

CHES SCISS

Canadian Healthcare Engineering Society
ONTARIO CHAPTER



Société canadienne d'ingénierie des services de santé
CHAPITRE D'ONTARIO

Building Member Expertise



Embracing Change and Transformation

Advancing Healthcare Together

2024

BLUE MOUNTAIN
May 26 to May 28
Collingwood, ON

Canadian Healthcare Engineering Society

Program

CHES ONTARIO CHAPTER CONFERENCE 2023




Resort Map



Program at a Glance

Time	Monday, May 27	Tuesday, May 28
730	Breakfast with exhibitors	Breakfast with exhibitors
800		
830	Opening remarks: <i>CHES National, Delegate Sponsor, Keynote sponsor</i>	CHES Annual General Meeting
900	Keynote Speaker 9:00 – 10:00 <u>Dan Trommater</u> <i>We've Always Done it That Way</i>	Speaker 7 <u>Project LHEAD, Outcome based Procurement</u> <i>Matt Canon—LakeridgeHC, Darcy Corbin—Ecosystem Energy</i>
930	Getting out of that same-old-thinking-rut.	Speaker 8 <u>From Planning to Podium—Navigating the Capital Process</u> <i>Jamie Cook, Carly Ellis—Colliers Project Leaders</i>
1000	Coffee Break	Coffee Break
1015	Speaker 1 <u>Strategy to keep the Power On—A Case Study at MSH</u> <i>Allan Kelly, Markham Stouffville Hospital</i>	Speaker 2 <u>Innovative Delivery Models for Decarbonizing</u> <i>Amandeep Deol, Ian Jarvis—Enerlife</i>
1115		Speaker 9 <u>Critical Failure—Lessons from a Disaster</u> <i>Alex Sullo—Chatham Kent Health Alliance</i>
1130	Time with Exhibitors	Time with Exhibitors
1200	Lunch with Exhibitors	Lunch with Exhibitors
1230	Beyond-the-Booth	Beyond-the-Booth
1315	Speaker 3 <u>Retrofitting Heat Pumps in Existing HCF</u> <i>Will Rea—HTS, Kurt Montiero—Smith+Andersen</i>	Speaker 4 <u>Transformative Effects of Advanced Air Purification</u> <i>Kathryn WorriLOW, Dave Beccatini—Lifeaire Systems</i>
1330		Prize Draw Committee Wrap-up
1415	Speaker 5 <u>Transforming HCF through Building Envelope Energy Measures</u> <i>Steve Tratt—WTI Services</i>	Speaker 6 <u>CSA Z8004 Operation and IPAC in LTC Homes</u> <i>Craig Doerksen—CSA</i>
1515		<p><i>Program Sponsor:</i></p> 
1530	Happy Hour with Exhibitors	
1600		
1630	Free Time	
1800	Gala Dinner / Entertainment featuring Comedy in Motion - <i>Weider Ballroom</i> at the Blue Mtn. Inn (note: Different Building)	

Sunday, May 26

Time	Location	Function
8:00 to 8:30		Short drive to Duntroon Highlands Golf Club. Meet us at the Golf Club for breakfast sandwich and a coffee and get organized.
8:30	Duntroon Highlands Golf Club 1226 Concession 10 N Nottawasaga Rd, Duntroon ON L0M 1H0.	The annual CHES Golf Tournament. Lunch served at the turn “Best-ball” format. Shotgun start at 8:30
	<i>Sponsored by:</i> 	
2:30	Copper Blues	Companion Program - meet and re-acquaint
16:00 to 19:00	Village Conference Center—The Courts	Registration: Conference registration and welcome to Blue Mountain.
18:30	Village Conference Center—Petun Room mezzanine	Welcome reception. Cocktails, hors-d'oeuvres, and music .
21:30		Free time 

Welcome Reception sponsored by:



Construction Products Group

Monday, May 27

Time	Room	Function
7:00	Exhibit Hall The Courts	Breakfast with Exhibitors
8:30	Georgian Bay Ballroom	Opening Remarks / Welcome
9:00	Georgian Bay Ballroom	<u>Keynote Speaker</u> — Dan Trommater We've always done it that way. Getting out of that same old thinking rut.
10:00	Foyer	Coffee Break outside the Petun Conference rooms
10:15	Petun I&IV	<u>Strategy to Keep the Power On—A Case Study at MSH</u> Alan Kelly —Markham Stouffville Hospital
OR	Petun II&III	<u>Innovative Delivery Models for Decarbonizing</u> Amandeep Deol, Ian Jarvis—Enerlife
11:15	Exhibit Hall The Courts	Time with exhibitors Lunch with Exhibitors
13:15	Petun I&IV	<u>Retrofitting Heat Pumps in Existing HCF.</u> Will Rea—HTS, Kurt Montiero—Smith+Andersen
OR	Petun II&III	<u>Transformative Effects of Advanced Air Purification</u> Katheryn Worriow, Dave Beccatini—Lifeaire Systems
14:15	Petun I&IV	<u>Transforming HCF through Building Envelope Energy Measures</u> Steve Tratt—WTI Services
OR	Petun II&III	<u>CSA Z8004 Operation and IPAC in LTC Homes</u> Craig Doerksen—CSA Lead, Z8004
15:30	Exhibit Hall The Courts	Happy Hour with Exhibitors - Drinks, Mingling and Laughs
18:00	Weider Ballroom Blue Mtn Inn	Gala Dinner and Entertainment— Featuring Comedy in Motion
22:00	Sponsor's Event: M.J. Byrne's Irish Pub	<u>Post-Gala Delegate Appreciation Social</u> - Everyone is invited for a little socializing after the Gala



blackstone
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Tuesday, May 28

Time	Room	Function
7:00	Exhibit Hall The Courts	Breakfast with Exhibitors
8:15	Petun I&IV	CHES Ontario Annual General Meeting. Find out what your Chapter Executive is up to.
9:00	Petun I&IV	<u>Project LHEAD, Outcome Based Procurement</u> Matt Canon—Lakeridge HC, Darcy Corbin—Ecosystem
OR	Petun II&III	<u>From Planning to Podium—Navigating the Capital Process</u> Jamie Cook, Carly Ellis —Colliers Project Leaders
10:00	Foyer	Coffee Break outside the Breakout Rooms
10:15	Petun I&IV	<u>Critical Failure—Lessons from a Disaster</u> Alex Sullo—CKHA, TBD—AlphaKor
OR	Petun II&III	
11:15	Exhibit Hall Augustus I-III	Lunch and Time with Exhibitors
13:00	Exhibit Hall Augustus I-III	Prize Draw, Closing Remarks

Building Member Expertise

Delegate Raffle

Raffle Rules:

Each delegate has been given a passport upon arrival with a list of all exhibitors. This passport is your ballot for the prize draw which is a Samsung Tab S8Fe Pro.

Have your passport stamped at every booth that you visit. Once you have visited a minimum of 15 booths, place your ballot in the prize bin located at the CCGHC booth in the Green Park. Pick up another passport and continue until you've visited them all.

Print your name in the space provided.

Please visit all our exhibitors.

The raffle will be drawn on Tuesday, June 6 at 1:00 pm from all Passports received into the official raffle ballot box. You must be present to win.

The official raffle ballot box is in booth #219 (Canadian Coalition for Green Health Care)

To the Exhibitor

If you have been in conversation with a delegate, please remember to stamp their passport.

This raffle is sponsored by:

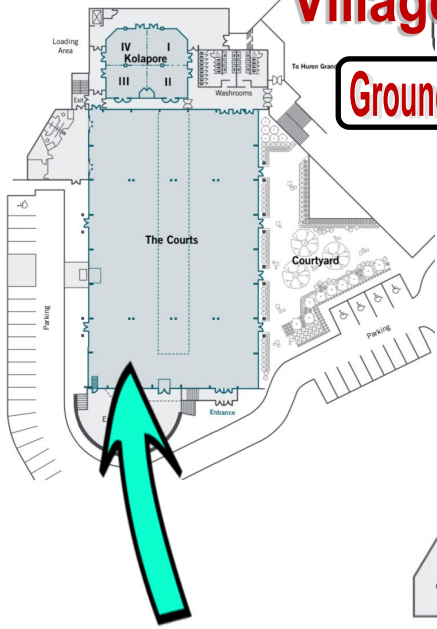


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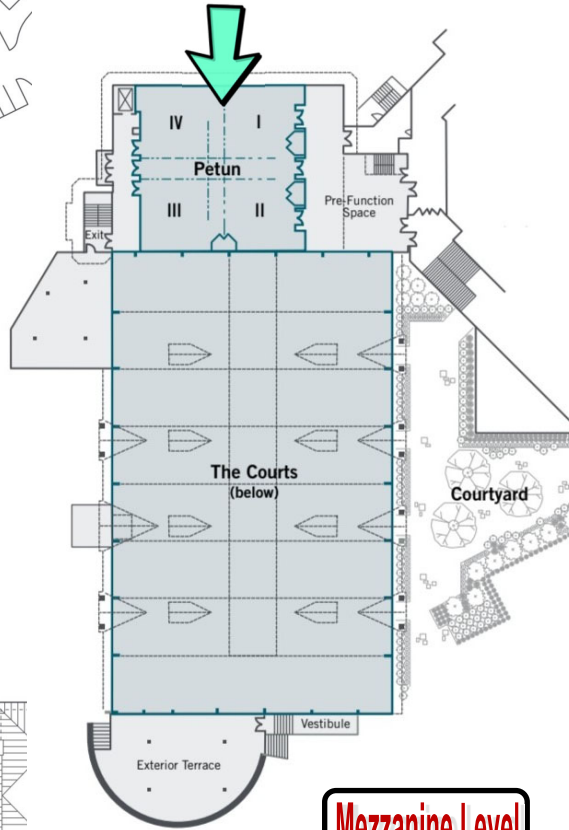
Win a Samsung
Tab S8Fe Pro

Village Conference Center

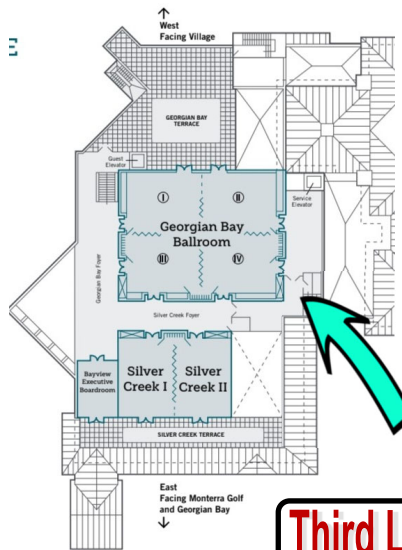
Ground Level



Sunday Reception
and Education
Breakout rooms



Mezzanine Level

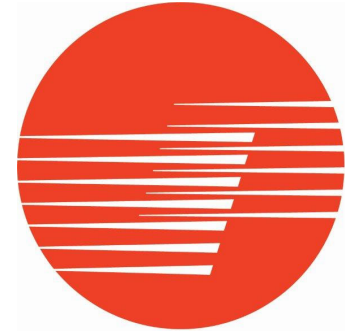


Keynote Speaker room

Third Level

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Ontario Chapter Conference and Trade Show



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Session Details



Monday, 10:15 am - Petun I

Allan Kelly—Markham Stouffville Hospital

Strategy to Keep the
Power ON—A Case
Study at MSH

In May of 2022 a Tornado touched down in Markham causing damage to properties including the electrical infrastructure of Alectra Utilities. After the tornado touched down the hospital experience 18 power hits spanning a period of over 6 months. We needed to come up with a solution so patients, family and staff are not impacted. How can our most critical areas and patients be without power and lights even for 10 seconds. We engineered a strategy to treat our hospital like a data center.

Monday, 10:15 am - Petun II

Amandeep Deol, Ian Jarvis—Enerlife

Innovative Delivery Models for
Decarbonizing

Healthcare facilities are tasked with the challenge of providing exceptional patient care while also reducing their carbon footprint and energy consumption. When considering upgrades to aging ventilation, heating, and cooling systems, these facilities often contemplate traditional project delivery models, such as Design-Bid-Build (DBB), Design-Build (DB), Integrated Project Delivery (IPD), or Public-Private Partnership (PPP). Each of these models carries its own set of advantages and limitations. This presentation introduces a forward-looking delivery model designed to harness the strengths of these established models and tailor them to the unique needs of healthcare facilities striving to decarbonize their operations. The approach centers on evidence-based high-performance targets, performance-based commissioning, and a pragmatic pain share/gain share mechanism, all of which foster a positive and collaborative environment for every stakeholder involved.

Monday, 1:15 pm. - Petun I

Will Rea—HTS, Kurt Montiero—Smith+Andersen

Retrofitting Heat Pumps in Existing
Health Care Facilities

Healthcare facilities are in constant need of replacement equipment. Traditionally most owners have done like-for-like replacements. We will explore and showcase projects where for minimal cost adds, owners can replace existing equipment with different options to both solve operations issues and/or reduce green house gas emissions. Through long-term planning, facilities can both improve resiliency and improve efficiency/emissions. Some examples are:

- Replacing an air cooled chiller with an air cooled heat pump
- Replacing a water cooled chiller with a high temp water-water heat pump
- Revising domestic hot water systems to allow heat pump integration

Monday, 1:15 pm. - Petun II

Kathryn WorriLOW, Dave Beccatini—Lifeaire Systems

Transformative Effects of Advanced Air
Purification

Many pathogens that cause facility acquired infections (FAIs) are airborne. Advanced air purification technology (AAPT) was developed to destroy airborne pathogens and remove VOCs. The AAPT was installed in the HVAC ductwork within a hospital and a senior living facility (SLF). In both study locations, the control area only received air cleaned via a HEPA filter. The locations with the AAPT realized a decrease of over 98% of airborne pathogens and over 89% of surface bacteria and VOCs. The AAPT meets all requirements of the new ASHRAE Standard 241 such as, providing "real-world" test data and single pass pathogen remediation effectiveness. This is ASHRAE's first ever standard targeted at reducing the risk of the spread of airborne pathogens.

Session Details

Monday, 2:15 pm. - Petun I

Steve Tratt—WTI Services

Transforming HCF through Building Envelope Energy Measures

Researchers, architects and code writers have shown that attention to specific details in both new and retrofitted envelopes result in better performing buildings with better comfort and long durability as well as lower energy consumption.

Air leakage through the building envelope is silent, invisible and cunning. It causes numerous building envelope problems including wetting of cavity materials, spalling of masonry, premature corrosion of metals, blistering of paint, icicles, staining of contraction. Continuity is important, but strength is even more important.

In buildings, the air barrier system must be designed, and specified on plans. It has specific performance criteria and specific material requirements.

Monday, 2:15 pm. - Petun II

Craig Doerksen—CSA Technical Sub-Committee

CSA Z8004—Operation and Infection Prevention in LTC Homes

The Standards Council of Canada (SCC), Health Standards Organization (HSO) and Canadian Standards Association (CSA Group) are working collaboratively to develop two new National Standards of Canada for long-term care (LTC) that will be shaped by the needs of residents, families and workers. This is the new Standard for Operation and Infection Control in LTC Homes

Tuesday, 9:00 am. - Petun I

M. Canon—Lakehead HC, D. Corbin—Ecosystem

Project LHEAD—Outcome Based Procurement

Hospital facilities professionals are increasingly interested in outcome-based procurement to transform their facilities toward decarbonization. Lakeridge Health, which serves the eastern Greater Toronto Area, is well-experienced with this approach. It completed its first outcome-based deep energy retrofit in 2016, and its new Project LHEAD is in the early stages. A part of the hospital's climate action response, Project LHEAD is a showpiece demonstrating how economically sustainable decarbonization can be imagined and delivered. When hospitals procure with their desired outcomes, vendors are contractually accountable for achieving them. This approach aligns the interests of the hospital owner and delivery partner, driving collaborative teaming, innovative project development, adaptability across the project

Tuesday, 9:00 am.— Petun II

Jamie Cook, Carly Ellis—Colliers Project Leaders

From Planning to Podium—Navigating the Capital Process

You have the patient projections, you have the case for expansion, you have the long-term master plan, you have the facility plan, you know what healthcare facilities your community needs to provide health care for the future. Now what? Navigating Ontario's complex capital planning process – especially in the current competitive environment – is challenging. Engaging with this process and decision makers strategically and effectively is critical to get your project in the queue and progressing towards construction.

Tuesday, 10:15 am. - Petun I

Alex Sullo—CKHA, TBD—Alphakor Security

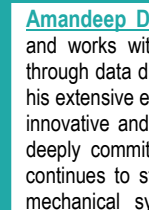
Critical Failure—Lessons from a Disaster

This will be a case study from the Ransomware attack on Erie-St.Clair LHIN computer systems. A total loss of network computers left Windsor, Leamington, Chatham and Sarnia without computers. No network, no BMS, no work-order system, no email. Lessons learned and recommendations for other hospitals from leading Security Experts..

Speakers



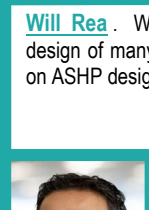
Allan Kelly Over 30 years experience in facility operations and energy management in hospitals ranging from 1.8 million square feet to 400,000 square feet. Currently the energy and infrastructure manager at Oak Valley Health leading energy and infrastructure projects. In his spare time enjoys renovation projects at home and playing golf.



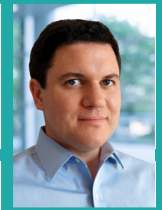
Amandeep Deol In his role as Director of Engineering, he leads the engineering team and works with various clients in achieving energy efficient building systems design through data driven analytical tools and evidence-based improvements. Amandeep brings his extensive experience in mechanical systems design and his leadership skills to provide innovative and practical solutions to most challenging technical problems. Amandeep is deeply committed to sustainability and a strong advocate of energy conservation and continues to strive for achieving client's energy management goals. With his extensive mechanical systems design experience, he offers pragmatic solutions to address fundamental design and operational issues within the buildings, while maximizing the savings potential for each facility.



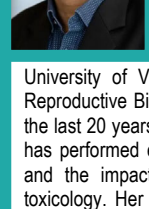
Ian Jarvis Enerlife's founder and president since 2001, Ian Jarvis is a recognized business leader and authority on energy conservation, green buildings and sustainable communities. Ian has been at the leading edge of practice and research of high-performance buildings for more than three decades. He was the founding Chair of the Canada Green Building council and co-chair of Civic Action's Race to Reduce. Ian provides strategic and technical advice to Enerlife's projects and clients, forms and leads Integrated Building Performance Teams, and brings unique knowledge and experience of achieving and sustaining exceptional performance in individual buildings and portfolios.



Will Rea . Will has been a sales engineer at HTS for 13 years. He has assisted in the design of many health care facilities HVAC. In the 2022 CHES conference he presented on ASHP design and application in a health care facility.



Kurt Montiero Kurt has been a principal at S&A for 12 years. He runs many existing healthcare projects and is an active member of CHES and ASHRAE.



Katherine Worriow . Dr. Kathryn C. Worriow, founder and CEO of LifeAire Systems, received her doctorate in Anatomy and Cell Physiology from the University of Virginia School of Medicine. She completed her post doctoral fellowship in Reproductive Biology and Infertility at the University of Pennsylvania School of Medicine. Over the last 20 years, she has served as the Scientific Director of In Vitro Fertilization Programs and has performed extensive work specific to molecular signaling between the sperm and oocyte, and the impact of ambient air on successful human embryogenesis and preimplantation toxicology. Her work, with that of her colleagues, led to the development and design of the LifeAire Systems patented air purification technology and System, One of the most unique features of the LifeAire System is the extensive data supporting the design, and the results from over four years of clinical implementation. Dr. Worriow enjoys sharing the data with her colleagues.



Speakers

Dave Beccatini . Dave Beccatini is the VP of Commercial Sales for LifeAire Systems. As a valued leader and growth catalyst, he is responsible for all sales and business development in commercial markets such as Medical Offices, Long-Term Care Facilities, Schools and other businesses. Dave is strategically instrumental in the overall growth and financial development of LifeAire.



Steve Tratt Steve has over 32 years of experience in the building envelope air barrier industry as well as the insulation and thermal barrier industry, including expertise in air leakage testing and weatherization materials. He has worked extensively in the custom design of building science solutions for the education, healthcare, commercial, Multi-family, and government markets. He was on the taskforce that wrote the US Army Corps of Engineers Air Leakage Test Protocol for Building Envelopes. He has trained building envelope retrofit contractors and has made numerous presentations to trade associations.

Craig Doerksen Craig is the Executive Director of Capital & Facilities Management (FM) for Manitoba's healthcare coordinating agency Shared Health. In this role he is responsible to lead the provincial multi-year planning of all capital, supporting project delivery and setting the standards for provincial FM operations. Craig is the current President of the Canadian Healthcare Engineering Society, and an active member of several Canadian Standards Association subcommittees including the HVAC for healthcare facilities and the new Z8004 standard on IP&C and Operations of LTC facilities.



Matt Canon Matt's expertise lies at the intersection of healthcare facilities management, business development, and energy efficiency. Currently serving as the Director of Facilities Operations and Business Development at Lakeridge Health, Matt's role is overseeing the complexities of engineering and infrastructure, security, environmental services, and business development across multiple sites. Before joining Lakeridge, Matt dedicated several years to energy efficiency consulting. A Certified Energy Manager with a degree in Mechanical Engineering, Matt brings a unique blend of technical proficiency and strategic acumen to his current role.

Darcy Corbin Darcy is a Project Development Engineer at Ecosystem and a key designer behind the development of Project LHEAD. Darcy is passionate about decarbonizing buildings through close, collaborative client partnerships. He draws from a rich background in oils and gas emissions research to infuse a rigorous, science-based approach into every project. Darcy focuses on thorough systems analyses with an eye for innovative design applications that can be optimized to align with clients' goals. Darcy strives to push the boundaries, consistently seeking creative ways to enhance the sustainability and efficiency of building systems.



Jamie Cook Jamie is a skilled Principal with over 20 years of experience delivering project management, space planning and functional programming services within the healthcare sector. Since joining Colliers Project Leaders in 2019 as a Senior Project Manager, she has led several functional programming projects for a wide variety of public and private sector clients. Jamie has experience leading functional programming, space planning, estimating, project management, and construction management assignments. While working at University Health Network (UHN), Jamie led the development of UHN's organization-wide space allocation policy and standards across 4 hospitals and 9 sites.

Speakers



Carly Ellis Some say the best way of learning is by doing and Carly has been working within the health care system for over six years. Carly's ability to strategize, activate stakeholders and execute on a plan supports health care agencies, not-for-profits and companies to progress their agendas.

Alex Sullo



TBD Alphakor

Extra



Speaker Sponsors:



Companion Program

Sunday

(for those previously registered)

1:30 pm. Wander the Blue Mountain Village and Shops.

6:30– 9:00 pm. President's reception - hors d'oeuvres and entertainment.

Monday

8:30 am—Opening ceremonies and keynote speech by Dan Trommater

10:00 am—Hike the Scenic Caves where caves, trails and a suspension bridge offer exquisite views of the Niagara Escarpment.

12:45 pm—Enjoy lunch and a local winery tour returning with plenty of time to get ready for the night's activities.

6:00 pm.—Reception at Georgian Bay Ballroom followed by Gala dinner and entertainment by Comedy in Motion

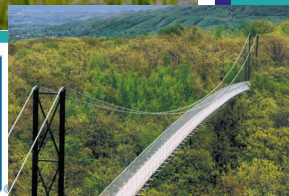
9:30 pm—If you're up to it, enjoy a social event hosted by HTS

Tuesday

9:00 am.—On-resort activities with a canopy climb, ridge runner coaster, and the Mill pond water trikes or spend free time to explore the village shops and amenities.



Sponsored By:



2024 Planning Committee

Exhibitors:	Ron Durocher	ron.durocher@chesontario.com
Registration:	Jim McArthur	jmcArthur@albrightcentre.ca
	Jim Durocher	jamesgdurocher@gmail.com
Delegates:	Richard White	rwhite@cogeco.ca
Program:	Haj Risebrough	hrisebrough@brightshores.ca
Entertainment:	John Marshman	jmarshman@southlakeregional.org
Golf Tournament:	John Widdis	widisdj@cgmh.ca
	Scott Irwin	irwinsc@cgmh.ca
Companions:	Haj Risebrough	hrisebrough@brightshores.ca
Keynote:	Kent Waddington	kent@kentwaddington.com



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Coalition canadienne pour
un système de santé écologique



See you next year!



June 1-3

2025



BEYOND INNOVATION

Creativity / discovery / engagement

Canadian Healthcare
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CHES ON Conference and Trade Show

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