Cancer Digital Intelligence Impact Report 2025

Intelligence in Action

UHN Princess Margaret Cancer Centre

The Princess Margaret Cancer Foundation UHN

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Reimagining Cancer Care Through Data and Artificial Intelligence

Cancer Digital Intelligence (CDI) advances cancer care by bringing together data, technology, and artificial intelligence (AI) to deliver real world impact at the Princess Margaret Cancer Centre. As a research and innovation program, CDI focuses on transforming care delivery, accelerating discovery, and strengthening operations through responsible, clinically grounded digital solutions.

In 2025, CDI focused on execution and scale. We concentrated efforts on the highest value initiatives, advancing them from early experimentation to solutions positioned for system level adoption. This work strengthened CDI's ability to deliver sustained digital transformation across cancer care.

As data and AI become foundational to modern oncology, CDI is building the conditions for responsible scale. We established shared frameworks, standards, and practices that promote transparency, accountability, and reproducibility across the AI lifecycle from development to deployment. By embedding fairness, safety, and clinical validation, CDI ensures that AI solutions are trusted, equitable, and ready for real world use.

CDI's work is also reshaping how care is delivered by extending cancer care beyond hospital walls and enabling earlier, more proactive intervention. By integrating data from digital tools, patient reported outcomes, and clinical systems, CDI supports models of care that detect risk sooner, reduce unnecessary visits, and keep patients connected to their care teams. These initiatives are moving from pilot to practice, demonstrating how data and AI can support safer, more responsive care while strengthening clinical workflows and system efficiency.

Across all initiatives, CDI acts as a catalyst connecting clinicians, researchers, technologists, and system partners to translate innovation into practice. This collaborative approach accelerates pathways from discovery to delivery and ensures that digital intelligence delivers measurable, system wide value.

Looking ahead, CDI will continue to strengthen the foundations required to responsibly scale AI in cancer care. With a clear focus on impact, partnership, and accountability, CDI is enabling more integrated, equitable, and patient centred cancer care today and into the future.

CDI Impact at a Glance in 2025

Driving clinical impact, research translation, and operational intelligence

Care Without Walls

Care Without Walls translates connected care into practice, using digital intelligence to extend high-quality cancer care beyond the hospital and into patients' daily lives.

REMOTE PATIENT MONITORING

Following three CDI-supported pilot programs, we are evaluating and defining sustainable models for proactive remote care at Princess Margaret Cancer Centre.

- Established the foundation for scale: Assessed clinical value, operational feasibility, and core technology requirements
- Shifted the model of care: Enabled earlier identification of symptoms between visits—moving from reactive response to proactive intervention
- Co-designed for real-world impact: Built in close partnership with patients, clinical champions, and operational leaders to ensure relevance, adoption, and sustainability

DIGITAL TRIAGE

Digital Triage provides patients with a secure, online form in the myUHN patient portal to connect patients with their care team. Available across 16 outpatient clinics, the embedded algorithms route requests the most appropriate team member and flag key concerns, supporting timely and efficient communication.

16

outpatient clinics at Princess Margaret offer digital triage to their patients as the preferred method of communication

20,118

patient requests supported through CDI workflows in 2025

+19%

improvement in clinical routing accuracy

+8

higher patient satisfaction (compared to phone triage)

Cancer Command

Cancer Command is CDI's centralized dashboard hub for Princess Margaret Cancer Centre.

Each visualization is co-designed with clinical teams, bringing structure and meaning to data that is otherwise difficult to access and organize.

15

dashboards displaying key cancer care metrics

16 million

datapoints analyzed and visualized to date

AI at Scale

CDI is supporting AI initiatives across the full lifecycle, from development and validation to clinical deployment. MIRA one of CDI's enterprise platforms enables 2 models currently operating in clinical environments

One

foundational framework developed by CDI to guide safe and responsible AI development and deployment.

Two

core platforms, MIRA and JarvAIs, enable safe AI development, deployment, and exploratory analysis of clinical data

Two

AI models deployed in high-imapct clinical enviornments

MIRA

MIRA, one of CDI's enterprise platforms, currently supports 2 AI systems operating in clinical environments

636

patients supported by Miracle ILD in 2025

1,044

patients supported by Aim2Reduce in 2025

Funding and Sustainability

At CDI, we are looking for opportunities to support translation from AI research to clinical contexts

Three

AI-focused grants secured

Cancer Care Without Walls

This year marked a substantial advancement in extending cancer care beyond the clinic, ensuring patients remain connected to their care teams throughout the continuum of care. As a key strategic priority for Princess Margaret Cancer Centre, Care Without Walls builds the clinical, digital, and workflow foundations needed to support safe, coordinated, and patient-centred remote care.

Remote Patient Monitoring

Remote Patient Monitoring (RPM) enables proactive assessment of patient health between visits through digital tools and patient-reported symptoms. In collaboration with clinicians, operational partners, and frontline staff, CDI is integrating innovative RPM tools into routine clinical care, supporting workflows that are clinically meaningful and operationally sustainable.

In the Melanoma clinic, CDI launched the elMBRASE RPM pilot to support patients receiving immunotherapy or targeted therapy, where early identification of immune-related toxicities is critical. This pilot leveraged electronic patient-reported outcome (ePRO) questionnaires, supplemented by biometric data, to identify and prioritize follow-up based on patient needs. Notably, over two-thirds of high-priority alerts resulted in documented clinical action, with nurses addressing significant symptoms through symptom management, patient education, or care escalation (e.g., MRP involvement, ED referral, same-day visits).

> **“My doctor and staff see my comments ahead of visits… the entire experience has been great.”**
>
> – Melanoma patient

In the Gynecology clinic, CDI implemented the ChemoRads RPM model for patients undergoing concurrent chemotherapy and radiation, a high-risk treatment period associated with substantial symptom burden. Patients completed daily ePRO questionnaires, with triage nurses providing follow-up, symptom management, patient education, and escalation as needed. Among participating patients, 84% reported satisfaction with the program, and 66% noted an improved overall treatment experience.

Looking Ahead

CDI is synthesizing learnings from these RPM pilots to inform the next phase of Care Without Walls, with an emphasis on workflow optimization, improved efficiency, and targeted scale-up where proactive care can deliver the greatest benefit. Collectively, this work is shaping a future in which cancer care is increasingly responsive, coordinated, and patient-focused.

Phyllis Berck, a UHN patient partner, uses a pulse oximeter which collects and sends data to her care team who monitor her health remotely.

> **“Overall, the program has been effective… we’ve caught several of those toxicities before it’s gotten worse and we’ve been able to manage it or manage any flare ups, which has been really helpful.”**
>
> – Melanoma clinician

Nancy Gregorio, a nurse champion at Princess Margaret, monitors her patients using the RPM dashboard used in our elMBRASE RPM program.

AFFRM-AI: Powering the Next Generation of Fair and Responsible Machine Learning

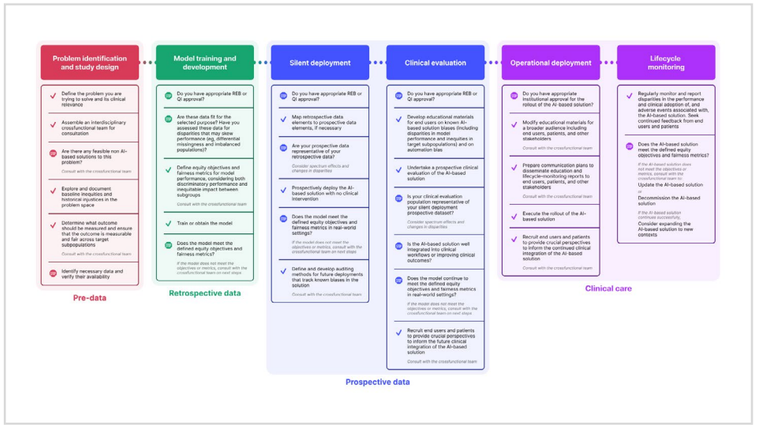
The next era of healthcare is increasingly defined by AI advancements: the ability to leverage vast medical data (clinical results, text reports, imaging and operational data) to streamline workflows, augment clinical decision making, and improve patient care. Unfortunately, the data used to develop AI solutions often reflect societal and systemic inequities (e.g. the social determinants of health), creating a real risk that AI could amplify biases and undermine safe, equitable, and compassionate care.

CDI has been actively innovating with AI in medicine since its inception and is determined to promote a culture of responsibility with AI and take the steps necessary to mitigate bias, inequity and undue harm from these technologies. However, as collaborations in this space multiplied, the team struggled to find any resources we could share that were accessible and actionable within our healthcare environment.

To address this, the CDI team synthesized the existing guidance, filling in critical gaps as needed, and assembled a large working group composed of leading experts in related fields including AI, Bias, Ethics, Privacy, Education and Medicine. Together, the CDI team crafted A Framework for Fair and Responsible Machine Learning and AI (AFFRM-AI) that outlines best practices and recommendations to:

1. Encourage responsible, safe, and compassionate AI development and deployment within UHN clinics
2. Safeguard UHN patients and care-providers from biased and inequitable AI predictions.

The AFFRM-AI Framework, outlining recommended steps to support safe and responsible AI deployment.



The impact of this work is already being recognized. After a year-long review, the AFFRM-AI framework and the methodology behind its generation, have been published by The Lancet Digital Health. The focus is now on institutional adoption and engagement within the UHN community, working with REB and the AI-Deployment team, among others, to establish organization-wide standards for equitable and responsible AI use. For more information, and to stay up to date AFFRM-AI, visit https://pmcdi.ca/AFFRM-AI/.

Team Member Spotlight: Mattea Welch

Mattea Welch, PhD

CDI Staff Scientist

What projects have you worked on recently?

For half of the past year, I was fortunate enough to be on parental leave. During this time, a significant project for me was adventuring and snuggling with my kids. Most recently, back at work, I began a project on the auto-segmentation of organs-at-risk in head and neck cancer patients. Our goal is to generate clinically acceptable contours and ensure equitable performance across various subgroups based on patient demographics and clinical factors. This past year, I was also selected as a Fellow in Compassion and Artificial Intelligence with AMS Healthcare, where I engaged with a national community of researchers and leaders focused on advancing ethical, human-centered approaches to AI in healthcare.

What project are you most proud of?

I'm proud of different projects for different reasons. Some projects forced me out of my comfort zone, while others challenged my technical or communication skills. All in all, I take pride in my work when there has been an opportunity for growth.

A project I am particularly proud of right now is our initiative aimed at reducing bias and increasing fairness in AI solutions for oncology. We create useful resources and processes, the AFFIRM-AI Framework, that will guide the development of AI solutions in a way that ensures equity and fairness. This project involves immense collaboration and communication between experts spanning clinical, statistical, technical, and ethical domains.

What inspires you in your role?

The CDI Team. I'm very lucky to be surrounded by hardworking and perpetually optimistic people.

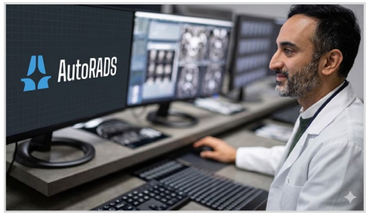
Innovation is at the core of what we do at CDI. How will your role evolve in the future?

There are numerous ways that innovation could impact a role like mine. The most realistic change will be in the types of methodologies available for developing machine learning and AI tools for clinics – the field evolves very quickly. Additionally, as the field advances, understanding and navigating regulatory and ethical considerations will become increasingly important to ensure that innovations can be effectively integrated into clinical practice.

Can you share a fun fact about yourself?

I got to speak with Geoffrey Hinton after he lectured for RMP. It was a true "elevator talk"!

Grand Challenge: From Free Text to Clear Risk: Implementing LLMs in Radiology



Clear and consistent communication of cancer risk is essential for effective patient care. Yet traditional radiology reports often vary widely in language, structure, and level of detail. This variability can make it difficult for clinicians to interpret findings consistently, compare results across patients, and make timely decisions.

To address these gaps, the American College of Radiology (ACR) developed the RADS framework, a family of standardized medical imaging reporting and classification systems designed to promote clear and consistent communication across disease sites. By using structured assessment categories, shared definitions and management recommendations, RADS systems aim to improve diagnostic accuracy, support consistent clinical decision making, and ultimately, enhance patient outcomes. Despite these benefits, RADS remains underused or inconsistently applied in practice largely due to the complexity of scoring rules and added burden placed on radiologists during routine reporting.

> **"While we will now move on to prospective evaluation, I believe the application will be beneficial in short order once we are able to start rolling this out and evaluating."**
>
> Dr. Rajesh Bhayana, Project Sponsor

Led by Dr. Rajesh Bhayana from the Joint Department of Medical Imaging (JDMI) in partnership with the CDI team, this Grand Challenge project set out to remove those barriers. The team developed AutoRADS, a large language model (LLM) based application to automate the process of translating unstructured radiology reports into structured summaries, including standardized RADS risk scores for Ovarian and Liver (O-RADS MRI and LI RADS), directly within existing workflows. CDI contributed both technical and product expertise, with Data Scientists supporting model refinement and deployment, and Software Developers designing and implementing a radiologist-centered application interface that integrates seamlessly into daily practice.

To ensure safe, reliable, and clinically appropriate use, AutoRADS was built using a hybrid architecture that combines the strength of LLMs, with rule based deterministic logic. This approach enables accurate and consistent application of RADS criteria while maintaining transparency and minimizing the risk of error.

Through AutoRADS, the project sought to increase RADS adoption, reduce variability and human error, and improve the clarity of cancer risk communication, supporting higher quality, and more consistent care. As a next step, Dr. Bhayana will pilot AutoRADS with radiologists at JDMI, with findings informing future refinement and potential broader adoption of the application.

JarvAIs: Towards a New Era of Fair and Transparent AI Model Development

At CDI, we are working towards reshaping how AI models are built, trusted and deployed by placing fairness, transparency and clinical impact at the centre of development. This vision inspired the creation of Agent JarvAIs, an open-source Python package that standardizes machine learning workflows in oncology, ensuring models are developed with consistency and responsible AI practices from the start. The goal is to enable AI development that is accurate and ethical AI models that are reproducible, auditable and explainable.

Agent JarvAIs is built to ensure that clinical AI is not only powerful, but trustworthy. By ingesting clinical data, JarvAIs can surface insights, train predictive models, and monitor performance overtime, creating a continuous loop of improvement and safety. Over the past year, the team built major foundational components of JarvAIs, including:

- Analyzer: evaluates data quality and identifies bias
- Trainer: automates model development and ensures reproducibility
- Explainer: provides interpretability and fair audits

Already, JarvAIs has demonstrated effectiveness in real-world testing. JarvAIs has been validated on Aim2Reduce, an early machine learning model designed to predict undesirable cancer events during treatment, a collaborative project between Dr. Robert Grant, medical oncologist at Princess Margaret, and the CDI team.

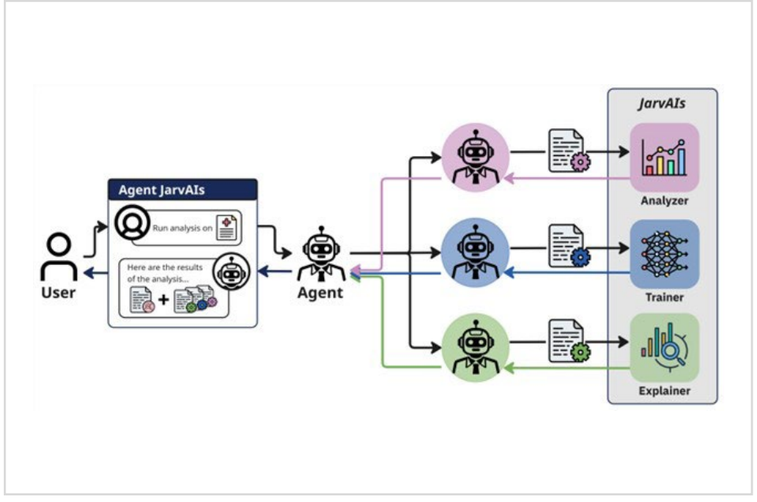
In addition, Agent JarvAIs leverages LLM-based agents to guide users, prepare data, and communicate findings, making complex AI development accessible while reinforcing responsible practices. Agent JarvAIs incorporates CDI's AFFRM-AI framework, embedding best practices for fair and equitable AI development and deployment.

Upcoming activities are focused on accelerating clinical integration:

1. Integration with CDI's MIRA AI deployment platform, enabling seamless development and deployment experience
2. Validation for live performance monitoring and bias detection within the Aim2Reduce live deployment pilot
3. Expansion to enable multi-modal data ingestion including images and clinical text to strengthen data preparation capabilities

Together, these advances position Agent JarvAIs to set a new standard for safe, fair, and clinically impactful AI, ensuring that future models perform well and support equitable cancer care.

The Agent JarvAIs architecture diagram.



Strengthening Innovation Through UWaterloo and Princess Margaret

Driven by a shared commitment to advancing meaningful change in healthcare through innovation, research and collaboration, Princess Margaret Cancer Centre and The University of Waterloo (UWaterloo) formalized their partnership through a Memorandum of Understanding (MOU) signed in 2024. This agreement has been a key step towards advancing technology and improving cancer care by combining expertise across clinical care, research AI, computing, and machine learning at both sites. As part of this agreement, CDI has supported several collaborative initiatives, including a joint Grand Challenge, a capstone project, and a series of connector events bringing researchers from both sites.

Capstone Project: Optimizing CT Prioritization to Support Timely Care

Clinicians at Princess Margaret Cancer Centre and the Joint Department of Medical Imaging (JDMI) identified a critical gap in how CT scans are prioritized for overbooked patients. Without a systematic way to sort cases by clinical urgency, overtime CT bookings are managed manually and allocated on a first-come, first-served basis—creating delays that can affect treatment planning and patient outcomes.

This project is developing an AI-assisted CT prioritization tool to align booking decisions with clinical risk. By analyzing imaging requisitions, clinical notes, and treatment history, the model identifies patients at higher risk—such as those with aggressive disease, surgical time sensitivity, or new diagnoses—and recommends optimal imaging timeframes.

To date, the team has curated key data sources, trained models using real clinical data, and built a prototype dashboard that translates model outputs into a prioritized overtime CT list with transparent clinical rationale. Once validated and integrated into existing workflows, this project aims to reduce manual review, improve operational efficiency, and ensure patients with the most urgent imaging needs are seen sooner.

Bringing Ideas Together: Connector Events

To foster meaningful dialogue and spark bold ideas, UWaterloo and CDI have come together through a series of connector events. Rotating between full day sessions at each site, the goal of these events is to highlight innovative research underway and create space to uncover shared priorities, identify synergies, and potential areas and projects for collaboration.

Connector events held in May and November 2025 brought together researchers from both sites, as well as members from UWaterloo and CDI. Participants shared current work, upcoming initiatives, and emerging research questions, laying out the groundwork for future collaborative projects.

November 2025 Connector event held at PM.

May 2025 connector event held at UWaterloo.

Grand Challenge: A New Frontier to CNS Cancer Classification

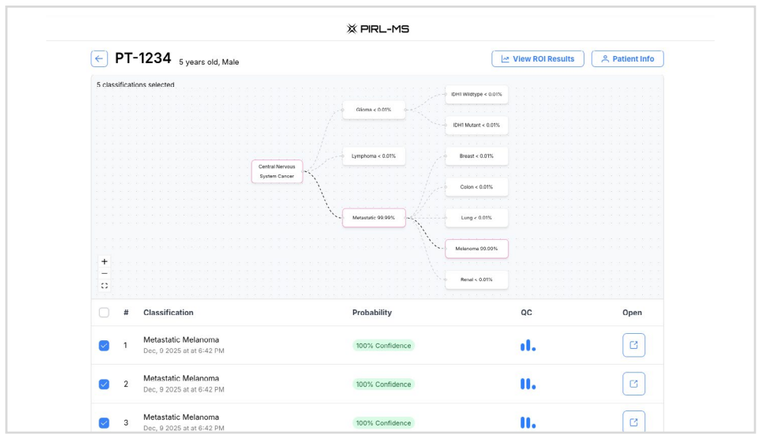
> **If we had to create the application/UI without CDI, I suspect that it would not have been as intuitive and accessible.**
>
> Drs. Arash Zarrine-Afsar and Scott Hopkins, Project Sponsors

Central Nervous System (CNS) cancer affects thousands of Canadians each year and often require complex neurosurgical intervention, where surgeons must maximize tumor removal, while preserving healthy tissue. Current diagnostic approaches rely on intra- and post-operative analysis that can be time-consuming and subjective, potentially contributing to incomplete tumor resection and the need for additional surgeries, increasing risk and burden for patients.

To address this gap, CDI launched the PIRL-MS Grand Challenge. Led by Drs. Scott Hopkins from UWaterloo and Arash Zarrine-Afsar, from UHN, the project brought together expertise in mass spectrometry, machine learning, and clinical pathology. In collaboration with CDI, the team developed a user-friendly application that integrates with UHNs novel Picosecond Infrared Laser Mass Spectrometry (PRIL-MS) technology, which can analyze tissue samples in seconds to rapidly identify CNS cancer subtypes.

> **This framework can be applied beyond PIRL-MS-based diagnosis of central nervous system cancers. Although it is difficult to anticipate future impact, I think that CDI has delivered an important new tool for the field.**
>
> Drs. Arash Zarrine-Afsar and Scott Hopkins, Project Sponsors

The team built an intraoperative diagnostic tool that combines PIRL-MS with machine learning to classify CNS tumors from small tissue samples, supported by an interface designed for pathologists during sample collection. The tool provides rapid, clear results to support clinical decision making in real time. This has the potential to enable more complete tumor resections, reduce the need for repeat surgeries, and support faster, more objective diagnosis during surgery.



The custom PIRL-MS interface created for this project, displaying a decision tree that predicts the likely type of CNS cancer based on the analyzed sample.

Looking ahead, Drs. Zarrine-Afsar and Hopkins plan to begin a pilot study to assess feasibility in real-world settings and are also interested in exploring potential expansion of this application to additional cancer types. Beyond its clinical achievements, the project demonstrated the value of interdisciplinary partnerships in accelerating the translation of cutting-edge research into scalable cancer care innovations.

Shaping the Future of Clinical Trail Matching with PMATCH

8

Clinical champions

4

Site groups (Lung, Breast, GU, Lymphoma)

9

Active trials (3 Medical Oncology, 1 Radiation Oncology, 1 Surgical Oncology, 1 Registry, 2 Palliative Care, 1 Cancer Survivorship)

200

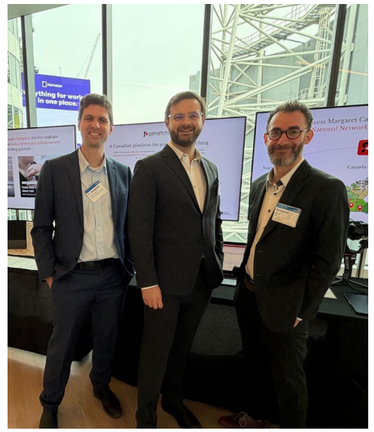
Patients evaluated every week

Clinical trial matching remains a timely and resource-intensive process, driven by multiple challenges including: the high manual effort required to assess eligibility, fragmented workflows, and limited clinician awareness of available studies. The rates of screen failure (when a patient goes through the recruitment process only to learn they are not a good fit) and eligible non-contact (when an eligible patient never gets an opportunity to participate) also remain high. Using technology can dramatically reduce these barriers by streamlining processes, improving patient access to trials, enhancing provider experience, and ultimately, strengthening research and clinical outcomes. This is the vision behind PMATCH.

PMATCH aims to transform clinical trial matching at PM by using digitized clinical trial eligibility criteria alongside patient clinical and genomic data to automatically generate potential trial matches. This can significantly reduce the manual and time-consuming work that often burdens clinicians and clinical teams.

Originally launched as the 2024 CDI Grand Challenge project “CTIMS”, PMATCH has grown in scale and impact through deeper collaboration both internally at UHN, and externally, including partnerships with the Canadian Cancer Clinical Trial Network (3CTN), Canadian Cancer Trials Group (CCTG), Marathon of Hope Cancer Centers Network (MOHCCN), Terry Fox Research Institute (TFRI), and Genome Canada. Together, the team has validated PMATCH’s performance, developed both research-facing and clinician-facing PMATCH applications, and completed substantial integration work required to embed this tool directly into the electronic health record system, Epic.

PMATCH is now conducting a clinical pilot, working closely with eight clinical champions across four disease sites and supportive care, and matching patients to nine active clinical trials spanning all disciplines. With $600K in support from TFRI, and a 10-year $2M commitment from BMO, PMATCH is well positioned to drive meaningful impact. PMATCH is already delivering faster and more accurate trial matching, better patient and provider experiences, and a scalable foundation for future clinical trial matching systems beyond the walls of Princess Margaret Cancer Centre.



Dr. Benjamin Haibe-Kains, Paul Brogee, and Benjamin Grant showcase the PMATCH patient-trial matching system at BMO Academy.

CDI Symposium: Transforming Cancer Care Beyond the Clinic

Keynote speaker, Dr. Eyal Zimlichman.

Care innovation is a core pillar of the CDI program, grounded in the belief that high-quality cancer care should be accessible anytime and anywhere. Inspired by this vision, the second CDI Symposium—Transforming Cancer Care Beyond the Clinic—brought together global leaders, clinicians, scientists and innovators to explore how remote care and new service models can reshape the patient experience beyond hospital walls.

The symposium kicked off with keynote speaker Dr. Eyal Zimlichman from Sheba Medical Centre, who emphasized the urgent need for health-system transformation, global collaboration, and clinician-centered innovation to avoid the risk of hitting a "brick wall" in healthcare delivery. Dr. Zimlichman shared some key initiatives led by his team, including the Future of Health (FoH) program, an international forum of leaders united around a shared vision for health transformation, and the ARC Global Innovation Platform, which translates that vision into practice by accelerating and scaling new innovative care models.

> **"Remote care is here to stay; we can make use of times in the cancer journey that does not require patients to be in the clinical setting, but we cannot compromise on quality. The system and the care must be cohesive".**
>
> Dr. Roxana Dronca

From left to right, Drs. Benjamin Haibe-Kains, Stephanie Lheureux, Roxana Dronca, and Christine Chen during the plenary session "Remote Care Advancements in Oncology."

Following the keynote address, Drs. Roxana Dronca, from the Mayo Clinic, Christine Chen from Princess Margaret Cancer Centre, and Stephanie Lheureux from Princess Margaret Cancer Centre discussed how remote care is redefining oncology by extending cancer care treatment and monitoring into the home. Moderated by Dr. Benjamin Haibe-Kains, the panel highlighted post-pandemic shifts in patient expectations and the rapid adoption of hybrid care models that blend in person, virtual, and at-home support. The speakers emphasized that remote monitoring, virtual visits and other digitally enabled shared care models can support effective triage, reduce emergency visits, optimize hospital resources and lower costs, demonstrating that home-based care can be patient-centered and system-level sustainable.

> **"Without transformation, innovation will only lead to incremental change."**
>
> Dr. Eyal Zimlichman

The following panel focused on the lived experience of a patient partner, Nicholas Nyhof, who shared insights from navigating remote monitoring during his cancer care journey. Building on this perspective, panelist Dr. Robert Hamilton from Princess Margaret Cancer Centre presented WATChmAN, a remote surveillance tool for patients with testicular cancer. The discussion also featured Dr. Jennifer Jones from Princess Margaret Cancer Centre, who shared perspectives on Reach, a self-management application that enables patients to manage treatment-related side effects virtually. The discussion emphasized patient empowerment and the importance of thoughtful implementation, with a focus on reducing the burden of remote care tools, supporting all levels of digital literacy, and enabling patients to confidently guide their own care.

By the Numbers

145

attendees from University Health Network and Princess Margaret Cancer Centre

51

attendees from University of Toronto, Saskatchewan Cancer Agency, other hopsitals and technology companies across the GTA

From left to right, Drs. Ale Berlin, Jennifer Jones, Robert Hamilton, and patient partner, Nicholas Nyhof, during the session "Enhancing the Patient Experience with Remote Monitoring."

In the afternoon session, Dr. Roxana Dronca, Jennifer Catton, formerly PM, and Dr. Michael McGillion from McMaster University emphasized that the people and processes—not technology alone—must drive innovation in remote patient care. They highlighted the need for strong governance, coordinated efforts, and greater sharing of successful models so remote care models can be scaled. The panel agreed that remote care is here to stay, and that expanding value-based models will require breaking down geographic silos and identifying which programs are mature enough for broader adoption. When serving remote communities, they stressed the importance of partnering closely with local providers and community leaders to ensure remote care models are equitable, trustworthy, and truly effective.

To close out the day, a debate was held on the motion, "AI integrated remote models of care will improve cancer care outcomes." Arguing in favor, Dr. Lesley Moody from Siemens Healthineers described AI as a powerful enabler of healthcare transformation at both system and patient levels. She introduced the concept of "operational" and "digital twins", which are virtual models that can simulate needs, anticipate challenges, and inform decisions before resources are deployed. In opposition, Dr. Michael Crump from PM raised concerns about access, acceptability, patient-reported and clinical outcomes, and uncertain impacts on the doctor-patient relationships. He also noted the discomfort some clinicians feel when working with AI-generated predictions. Ultimately, the discussion concluded that AI and traditional care should complement—not replace—each other. It was an engaging and thoughtful debate from both sides.

To learn more about the speakers and watch all the presentations, visit Cancer Digital Intelligence's website: https://pmcdi.ca/symposium/

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5. Haibe-Kains, B (2025 January 15). On the Potential of AACR GENIE to Train AI for Clinical Trial Matching [Conference Presentation]. American Association for Cancer Research (AACR) GENIE Winter Summit.
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7. Haibe-Kains, B (2025 March 21). Optimizing Predictive Oncology and Clinical Trial Matching [Conference Presentation]. Institute for Genome Sciences, School of Medicine, University of Maryland, Baltimore, MD, USA.
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Recent Appointments

Benjamin Haibe Kains

CDI Scientific Director

Benjamin was recently appointed as the Executive AI Scientific Director, and Co-Director, UHN AI Hub. In these roles, he will provide strategic leadership to keep UHN at the forefront of responsible AI development and deployment. Dr. Haibe-Kains will collaborate with teams across UHN to accelerate innovation, co-lead key AI initiatives, support UHNs transformation into an AI-enabled institution, and help build AI capacity through recruitment, mentorship, and partnership.

Mattea Welch

CDI Staff Scienctist

Mattea Welch was named a 2024 Fellow in Compassion and Artificial Intelligence, hosted by AMS Healthcare. This year long, competitively selected fellowship recognizes leaders advancing human-centered AI in healthcare and supports research that integrates technological innovation with ethics, equity, and compassion. Through her work and leadership, Mattea contributes to a growing national community shaping for a more responsible and inclusive future for AI in healthcare.

Clare McElcheran

CDI Staff Scientist

Clare has been appointed as a UHN staff scientist. This appointment highlights Clare's significant contributions to the scientific community and recognizes the innovative, high impact research she continues to lead and advance.

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CDI EXECUTIVE OVERSIGHT COMMITTEE MEMBERS

Keith Stewart, Aaron Schimmer, Brad Wouters, Meena Merali, Patrick Yau, Ale Berlin, Benjamin Haibe-Kains, Luke Brzozowski, Tran Truong, Mike Lovas, and Kelly Lane

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