanism to promote exploration of the virtual platform and drive attendees to supporter profiles as well as the poster hall. The top-14 point leaders were rewarded with prizes and recognized during the closing remarks. The first and second prizes included complimentary registration and accommodation for the CCRC 2023.

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End of Day 2 thoughts: #CCRAconf is my first virtual conference. Including entertainment during the breaks like music, indigenous performances, origami, Zumba and yoga is so refreshing. Scientists have interests outside of abstracts and p-values.

-2021 CCRC Delegate, on Twitter

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Entertainment

An emcee and entertainers were engaged to ensure the virtual event maintained a welcoming and engaging environment. Devo Brown, known for his work on Breakfast Television and radio, acted as an emcee for the event and brought both levity and professionalism. VALDII, a singer-songwriter, and Aaron Paris, a violinist, opened and closed each day of the conference with well-received performances. A variety of activities were featured during the breaks, including yoga, hoop dancing, origami instruction, circus acrobatics, and a fire show.

94% of survey respondents were satisfied with the conference entertainment and this is an important takehome for future conference planning.



Above: Keisha Facey (@riddimfit) hosts a fitness class during a break

Have really enjoyed it – all the touches (MC, entertaining breaks) have made it that much better (knew the science would be good).

Most fun I've had on zoom without a glass of wine (3)

-2021 CCRC Committee Member

Networking

Conferences such as the CCRC are traditionally a reliable setting for building connections across roles and disciplines. Consequently, networking was a key component of in-person conferences that needed to be adapted for this virtual event.

CCRC 2021 attendees were able to complete user profiles (role, organization, social media handles) on the virtual event platform. Attendees were able to direct message other attendees and complete a matchmaking survey to identify fellow delegates with similar interests.

63% of survey respondents were satisfied with the opportunities to network with other researchers, and 72% were satisfied with the opportunities to network with a patient partner.

The CCRC acknowledges that networking is a priority and will endeavour to improve offerings and create innovative networking opportunities at future conferences.

As a graduate student at the 2019 CCRC conference in Ottawa, I was introduced to a scientist working on the same type of research but specialized in different techniques. Following the conference, the dialogue continued and led to a collaborative project capitalizing on the strengths from each lab. A significant breakthrough publication covering this work will be produced soon. Additionally, this connection has provided a post-doc opportunity for me that would not have been realized without attending the CCRC meeting.

-CCRC 2019 and 2021 Attendee

Careers in Cancer Research and Beyond Developing Canada's Talent Pool to Foster Innovation: A Science to Business Network Event

For the second time, the CCRC partnered with the Science to Business Network (S2BN) to organize a panel discussion aimed at highlighting the career journeys of several leaders engaged in cancer research. Panelists shared their experiences and lessons along their diverse paths and roles and discussed how their education and professional experiences led to their current careers. Following the panel discussion, attendees had the opportunity to attend a networking event to expand their professional network and share career development tips.



The Science to Business Network (S2BN) organizes outreach and networking events for graduate students to complement their academic training. <u>Learn more about S2BN.</u>

SUPPORTERS

The 2021 CCRC had 35 supporters including federal research funding programs and agencies, provincial research agencies, provincial cancer care agencies, cancer charities, academic and research institutes, not-for-profit organizations, hospitals, and industry supporters.



We are proud to help bring the #CCRAconf to Canada's cancer research community. Kudos to the conference organizers, speakers and attendees for making this a great event that will undoubtedly have a positive impact on cancer research in Canada and beyond.

—2021 CCRC Supporter, on Twitter

FUTURE CCRCs

Location and scientific content continue to be the top factors that will influence attendance at future CCRCs according to survey respondents.

88% of survey respondents would recommend the CCRC to a colleague.

67% of survey respondents indicated they would prefer a hybrid event.



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Researchers, trainees, clinicians, decision-makers and patients are attending the #CCRAconf to hear the latest developments in Canadian cancer research.

Interested in cancer research? Think about joining the @CCRAlliance conference in Halifax in 2023.

—2021 CCRC Supporter, on Twitter



THANK YOU TO OUR SUPPORTERS

PLATINUM LEVEL





Canadian Cancer Society





GOLD LEVEL



SILVER LEVEL























National Research











BRONZE LEVEL































