Cancer Biology Newsletter

Featured Image

Glass slide with a tumour slice stained with Hematoxylin and Eosin (H&E). The Lange lab perform proteomics on these tumour tissues to identify precision treatments for children with hard-to-treat cancers.

Contributed by Kirsty Ferguson, Lange Lab

Issue #4 | July 2026

access acces
Advancing Childhood Cancer Experience, Science & Survivorship
Agir Contre le Cancer des Enfants avec Succès

Cancer Biology Newsletter

Editorial Team

Emily Nakada, Jennifer Fiene, Karen Haas, and Kirsty Ferguson.

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Inside this issue...

Want to see your photo or art on the cover of the next issue? For ideas and to submit:

Click Here

The aim of the Cancer Biology research theme is to better understand the biology of pediatric cancers and accelerate research efforts by removing barriers to collaboration, increasing research pathways, and building infrastructure to enable knowledge, expertise, and data sharing across Canada.

Learn more here: Cancer Biology

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Across the Theme

Share Your Experience with Ewing Sarcoma for Research

We are inviting individuals diagnosed with Ewing Sarcoma and their family members to participate in a **30-minute conversation** to share their experiences. Your insights will help inform a research project on the disease. No visits or samples are required—participants will share their journey, treatments received, and the impact on the patient and family over a virtual Zoom call. To learn more or to participate, please contact the Cancer Biology Theme Project Manager at **emily.nakada@mail.mcgill.ca**.

This project was funded through ACCESS' **Pediatric Cancer Models & Mechanisms Network**.

TO LEARN MORE ABOUT OUR THEME AND PROJECTS, VISIT OUR: THEME WEBPAGE

News in Brief

Addy-Tude Concert and 3x3 Basketball: Supporting Sarcoma Research

In honour of Addison "Addy" Hill, who courageously battled a rare sarcoma, Team Addy continues to host fundraising events in support of sarcoma research. Thanks to the generosity of supporters, nearly $1 million has been raised to advance sarcoma research.

If you'll be in the Elora, Ontario area on Saturday, **September 19**, join us at the annual Addy-Tude Concert. Team Addy will also host a 3x3 Basketball Tournament in Sarnia on **August 8**. Whether you attend or register a team, your support helps make a meaningful difference.

For more information about these events, please visit the **Team Addy website**.

Sound-Based Co-Creation as Meaning-Centered Coping for Young Adults Living with Chronic Illness

Simon-Luc Laporte, an artist-researcher and Person With Lived Experience, explores how collaborative sound creation technologies (synthesizers, drum machines and audio processors) can support meaning-centered coping amongst young adults with living experience. Conducted in the interdisciplinary context of l'École des arts visuels et médiatiques of UQÀM , the project positions sound co-creation as a relational and expressive tool for wellbeing, agency, reflection and empowerment. Early fieldwork highlights the role of shared sound experience and co-creation in fostering dialogue that goes beyond verbal expression.

Run, Walk & Fundraise for Sarcoma Research

Join La Course contre les Sarcomes on Sunday, **September 27** at Les sentiers de la Presqu'île in Repentigny, Quebec. Participants can choose from 3.3 km, 6 km, or 12 km routes while raising funds to support research and improve treatments for children and adults living with sarcoma.

Whether you participate, donate, or volunteer, your support helps advance sarcoma research and bring hope to those affected by this rare disease. For event details, registration, and fundraising information, please visit the **La Course contre les Sarcomes website**.

Participating in and Supporting the Annual Terry Fox Run

On Sunday, **September 20th**, teams across Canada are running to fundraise for cancer research. You're invited to join a team and/or support one.

To join and/or support the ACCESS-ACCES National Team, visit the **ACCESS-ACCES Terry Fox Run webpage**. Everyone is welcome to join/participate from wherever you are.

DO YOU HAVE NEWS YOU WOULD LIKE TO SHARE? CLICK HERE

Driving Equitable Access to Molecular Testing

A Call to Clinicians and Researchers

by Emily Nakada

ABOUT THE NATIONAL MOLECULAR PATHOLOGY BOARD (MPB)

The Molecular Pathology Board (MPB) is a Canada-wide initiative within the Cancer Biology Theme portfolio that aims to **improve access to advanced molecular testing to support the care of children, adolescents, and young adults with cancer.** The MPB was established in response to rapid advances in precision oncology, where genomic and other molecular assays, which are laboratory tests used to analyze a biological sample for specific biological markers, are increasingly used to improve cancer diagnosis and tumour classification, refine risk assessment and prognosis, guide treatment, and monitor disease response or recurrence. However, access to these technologies is inconsistent across regions and institutions, creating barriers to equitable care.

HOW BARRIERS TO ACCESS ARE ADDRESSED

The MPB considers and matches Board-identified and clinician-requested molecular assays with the patient cases it reviews, providing funding support when the recommended assay is approved and cost is a barrier. This helps ensure that children, including those treated in smaller centres, can access the molecular diagnostic tools and expertise needed to support precision oncology care, regardless of where they receive treatment.

REFER A PATIENT CASE

For criteria and instructions, visit the:

MPB WEBPAGE

The MPB also supports the broader implementation of promising molecular assays by increasing their visibility and addressing barriers to adoption. This includes supporting evidence generation to demonstrate the clinical utility of these assays and facilitate their integration into routine care. As assays become established within the healthcare system, the need for case-by-case MPB review is reduced, allowing the MPB to continue supporting access to the next generation of promising molecular technologies.

Researchers and assay developers are encouraged to engage with the platform by identifying assays not yet widely accessible or consistently implemented across Canada. By bringing these assays to the attention of the MPB, it can help facilitate their evaluation, validation, and potential integration into routine clinical practice. This supports the broader goal of accelerating the translation of emerging molecular technologies—from research tools into accessible, standardized clinical applications.

REFER AN ASSAY

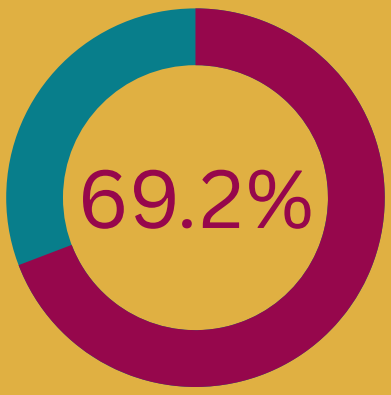
NOTIFY THE MPB

ASSAY CRITERIA

- Highly-developed research assay or clinical molecular assay
- Potential to benefit the patient at any point along the cancer journey
- Available at a Canadian institution
- Applicable to pediatric, adolescent, and/or young adult cancers
- Substantial gaps in assay accessibility exist among healthcare professionals

THE MPB AT A GLANCE

13 PATIENT CASES SUBMITTED



OF CASES HAVE UNDERGONE SOME TESTING

MOST COMMON BARRIERS TO ACCESSING ASSAYS

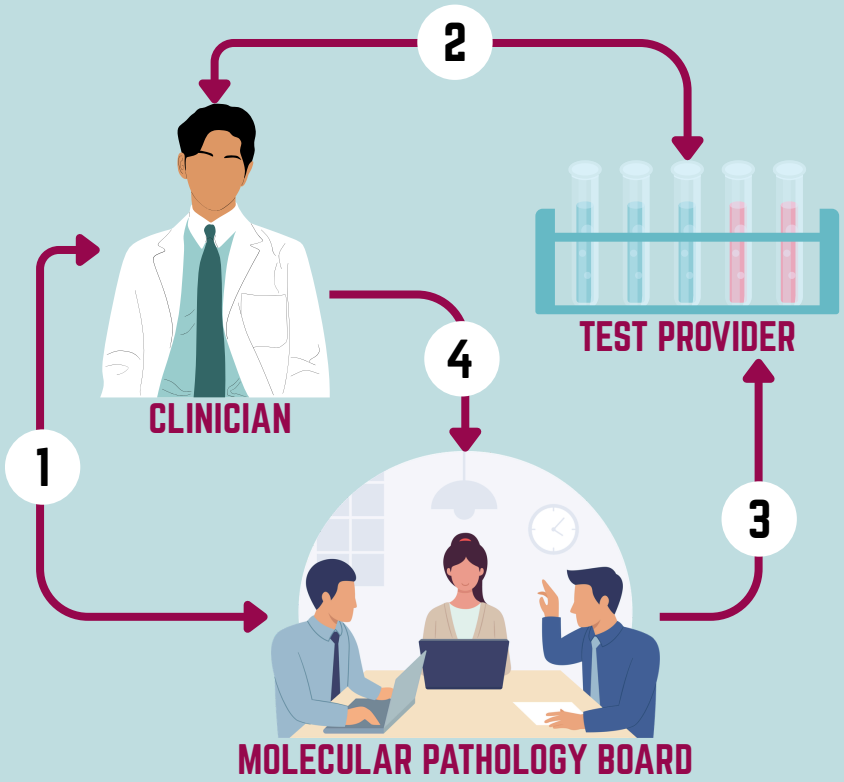
1. Lack of funding
2. No established referral pathway

4 ASSAYS AND GROWING

- Tumour Microenvironment Panel
- Cell Signaling Pathways Panel
- Liquid Biopsy Assays

VIEW THE LIST

WORKFLOW - PATIENT CASES



1. Case submitted to and discussed with the MPB
2. Testing coordinated between clinician and test provider following MPB approval
3. MPB payment made to the test provider (if applicable)
4. Clinician reports on impact and patient outcomes

A NATIONAL NETWORK DRIVING INNOVATION AND EQUITY

A key strength of the MPB is its focus on equity, collaboration, and national coordination. It helps bridge gaps between research and clinical care, while also reducing disparities in access to cutting-edge molecular pathology services. Through structured case discussions and coordinated expertise, the MPB supports more consistent, evidence-informed use of advanced assays.

Overall, the National Molecular Pathology Board acts as a national hub that connects clinicians, researchers, and diagnostic innovation. By enabling case-based consultation and encouraging feedback on emerging assays, it helps accelerate precision oncology and improve outcomes for children and adolescents with cancer across Canada.

TO LEARN MORE, VISIT THE MPB WEBPAGE

More Than Storage: Redefining Biobanking Priorities for Tomorrow

by Karen Haas

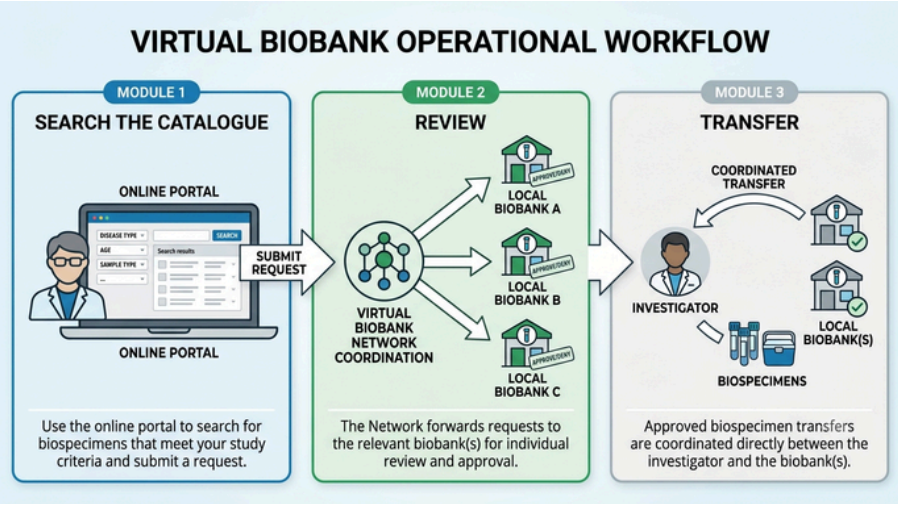
As stated on the **ACCESS Biobanking Network** webpage, "Biobank infrastructure is fundamental to advancing translational research, especially in rare diseases, as it provides ongoing access to biospecimens and associated clinical data." The ACCESS Biobanking Network is working to strengthen this infrastructure to better support biobankers and biospecimen users across the pediatric, adolescent, and young adult cancer communities.

From Coast to Coast: A Biobanking Challenge

Researchers across Canada require high-quality biospecimens in sufficient quantities to conduct robust, well-powered studies. However, even at institutions with well-established biobanks, **researchers** often struggle to find and access the biospecimens they need, while **biobankers** face challenges making their collections visible and discoverable to the broader research community—particularly for these rare pediatric cancers.

Our Solution: A National Virtual Biobank

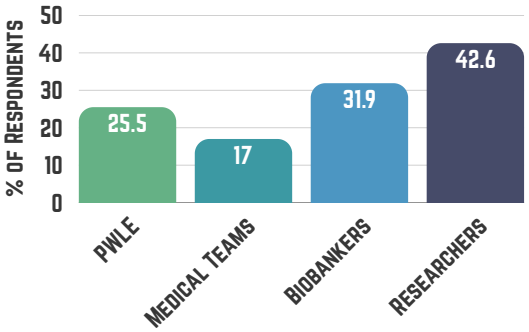
The Network is addressing this challenge by creating a virtual biobank - a centralized, online catalogue connecting researchers to specimens physically stored at biobanks across Canada. Advanced search tools will enable researchers to identify specimens meeting their criteria, streamlining access and accelerating scientific discovery.



But First... A Survey to Assess Biobanking Needs

A critical step for the Network was to ask relevant groups about their biobanking experience and needs with the goal of prioritizing and addressing several of those needs.
The Biobanking Needs Assessment Survey, led by Danielle Simonot and Lisa Yu from the Alberta Cancer Research Biobank, in collaboration with the ACCESS Biobanking Network, launched at the ACCESS Annual Meeting in March 2026.

Which of the following roles best describes you?



Survey Says...

The Needs Assessment Survey gathered perspectives from PWLE (people with lived experience), biobankers, researchers, and medical teams. Together, their responses pointed to shared priorities for strengthening biobanking: building trust, improving communication, supporting sustainable operations, and making access to samples and data easier to navigate.

Perspectives from PWLE

- **Main reason to not participate:** a lack of sharing of results.
- **Concerns:** privacy and sample use by industry; transparency about how samples and data are used.
- **Request:** detailed, easy to understand study brochures.
- **Want:** to know that samples/study could lead to better treatments and improved patient outcomes.

PWLE respondents emphasized that trust, transparency, privacy, and clear communication are essential to supporting participation.

Perspectives from Medical Teams

- **Major barriers:** financial & operational issues.
  - Insufficient coordination amongst teams.
  - Limited funding.
  - Limited knowledge of research opportunities to refer patients to.
- **Requests**: easier integration into clinical workflow is a must; improve health/medical team involvement in research projects.

Medical teams highlighted the need for better coordination, funding, workflow integration, and awareness of research opportunities.

Perspectives from Biobankers

- **Major barriers:** consenting and data sharing between institutions - need clear steps to update ethics and material and data transfer agreements.
- **Required:** funding to support and expand biobank collections.
- **Address:** mistrust of industry/privacy concerns to promote participation.
- **Want:** a unified sample access committee.

Biobankers identified sustainable funding, clearer sharing processes, and coordinated access as key needs for expanding biobank impact.

Perspectives from Researchers

- **Respondents:** most have established biobanks with dedicated infrastructure at academic medical centres and a focus on discovery research.
- **Biggest limitations to voluntarily sharing samples and data:** cost recovery and collaborations.
- **Most highly valued sample types:** pre- and post-treatment formalin-fixed, paraffin-embedded samples and cryoprotected live frozen samples.
- **Most important virtual biobanking support:** a navigator to assist with biospecimen access and associated clinical data.

Researchers and biobank users value accessible, well-characterized samples and practical support to navigate sample access.

What Next?

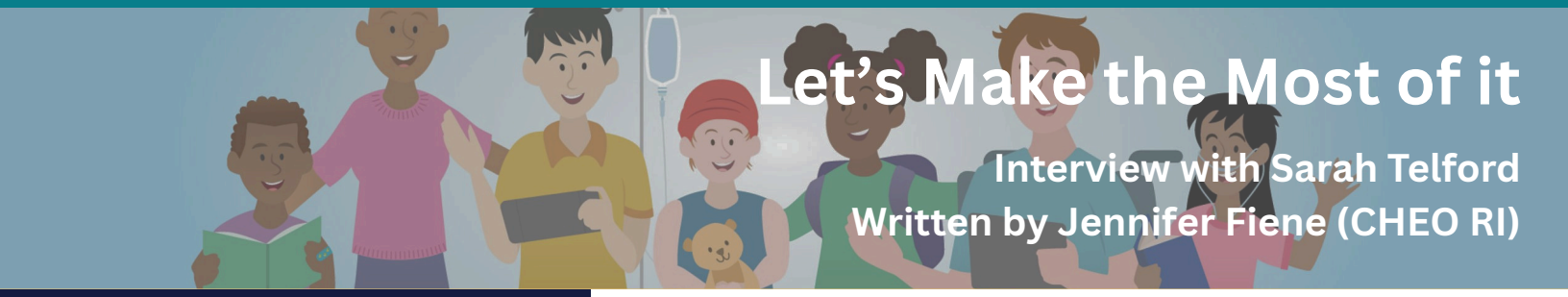
Survey results will help guide future planning for biobanking support, engagement strategies, and access processes. The next phase will focus on translating survey feedback into practical actions that strengthen participation, collaboration, and the responsible use of samples and data.

Data-Driven Action

- Dr. Jennifer Chan's team in Alberta is currently establishing the virtual biobanking platform.
- The Biobanking Network's Knowledge Mobilization Group is developing new resources to address priority needs identified from the survey and boost the visibility of the virtual biobank.

A biobank is where we take your valuable, one-of-a-kind samples, freeze them at -80°C, and panic for 20 years about the power going out.

(Humour intended)



Let's Make the Most of it

Interview with Sarah Telford

Written by Jennifer Fiene (CHEO RI)

Image © Sarah Telford

Sarah Telford

Sarah is a 28-year-old PWLE and accessibility advocate. Her experience undergoing treatment for acute myeloid leukemia, a rare form of blood cancer, and interest in the medical field led her to join ACCESS and the Cancer Biology Theme in 2024/2025. Sarah is also an active accessibility advocate through her blog, rollingwithsarah.com. During her free time, Sarah likes to volunteer through the local Lions Club, write poetry, short stories and stories for children, and advocate for accessibility in the local community. She also enjoys spending time with her family, without whom she wouldn't have made it through all that she has.

Persons with Lived Experience, or PWLE, are some of the most valuable collaborators researchers have in the vast world of cancer research. They hold the answers to so many of the biggest questions scientists have - What current issues in treatment are most important to patients? How do we make clinical studies more accessible and engaging? How would you change your experience, and how can we help you do that? Most importantly though, they are the ones we are united with under one purpose - bringing closer the day that no other person will have to go through what they or their loved ones have.

This is one of the most powerful messages I received during my interview with Sarah Telford, a dedicated PWLE and accessibility advocate, after having lived with cancer herself. Sarah's involvement in cancer research began shortly after her diagnosis. She specifically recalls one study which had been presented to her while undergoing her treatment. It was about mouth sores, a common side effect of chemotherapy she was experiencing, "Every day when I got up, I would circle a smiley face on a scale as to how bad my mouth sores were bothering me and how much pain I was in. It was used as a study in hopes to prevent other kids from getting mouth sores and helping to treat them." Throughout her treatment, Sarah resolved to follow her goal: "I wanted to make as many people happy as I could and make sure that no one had to go through what I did. So, every study I was asked to participate in, I said yes, for the greater good, if you will."

Sarah recalled one of her most meaningful memories was when she participated in a study examining blood clots in the central line. For this study, she underwent an MRI scan, after which she was given a copy of the images produced. "I got to see where [the central line] connected and I got to look at the MRI and that was really fascinating for me. I got to understand a bit more of my own biology, [...] so it really helped me understand myself." Sarah went on to share that this was one of the best ways to improve the clinical trial experience and outcomes for kids and teens - make it interesting, and most importantly, fun! She

recalled one pain management study that partnered with the popular TV show *Rookie Blue*, where video messages from actors in the show were used as rewards for filling out your data. Small details such as creative rewards, allowing the patient to be more involved, and piggybacking data collection onto tests the participant already needs to take for their clinical care, are always helpful. She also mentioned that monetary compensation, such as small gift cards, can increase the accessibility of a study as it gives more PWLE the means to participate. A more appealing and accessible study with a positive experience means higher quality data - so anything we can do to improve that aspect is hugely beneficial to all parties. To other PWLE who are interested in becoming more involved in the research space, either as an advocate or as a participant in a study, Sarah wants you to know "just how rewarding it can be knowing that you're going to help others and knowing that you're making a difference."

Amazing people like Sarah, who participate in clinical studies, are the reason that we are able to learn more about how cancer treatments affect kids and gets us one step closer to making it less harmful. However, Sarah didn't just stop there, she went on to become an active PWLE and advocate in the cancer biology research space. Specifically, she is partnered with the Pediatric Preclinical Modelling Program (PPMP) at ACCESS, a group of researchers that take samples of patient tumours and implant them into mice, larval zebrafish, and/or chick embryos, creating what are known as patient-derived xenografts or PDXs. These PDXs allow for multiple potential cancer treatments to be tested without putting the patient through them. This helps the patient avoid unnecessary potential side effects from treatments that don't help them. This is important since treatments can have long-term negative impacts on the patient. "The journey doesn't end with treatment [...] It's a part of your life forever - it's something that is a continuous battle" Sarah explains. During her treatment, she had a stem cell transplant and, since she had already relapsed once before, her healthcare team decided to induce graft-versus-host-disease. This is a phenomenon in which the host's body rejects a portion of the transplant, and the immune system begins fighting against it, helping to kill off any remaining cancer cells and prevent relapse. However, in Sarah's case, the rejection began attacking several of her organs, resulting in major lifelong side effects. From her position of lived experience, Sarah provides valuable input on the Modelling Program's direction and purpose from a unique perspective.

Finally, to those in the research community, Sarah has another very important message that she hopes we will all remember: **"Reach out to the PWLE community. We're there. We want to help, a lot of us are very motivated. Like me, they don't want anyone to go through what they went through. Use us as a resource. We're there. Let's make the most of it."**

Sarah touring the Berman lab (CHEO RI). Front: Dr. Jason Berman (L) and Sarah Telford (R). **Back:** Nadine Azzam (L) and Dr. Sergey Prykhozhij (R)

Image © Sarah Telford

ARE YOU A PWLE INTERESTED IN GETTING INVOLVED WITH ACCESS? **CLICK HERE**

The Power of Observation

Written by Kirsty Ferguson (BCCHR)

Observation

Take a little
Time to observe,
What is it I see?
Pause and stop and
Take a breath
Now – what's in front of me?

What is that?
How very strange.
I've not noticed that before.
Perhaps it's worth
Some exploration –
My mind boots up once more.

I hear a whirring
Inside my head
The cogs are ever-turning.
To pause and stop
And just observe,
Is a skill
I'm always learning.

Written by Kirsty as part of the University of Cambridge's Creative Encounters Words project, published in the collection "The Hope of Knowing Love: Research Poems to Open Our World".

Scientific research is built upon careful observations. The discovery of penicillin began through an accidental observation of mold killing surrounding bacteria. CRISPR gene-editing started from the observation of odd repetitions in the *E.coli* bacteria genome. The observation that cell division resembles iron shavings in a magnetic field ultimately led to the accidental discovery of the chemotherapy cisplatin. The list goes on and on.

Whether direct with our senses, like noticing how the cells change under a microscope, or indirect using technology, such as measuring changes in protein levels, our observations yield data. These data are the foundation upon which hypotheses are built, tested and redefined, progressing our understanding of the world. Without careful observation, many of the world's greatest scientific breakthroughs would not have occurred.

Today, huge advances in scientific technology have amplified the amount of data at our fingertips, and with that, the possible discoveries that can be made. Yet, call me old school, but there is still something unique about looking through a microscope to observe cancer cells. Cells from a child's tumor in the 1970s nonetheless, still advancing research today. Within the vastness of data, it is sometimes hard to cut out the noise and take this step inwards, or outwards, to stop and observe. Indeed, observation is a skill I'm always learning, both inside and outside the laboratory.


Image © Kirsty Ferguson

During the Covid-19 lockdowns solitude forced me to practice this skill. Writing down my observations, in particular through poetry, became a cathartic outlet. It gave a unique conciseness; a way to communicate observations, of my feelings and my surroundings, that I had

not previously explored. I realized that science and poetry seemingly polar opposites, have more in common than we think. For me, both are based upon observations, both are highly creative and both involve keeping careful records of ideas. Whether in a lab book or in a journal, fleeting and sometimes chaotic thoughts are given a new sense of clarity once immortalized on paper.

During later postdoctoral research, my long-standing passion for science and newfound love for poetry collided. I applied to take part in a public engagement project at the University of Cambridge called 'Creative Encounters', which challenged researchers to communicate their work using different artistic methods in collaboration with creative professionals. As well as communicating scientific concepts, poetry helped me to see research from a different perspective, to reconnect the lab with the motivation - the 'how' with the 'why'? Using this newfound universal language, a dialogue was opened between individuals from different worlds; scientists, people with lived experience of childhood cancer, clinicians, charities and hospital chaplaincy, sharing experiences that would not have been shared through conversation alone. Not only did poetry amplify individual voices, but it enabled a powerful collective voice to be formed too.

At the 3rd Annual ACCESS Meeting, I shared this journey and invited the network to share their own words to reflect on what ACCESS means, to themselves and to Canada (using good old pencil and paper, of course). Reading through the responses one by one, words from people with lived experience, scientists, healthcare workers, industry leaders and advocates, the common themes were striking. The resulting poem "Bridging the Future" incorporates words of individuals into a collective voice, summarizing how our diverse perspectives reinforce one another towards a united goal. Thank you to everyone for sharing your words so freely; together you have given the public a unique observation into ACCESS and its vital role in forging a better future for all children with cancer.

Written by a human

Bridging the Future

We are all threads,
Each one unique
From different worlds
Speaking different words
Hoping that the world will improve.

Hoping to be part of the reason.
The how?
To honour those who have had to fight.
All seeking equity, breaking silos,
For children with cancer.

ACCESS is the bridge – to help us connect.
Barriers abound, two mountains never meet,
But two people always will.
Je tiens un morceau du casse-tête
Et toi aussi, "Let's collaborate".

Rivulets to river,
A confluence, flowing,
A collective force,
Paddling together,
Upstream.

Guiding, inspiring, empowering, discovering.
Some have seen deeper seas,
Others have travelled farther.
Creative minds intertwined,
Weaving pathways for the future.

Pathways of hope and possibility,
Advancing care collaboratively.
Advocating for innovation
To cultivate impact
On what matters most.

Can comes before Cancer,
Et ensemble, nous pouvons comprendre de tout.
In a community of shared purpose,
A rare space
That feels like family away from mine.

Together, we come from different worlds
- to imagine a better world.
A coalition of wisdom, commitment and experience,
Bringing change through synergy,
And opportunities where none were before.
ACCESS
To a better future
For all children with cancer.

Thank you
Merci

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access acces

CIHR IRSC Canadian Institutes of Health Research Instituts de recherche en santé du Canada